



Unexpected Contaminated Land and Asbestos Finds Procedure

**Shared Path Bridge over Newcastle
Road, Jesmond**

1630

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1 INTRODUCTION

This Unexpected Contaminated Lands and Asbestos Finds Procedure (UCLAFP) forms part of the Construction Environmental Management Process Plan (CEMPP) for the Shared Path Bridge (SPB) over Newcastle Road, Jesmond which is being delivered as early works for the Newcastle Inner City Bypass (NICB) between Rankin Park and Jesmond (RP2J).

1.1 PURPOSE

This UCLAFP has been developed with specific information to allow for effective management and control of contaminated materials. This plan has been developed taking into consideration the Integrated Project Management Plan (IPMP), Daracons Legal and Other Requirements including but not limited to relevant Acts, Regulations, Codes of Practice and Industry Standards / Guidelines.

In addition, the framework for this plan has been prepared to align with the Daracon Management System (DMS), AS/NZS & ISO Standards and Client requirements.

The purpose of this UCLAFP is to ensure;

- Impacts from contaminated land are minimised or avoided;
- Safety of all personnel is protected whilst working with and/or around contaminated soils or materials;
- The surrounding environment is protected from any adverse effects of contamination disturbance and;
- Statutory requirements are adhered to for managing and/or transporting contaminated materials.
- Action is taken when potential contaminated soil/materials are discovered, in which case this procedure should be implemented.

1.2 SCOPE

The project involves the construction of a new shared path bridge over Newcastle Road and associated works at Jesmond, within the City of Newcastle (CoN) Local Government Area (LGA).

The scope of work required for the project involves the following specific activities:

- Site Establishment
- Vegetation clearing, including riparian vegetation, and topsoil stripping
- Earthworks, including excavation or filling
- Transportation of cut or fill materials
- Site access
- Drainage works
- Stockpiling of topsoil, vegetation and other construction materials
- Movement of heavy vehicles across exposed ground

- Demolition works to remove a redundant retaining wall and ramps structures Piling works to facilitate the construction of the SPB
- Construction of a new shared path bridge over Newcastle Road west of Steel Street;
- Concrete Ramps, stairs and retaining structures providing access to the new shared path bridge;
- Relocation of existing utilities including overhead electricity and underground water mains;
- Roadworks in Coles Street and Jesmond park to connect the new bridge to existing facilities;
- Roadworks for minor widening on the northern side of Newcastle road west of Steel Street;
- Removal of the existing mid-block pedestrian crossing and removal of the existing bus shelter and
- Miscellaneous works including erosion and sedimentation control, utility adjustments, the construction of earthworks, drainage, kerbs and/or gutters, pavement, safety barriers, concrete paving for the shared path, footpaths and driveways, pavement markings and vegetation works.

Other operations will be undertaken by Daracon that are considered normal in delivery of the above activities. Additional activities may also be realised at the request of the Client throughout the duration of the project.

See [Figure 1](#) outlining the Shared Path Bridge (SPB) Project Location on the following page.

FIGURE 1 – SHARED PATH BRIDGE PROJECT LOCATION



NOTES:

1. WORK OUTSIDE THE CONSTRUCTION AREA TO INSTALL SIGNS AND TRAFFIC CONTROL DEVICES MAY BE REQUIRED
2. WORK OUTSIDE THE CONSTRUCTION FOOTPRINT MAY BE REQUIRED BY UTILITY AUTHORITIES TO ALLOW NEW SERVICES TO BE COMMISSIONED

1.3 CONSULTATION

1.3.1 CONSULTATION FOR THE PREPARATION OF THE UCLAFP

This UCLAFP has been developed in consultation with the CoN as required by CoA A9(a). In accordance with CoA A5, the evidence of the consultation undertaken for the preparation of this UCLAFP, this documented in the following table.

1.3.2 CONSULTATION LOG

TABLE 1 - CONSULTATION LOG

Department	Contact	Date	Correspondence Type	Description
CoN	[REDACTED]	13 June 2019	Email	Nil comments
Environmental Representative	[REDACTED]	16 August 2019	Email	Draft plan submitted 13/8/19 and found to satisfy requirements. Updated by Daracon and resubmitted 8/11/19.

1.3.3 ONGOING CONSULTATION DURING CONSTRUCTION

Ongoing consultation between Roads and Maritime and Daracon, stakeholders, the community and CoN regarding the management of soil and water impacts will be undertaken during the construction of the SPB as required. The process for consultation is documented in the Construction Community Liaison Management Plan (CCLMP), which includes the key principals contained within the RP2J Community Communication Strategy (CCS) developed by Roads and Maritime.

2 OBJECTIVES AND TARGETS

2.1 OBJECTIVES

The objective of this UCLAFP is to ensure that the effects of previously identified, and potentially unidentified, contamination due to construction activities are minimised and managed during construction of the Project.

