South Australia's Environment Protection Authority

South-eastern Edwardstown Community Working Group

Wednesday 16 March 2016

EPA South Australia

Welcome and introductions

Rachel Hudson

- Principal Adviser, Community Engagement

Agenda

Welcome and introductions

1. Terms of reference
2. Review of past meeting notes
3. Summary of environmental assessment results
4. Edwardstown ‘Hills’ environmental assessment
    - recent EPA correspondence to residents
    - invitation to Community Information Sessions
5. Next meeting: proposed 20 April 2016

Terms of reference

Confirmation and endorsement

- Purpose of the group
- Membership and privacy
- Meeting specifics
- Conflict resolution
- Communication protocols
- Media protocols
- Meeting notes and documents

3. Review of past meeting notes

- We have now sent out detailed responses to the questions raised at the last meeting.
- Do you have any further questions in relation to the answers provided?

4. Summary of assessment results

Danielle Torresan - Principal Adviser, Site Contamination

Monday 7 March 2016 – EPA received the 'Stage 2 Environmental Site Assessment Report', prepared by Fyfe Earth Partners

- includes the Vapour Intrusion Risk Assessment prepared by Dr Sim Ooi of Salcor

Friday 11 March 2016 – EPA received the Occupational Hygiene Review, prepared for the two commercial/industrial properties on Erudina and Arabrie Avenue

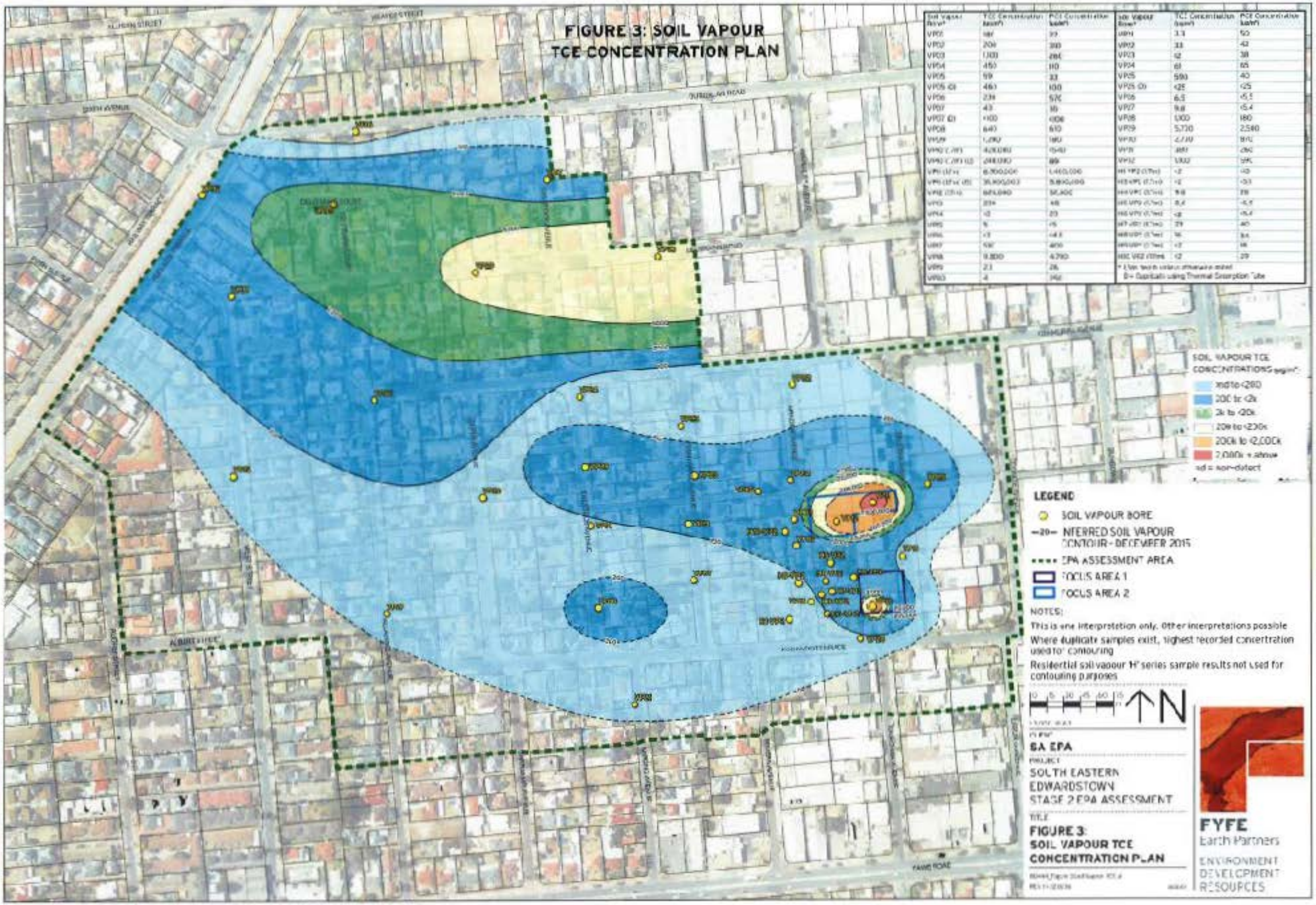
*CDs of the Fyfe Report available to take home

