

Appendix 10

Environmental Management Plan

City of Canada Bay Environmental Management Plan Timbrell Park, Five Dock NSW

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1 INTRODUCTION

EDP Consultants Pty Ltd (EDP) was engaged by City of Canada Bay Council (CCBC) to develop an Environmental Management Plan (EMP) for Timbrell Park, Five Dock NSW. The requirement for an EMP arose following results of investigation works carried out by EDP in October 2023, identified a potential human health risks for the site.

2 OBJECTIVE

The purpose of this EMP is to provide a management response to the known contamination present at the site.

The objective of the EMP is to identify:

- Summarise the potential contaminated land risks at the site;
- Identify current or potential activities and uses undertaken at the site by Council workers, third party contracted workers and the community; and
- Mitigation measures for the site to protect current and future users from contamination risk.

3 SITE IDENTIFICATION

Site identification details are summarised in **Table I** and the location of the site is shown on **Figure I**, provided in **Appendix A**.

Table I – Site Identification

Site Identification	
Site Address:	Henley Marine Drive, Five Dock, NSW
Legal Identification:	Lot 7010 in DP93651 and Lot 1 in DP356799
Current Site Description / Setting:	The park is generally split into three sections as follows: The western portion of the park, comprising a narrow grassy verge with regularly spaced trees which separates Iron Cove creek and Henley Marine Drive; ▪ The central portion of the site which comprises a children's playground, a small café, a clubhouse and a large open space with various sports fields; and ▪ The eastern portion of the site comprising a maintained wooded area, with a footpath, some benches, water bubblers and a mini mountain biking trail. The area of the park is shown in Figure I provided in Appendix A.
Investigation Area:	Approximately 121,200 m ²
Local Government Authority:	City of Canada Bay Council (CCBC)
Current Zoning:	RE1 – Public Recreational
Owner:	City of Canada Bay Council (CCBC)

4 PREVIOUS INVESTIGATIONS AND STATUS

4.1 Remedial Action Plan (Environmental Investigation Services, 2010)

Environmental Investigation Services (EIS) were commissioned by Council to prepare an environmental assessment and a remedial action plan (RAP). This was to support the works associated with the installation of eleven light poles around the perimeter of Timbrell Park, Henley Marine Drive, Five Dock, NSW. It is understood that EIS undertook previous site assessment and investigation at Timbrell Park.

The contaminants of concern at the site identified during the environmental assessment included: mid to heavy fraction Total Petroleum Hydrocarbons (TPH, C10-C36) and Polycyclic aromatic hydrocarbons (PAH), including benzo(a)pyrene (BaP). Concentrations of lead were also encountered above the adopted site assessment criteria

(SAC). However, statistical analysis of the data set indicated that the mean, standard deviation and UCL values met the assessment criteria and were below the SAC. Therefore, lead was excluded from the list of contaminants for the purpose of the RAP. The RAP identified the following remediation areas:

- Area A (Known Extent): This area was confined to the immediate vicinity of the boreholes drilled for the light poles; and
- Area B (Unknown Extent): The remaining sections of the site fall in this category.

The horizontal extent of the contamination was not established and was beyond the scope of works for this investigation. Potential contamination associated with the fill material in other sections of the park could not be ruled out. The proposed remediation was based on point source data that was spatially interpreted between previous sampling points. Therefore, the proposed remediation was confined to the proposed light pole locations. The most viable option for remediation of Area A was considered to be excavation of the contaminated material followed by off-site disposal to an appropriate facility.

The most viable option for Area B was considered to be the implementation of an environmental management plan (EMP). Remediation of the whole site to remove all of the contaminated soil was considered impractical and unfeasible.

EDP understands that this RAP was not enacted on site.

4.2 Detailed Site Investigation (EDP, October 2023)

EDP were engaged by City of Canada Bay Council (CCBC) to undertake a Detailed Site Investigation (DSI) across Timbrell Park in October 2023. The requirement for the DSI was prepared to advise and support the Council's plan to upgrade an area of the park presenting drainage issues after rainfall events.

The objectives of the DSI were to understand the contamination status of the site and identify immediate or potential human health or environmental risks posed by the site in its current condition, or that may be exposed as an outcome of the planned works. In addition the DSI also aimed to determine if the site in its current condition poses an acceptably low risk to human health and the environment under the selected land use setting.

The scope of work included a review of existing environmental reports, site history, historical aerial photographs, environmental setting detail and conducting an intrusive site investigation. The intrusive assessment involved advancement of a total of 112 sampling locations across the investigation area to a maximum depth 2 m bgl. Soil analytical results were compared against the adopted human health and ecological criteria for the site, in accordance with NEPM 2013, the HEPA PFAS National Environmental Management Plan 2.0 2020 (NEMP 2020) and other applicable guidelines.

The results of the investigation can be summarised as follows:

- Benzo(a)pyrene TEQ was the only analyte to exceed the adopted human health risk criteria (HIL/HSL C) after statistical application. These exceedances were found to be more frequent in the upper portion of the soil profile (0.5m and above) and widely spread across the site. Numerous exceedances against the adopted ecological criteria were recorded, however, the risk from these contaminants to ecology is considered low and acceptable. This is due to the low risk of contaminant mobilisation from the site and the lack of sensitive receptors nearby.
- Chromium Reducible Sulfur testing confirmed there is an Acid Sulphate Soil layer at approximately 1.2m across the site. This does not pose a risk to human or ecological health in its current undisturbed state. However, if excavations intersect this layer, there would be a potential onsite and offsite environmental risk from acidification of soils and water caused by oxidation of sulfides.
- Of the 111 primary sampling locations which were sieved at the surface, one location identified visual asbestos in the form of ACM, which was located in the upper 0.5m of BH01. As a result of the sieving conducted on site, the approximate concentration of asbestos was calculated to be 0.0018%w/w, which is below the site criteria of 0.02 w/w%.

Based on the results, EDP concluded that the key site risk to human health is Benzo(a)pyrene TEQ. In the short-term controls at the park which prevent direct contact with exposed soils in areas of the site where these exceedances were recorded were recommended. This may include maintenance of healthy grass cover or preventing access through other methods where this is not achievable. Medium to long-term management of these concentrations will

be through an Environmental Management Plan (EMP) for the site, or alternatively through a Remediation Action Plan (RAP).

5 LEGISLATION, LEGAL MECHANISMS AND TIMING

5.1 Applicable Legislation

This EMP has been prepared with reference to the following key guidelines and previous reports:

- Contaminated Land Guidelines: Consultants Reporting on Contaminated Land (NSW EPA, 2020);
- National Environmental Protection Measures (Assessment of Site Contamination) Measure 1999 – Schedule B2 (NEPC), updated 2013);
- Waste Classification Guidelines (NSW EPA, 2014).
- Safe Work Australia (2019) Workplace exposure standards for airborne contaminants
- SafeWork NSW (2022) How to manage and control asbestos in the workplace.
- SafeWork NSW (2022) How to safely remove asbestos.
- NSW EPA (2022), Preparing Environmental Management Plans for Contaminated Land (Practical Note)

5.2 Timeframe of EMP

This EMP timeframe will be ongoing until such time when a risk assessment indicates that management is no longer required. If the land use changes in any portion of the site, this EMP must be updated to re-assess the potential risks and identify mitigation measures.

5.3 How The Plan Will Be Made Enforceable

In accordance with NSW EPA – *Preparing Environmental Management Plans for Contaminated Land (Practical Note), 2022*” common legal mechanisms for achieving a legal mechanism for management plan enforceability in NSW are provided under:

- Conveyancing Act 1919 (Conveyancing Act) – restrictions or public positive covenants on land (which run with the land), which:
- can be imposed by a prescribed authority (including EPA and Council) on any land not vested in the authority, with landowner consent (section 88E)
- may be created by deed of agreement between private parties owning land (section 88)
- CLM Act – ongoing maintenance orders (section 28)
- EP&A Act – development consent conditions (section 4.17)
- Work Health and Safety Regulation 2017 – asbestos management plan (Part 8.3, cl 429).

Orders made under section 124 of the Local Government Act 1993 might also be considered.

5.4 Stakeholders, Roles and Responsibilities

This EMP is designed to be managed under the responsibilities outlined below in **Table 2**. As such, the landowner (CCBC) is responsible for the overall implementation and maintenance of the EMP and for ensuring that staff members and contractors have been informed of the requirements of the EMP. The responsibilities may be delegated where appropriate (such as contractors during site preparation, development and bulk earthworks) but this must be done in writing and notified to all affected parties.

