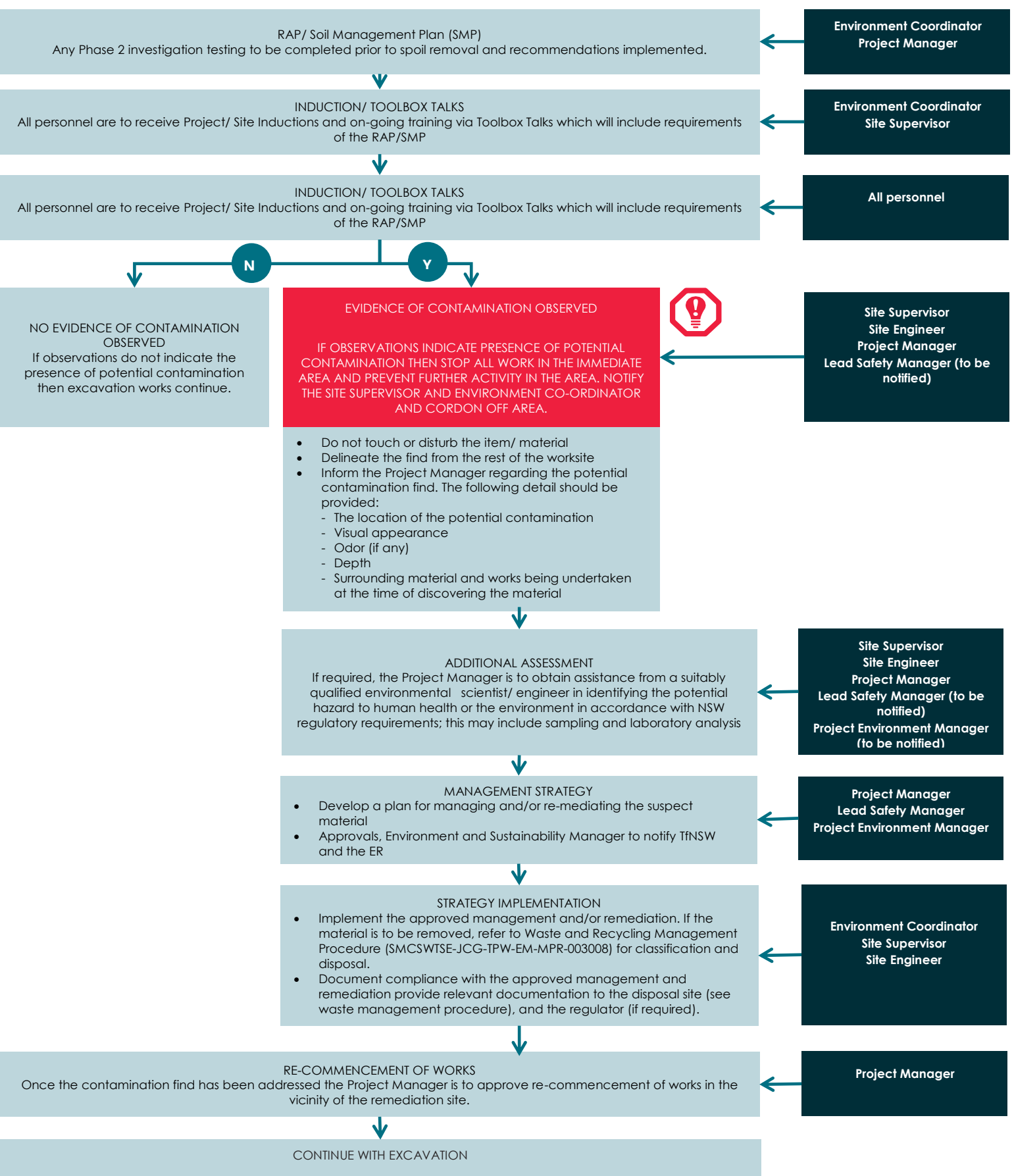


CONTAMINATION AND ACID SULPHATE SOILS MANAGEMENT PROCEDURE

MANAGEMENT AND RESPONSIBILITY



Key Contaminated Areas

CHATSWOOD

- Former commercial / industrial / warehouse / railway uses; previous buildings have been demolished.
- Former service station on site; seven underground storage tanks (UST) removed and site remediated. Asbestos impacted fill buried in two locations on site former service station site.
- Former Ausgrid depot on site; three UST have been removed and one decommissioned; associated pipelines may remain; one transformer oil UST remains.
- Potential issues include asbestos, metals, PAH, total petroleum hydrocarbons (TPH), polychlorinated biphenyls, creosotes and volatile organic compounds (VOC) in filling and / or groundwater. Potential vapour and impacted groundwater risks.
- Natural soils may not be VENM.