Purpose of the assessment work

- The purpose of the environmental assessment program was to understand if vapour intrusion was occurring at properties within the assessment area
- This was completed for both residential and commercial/industrial properties

Key findings of the Fyfe Report

- The full nature and extent of the soil vapour contamination is not delineated (unknown)
- The soil vapour contamination is likely to be coming from contaminated groundwater
- The soil vapour results have identified another potential source area – located to the north-east of the EPA assessment area – refer to Figure 3



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Computer modelling

- Predicted TCE indoor air levels have been calculated using the conservative computer modelling, undertaken by Dr Sim Ooi (specialise vapour intrusion risk assessor)
- The computer model used the vapour data collected from various depths i.e. 1m, 1.5m and 1.7m below ground level
- The computer model also combined a number of other factors including:
  - soil type and moisture,
  - depth to groundwater,
  - building construction type and
  - local geology

TCE indoor air level response range

Indoor Air Level: Nothing detected	**Indoor Air Level:** Above detection – less than 2 µg/m^3	**Indoor Air Level:** 2 - <20 µg/m^3	**Indoor Air Level:** 20 - <200 µg/m^3	**Indoor Air Level:** 200+ µg/m^3
				
Safe	**Safe**	**No immediate health concerns**	**There may be a health risk**	**There is a health risk**