The supervisor or person-in-charge of any intrusive works that impact the site is responsible for implementing the requirements of the EMP during works and must ensure that all occupants of the site and contractors working on the site have been informed of the requirements of the EMP prior to commencement of any works.

Table 2 outlines the main parties that may have involvement in the implementation of this EMP, and their respective roles and responsibilities. This table does not intend to list all responsibilities under relevant legislation but is a brief clarification of the roles and responsibilities in implementing this EMP.

Table 2 – Roles and Responsibilities

Roles and Responsibilities
City of Canada Bay Council / Any future PCBU: ▪ Approve the EMP and hold overall responsibility for the implementation and maintenance of the EMP. ▪ Advise persons working or operating on the site of the requirements of the EMP. ▪ Ensure appropriate consents and licences (as required) are obtained for the works. ▪ Provide training and induction of employees and contractors before and during the works, as appropriate. ▪ Appoint a site manager or Environmental Management Plan Controller; ▪ Incorporate this EMP into relevant policies and procedures, including the owner’s management system, subcontractor agreements and lease contracts; ▪ Be responsible for promoting good environmental and WHS Management; ▪ Provide a copy of the EMP to the supervisor or person-in-charge of the works being undertaken. ▪ Engage a suitably qualified environmental consultant to update the EMP if the conditions at the site change, and, if necessary, inform other parties of the changes. ▪ Ensure contractors and personnel involved in the works comply with the requirements of the EMP. ▪ Ensure construction staff and contractors clearly understand the requirements of the EMP and ensure that compliance with the EMP is a condition of any agreement with these parties. ▪ Ensure the conditions of the EMP are implemented and supplemented, if necessary, by any conditions of development or works approvals. ▪ Ensure the site and site records are maintained in accordance with the EMP. ▪ Ensure all non-conformances and/or complaints are recorded and appended to this EMP. ▪ Monitor and act to ensure environmental management requirements are implemented throughout the life of the workplace. ▪ Conduct site inspections for conformance to the EMP under normal site use conditions. ▪ Maintain and update the asbestos register.
EMP Controller (CCBC): ▪ Develop protocols and procedures to ensure that the EMP is enforced; ▪ Approve all intrusive works or site occupancy via the landowner/PCBU; ▪ Ensure risk assessments of ground disturbance activities are carried out by a competent person (i.e. a suitably trained employee, qualified Environmental Consultant) on a regular basis as outlined in this EMP, appropriate management procedures are developed and safe work method statements; ▪ Provide inductions to all relevant site personnel as detailed in this EMP; ▪ Ensure that all relevant site personnel are trained to identify instances of unexpected contamination and asbestos as detailed in this EMP; An example proforma is included in Appendix C ▪ Provide or delegate supervision as required to ensure that the procedures documented in this EMP are implemented; ▪ Establish a platform for consultation for all relevant site personnel to ensure responsibilities are understood and feedback can be provided; ▪ Inform employees, contractors and subcontractors of the possibility of encountering asbestos in shallow soils, through the implementation of awareness training, as part of the induction process etc;

- Ensure related records are maintained in **Appendix C** of this EMP. Records such as the training records, incident reports, contractor licences, SWMS, air monitoring reports, clearance inspection certificates and any investigation outcomes are also to be attached to **Appendix C**;
- Ensure a copy of the EMP is made readily accessible for all relevant personnel.

Employees (Council workers/maintenance staff/waste management staff) and Contractor's:

- Not placing themselves or others at risk of exposure to potential contamination including asbestos;
- Understanding and following the procedures outlined in this EMP;
- Follow instruction from the landowners and/or environmental consultants/LAAs regarding the implementation of this EMP;
- Competency in the identification of asbestos and the control measures to be adopted when undertaking works at the site;
- Abiding by the PCBU's health and safety procedures, including the development of SWMS and undertaking induction prior to commencement of any contractor works. No works shall commence until approval is received;
- Reporting hazards, including incidents and unsafe work practices to the EMP Controller (Council Superintendent).

Environmental Consultant (if appointed):

- Assess the risk involved with any proposed works where disturbance of PAH or asbestos impacted soil is likely to occur prior to commencing proposed works;
- Develop 'scope of works' documentation for remediation and/or maintenance works;
- Provide asbestos hygiene services during asbestos remedial and/or removal and intrusive works (e.g., asbestos fibre air monitoring and clearance inspections);
- Provide awareness training for site owners and contractors involved with the management and maintenance of the site;
- Potentially assist in the review this EMP on a regular basis as part of the ongoing management of the site;

5.5 Distribution

A copy of this EMP, and any revisions of the EMP must be provided to all organisations with the authority to approve and conduct ground disturbance/excavation works within the site. This includes all council stakeholders, any contractor or third party who is engaged to do any work at the site and all council ground maintenance workers.

6 MINOR WORK & MAINTENANCE ACTIVITIES

Implementation of this EMP is the responsibility of the PCBU for the site. All site personnel including employees and contractors must be provided, clearly understand, and comply with the EMP. For all contractors undertaking site works, all site works must comply with relevant legislation and guidance.

Nothing contained within this EMP may be considered to alter or modify guidelines or the requirements laid down under all relevant NSW legislation (including the *NSW WHS Act 2011* and *NSW WHS Regulation 2017* or relevant legislation current at the time of works) and NSW EPA 2020 and other applicable NSW EPA guidelines.

For more major works or works deemed to constitute a construction activity, refer to **Section 7**.

6.1 General Maintenance Activities

The types of work considered as general maintenance activities include mowing, maintenance of sports fields, litter picking and maintenance of facilities on site.

General maintenance at the park occurring at less frequent intervals may include aeration, scarification, goal post installation, top dressing, planting of large trees, irrigation installation/repair, repair of sinkholes, minor/shallow drainage work (e.g. localised agline) garden installation and repair or replacement of grass or turf cover.

It is expected that some of the general maintenance activities may require a level of ground disturbance (e.g. tree planting or small-scale drainage installations). Given the nature of the maintenance work, and generally low level of soil disturbance, all general maintenance or ongoing management activities are not expected to require any specialised PPE/RPE, except for what is typically required by Council.

The contractor or Council worker completing the works should be appointed by the PCBU having completed the induction and competency requirements detailed in **Section 5.4**.

6.2 General Maintenance Management Protocols

As a minimum when conducting general maintenance works at the site, the following soil management protocols shall be maintained to ensure exposure to PAH and potential asbestos impacted soil is minimised:

- Concrete or grass surface cover must be maintained at all times in a good condition;
- Where applicable and where exposed soils occur, surface cover (such as mulch) shall be placed, which inhibits the disturbance of the surface soils and minimises human contact with the underlying soil;
- If surface cover is found to be damaged (i.e., the grass/turf cover is damaged compromising the integrity of the cover layer, or the grass cover is patching (thinning), resulting in the potential for soils to become exposed), the PCBU shall be contacted, and the surface cover will be re-instated; and
- Localised and shallow (<0.3 m), intrusive maintenance works involving the disturbance of soils, surface water (including culvert or drains) or groundwater, such as emergency works or development works involving excavation, trenching, potholing etc. shall be conducted by a competent and experienced contractor.

During any maintenance (or intrusive) works, personnel must be briefed on the requirements for personal site hygiene as part of the site induction. As with any work where contractors and maintenance staff are accessing soil, staff should be encouraged to avoid hand to mouth and hand to face contact until they have washed (e.g., prior to eating or drinking etc).

7 CONSTRUCTION ENVIRONMENTAL & SAFETY MANAGEMENT

7.1 Environmental Work Health and Safety (EWHS)

An environmental work health and safety (EWHS) plan is an essential part of all construction projects to manage the health and safety of all personnel working on or visiting the site. EWHS risks may also be managed through preparation of a Construction Environmental Management Plan (CEMP). A detailed EWHS plan (or CEMP) will be prepared by the Contractor for the works prior to the commencement of any site activity and will be approved by City of Canada Bay Council (or PCBU).

The purpose of the EWHS plan is to provide all relevant health and safety information for all personnel undertaking work at the site and to provide and maintain safety standards and practices which offer the highest practical degree of personal protection to the on-site workers, based on current knowledge.