2.2 TARGETS

Targets for the management of soil, water and contaminated land impacts during construction of the SPB are to:

- provide a procedure for the management of contaminated materials
- avoid or minimise the exposure risks by implementing environmental control measures
- ensure control measures area effectively implemented
- ensure contaminated materials are removed and disposed in accordance with the relevant legislation
- ensure asbestos removal works are undertaken by a licensed asbestos removalist
- maintain accurate records of the location of contaminated materials

3 SUB-PLAN REFERENCE DOCUMENTS

Daracon will comply with all legislation, standards and guidelines, client documents and project approvals, as nominated within the [Section 3](#) of this UCLAFP.

3.1 LEGISLATION

- Contaminated Land Management Act 1997 (NSW)
- Environmental Planning and Assessment Act 1979 (EP&A Act)
- Environmental Planning and Assessment Regulation 2000
- Protection of the Environment Operations Act 1997 (POEO Act)
- Water Management Act 2000
- Work Health and Safety Act 2011 (WHS Act)
- Work Health and Safety Regulation (2017)
- Water Act 1912
- Protection of the Environment Operations (Waste) Regulation (2014)
- Protection of the Environment Operations (Waste) Regulation (2016)
- National Environment Protection (Assessment of Site Contamination) Measure (1999) (NEPM)

3.2 STANDARDS, CODES OR GUIDELINES

- Guideline for the Management of Contaminated Land (Roads and Maritime 2013)
- Code of Practice; SafeWork NSW: How to Safely Remove Asbestos September 2016
- Code of Practice; How to Manage and Control Asbestos in the Workplace September 2016
- Code of Practice; How to Safely Remove Asbestos October 2018
- Guidelines for Asbestos Removal Contractors (2008) - WorkCover NSW
- EPA Guidelines on Contaminated Land Management;
- Waste Classification Guidelines (NSW EPA 2014);
- *Environmental Incident Classification and Reporting Procedure* (Roads and Maritime 2016)

3.3 CLIENT DOCUMENTS

The following Client documents have been identified as being important to ensure Daracon deliver the project safely, with minimal environmental impact and to specification.

TABLE 2 – CLIENT DOCUMENTS

Client Document Number and Name	
Document Number	Document Name
	Newcastle Inner City Bypass – Rankin Park to Jesmond Environmental Impact Statement (GHD, November 2016)
	Submissions and Preferred Infrastructure Report – Newcastle Inner City Bypass, Rankin Park to Jesmond (GHD, March 2018)
	NSW Department of Planning & Environment Minister’s Conditions of Approval (Feb 2019)
	Department of the Environment and Energy (DoEE) - Commonwealth Controlled Action Approval (April 2019)
QA Specification G1	Job Specific Requirements
QA Specification G36	Environmental Protection
QA Specification G38	Soil and Water Management
QA Specification G40	Clearing and Grubbing
QA Specification G10	Traffic Management
QA Specification G22	Work Health and Safety (Construction and Maintenance Works)
QA Specification Q6	Quality Management System (Type 6)

Where there are changes to the above document references, communication of changes that are applicable to this Project will be communicated to all workers using a suitable means of communication as prescribed within this Plan.

3.4 PROJECT APPROVALS AND/OR LICENSING

The following approvals have been obtained by Roads and Maritime:

- EPBC Decision Notice dated October 2015 (confirming the RP2J project is a controlled action).
- Project Approval under Part 5.2 of the EP&A Act – SSI 6888 granted by the minister for planning on 15 February 2019.

All necessary licences, permits and approvals required for Daracon’s contracted works will be obtained and maintained as required throughout the life of the Project. Inspection and monitoring programs completed as part of this plan will ensure the control measures outlined in any of the above approvals, licenses or permits are complied with at all times.

3.5 HOLDPOINTS

Roads and Maritime specifications are a key source of environmental protection management processes relevant to this UCLAFP. The specifications set out environmental protection requirements, including Hold Points, that will be complied with during construction of the SPB. A Hold Point is a point beyond which a work process must not proceed without express written authorisation from Roads and Maritime. Hold points applicable to contaminated lands and asbestos management are provided in [Table 3](#).