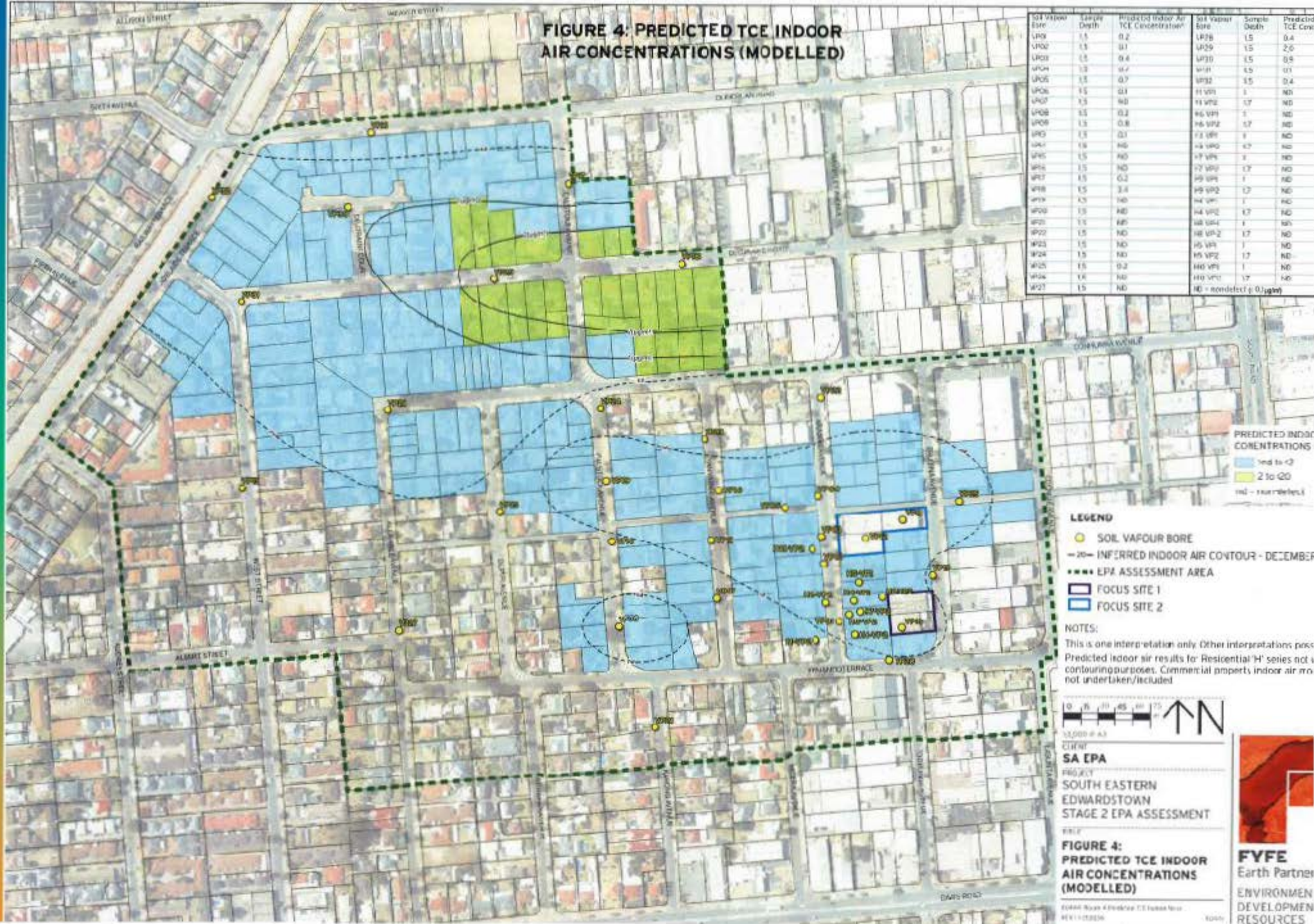
Predicted TCE indoor air levels

The results of the predicted TCE indoor air levels for the properties within the assessment area include:

- **25** properties fall within the **'Investigation'** response range (2 and 20 µg/m^3)
- **155** properties fall within the **'Validation'** response range (less than 2 µg/m^3)
- **280** properties fall within the **'No Action'** response range (nothing detected)

The highest predicted indoor air level was reported as **3.4 µg/m^3** (micrograms of TCE per cubic metre of indoor air). This falls at the lower end of the 'Investigation' response range.

FIGURE 4: PREDICTED TCE INDOOR AIR CONCENTRATIONS (MODELLED)



Advice on results

- The EPA has provided the results to SA Health for their information and to discuss the timing for further assessment work
- In addition, the EPA will be discussing the results for the two commercial/industrial properties (Erudina and Arabrie Avenues) with SafeWork SA

Next steps

- Next week, the EPA will commence developing a further stage of the environmental assessment program
- This is likely to include:
  - broadening the assessment area further west over the rail line (Railway Terrace)
  - further soil vapour assessment in the vicinity of properties within the ‘Investigation’ response range
  - soil vapour sampling event of all new and existing bores
  - further groundwater assessment – including installing new groundwater wells and sampling of all new and existing

The groundwater assessment work will also assist in defining a boundary for the Groundwater Prohibition Area