The plan will also recognise the legislative obligations of the Contractor, in particular:

- If the work to be undertaken is considered a “construction project” (as defined in the relevant legislation) in which the Contractor will then have obligations as Principal Contractor. These obligations will be expressly dealt with in the plan; and
- If the work to be undertaken is considered “high risk construction work” (as defined in the relevant legislation) in which the Contractor will then have obligations which will be expressly dealt with in the plan.

Controls under this Section would also generally apply, or should at least be considered for other planned excavation works which:

- Disturbance of soils to greater than 0.3 m depth and/or 1 tonne of soil (as a general guide), which are not a general maintenance or ongoing management activity;
- Trenching/excavation;
- Underground service (such as drainage, water pipe, electricity, gas or other cabling) maintenance or installation;

The following subsections outline the minimum environment, health and safety requirements which are required to outlined and controlled in the EWHS plan or CEMP. All personnel must read the plan and confirm acceptance of its requirements prior to commencing work at the site.

The works should comply (at a minimum) with all legislation, regulations and standards. At a minimum the legislation related to activities that may take place during the remedial works will include:

- *OH&S Amended (Dangerous Goods) Act 2003*;
- *AS2436 Guide to Noise and Vibration Control on Construction, Maintenance and Demolition Sites, 2016*;
- *AS1470 Health and Safety at Work - Principles and Practices, 1986*;
- *AS1319 Safety Signs for the Occupational Environment, 1994*;
- *Safe Work Australia, Code of Practice - Excavation Work 2015*;
- *NSW Work Health and Safety Act 2011*; and
- *NSW Work Health and Safety Regulation 2017*.

7.2 EMP Induction

All project staff, field staff and contractors must undertake an environmental awareness induction prior to their commencement of works on site. The awareness induction will include, but not be limited to:

- Outline of the objective and purpose of the works; and
- Contents of the EMP and individual's responsibility.

All project staff and contractors will adhere to this EMP. In addition to this, the remediation contractor may provide their own task specific EMP (or similar document), which will be adhered to for the duration of the site development works.

Records of training must be kept and maintained as presented in **Appendix C** of this EMP.

7.3 Training

A safety and environmental induction protocol shall be developed prior to the commencement of construction work. This protocol will provide the required information, instruction and training for all parties conducting works at the site, enabling them to perform their duties in a safe manner, minimising potential risk to health and potential damage to the environment. The Contractor (to be appointed at the time of writing) will induct all site workers prior to the commencement of work.

The induction shall cover the environmental controls identified in this EMP including:

- Emergency response procedures in the event of an environmental incident such as a spill or release of chemicals;
- The management of excavated materials at the site;
- The management of sediment/erosion controls at the site;
- The management of waste removal from site;
- Encountering unexpected finds at the site;
- Incidents and emergency response procedures; and
- Location of EMP during works.

In the event any additional training requirements are identified during site works or review of this EMP, additional training procedures will be incorporated as an amendment to this EMP and actioned accordingly.

The Contractor will be responsible for maintaining training records for the site, including:

- Who was trained;
- When they were trained;
- The name of the trainer;
- Sign off pages; and
- A general description of the training content.

At the completion of the induction, project personnel should sign a Site Induction Register (or similar) acknowledging receipt and understanding of this EMP, with the register maintained by the Contractor. An example Site Induction Register is provided in **Appendix C**.

It is recommended that regular (e.g. daily) toolbox meetings are held to discuss refresher training on EMP issues such as changes to controls, introduction of new procedures and controls and information on effectiveness of implementation of this EMP. An example daily toolbox talk form is provided in **Appendix C**.

7.4 Site Establishment and Security

Prior to the commencement of works, the site must have designated smoking, eating and amenities areas that are established away from the work area. The work area at the site shall be secure and signed appropriately (e.g. 'Authorised Persons Only' or 'Specialised Work Zone'). Where works have the possibility of disturbing an area impacted by asbestos, reference should be made to the AMP for the site, and should include as a minimum:

- An exclusion zone surrounding the work area that is established prior to the commencement of intrusive works and is maintained throughout the duration of the works.
- Provision of decontamination facilities.

7.5 Storage of Hazardous Chemicals

All hazardous chemicals will be stored in a manner to avoid risks of pollution of ground, surface water, and/ or stormwater sewers. All flammable and combustible liquids, including all liquid chemicals if such chemicals could potentially be washed or discharged from the site, are stored and handled on-site in accordance with relevant standards such as AS1940-2004 *The storage and handling of flammable and combustible liquids*.

All hazardous chemicals will be stored in such a way as to avoid risks of pollution of ground, surface waters or stormwater sewers.

It is anticipated that the chemicals to be on-site may include fuels, oils, lubricants, and insecticides.

The following procedures shall be implemented for storage and use of hazardous chemicals:

- Where practicable, all chemicals will be removed and safely stored off-site at the end of each workday;
- Chemicals to be stored on-site shall be in labelled sealed containers within a leak proof spill tray and covered with a tarpaulin;
- Chemicals storage area shall be within a designated bunded area;
- Clean-up must not involve the over-use of disinfectants, or the use of environmentally damaging disinfectants;
- Copies of Safety Data Sheet (SDS) for all chemicals are available on-site (site office); and
- All herbicides are to be applied in accordance with the manufacturers' recommendations.

7.6 Materials Management

7.6.1 Asbestos Containing Materials

If known asbestos, or unexpected asbestos is encountered and requires disturbance where the extent of asbestos is considered to be greater than 10 m² or friable in nature, then works must be conducted by a licenced asbestos removal contractor (LARC) under all applicable asbestos controls and procedures. Minor or isolated instances of non-friable asbestos are not an automatic trigger of an asbestos removal works zone. Where minor or isolated instances of non-friable asbestos are identified, the unexpected finds procedure in **Section 8** should be followed.

An asbestos management plan has been included in **Appendix B**.

7.6.2 Reuse of Soil On-Site / Stockpile Management

Soils intended for site reuse must be excavated and stockpiled separately, prior to reuse. Stockpiles should be tracked by the EMP Controller (which CCBC may delegate to the principal contractor), to ensure that the origin and quantity of the material is known prior to reuse with details including:

- The location of initial excavation and source of stockpile material.
- Dimensions of the stockpile.
- If stockpile has been assessed, include assessment dates and findings (contamination status).
- Movement log – specifically previous stockpile locations.

Stockpiles should be constructed so as to reduce the impacts from erosion and sediments.

If soils are excavated from known contaminated areas and are wished to be re-used, specific controls will need to be in place to govern how they can be re-used (e.g. placement below geofabric marker layer and/or hardstand or burial below non-contaminated soil), or further specific analysis to confirm the contamination status of a specific stockpile. Where soils are excavated from contaminated areas and re-used within 100mm of the surface without re-instatement of established grass cover or hardstand above, verification of the reuse method must be in consultation with the environmental consultant.

7.6.3 Off-site Disposal of Waste to a Waste Facility / Reuse at a Fill Facility

Excavated soils not required for reuse on-site should be either:

- Assessed and classified in accordance with the NSW EPA Waste Classification Guidelines 2014.
- Disposed off-site at a licenced waste facility.
- Reused at licenced facility that accepts clean fill.

Excavated soils intended for disposal off-site must be excavated and stockpiled separately, prior to disposal. Stockpiles should be tracked to ensure that the origin and quantity of the material is known prior to reuse and will include:

- The location of initial excavation and source of stockpile material.
- Dimensions of the stockpile.
- If stockpile has been assessed, include assessment dates and findings (contamination status).

- Movement log – specifically previous stockpile locations.

Stockpiles should be constructed so as to reduce the impacts from erosion and sediments.

7.6.4 *Imported Material for Fill*

Materials to be imported to site for fill shall only comprise virgin excavated natural material (VENM) or excavated natural material (ENM) and are materials that are not mixed with another type of waste and are not contaminated with hazardous materials.

CCBC should conduct visual inspections of the imported material and, if required, confirm by analytical testing using an environmental consultant of the imported material that it meets the requirements of this EMP.

CCBC should obtain documentation from the fill provider which contains the following:

- Date of arrival on site.
- Volume / quantity of fill material.
- Provider.
- Source of fill material.
- Documentation that the source of the fill material is not listed on recorded on the NSW contaminated sites databases and free of contaminants.

All material brought onto site should be accompanied by appropriate documentation indicating that it is 'clean fill' and will be assessed against the Health Investigation Levels (HILs) A for residential site use and Ecological Investigation Levels (EILs) as outlined in the NEPM 2013, and/or the applicable Resource Recovery Order prior to being accepted on to the site.