TABLE 3 – HOLDPOINTS APPLICABLE TO CONTAMINATED LAND AND ASEBESTOS MANAGEMENT

Clause no.	Description
Specification G36 – Environmental Protection	
4.2.4	Remediation Action Plan

4 CONDITIONS OF APPROVAL

The Rankin Park to Jesmond Project proposal was subject to assessment and approval under the EP&A Act. The EPBC Act conditions directly reflect the EP&A Act conditions of approval. Subsequently, the NSW infrastructure Conditions of Approval (CoA) listed below in Table 6, detail the Commonwealth and State CoA's relevant to the UCLAFP;

TABLE 4 – COA RELEVANT TO THE UCLAFP

CoA	Requirement	Reference
E57	All reasonably practicable erosion and sediment controls must be installed and appropriately maintained to prevent water pollution. When implementing such controls, any relevant guidance in the <i>Managing Urban Stormwater</i> series must be considered.	SWMP SWMP – Appendix 1
E58	Areas of soil contamination identified within the documents referred to in Condition A1 must be managed in accordance with Management Measure SW04 and SW05 as described in the SPIR.	SWMP Clause 7.8 UCLAFP Clause 7 UCLAFP Clause 8
E59	An Unexpected Contaminated Land and Asbestos Finds Procedure must be prepared before the commencement of construction and must be followed should unexpected contaminated land or asbestos (or suspected contaminated land or asbestos) be excavated or otherwise discovered during construction.	SWMP Clause 7.8 This UCLAFP
E60	The Unexpected Contaminated Land and Asbestos Finds Procedure must be implemented throughout construction.	UCLAFP Clause 7 UCLAFP Clause 8
E85	The SSI must be... constructed...to achieve the outcomes described in the documents listed in condition A1 and/or to maintain the <i>NSW Water Quality Objectives</i> where they are being achieved as at the date of this approval, and contribute towards achievement of the <i>NSW Water Quality Objectives</i> over time where they are not being achieved as at the date of this approval, unless an EPL in force in respect of the SSI contains different requirements in relation to the <i>NSW Water Quality Objectives</i> , in which case those requirements must be complied with.	SWMP Clause 2

5 ENVIRONMENTAL ASPECTS AND IMPACTS

5.1 CONSTRUCTION ACTIVITIES

During construction, the SPB will require some clearing and disturbance of land, and demolition of redundant structures within the construction footprint. These activities have the potential to encounter unexpected contaminated land or asbestos containing materials. Key aspects of the construction of the SPB that could result unexpected finds include;

- Clearing and grubbing
- Earthworks, including excavation, filling and piling works
- Utility relocations
- Demolition of redundant retaining wall and pavements
- Piling works for the construction of the SBP

5.2 POTENTIAL IMPACTS

Based on the information provided in the EIS and SPIR, no existing contamination has been identified in the vicinity of the SPB project foot print.

However, no sampling was carried out in the immediately vicinity of the SPB. The nearest sampling results are for locations south of the proposed northern interchange, to the west of the SPB.

Subsequently, there is the potential for contaminated land and materials to be present in the SPB project area due to a range of historical and current activities, including;

- Fill materials of unknown origin
- Illegal dumping
- Asbestos containing materials, within redundant structure's and utilities
- Coal tar asphalt from historical uses within pavements and car parking areas Lead paint within an existing structure
- Lead paint within existing structures

6 ENVIRONMENTAL MANAGEMENT MEASURES

In accordance with the SPIR / EIS, the following environmental management measures have been developed to minimise potential impacts on contaminated materials management. Relative management measures applicable to the UCLAFP during construction are identified below;

TABLE 5 – ENVIRONMENTAL MANAGEMENT MEASURES

No.	Environmental Safeguards	Daracon Reference	Responsibility	Timing
SW05	<p>Management of contaminated soils will be in accordance with the <i>Contaminated Land Management Act 1997</i>, <i>Roads and Maritime Guideline for the Management of Contaminated Land</i> (Roads and Maritime 2013), <i>Roads and Maritime Environmental Incident Classification and Reporting Procedure</i>, (Roads and Maritime 2016) and EPA Guidelines on contaminated land management.</p> <p>The management of contaminated soil will include:</p> <ul style="list-style-type: none"> • Contaminated land legislation and guidelines including any relevant licences and approvals to be obtained. • Identification of locations of known or potential contamination. • Identification of rehabilitation requirements, classification, transport and disposal requirements of any contaminated soil. • Measures to manage excavation, segregation, stockpiling, validation and disposal requirements for potentially contaminated materials. • Measures to ensure the contaminated soil is managed so that it does not pose a risk to water quality. Measures to be implemented include ensuring contaminated soils are deep buried and blended where further testing confirms on-site reuse is acceptable, or off-site disposal to a licensed facility where required. <p>Contaminated management measures including unexpected finds procedures for unanticipated discovery of contaminated material or other source of contamination during construction.</p>	SWMP Clause 7.8 This UCLAFP	Daracon	Pre-construction / Construction

7 CONTAMINATED LAND MANAGEMENT

7.1 IDENTIFICATION OF CONTAMINATION

Where unexpected contamination of the SPB site is encountered, the find will be documented in accordance with Daracon's and RMS Incident reporting procedures.

The ESR in consultation with the Project Manager and external environmental consultants, if required, will develop a remediation strategy in accordance with the relevant legislative requirements and guidelines.