CROWS NEST

- Former commercial / industrial / timber yard / engineering uses; previous buildings have been demolished. Two former UST on site; associated pipelines may remain.
- Potential issues include impacts associated with UST, and asbestos and TPH in filling.

VICTORIA CROSS (north)

- Asbestos within filling at the site

BLUES POINT

- Former shipyard; previous buildings have been demolished.
- Potential issues include acid sulfate soils (ASS), asbestos and tributyltin in filling.

BARANGAROO

- Former AGL gas works to the south of the site [30-38 Hickson Road currently regulated under CLM / managed under EP&A Act
- Port services (Moores facility) [4 Towns Place currently regulated under POEO]
- Deep filling of variable nature potential issues include metals, asbestos and PAH in filling

WATERLOO

- Former commercial / industrial / warehouse / engineering uses; previous buildings have been demolished. Former dry cleaners.
- Potential issues include acid sulfate soils, and metals, TPH, PAH, asbestos and VOC in filling.
- On Botany Sands Aquifer.

MARRICKVILLE

- Former commercial / industrial / warehouse / engineering uses / railway uses; previous buildings have been demolished. Potential for UST to be present.
- Potential issues include ASS, impacts associated with UST, and PAH, TPH, asbestos and VOC in filling and landfill gas

General Indicators (not specific to any worksite)

Asbestos cement fragments or other potentially asbestos containing materials

- Odorous or stained soil
- Buried chemical drums or containers
- High proportion of waste materials or building debris
- Tarry or ashy material
- Brightly or unusually coloured material
- A yellow and/ or red mottling in the soil profile indicates

Asbestos

An unexpected find occurs when ACMs not identified in the Asbestos Register is found on site. In the event of an unexpected find the below steps are to be followed:

- The area is to be demarcated, works in the area to cease and workers warned
- Notify the Site Supervisor, The Site Supervisor will notify the Project Manager
- Control dust by with dust suppression
- Arrange for testing of the suspected ACM and monitoring of the area (if required)
- An asbestos removalist is to be engaged to provide recommendations to treat the area, as required
- The area is to be made safe

Asbestos finds are to be managed in accordance with the Project WHS Management Plan (SMCSWTSE-JCG-TPW-HS-PLN-002050)

Acid Sulfate Soils (ASS)

ASS are naturally occurring soils, sediments or organic substrates that are formed under waterlogged conditions in coastal areas. When exposed to air after being disturbed, soils containing iron sulfides produce sulfuric acid and often release toxic quantities of iron, aluminum and heavy metals.

- If ASS is encountered, possible management strategies include:
- Modifying the Project to avoid the area of ASS
 - Delineation and removal to a suitably licenced facility
 - Onsite treatment to neutralise the ASS, which could include the application of lime

NOTE:

These will be outlined in the Acid Sulfate Soil Management Plan (ASSMP) for sites with potential for ASS to be present. The management of any ASS needs to include appropriate erosion and sedimentation controls to minimise the potential for pollution to waters.

Management and Disposal of Contaminated Material

Management and disposal requirements will be set out in each of the RAPS/ Soil Management Plans

Mr Stuart Hodgson
Director
Program Sustainability Environment & Planning
Sydney Metro
Transport for NSW
PO Box K659
HAYMARKET NSW 1240

30 October 2017

Ref: Unexpected Cont. Finds

Dear Stuart

RE: Endorsement of Unexpected Contaminated Land and Asbestos Finds Procedure (Condition E69) TSE Packages - Sydney Metro City & Southwest

Thank you for providing the following document for Environmental Representative (ER) review and endorsement as required by the Condition of Approval E69 of the Sydney Metro City & Southwest project (SSI – 15_7400 January 9 2017).

- Contaminated and Acid Sulphate Soils Management Procedure - Sydney Metro City & Southwest (Document Number SMCSWTSE-JCG-TPW-EM-MPR-003004, Revision 4 dated 26 October 2017).

As an approved ER for the Sydney Metro City & Southwest project, I have reviewed and commented on a previous version of the Contaminated and Acid Sulphate Soils Management Procedure and consider the referenced version appropriate for implementation. The endorsement is subject to any comment Sydney Metro or DPE may have on the document as part of the approval of the various management plans required under the CEMP and Sub Plans for the TSE works.

Yours sincerely



Michael Woolley
Environmental Representative – Sydney Metro – City and South West