Laboratory analytical testing will be required to verify that material imported to the site is free of hazardous contaminants at concentrations in excess of the applicable criteria. Geotechnical testing of the material may also be required to verify that the required compaction and permeability has been met. The typical suite for testing required to support any imported material is outlined below:

- Metals (Arsenic, Cadmium, Chromium, Copper, Lead, Nickel, Mercury and Zinc);
- TRH;
- BTEXN;
- PAHs;
- OCPs/OPPs; and
- Asbestos.

The selected laboratories must be National Association of Testing Authorities (NATA) accredited for the analysis required.

Placement of imported clean fill should be done separately to potentially contaminated fill. Demarcation should be used using geofabric or similar barrier layer between clean and potential contaminated fill in excavations.

7.6.5 *Unexpected Contamination*

Refer to **Section 8** for environmental and safety control measures.

7.7 *Air Quality and Dust Emissions*

Dust may be produced from the site if soils exposed by the earthworks become dry. Uncontrolled dust emissions may present an increased risk due to the existing and unknown presence of contaminants in the subsurface soils. Dust emissions shall be confined within the site boundary.

The following measures should be implemented:

- Erection of dust screens around the perimeter of the site should be considered if the excavation works are in proximity to the site boundary.

- Materials and stockpiles that remain on-site for more than 24 hours should be covered where practicable with tarpaulin or other sheeting. Where not practicable, dust suppression measures such as wetting should be used.
- Ensure that all equipment has dust suppressors fitted where appropriate and that these dust suppressors are operating when required.
- Dampen the site slightly during excavation or when dust is being raised. Be careful not to wet it to the point of creating polluted runoff.
- Ensure that vehicles only leave via the stabilised site access.
- All loads entering and exiting the site shall be covered.

Dust should be suppressed at all times. Dusty areas or areas where there is a potential dust emission should be wet down using fine mist sprays. The excavated material should be lightly sprayed prior to leaving the site.

7.8 Noise and Lighting

Noise and lighting will be controlled by undertaking the works within normal working hours between the hours recommended by the Interim Construction Noise Guideline (NSW DECC 2009), including:

- Monday to Friday 7 am to 6 pm;
- Saturday 8 am to 1 pm; and
- No works on Sunday or Public Holidays;
- All works should be undertaken during daylight hours to prevent disturbance to nocturnal animals, unless otherwise approved.

Any lighting installed on-site will be switched off at the end of the working day.

The works shall comply with Australian Standard 2436 *Guide to Noise and Vibration Control on Construction, Demolition and Maintenance Sites, 2016* and the NSW DECC *Interim Construction Noise Guideline, 2009* (as applicable to the relevant site).

No "offensive noise" as defined under the *Protection of the Environment Operations Act 1997* shall be created during remediation works/activities.

All associated mechanical plant, equipment and the like used during remediation works/ activities shall use all practical and reasonable noise attenuating devices and measures to minimise noise being transmitted from the site.

7.9 Odour Control

Odour is to be controlled so that no odours are detected at any boundary of the site during remediation works. The following procedures may be employed to comply with this requirement such as:

- Use of appropriate covering techniques;
- Use of plastic sheeting to cover excavation faces or stockpiles;
- Use of fine mist sprays;
- Use of a mitigating agent on the impacted areas/materials; and
- Adequate maintenance of equipment and machinery to minimise exhaust emissions.

7.10 Emergency Response Plan

An Emergency Response Plan (ERP) must be prepared by the Contractor to manage and coordinate the responses emergency situations. The ERP must be prepared in accordance with all relevant work health and safety legislation. Type of emergency responses resulting from potential contamination impacts which could arise at the site include:

- Uncovering greater amounts of contamination (including asbestos) than previously estimated which has likely caused worker exposure;

The ERP should cater for all manner of construction or environmental emergency.

7.11 Management Schedules

A number of forms should be utilised during the remediation works. The Contractor may amend and update the forms during the project. The most up-to-date forms must be maintained with the EMP.

The forms should be appended to this EMP:

- Environmental site inspection checklists;
- Non-compliance corrective action; and
- Complaints register.

The following records are to be prepared by the Contractor:

- Waste Tracking Register; and
- Induction Record.

Refer to **Section 9.2** for other construction records and registers to be kept.

7.12 Heritage Control

The following protocols should be followed in the management of the heritage at the site:

- All works should be recorded in a Works Register to monitor the provide a record of change to the place over time;
- All management personnel should be educated about the heritage value of the place; and
- Access to the work site should be via existing pathways or already disturbed ground.

In the event of the discovery of unforeseen heritage material, the following protocols should be followed:

- Works in the area to stop immediately;
- Notify the Registered Aboriginal Party (RAP) for the place;
- Contact the ADES and RESOs immediately; and
- Depending on the nature of the find, law enforcement and archaeological professionals may need to be contacted.

7.13 Ecological Control

Ecological controls should include:

- Lodge appropriate s201 permits for the removal of native trees (if within protected community), if required;
- Minimisation of removal of native trees, with trees for removal to be clearly marked;
- Adoption of standard tree protection measures;
- Implementation of an ESC plan provided in **Section 13**;
- Inspection of vehicles for weeds and appropriate disposal; and
- Minimisation of noise and light impacts provided in **Section 12.5**.

7.14 Erosion and Sediment Control

Erosion and sediment controls should include:

- Scheduling/staging of work so that no more than 250 m² of soil will be exposed at any one time, for a maximum duration of two weeks.
- Undertaking works during periods of dry weather.
- Silt traps to be applied to site fencing at each work site area.
- Stockpiles to be contained within each fenced work site area.
- Site exit points must be appropriately managed to minimise the risk of sediment being tracked onto sealed public roadways.
- Stormwater runoff from access roads and stabilised entry/exit points must drain to an appropriate sediment control device.

7.15 Complaints Handling

All community complaints and queries are to be directed to and managed by CCBC.

CCBC should maintain a register of complaints, which should include a record of any action taken with respect to the complaints. Details of the complaint should be documented by CCBC.

The two critical aspects of complaint handling are:

- The specific grievance or problem must be resolved, if possible; and
- The data about the complaint must be recorded to provide feedback about CCBCs operations, systems and processes.

If a complaint is related to a non-conformance (e.g. provisions of the EMP are not met), a Non-Conformance and Corrective Action report should be initiated.

Records shall be kept of any environmental incidents, accidents, hazardous situations, unusual events and unsafe health exposures and the corrective action taken. A Canada Bay Council Safety and Environmental (HSE) representative shall investigate the cause of any emergency so that necessary changes in work practices can be made to prevent the incident from recurring.