Indicators of contamination in soils include;

- Discolouration of soils, including staining and horizontal layers of discolouration
- Odours from Soils
- Oily sheen on water leaving soils
- Foreign objects/evidence of landfilling

7.2 CONTAMINATED LAND MANAGEMENT PROCEDURE

In the event that contaminated materials are encountered during construction works, the following procedure will be implemented.

Step 1 - Potential contaminated soil/material encountered during construction activities;

- Cease work in the immediate/affected area
- The site supervisor will immediately notify the Daracon ESR and Roads and Maritime Environmental Manager (or delegate).
- Install environmental controls around the site to contain the contaminated material, including diversion of water to minimise potential spread via surface water runoff
- If it is determined that there is a risk of environmental harm from the potential contamination, the EPA will be notified immediately in accordance with the Roads and Maritime Environmental Incident and Classification Procedure.
- Recommence works in an alternative area where practicable.

Step 2 – Environmental management and work health safety management;

- Prior to any contamination investigation, management or remediation activities, appropriate safe work method statements (SWMS) and EWMS will be prepared.
- Required Personal Protective Equipment (PPE) will be worn as per the relevant Material Safety Data Sheet/s. This may include, but not be limited, to:
 - eye goggles
 - face mask/respirator
 - rubber boots
 - rubber gloves

- work clothes (i.e. long sleeve shirt/pants and steel capped boots) Cease work in the immediate/affected area.

Step 3 - Undertake a site/area contamination investigation;

- The ESR in consultation with the RMS Environmental Manger will assess the situation and if considered necessary, commission a suitably qualified contamination specialist to undertake a contamination investigation in the area of the find.
- The material will be classified in accordance with the *Waste Classification Guidelines* (EPA, 2014).
- If necessary, the ESR and/or Project Manager will liaise with the relevant authorities to determine the appropriate management options.
- The ESR and/or Project Manager (in consultation with specialists) will determine the appropriate management measures to be implemented. This may include leaving contamination undisturbed, capping of contamination, treatment or offsite disposal. Material to be disposed of off-site will be transferred to an appropriately licensed waste facility, in accordance with the appropriate waste classification.

Step 4 - Remedial Action;

- Remedial actions will be incorporated into specific Remediation Action Plans (RAPs). RAP's will be prepared by a suitably qualified and experienced person and in accordance with all guidelines under the *Contaminated Land Management Act* (NSW).
- RAPs will be verified by a contaminated land specialist and submitted to the Roads and Maritime Environmental Manager (or delegate) for approval prior to commencement of remediation.
- Relevant EWMS or SWMS will be reviewed and updated where required.

Step 5 - Recommence Works;

- Recommence works once remedial works have been implemented and sampling has validated that the remediation strategy has been successful.
- The ESR and/or Project Manager will seek approval from the RMS Environmental Manager for confirmation that remedial works have been successful and that works may recommence.

8 ASBESTOS MANAGEMENT

The following Asbestos Management procedure will be adopted in the event that potential asbestos containing material (ACM) or actual asbestos is uncovered during construction of the SPB. Implementation of this procedure will ensure that asbestos is managed in such a way as to avoid harm to site personnel, visitors and the community.

8.1 ASBESTOS FINDS PROCEDURE

Asbestos management for both friable and non-friable asbestos, will be undertaken as follows;

Step 1 – Cease works in the area potentially impacted by ACM as soon as it is safe to do so and move to the upwind side of the area, or away from the area.

Step 2 – Assess the potential immediate risk to human health posed by the unexpected find and move away from the area if required.

Step 3 – Delineate an exclusion zone around the affected area using fencing and/or appropriate barriers and signage. Keep soil/ACM damp to minimise / prevent the release of fibres to air.

Step 4 – Notify the ESR and RMS environmental manager to assess the unexpected find and determine what further assessment and/or remediation works are required. Implement the incident reporting procedure.

Step 5 – ESR in consultation environmental consultant to implement RAP.

Step 6 – RMS to confirm remedial actions have been successful and confirm works may proceed.

8.2 ASBESTOS REMOVAL

Asbestos removal will be undertaken by suitably qualified personnel and/ or subcontractors who are licensed by SafeWork NSW.

8.2.1 ASBESTOS REMOVAL CONTROL PLAN (ARCP)

An Asbestos Removal Control Plan (ARCP) is required to be completed in accordance with Work Health and Safety Regulation 2017 (Regulation 464). The ARCP will be developed prior to undertaking any asbestos removal works. The aim of the plan is to outline the specific methods and processes that will be used to ensure the removal is safe and effective.

Additionally, Safe Works Method Statements (SWMS) will also be generated for individual ACM related activities.

8.2.2 IDENTIFICATION

8.2.2.1 FRIABLE ASBESTOS

- Requires **Class A license**
- any amount of friable asbestos, Asbestos Contaminated Material (ACM), Asbestos Contaminated Dust or Debris (ACD) or non-friable asbestos.