5. Hills audit report update

Andrew Pruszinski

- Manager, Site Contamination

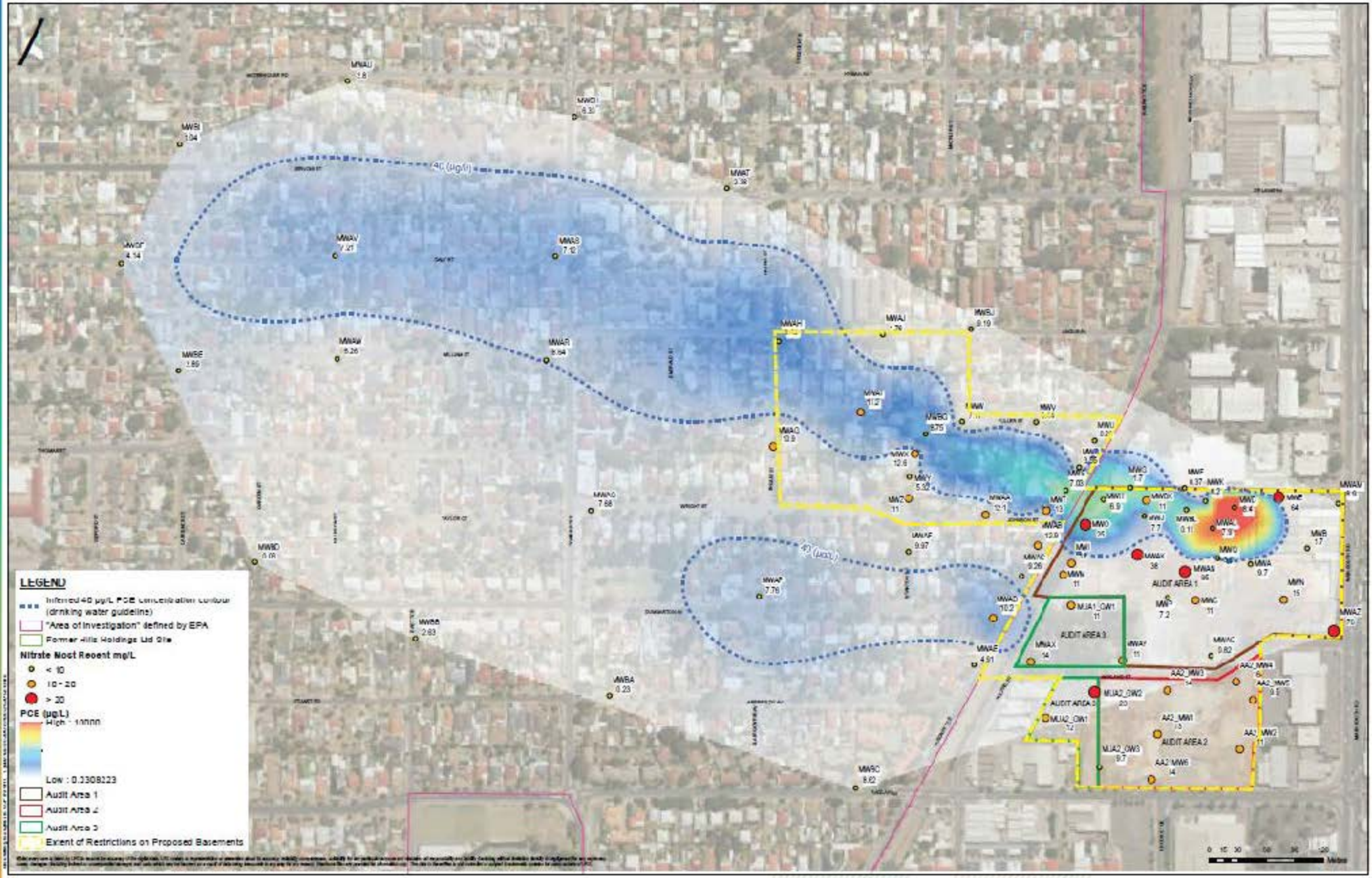

Former Hills Site
WHEATON STREET
MELVILLE STREET
ST LAWRENCE AVENUE
MAXWELL AVENUE
HYMAN AVENUE
DE LAINE AVENUE
ANGUS AVENUE
EMERALD STREET
WRIGHT STREET
JOHNSON STREET
DUMBARTON AVENUE
SCOTT AVENUE
SHELLEY AVENUE
SOUTH PLYMPTON
JERVOIS STREET
DALY STREET
WILLIAM STREET
THOMAS STREET
VINCENT STREET
SHAKESPEARE AVENUE
MARION ROAD
TOWERS TERRACE
STUART ROAD
RAGLAN AVENUE
BRAY STREET
NELSON STREET
OVAL AVENUE
FLINDERS STREET
NORMA AVENUE
LINDSAY AVENUE
FURNESS AVENUE
TARRANNA AVENUE
WOOD STREET
CLIFFORD STREET
WOLSELEY TERRACE
MILPENA AVENUE
BEACONSFIELD TERRACE
RAILWAY TERRACE
JOHN STREET
EAST TERRACE
JORDAN STREET
WILSON STREET
HARRIS STREET
MESSINES STREET

5. Former ‘Hills’ site update

- Since 2009, the EPA has been overseeing assessment and remediation works at the former Hills Limited (Hills) vacant industrial site.
- A site contamination audit, an independent review of this work, has now been carried out by a site contamination auditor.
- The EPA has now received the site contamination audit report and the auditor is satisfied with assessment and remediation completed for mixed uses at this site, subject to various conditions.

‘Hills’ audit recommendations

- The auditor recommends the EPA consider a prohibition zone on the taking of groundwater for any purpose.
- The EPA is now defining a boundary to establish a Groundwater Prohibition Area (GPA).
- Section 103S of the *Environment Protection Act 1993* allows the EPA to prohibit or restrict the taking and using of groundwater if it is contaminated.
- The auditor has also recommended some engineering controls be installed on basements in particular circumstances.
- URS (now AECOM), the environmental consultants engaged by Hills Limited, wrote to residents in the affected area in July last year.
- A full copy of the report, with further details and maps indicating the affected areas, will be available on our website soon.


40 (µg/l)
40 (µg/l)
LEGEND
Inferred 40 µg/L PCE Concentration Contour (drinking water guideline)
"Area of Investigation" defined by EPA
Former Hills Holdings Ltd Site
Nitrate Most Recent mg/L
< 10
10 - 20
> 20
PCE (µg/L)
High : 10000
Low : 0.3308223
Audit Area 1
Audit Area 2
Audit Area 3
Extent of Restrictions on Proposed Basements
AUDIT AREA 1
AUDIT AREA 2
AUDIT AREA 3
Metres

5. ‘Hills’ community engagement

Community Information Sessions:

Saturday 2 April 2016: 10:00am – 12:00pm

Forbes Primary School, 80 Thomas Street, South Plympton

Tuesday 5 April 2016: 7:00pm – 9:00pm

Active Elders Hall, 27a Charles Street, Ascot Park

Community engagement update

- EPA website use and update
- EPA Fact Sheet

5. Thank you and next meeting

Next meeting:

Wednesday 20 April 2016

6:45pm for 7:00pm start

Active Elders Hall

27a Charles Street

Ascot Park