8 UNEXPECTED FINDS PROTOCOL

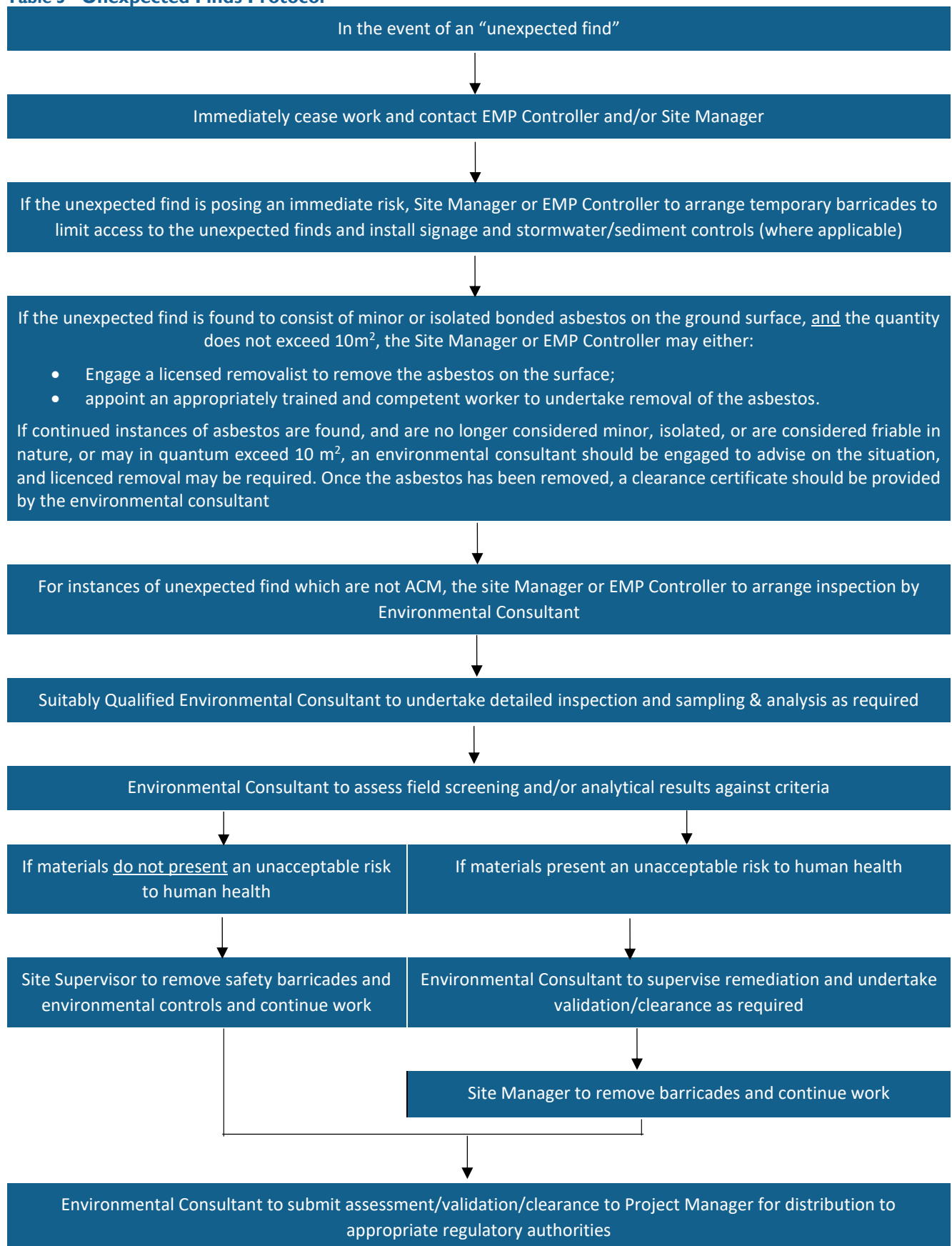
An unexpected finds protocol (UFP) has been developed as part of the EMP. These may include:

- Offensive odour;
- Discolouration or staining of soil or rock;
- Seepage of unusual liquids from soil or rock;
- Unusual odours or sheens on surface water and groundwater;
- Unusual metal objects;
- Presence of oil;
- Presence of waste or rubbish above or below ground;
- Asbestos-containing material;
- Unusual colour in soil and groundwater; and
- Aboriginal object or heritage artefacts.

If such contamination is discovered, the following procedure will be implemented):

1. Works will cease immediately, including in the vicinity of the find.
2. The employee or contractors' authorised person will be informed immediately of the event. This will be the EMP Controller (Council representative), and/or the Site Manager (Contractor) who is controlling the site.
3. Site Manager to construct temporary barricades including signage to limit access to unexpected finds area and install appropriate sediment controls measures around the area (where applicable).
4. If the find consists of minor quantities of bonded asbestos on the ground surface, and the quantity does not exceed 10m², the Site Manager or EMP Controller may directly engage a licensed removalist to remove the asbestos on the surface or appoint an appropriately trained and competent worker to undertake removal.
5. A suitably qualified environmental consultant shall undertake a visual assessment of any unexpected finds and determine any further actions required e.g. sampling and/or validation of material, potential for remediation and/or management.
6. A form recording the unexpected find/s shall be completed and the register updated and signed off as appropriate.
7. Report unexpected finds to appropriate authority as necessary (i.e. EPA).
8. The unexpected finds material shall be separated from other materials and stockpiled for assessment.
9. Sampling of the materials will be undertaken in accordance with the relevant guidelines or professional judgement where justification is applied.
10. Samples will be analysed for a range of analytes as required.
11. Laboratory results will be assessed to determine the appropriate waste classification of the material in accordance with the NSW EPA guidelines.
12. If materials present an unacceptable risk to human health, depending on the classification, material shall be removed and be transported to an appropriate waste facility that is licensed to accept waste of the relevant classification or beneficially reused if appropriate.
13. If materials do not present an unacceptable risk to human health, site supervisor shall remove safety barricades and environmental controls and resume work.
14. Depending on the classification, vehicles transporting the waste may need to be licensed in accordance with EPA requirements. Prior to works commencing appropriate instruction shall be obtained from the Contractor.
15. A waste tracking system recording the volume of material, waste classification status, removal documentation and truck and receiving landfill facility details must be recorded to ensure all waste is accounted for and disposed of appropriately (in accordance with EPA).
16. The procedures above are summarised in **Table 3**.
17. All unexpected finds shall be recorded in a register and updated following management with sign-off acquired by project supervisor.

Table 3 Unexpected Finds Protocol



9 SITE MONITORING AND EMP REVIEW

The EMP is to be a dynamic document that is revised where necessary to reflect any changes to the site that may result in a change to the contaminants exposure risk factors and associated contaminants controls. As soon as reasonably practicable, after such a change is identified, the EMP shall be revised by a suitably experienced and qualified Environmental Consultant as nominated by the PCBU of the site. Whenever the EMP is amended, all site personnel including contractors shall be inducted to the revisions of the EMP and any associated revisions relating to their responsibilities. The EMP shall be maintained by the PCBU of the site.

9.1 Site Inspections

In order to monitor the effectiveness of any existing controls protecting against potential disturbance of contaminated soils or asbestos, it is essential that regular inspections are conducted by a suitably trained person appointed by the PCBU. Visual inspections of the site shall be carried out to ensure that ground cover is maintained and no observable contaminated soils and/or asbestos materials are present. Examples of when routine inspections should be carried out include:

- Bi-annual intervals (e.g. a walkover of site to ensure that the applications of mulch and/or grass cover, etc. have been maintained with no visual evidence of asbestos exposed at surface);
- After a period of prolonged heavy rain (e.g. a walkover of site to ensure that the applications of mulch and/or grass cover, etc. have not been damaged or disturbed by heavy rain or surface asbestos has not become exposed);
- Whenever damage or disturbance has been reported; and
- Prior to and following any works that involves soil disturbance.

A site inspection checklist shall be completed by suitably trained person appointed by the PCBU during the site inspections and records kept within this EMP. Photographs from each inspection should be kept on record as part of the checklist. Detailed photos should be taken where issues are identified at the site, such as exposed asbestos or suspect PAH impacted material being uncovered across the exposed ground surface, shall be documented, and recorded to help establish whether further management measures are required.

If PAH or asbestos materials become exposed, or areas identified where ground cover appears to be damaged or are no longer effective, these areas should be reinstated as soon as practicable and reported to the EMP Controller. A site inspection checklist is included in **Appendix C** of this EMP. The inspection and EMP review summary is provided in **Table 4**.

9.2 Construction or Excavation Works

9.2.1 Environmental Site Inspection Checklist

During any planned construction or excavation works, environmental monitoring will be conducted to ensure compliance to legislation, as well as the objectives and targets stipulated in this EMP.

All regular environmental monitoring activities such as ongoing monitoring events, inspections and audits should be recorded on a daily basis. The frequency and specific monitoring criteria will be assessed periodically throughout the works to ensure that they are consistent with the current level of risk to the environment. An example monitoring and inspection form is provided in **Appendix C**.

9.2.2 Monitoring and Auditing

Daily and weekly inspections of environmental control measures in the EWHS or CEMP should be undertaken by the Contractor (principal contractor to be nominated by CCBC) and confirmed to adhere to the requirements of this EMP. Daily inspection should typically be undertaken at the beginning and end of the workday to ensure that systems and controls/measures are in place overnight.

Items to be inspected include but are not limited to:

- Site fencing (internal and boundary).

- Stockpiles.
- Open excavations.
- Noise/vibration controls.
- Waste management.
- Erosion and sediment controls.
- Dust suppression measures.

During completion of the works, where damage to or reduced capacity of, environmental control measures is observed or reported, they should be corrected as soon as is reasonably practicable.

An example environmental inspection checklist is provided in **Appendix C**.

9.2.3 Reporting/Records

Reports are to be prepared by the Project Manager for the works and appended to this EMP.