8.2.2.2 LICENSED NON-FRIABLE ASBESTOS

- Requires **Class B license**
- Greater than 10 meters squared of Non–Friable (bonded) asbestos or Asbestos containing material (ACM);
- Asbestos Contaminated Dust or Debris (ACD) that is associated with removal of 10 square meters or more of non-friable asbestos or Asbestos containing material (ACM);

8.2.2.3 UNLICENSED ASBESTOS

- **No license** required
- 10 meters squared or less of Non–Friable (bonded) asbestos or Asbestos Contaminated Material (ACM);
- Asbestos Contaminated Dust or Debris (ACD) that is not more than a minor contamination and is associated with the removal of 10 square meters or less of non-friable asbestos or Asbestos Contaminated Material (ACM).

8.2.2.4 ASBESTOS REMOVAL FROM SOIL

- May require **Class A or Class B license** depending on type (*Friable or Non-Friable*) Asbestos-contaminated soil comprising non-attached pieces of asbestos cement products and other material containing asbestos uncovered in soil.

8.2.3 NOTIFICATION

Prior to the commencement of licensed asbestos removal works, notification to SafeWork NSW is required. SafeWork NSW requires a minimum of 5 days' notice prior to the removal of asbestos and the notification will include;

- Name, registered business name, ABN, license number and business contact details of the licensed asbestos removalist;
- Name and business contact details of the Supervisor who will oversee the removal work;
- Client name and contact details;
- Name, including registered business or corporate name, of the person with management or control of the workplace;
- Workplace address, including specific location if a large workplace;
- Kind of workplace where removal work will be performed (workplace type and scope of work);
- Date of notification;
- Start date of the removal work and an estimation of how long it will take;

- Nature of asbestos to be removed – friable or non-friable;
- Type of asbestos, e.g. asbestos-contaminated sheeting, vinyl tiles, lagging, gaskets, etc.;
- For friable asbestos (not restricted to soils) the mechanism by which the area will be enclosed;
- Estimated quantity of asbestos to be removed; and
- Number of workers who will perform the removal work and details of their competency to carry out the removal work.

8.2.4 SITE ESTABLISHMENT AND SIGNAGE

The boundaries of the “**Asbestos Works Area**” and the “**Asbestos Removal Site**” must be determined and defined by the nominated asbestos removal supervisor. All stakeholders must agree on the asbestos removal boundaries before any asbestos removal work commences.

In determining the asbestos removal boundaries, consideration shall be given to:

- The use and suitability of various types of enclosures and asbestos removal methods; and
- The impacts of the asbestos removal work, including potential exposures in the surrounding region.

In determining the distance between barriers and the asbestos work area a risk assessment should take account of:

- Whether the ACM are friable or non-friable;
- Activity around the asbestos work area (other workers, visitors, neighbours, the public, etc.);
- The methods of ACM removal;
- Any existing barriers (walls, doors, etc.);
- The quantity of ACM to be removed; and
- The type of barrier used (e.g. boarding or tape).

The asbestos removal site boundary must be clearly and securely delineated to ensure persons do not enter inadvertently or without authority. Signage must warn persons that asbestos removal work is being carried out, of the dangers of exposure to asbestos and of PPE and other site entry requirements. **All boundary delineation and warning/danger signs must remain in place until a clearance to re-occupy has been granted..**

All warning/danger signage must comply with **AS 1319** *Safety signs for the occupational environment*. These signs will be weatherproof, constructed of light-weight material and adequately secured.

In circumstances where the erection of fencing or barricades is not feasible, such as on concrete hard stand or within a building, tape may be used as a barrier to define an asbestos work area (for some types of asbestos removal work of short duration). If a sign is not feasible, tape with the words ‘asbestos hazard’ repeated along its length may be used instead to delineate and communicate the hazard.

8.2.5 REMOVAL METHODS – TYPICAL FOR SPB PROJECT

The following table outlines the typical removal techniques that may be used to remove ACM in soils;

TABLE 6 – REMOVAL TECHNIQUES, APPLICATIONS AND LIMITATIONS

Removal Technique	Applicability and Limitations
Hand Picking	<ul style="list-style-type: none"> suitable for bonded ACM in near surface soils only (i.e. <10 cm) raking may enhance removal, although only in sandy soils not applicable for friable asbestos less effective in areas of dense vegetation
Tilling	<ul style="list-style-type: none"> mechanical tilling to turn over soil followed by hand picking suitable for bonded ACM in soils to approx. 30 cm in sandy soils not applicable for friable asbestos less effective in areas of dense vegetation, or clayey soils
Mechanical screening	<ul style="list-style-type: none"> suitable for large volumes of soil impacted by Bonded ACM susceptible to generate fibres requiring effective dust/fibre control not applicable for friable asbestos
Mechanical excavation	<ul style="list-style-type: none"> physical excavation of soil containing ACM where impact extends beneath surface soils generates larger volume of soil that requires further management (i.e. off-site disposal, screening, spreading and handpicking/tilling)

8.2.6 AIR MONITORING

All air monitoring will be conducted by licensed asbestos assessor (LAA) in accordance with the requirements outlined. The location and layout of the air monitors will be detailed within the ARCP.