Table 4: Reporting Requirements

Report	Frequency
Daily inspection walkover registers	Daily (recorded as register)
Environmental site inspection checklist	Weekly (refer To Appendix C)
Review of identified corrective actions	Weekly (refer To Appendix C)
Complaints management	If required (refer To Appendix C)

Examples of reports/records (not exhaustive) which may be required during construction works include:

- Waste classification certificates prepared by environmental consultant in accordance with NSW Waste Classification Guidelines to facilitate its offsite disposal to an appropriately licensed NSW landfill facility.
- Beneficial reuse reports for water and soil materials, prepared by environmental consultant in accordance with NEPM 2013.
- Unexpected finds protocol.
- Validation reports.
- Inspection reports undertaken by suitably qualified personnel.
- Licenses, permits, consents or conditions of approval (as relevant).
- Training and induction records.
- Environmental audits.
- Environmental event/incident and investigation reports.
- MSDS and chemical register training and induction registers.
- Environmental monitoring data and reports.
- Environmental complaints records.

9.3 Non-conformance

In the event of non-conformance with the requirements of this EMP, investigation must be undertaken to determine the cause and nature of the non-conformance. The effectiveness of existing controls must be reviewed during this investigation to determine their suitability for the prevention of future non-conformances. If potential improvement is identified, modification to the existing controls must be undertaken to minimise the likelihood of future non-conformances. All non-conformances must be recorded, including the corrective actions undertaken appended to this EMP.

Non-conformances which arise as a result of a general site inspection as part of ongoing maintenance of the asset (non-intrusive work) can be managed under the general protocol provided in **Section 6.2**

Non-conformances which arise as a result of intrusive works must be managed in accordance with corrective actions outlined in the EHWS or CEMP prepared for a specific component of work. However the principles of management and rectification as outlined in Section 6.1 and 6.2 will apply.

9.4 EMP Revision

The effectiveness of this EMP will require review by responsible parties at the following intervals:

City of Canada Bay Council:

- Once yearly to ensure adequacy of general inspection frequencies, existing management measures and protocols; or
- Once upgrade/remediation works have been completed at the site.

Contractor engaged for planned works:

- Prior to the commencement of remediation works;
- During the course remediation works;
- Any changes of scope of work or significant site changes; and
- Following any incident or unexpected find throughout the remediation period.

In the event the review identifies amendments to the EMP are required (likely due to a change of scope of work, site condition or relevant legislation), the adopted control measures will be assessed and revised accordingly. Any necessary control measures will be implemented following agreement between the Contractor, CBCC and the EMP Controller. Any controls identified by a contractor during planned works should be incorporated into a EWHS plan – refer to **Section 7.1**.

This EMP is required to be reviewed following identification of any change in the understood nature of the project or any significant change in the scope of works. It is the responsibility of the EMP Controller to ensure the EMP supplied to any person is the current updated or amended version.

10 PROJECT LIMITATIONS

This EMP has been prepared by EDP solely for CCBC (the Client). This report may only be used and relied upon by the Client and must not be copied to, used by, or relied upon by any person other than the Client or altered, amended or abbreviated, issued in part or issued incomplete without the prior written consent of EDP. This report relates only to the site as defined in **Section 1.1** and as described in this report and must not be used in relation to any other sites.

This document has been prepared in response to specific instructions from the Client to whom the report has been addressed. The work has been undertaken with the usual care and thoroughness of the consulting profession. The work is based on generally accepted standards and practices of the time the work was undertaken. No other warranty, expressed or implied, is made as to the professional advice included in this report.

EDP, its employees, agents and contractors expressly disclaim responsibility to any person other than the Client arising from or in connection with the report. Other than as stated in this report, to the maximum extent permitted by law, all implied warranties and conditions in relation to the services provided by EDP and the report are excluded.

The services undertaken by EDP in connection with preparing the report were limited to those expressly detailed in **Section 5**. The opinions, conclusions and any recommendations in the report are based on the conditions encountered, inspection findings and reviewed information and documentation only.

Please note that subsequent to the date of this report, works or site conditions may have resulted in changes to the status of any identified materials. All changes should be documented and provided to EDP as a supplement to this report.

The data and advice provided herein relate only to the project and structures described in the report. EDP accepts no responsibility for any other use of the data or advice.

Where applicable, if a third party conducted survey work, reports (such as laboratory reports) or provided verbal information that has been relied upon by EDP the responsibility for the accuracy of such data remains with the original entity and not with EDP.

EDP expressly disclaims responsibility for any error in, or omission from, the report arising from or in connection with any of the assumptions above being incorrect.

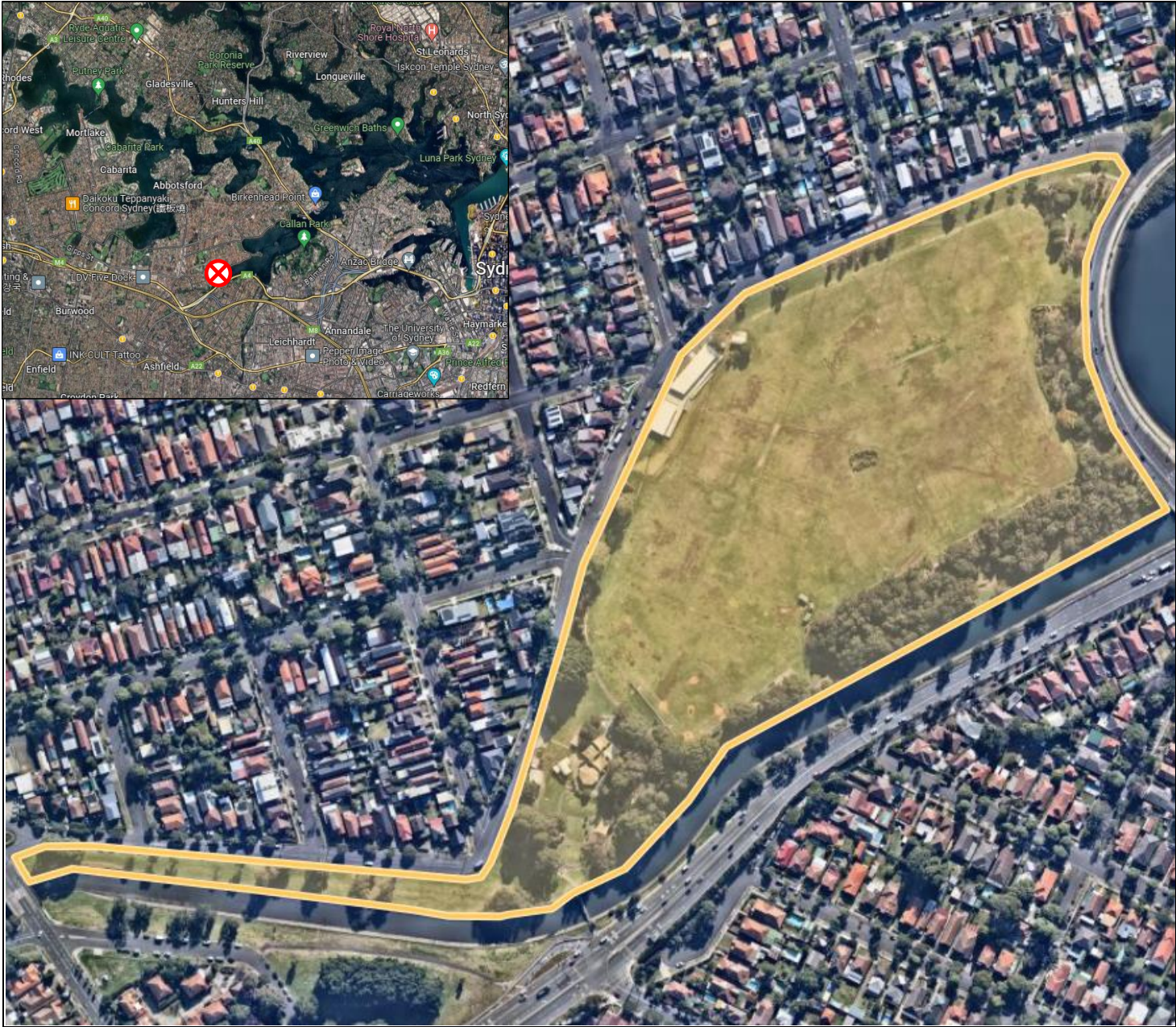
This report must be read in conjunction with all of the attached appendices and should be kept in its entirety without separation of individual pages or sections. EDP cannot be held responsible for interpretations or conclusions made by others unless they are supported by an expressed statement, interpretation, outcome or conclusion stated in this report.

EDP is not a professional quantity surveyor (QS) organisation. Any areas, volumes, tonnages or any other quantities noted in this report are estimates only. The services of a professional QS organisation should be engaged if quantities are to be relied upon.

Reliance on Information Provided by Others

EDP notes that where information has been provided by other parties in order for the works to be undertaken, EDP cannot guarantee the accuracy or completeness of this information. The Client waives any claim against the company and agrees to indemnify EDP for any loss, claim or liability arising from inaccuracies or omissions in information provided to EDP by third parties. No indications were found during our investigations that information contained in this report, as provided to EDP, is false.

Appendix A: Figures



Timbrell Park
Five Dock, NSW

Site Location



LEGEND:

	Approximate site area boundary
	Approximate site location

Image courtesy of <https://www.nearmap.com/au/>

DETAILS:

Figure Name:	Site Location
Client Name:	City of Canada Bay Council
EDP Reference:	S-05594.EMP.001_Timbrell Park
Date:	February 2024



Timbrell Park Five Dock, NSW

Areas of Benzo(a)Pyrene exceedances in the
the upper 0.1mbgl



LEGEND:

	Approximate site area boundary
	Benzo(a)pyrene hotspots exceeding human-health criteria
	Asbestos identified at depths greater than 0.1mbgl

Image courtesy of <https://www.nearmap.com/au/>

DETAILS:

Figure Name:	Areas of Contamination
Client Name:	City of Canada Bay Council
EDP Reference:	S-05594.EMP.001_Timbrell Park
Date:	February 2024

Appendix B: Asbestos Management Plan

I PROVISIONAL ASBESTOS MANAGEMENT PLAN

Due to potential asbestos contamination at the site, the following AMP has been developed for the works at the site and it should be read in conjunction with the EMP. The AMP can be implemented on the discovery of any asbestos contamination during works.

I.1 Objective

The objective of the AMP is to protect the environment from the potential impacts of ACM and PACM identified during the Works.

I.2 Scope

The scope of the AMP covers:

- Identification of the nature and extent of existing ACM and PACM at the site and potential impacts.
- Identify the mitigation measures to be implemented during the works.
- Define the monitoring requirements.

I.3 Nature and Extent of Existing Contaminated Land

PACM could be present at the site in unknown fill materials. Council is following the unexpected finds protocol detailed in **Section 8** of the EMP. If ACM is confirmed, the following AMP should be applied for the works.

I.4 Principles of Management

The ongoing effective management of ACM in the workplace can be achieved by ensuring they remain undisturbed and in good condition, to limit any potential risk of asbestos fibres becoming airborne.

I.5 Identification of PACM and ACM

During the works and particularly during excavations, the following methodology should be adopted to ensure correct identification of PACM and ACM.

- Regular visual inspections of excavations and excavated soils should be undertaken to identify PACM.
- If PACM is identified and the soil is suspected of containing asbestos, then the CC should assume ACM is present and **cease works** until the nature of the PACM is assessed for type and friability
- Any fragments of materials considered to be PACM should be segregated and tested and associated soils should be stockpiled and tested for asbestos in soil by an environmental consultant. Stockpiles should be managed so as to minimise the potential for PACM or ACM to be released.
- If ACM is confirmed, then the following should apply with immediate effect:
 - Establishment of air monitoring for the remaining intrusive earth works to assess potential background exposure and personal exposures.
 - Setting the boundaries of the contamination as determined by an independent licensed asbestos assessor or competent person.
 - Ensuring there is minimal disturbance of the contaminated soil until the asbestos management procedures have been implemented.
 - Isolating and securing the removal work site using signs and barriers.
 - Controlling dust with dust suppression techniques (such as water and wetting agents.)
 - Providing PPE based on the level of contamination and the control measures implemented.
 - Providing education and training for workers on hazards and safe work practices to minimise airborne dust exposure.

- Implementing decontamination procedures for the workers and the equipment.
- Updating the current asbestos register for the site.

1.6 Mitigation Methods

Asbestos remedial works are to be defined as physical removal of ACM from the site, as well as any encapsulation or maintenance works undertaken on an ACM. Details of these are provided in the following sections.

1.7 Asbestos Remedial Methods

Asbestos remedial works must be performed in accordance with all legislative requirements. The selection of appropriate remedial methods is based on the assessed risk for each ACM at a specific location. These methods include:

- Removal in accordance with safe work practices under controlled conditions.
- Encapsulation and isolation to prevent further disturbance, with a minimum of 0.5 m to 1 m of suitable material.

Statutory requirements for asbestos removal are prescribed in the NSW Work Health and Safety Regulation 2017. The Workplace Health and Safety NSW Code of Practice: How to Safely Remove Asbestos 2019 provides guidelines for the safe removal of friable and non-friable ACM.

An environmental consultant should be engaged to assess and define the nature and extent of remediation, which should be documented in a remediation specification or Remediation Action Plan (RAP), or similar. Depending on the nature of the remediation, it may be necessary to engage a licensed asbestos contractor.

1.8 Licenced Asbestos Removal Contractor

There are two types of licences: Class-A and Class-B. The type of licence required will depend on the type and quantity of asbestos or ACM that is being removed at the site as follows:

- Class-A Contractor: Can remove any amount of friable and non-friable ACM;
- Class-B Contractor: Can remove any amount of non-friable ACM (including asbestos containing dust associated with the removal of non-friable ACM); and
- Unlicensed Removal Work – Can remove up to 10 m² of non-friable ACM (including asbestos containing dust associated with the removal of non-friable ACM less than 10 m², or what is considered to be minor contamination).

Prior to commencement of asbestos removal works, the Class-A Contractor must ensure that:

- A detailed site-specific Asbestos Removal Control Plan (ARCP) in accordance with the requirement in the Code of Practice: How to Safely Remove Asbestos 2021 has been prepared and provided to the CC and environmental consultant for review.
- Safe Work NSW and ComCare notification of asbestos removal at least five days before the licences asbestos removal work commences.
- All workers have been inducted into the site.
- The appropriate licences and training/competencies of the workers undertaking the removal works are up to date.
- A SWMS for the removal work.

1.9 Safe Work Practices

If an ACM is unable to be removed, but likely to be impacted upon by the contractor, appropriate, then safe work practices must be utilised by the Class-A Contractor to limit the risk of potential exposure of asbestos fibres.

Techniques of limiting the generation of airborne asbestos fibres include:

- The wetting of asbestos using surfactants or wetting agents, such as detergent water.

- Performing the task in a controlled environment (for instance, a ventilated enclosure).

Specific examples of safe work practices are outlined in Section 7 of the Code of Practice: How to Manage and Control Asbestos in the Workplace 2019.

1.10 ARCP Induction

All personnel associated with the asbestos remedial works must report to the Council prior to commencing works. Council will provide a brief induction for the site and examine the works to be performed. The induction will include the following information:

- The work area/s that are known to contain ACM.
- This AMP must be made available on-site to all contractors for reference.
- This AMP provides direction on how to work safely with ACM and work on site is controlled by the work permit system.
- Any ACM abatement works must be approved by Council and conducted by an appropriately licensed contractor.
- During normal routine maintenance work, external contractors and other personnel must report any residual, deteriorating or damaged ACM to the AMPC as soon as possible so that the appropriate corrective action can be initiated.

Details of contractors or other personnel who have attended the induction are to be kept.

1.11 Personal Protective Equipment

All workers undertaking asbestos remedial work at the site shall be responsible for providing their workers with appropriate PPE to minimise risk of exposure to asbestos. The level of PPE required for asbestos related/asbestos work should be determined by a risk assessment. An outline of some of the types of PPE used as a minimum for asbestos related/asbestos work is outlined below.

1.11.1 Coveralls and Boot Covers

Disposable coveralls should be utilised to minimise the risk of asbestos fibres contaminating clothing or under garments during asbestos related/asbestos work. Coveralls rated Type 5 or Category 3 (EN ISO 13982-1) are of a suitable standard and should be fitted with elastic hoods, cuffs and anklets to reduce the risk of penetration of asbestos fibres.

If laced boots with eyelets are worn by workers, it is advisable that protective boot covers are worn in tandem with coveralls. Boot covers help ensure asbestos fibres do not contaminate footwear which cannot be easily decontaminated.