Air monitoring requirements will vary depending on the type of asbestos being removed, the location and position of the asbestos. The following rules should be applied when determine if air monitoring is required (extract from Safe Work Australia – Code of Practice on How to Safely Remove Asbestos (2016):

- **For friable asbestos removal** – Air monitoring is mandatory for all friable asbestos removal. This includes prior to dismantling an enclosure and for the purposes of the clearance inspection.
- **For more than 10 m² of non-friable asbestos removal** – Air monitoring is not required but may be considered to be carried out by an independent licensed asbestos assessor or competent person to ensure compliance with the duty to eliminate or minimize exposure to airborne asbestos and to ensure the exposure standard is not exceeded.

- **Public Location** – Air monitoring should be considered where the asbestos removal work is being undertaken in or next to a public location.
- **Exposure air monitoring** – Air monitoring should be carried out at other times to determine a worker's exposure to airborne asbestos if, based on reasonable grounds, there is uncertainty as to whether the exposure standard may be exceeded and a risk assessment by a competent person indicates it is necessary. Since most uses of asbestos are prohibited, exposure monitoring should not be required frequently.

Air monitoring may be required when:

- It is not clear whether new or existing control measures are effective;
- There is evidence (for example, dust deposits are outside the enclosure) the control measures have deteriorated as a result of poor maintenance;
- Modifications or changes in safe work methods have occurred that may adversely affect worker exposure; or
- There has been an uncontrolled disturbance of asbestos at the workplace.

Air monitoring of the asbestos work area will be carried out by Daracon and in conjunction with the licensed asbestos assessor. Monitors will be placed at several locations by the LAA, prior to the commencement of asbestos work.

The results of air monitoring will be made available as soon as possible to all workers on site. The asbestos supervisor will be notified immediately if the fibre count exceeds the recommended level, as set out in [Table 7](#).

TABLE 7 - EXPOSURE STANDARDS FOR ASBESTOS AS SET OUT IN THE NATIONAL CODE OF PRACTICE: HOW TO SAFELY REMOVE ASBESTOS.

Action level (fibres/mL)	Control/action
<i>Less than 0.01</i>	<i>Continue with current control measures</i>
<i>Greater than and equal to 0.01 and less than or equal to 0.02</i>	<i>Review control measures; investigate the cause and implement controls to eliminate or minimise exposure and prevent further release.</i>
<i>Greater than 0.02</i>	<p><i>Stop removal work, notify the regulator together with air monitoring results by phone followed by fax or written statement. Investigate the cause by conducting a visual inspection of enclosure (if used) and associated equipment in consultation with all workers involved. Implement controls to eliminate or minimise exposure and prevent further release by extending the isolated/barricaded area around the removal area/enclosure as far as reasonably practicable until fibre levels are at or below 0.01 fibres/ml. Wet wipe and vacuum surrounding area and seal any identified leaks. Smoke test the enclosure until it is satisfactorily sealed.</i></p> <p><i>Recommence work once further air monitoring confirms fibre levels are at or below 0.01 fibres/ml.</i></p>

Once the asbestos removal work has been completed, a clearance inspection will be carried out by the licensed asbestos assessor (LAA), who will issue a clearance before the workplace is re-occupied.

8.2.7 CLEARANCE

Following removal of asbestos / ACM, the licensed asbestos removalist will arrange for a clearance inspection of the area to facilitate the issue of a clearance certificate and allow construction to recommence in the affected area. The clearance inspection is conducted by:

- an independent licensed asbestos assessor, for work that was carried out by a Class A licensed asbestos removalist.
- an independent competent person, for asbestos work that is not required to be carried out by a Class A licensed asbestos removalist

To be independent, the licensed asbestos assessor must not be involved in the removal of asbestos for that specific job and is not involved in a business or undertaking involved in the removal of the asbestos for that specific job.

A clearance certificate will be issued if the independent licensed asbestos assessor or competent person is satisfied that the asbestos removal area and the immediate area are free from visible asbestos contamination. Entry to the area will be permitted following confirmation of certification.

8.2.8 DECONTAMINATION

Decontamination applies to all workers exiting the asbestos work area, all plant, equipment and tools used in the asbestos work area (at the completion of the asbestos work or at their earlier removal from the area) and, at the completion of the asbestos removal work, the asbestos work area itself.

The methods used for decontamination are based on the Code of Practice *How to Safely Remove Asbestos 2016*.

8.2.8.1 DECONTAMINATION OF PERSONNEL

Personal decontamination must be undertaken each time workers leave the asbestos work area except in extreme emergencies. Personal decontamination shall be done within the asbestos work area in a location where re-contamination cannot occur. This area should be at the entry/exit interface of the site so that workers have to pass through.

Asbestos-contaminated PPE must not be transported outside the asbestos work area except for disposal purposes, after being appropriately decontaminated.

Respiratory protective equipment must be used until all contaminated disposable coveralls and clothing has been vacuum cleaned and/or removed and bagged for disposal, and personal washing has been completed.

Any PPE used while carrying out asbestos work must not be taken home.

Personal hygiene and careful washing are essential. Particular attention shall be paid to the hands, fingernails, face and head.

All contaminated materials, including cleaning rags, plastic sheeting and PPE etc., must be disposed of as asbestos waste.

8.2.8.2 DECONTAMINATION OF REUSEABLE PPE

PPE that is to be re-used for asbestos removal work, e.g. boots, helmets, non-disposable respirators, must be fully dismantled and cleaned in a suitable asbestos work area and placed in sealed containers that are labelled 'For asbestos removal work only'. Before removal from the asbestos work area the containers must be decontaminated by vacuuming and/or wiping down with wet cloths. This retained PPE must only be used for asbestos removal work.

8.2.8.3 DECONTAMINATION OF PLANT, EQUIPMENT AND TOOLS

Plant, equipment and tools that are engaged to work within asbestos work areas must be clearly identified during the procurement stage. Providers of plant and equipment to be used in the asbestos work area are to be advised in writing that the plant is required to work within this area. Plant requirements in regard to the operator's cabin air conditioning and air pressurising system filters and other internal combustion engine air filters must be communicated in writing with clear procedures documented on maintenance and decontamination.

After the asbestos removal work is complete, plant equipment and tools must be decontaminated. Any warning tag fitted to plant in respect to the decontamination of air filters must be removed after the contaminated filters have been removed and replaced with new filters for use outside of the asbestos work area.

At the end of the asbestos removal work, all tools should be:

- Decontaminated (i.e. fully dismantled and cleaned) in a suitable asbestos work area; and
- Placed in sealed containers that are labelled 'For asbestos removal work only' (and used only for asbestos removal work); or
- Disposed of as asbestos waste.

8.2.9 WASTE DISPOSAL

Asbestos waste will be disposed of as soon as reasonably practicable. Asbestos waste will be disposed at a waste disposal site in accordance with NSW EPA guidelines (including *Waste Classification Guidelines* (EPA, 2014)) and relevant industry codes of practice.

All ACM materials disposed offsite will be recorded on the Daracon waste tracking form(s) and documented within the project waste management register (refer Appendix 2 of the Resource and Waste Management Plan). Additionally, disposal of ACM in excess of 10 square meters or 100kg will be tracked using the NSW EPA Waste locate system, refer [Appendix 1](#).

8.2.9.1 ASBESTOS WASTE TRANSPORTED BY TRUCKS

The transportation of asbestos waste by trucks must comply with the following requirements;

- Transporter must have the appropriate EPA license to transport asbestos waste
- Asbestos contaminated soils are wetted down
- Any part of any vehicle in which a person transports asbestos waste is covered, and leak proof during transportation
- Bonded asbestos materials must be securely packaged during transportation
- Friable material is kept in a sealed container during transportation

9 COMPLIANCE MANAGEMENT

9.1 ROLES AND RESPONSIBILITIES

The organisational structure and roles and responsibilities for Daracon personnel are provided within IPMP (refer IPMP – Appendix 2). The roles and responsibilities specific to the construction of the SPB are provided within IPMP, which displays the organisational chart for the project (refer IPMP – Appendix 1).

9.1.1 ENVIRONMENTAL SITE REPRESENTATIVE

The Environmental Site Representative (ESR) will undertake regular inspections on site during the construction of the SPB. The ESR will undertake inspections to verify compliance with control measures implemented, presence of contamination indicators and to address hazards identified from the project risk assessment:

9.1.2 ASBESTOS SUPERVISOR

The Asbestos Supervisors will be suitably qualified to undertake asbestos removal works. They will be responsible for the safe removal of ACM, with authority over all labour and equipment involved with the removal works, to ensure the efficient and successful removal without causing contamination of the environment or a risk to personnel or the public.

9.1.3 LICENSED ASBESTOS ASSESSOR

The Licensed Asbestos Assessor will be responsible for managing air monitoring, if required, during removal works and issuing the results of the air monitoring undertaken. The LAA will also be responsible for inspections following removal works and the issue of clearance certificates, to confirm the works have been successfully completed.