Coveralls and boot covers should be used for single use only. Once coveralls and boot covers have been used, they should be treated as asbestos contaminated waste.

1.11.2 Gloves

Disposable latex or nitrile gloves should be worn when handling asbestos or working around asbestos. Gloves should be single use only and disposed of as asbestos waste one used.

1.11.3 General Site PPE

Other site-specific PPE may be required. These are to be outlined within the ACRP induction undertaken prior to asbestos remedial works commencing.

1.12 Respiratory Protective Equipment (RPE)

The selection of suitable RPE depends on the nature of the asbestos work, the probable maximum concentrations of asbestos fibres encountered and any personal characteristics of the wearer that may affect the facial fit of the respirator (facial hair and glasses etc.).

The level of respiratory protection (or supplied air respirators) should be determined by a competent person and must meet the requirements of AS/NZS 1716:2012 *Respiratory Protective Devices* or its equivalent.

Fitted respirator masks should be decontaminated and stored in a suitable and clean location between each use.

1.13 Decontamination

Decontamination for the work area, workers, PPE and tools used in asbestos related/asbestos work is an important requirement in the process of minimising exposure to airborne asbestos fibres. Decontamination not only reduces the exposure risk to workers exiting an asbestos work area but also to persons outside the asbestos removal work area.

To determine the appropriate decontamination procedure, the risks of each individual asbestos removal job should be assessed. Either wet decontamination, dry decontamination methods (or a combination of both) should be utilised each time persons or equipment enter/exit an asbestos work area and at the completion of the asbestos work.

The selection of decontamination methods and procedures including how to set up an effective decontamination area/s is outlined in the Code of Practice: *How to Safely Remove Asbestos 2019*.

1.14 Asbestos Hygiene During Remedial Works

1.14.1 Asbestos Fibre Air Monitoring and Exposure Standard

Asbestos fibre air monitoring is conducted to measure potential asbestos contamination and exposure associated with asbestos remedial work or as a result of incidents at the site. Types of air monitoring associated with asbestos remedial work is outlined below:

For **friable** asbestos remedial work the following is required:

- Control air monitoring around the asbestos work area must be conducted during the friable asbestos remedial works to ensure control measures in place are adequate;
- Clearance air monitoring must be conducted within the asbestos work area at the completion of remedial work to determine if the work area is suitable for re-occupation; and
- Air monitoring must only be conducted by a Licenced Asbestos Assessor.

For non-friable asbestos remedial works it is recommended that the following air monitoring is conducted as a minimum:

- Control air monitoring around the asbestos work area during the asbestos remedial works.

Once air monitoring results are received by the licensed asbestos assessor (LAA) or Competent Person, the results will be communicated to Council and the Class-A Contractor undertaking the works.

In accordance with the Code of Practice: *How to Safely Remove Asbestos 2019*, the current detection limit and clearance standard for airborne fibres is <0.01 fibres/mL. If results are below the clearance standard, then the existing control measures are considered adequate.

1.14.2 Visual Clearance Inspections and Certificates

Where asbestos remedial work is being undertaken, an LAA or Competent Person (where applicable) should be engaged to undertake the following:

- Visual Clearance Inspection of the work area on completion of the remedial work to ensure that no ACM, ACD or debris is present;
- Undertake clearance asbestos fibre air monitoring for all friable asbestos remedial work (by a LAA only); and
- Provision of a Clearance Certificate of the work area.

1.15 Disposal of asbestos waste

Asbestos waste should be assessed and disposed of in accordance with the NSW Waste Classification Guidelines 2014.

Appendix C: Example Forms

[illegible]

FORM 2 – Record of Toolbox Talk (EXAMPLE)

RECORD OF TOOLBOX TALK

[illegible]

FORM 3 – Non-Conformance and Corrective Action (EXAMPLE)

Source:	Title: (Title of Procedure)	CAR NO.:
Internal Audit		
Legal Non-compliance		
Non-conforming Service		
Others:		
Requesting Department /Parties:	Reason for Issue No Reply Re-corrective Action	
Responsible Department:	Time Limit for Reply:	
Description of the Nonconformance:		
Request Date	Prepared by	Approved by
Investigate the cause of the Nonconformity:		
Correction / Immediate Action:		Completion Date
Corrective Action:		Completion Date
Responsible Division/Department	Signature	
Follow up result of the Correction and Corrective Action		
Note: Within 2 weeks from the date of issuance of the CAR		
Verified by:	Date of Verification:	Approved by:
Verification of Effectiveness of the action taken:		
Note: After 2 months of implementation		
Verified by:	Date of Verification:	Approved by:
Received by: (For Filing)	Date Received:	

FORM 4 – Environmental Inspection Checklist (EXAMPLE)

Environmental Protection Measure	Compliance?		Description of Action (If required)	Action Risk Rating ¹				Completion
	Yes	No		1	2	3	4	Signoff
General								
The site is generally in a tidy condition								
All materials and equipment are contained within the project boundary								
All works are undertaken within the project boundary								
Designated haulage routes and access points are being used								

¹ For Action Risk Rating scale, refer to end of this document.

Environmental Protection Measure	Compliance?		Description of Action (If required)	Action Risk Rating ¹				Completion
	Yes	No		1	2	3	4	Signoff
Soil and Water Management								
Sediment fence is installed correctly and there are no gaps								
Disturbed areas where no works are undertaken are properly covered or stabilised								
Areas of localised soil erosion have been identified and appropriate preventative measures implemented								
Stockpiles are sited in low-hazard areas clear of watercourses and flood prone lands								
Cut-off drains on the upslope side and sediment fencing on the downslope side are in place for all stockpile areas within the site								
Stockpiles are less than 2m in height								

Sediment control measures are constructed as close to the potential source of sediment as possible								
There is no mud on the roads outside of the project boundary								
Air Quality/Dust Management								
No visible dust leaving the Project boundary								
Dust suppression is being used to minimise dust emissions								
Heritage Management								
Exclusion fencing around heritage protected areas is intact								
Heritage protected areas are adequately signposted								
Waste Management and Storage of Hazardous Materials								
Wastes are segregated in designated containers								
Contaminated soil/asbestos storage areas are fenced off and signposted								

Concrete washouts are properly set-up and signposted								
Fuel/chemicals stored in bunded areas								
No oil leaks or spills visible on site								
Refuelling in designated areas								
Spill kits available in designated areas								

Action Risk Rating

Action Risk Rating	Risk Level	Priority*	Examples
1	Extreme	Immediately - must be closed out on the day of inspection	- Any actual or potential non-compliance with any EA conditions - Adverse weather conditions are predicted that may result in above if controls are not adequate
2	High	Within 24hrs	Critical controls are damaged and need to be reinstated before rain event
3	Medium	Within 3 Working Days	Stockpile removal required to allow access
4	Low	Within 5 Working Days	Stockpile removal required

[illegible]

FORM 6 – EMP Summary of Site precautions

Activity Frequency	Activity Impact	Activity	Additional Precautions
High (3-weekly)	Minor	Mowing	☐ Appropriate training to carry out the activity. ☐ City of Canada Bay Council Induction. ☐ Task-specific SWMS. ☐ Site walkover prior to starting to inspect for any visible hazards. If any are identified follow the UFP (see section 8). ☐ Review section 6.2 of the EMP.
		Brush cutting	
		Edging	
		Blowing	
Medium (Bi-annually)	Moderate	Aeration	☐ Appropriate training to carry out the activity. ☐ City of Canada Bay Council Induction. ☐ Task-specific SWMS. ☐ Site walkover prior to starting to inspect for any visible hazards. If any are identified follow the UFP (see section 8). ☐ Review section 6.2 and 6.3 of the EMP.
		Returfing	
		Top Dressing	
		Over sowing & Scarification	
		Goal post installation	
		Plant Installation (<200mm pot size)	
		Irrigation installation / repair	
Low (<Annual)	Major	Excavation for garden bed installation	☐ Appropriate training to carry out the activity. ☐ City of Canada Bay Council Induction. ☐ Task-specific SWMS. ☐ Site walkover prior to starting to inspect for any visible hazards. If any are identified follow the UFP (see section 8). ☐ Review section 6.3 of the EMP. ☐ Consider if engaging a licenced asbestos removalist is required to carry out the works if encountering asbestos is likely during excavation. ☐ Asbestos Awareness training.
		Plant installation (>200mm pot size)	
		Sinkhole repairs / maintenance	



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