9.2 COMMUNICATION

Communication with stakeholders and the community is detailed within the Construction Community Liaison Management Plan (CCLMP), which includes the key aspects identified within the Community Communication Strategy (CCS) developed by RMS.

Soil and water quality management information will be communicated to the community and stakeholders in accordance with the principles and procedures outlined CCLMP.

9.3 COMPLAINTS MANAGEMENT

The management of complaints for the SPB will be in accordance with the Construction Community Liaison Management Plan (CCLMP), which includes the key aspects identified within the Complaints Management System (CMS) developed by RMS.

9.4 TRAINING

To ensure the effective implementation of this UCLAFP, personnel will undergo training relating to contamination and unexpected finds management, this training will include;

- UCLAFP requirements
- Incident response and reporting procedures
- RAP / ARCP requirements
- Site inductions
- Environmentally Safe Work Methods (EWMS)
- Tool Box Talks – focused on environmental aspects

For further details on training refer to section 8 of the IPMP, and section 5.5 of the CEMPP.

9.5 MONITORING AND INSPECTION

9.5.1 MONITORING

Monitoring required for this UCLAFP will include;

- Monitoring of excavation and land disturbance to assess indicators of contamination
- Monitoring to ensure works are conducted in accordance with the relevant RAP/EWMS
- Monitoring of exclusion zones

9.5.2 INSPECTION

Inspections required for this UCLAFP may include;

- Inspection of exclusion zones for asbestos works, in accordance with the ARCP
- Inspection of stockpiles generated during remedial works
- Inspection of waste transport and disposal documentation

9.6 INCIDENTS

Incidents will be managed in accordance with Section 9 of the IPMP and Section 6.11 of the CEMPP.

9.7 AUDITING

Audits (both internal and external) will be undertaken to assess the effectiveness of soil and water quality management measures, compliance with this UCLAFP, conditions of approval and other relevant approvals, licenses and guidelines. Audit requirements are detailed in Section 11.4 of the IPMP and Section 5.9 of the CEMPP.

9.8 NON-CONFORMANCES

A non-conformance is the failure or refusal to comply with the requirements of project system documentation, including this UCLAFP. Non-conformances may be identified through auditing and

review processes (Section 11.4 of the IPMP and section 5.9 of the CEMPP), monitoring and inspection processes (Section 11 of the IPMP) or incident management (Section 9 of the IPMP and Section 6.11 of the CEMPP).

9.9 REPORTING

Reporting requirements and responsibilities are documented in Section 5.11 of the IPMP and section 5.11 of the CEMPP.

Records for the reporting on UCLAFP may include;

A record of all works within areas of identified contamination and due to suspected contamination will be maintained and include:

- Type of contamination including sample results.
- If soil is removed, the extent and depth of excavation is to be recorded using survey co-ordinates.
- Management measures implemented, in accordance with RAP
- Fate of excavated soil
 - If soil is re-used on or off-site the report confirming the suitability of use / compliance with the relevant order is to be included with the record.
 - If soil is removed to a waste facility the waste classification report and receipt dockets by the licensed waste contractor / facility are to be included with the record.

9.9.1 RECORDS

The ESR will maintain a register of any unexpected contamination finds, including a map of all contaminated and/or remediated sites. The register will be made available to the Roads and Maritime Environmental Manager (or delegate) on request for inclusion in Project Monthly Reports.

10 REVIEW AND IMPROVEMENT

10.1 CONTINUOUS IMPROVEMENT

Continuous improvement of this UCLAFP will be achieved by the ongoing evaluation of environmental management performance against environmental policies, objectives and targets for the purpose of identifying opportunities for improvement.

- identify areas of opportunity for improvement of contaminated materials management and performance of environmental controls
- identify environmental risks not included within the GRA or Environmental Risk Register
- determine the cause or causes of non-conformances and deficiencies
- develop and implement a plan of corrective and preventative action to address any non-conformances and deficiencies
- verify the effectiveness of the corrective and preventative actions
- document any changes in procedures resulting from process improvement
- make comparisons with objectives and targets.

10.2 UCLAFP UPDATE AND AMENDMENT

The processes described in section 11 of the IPMP may result in the need to update or revise this UCLAFP. This will occur as needed.

Any revisions and/or changes to the UCLAFP will be distributed to all relevant stakeholders in accordance with the approved document control procedure detailed in section 13 of the IPMP.

11 DEFINITIONS

All terms referenced within this plan are included within [REG.00001](#) *Definitions & Glossary of Terms Register*.

12 ASSOCIATED DOCUMENTS AND PROCEDURES

Approved Forms, Process Flowcharts, Registers and/or other documents referenced within the body of, or those that are associated with this plan, are accessible and made available for all Daracon personnel via the following link: <https://dms.daracon.com.au/documents>

APPENDIX 1 NSW EPA Waste Locate Protocol

