

South Australia's Environment Protection Authority

# Beverley Community Working Group

**Maltese Centre, 6 Jeanes Street**

**Tuesday 28 March 2017**

**Site Contamination Branch**



# Overview



Update

Beverley 4A – broader assessment works

Beverley 4B – private property works

Beverley 4C – immediate private property works ‘Intervention’ category

Pilot mitigation trial

# Update



Public tender procurement complete:

- Kleinfelder will be undertaking 4A assessment works, in order to continue work on delineating plume and identifying source.
- JBS&G will be undertaking 4B assessment works at private properties.



# Beverley 4A

Objectives – source characterisation & plume delineation:

- works commenced March 21
- MIP rig methodology – rapid indication of volatile contamination



# Beverley 4A - objectives

Objectives – source characterisation and contaminated groundwater plume delineation.

- Drilling of new groundwater and soil vapour wells to commence after the rapid assessment works being undertaken using the MIP.
- Sampling expected to be undertaken in late April.
- Results expected to be submitted to EPA in June.
- Further delineation of the groundwater plume anticipated.
- Soil sampling and groundwater sampling adjacent to the former pughole on Alfred Avenue.



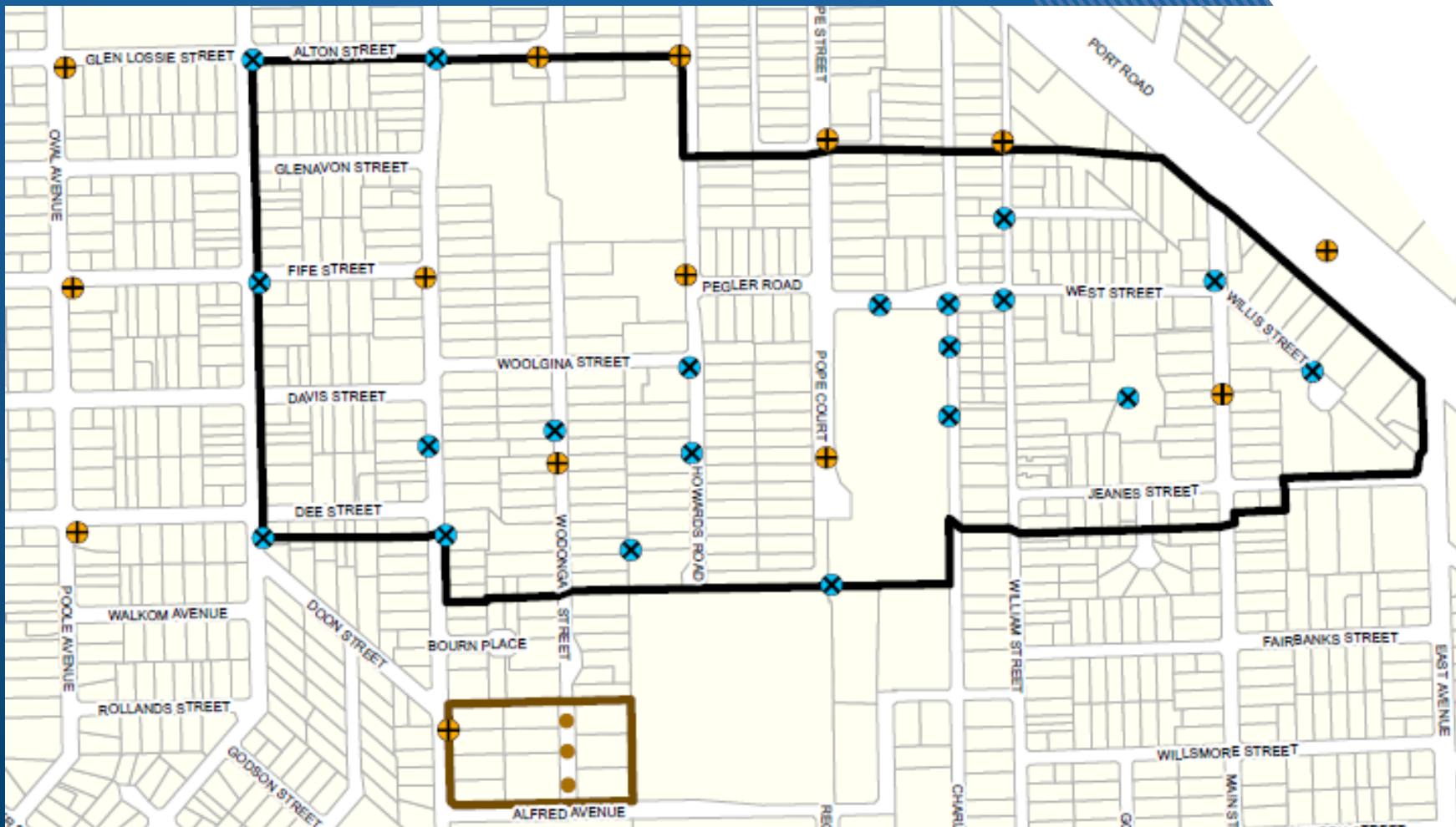
# Beverley 4A - MIP

## MIP locations – map

- MIP provides detailed information about site during drilling
- Excellent vertical profiling tool to assist in determining source locations/depths



# Beverley 4A - groundwater





# Beverley 4A - pughole



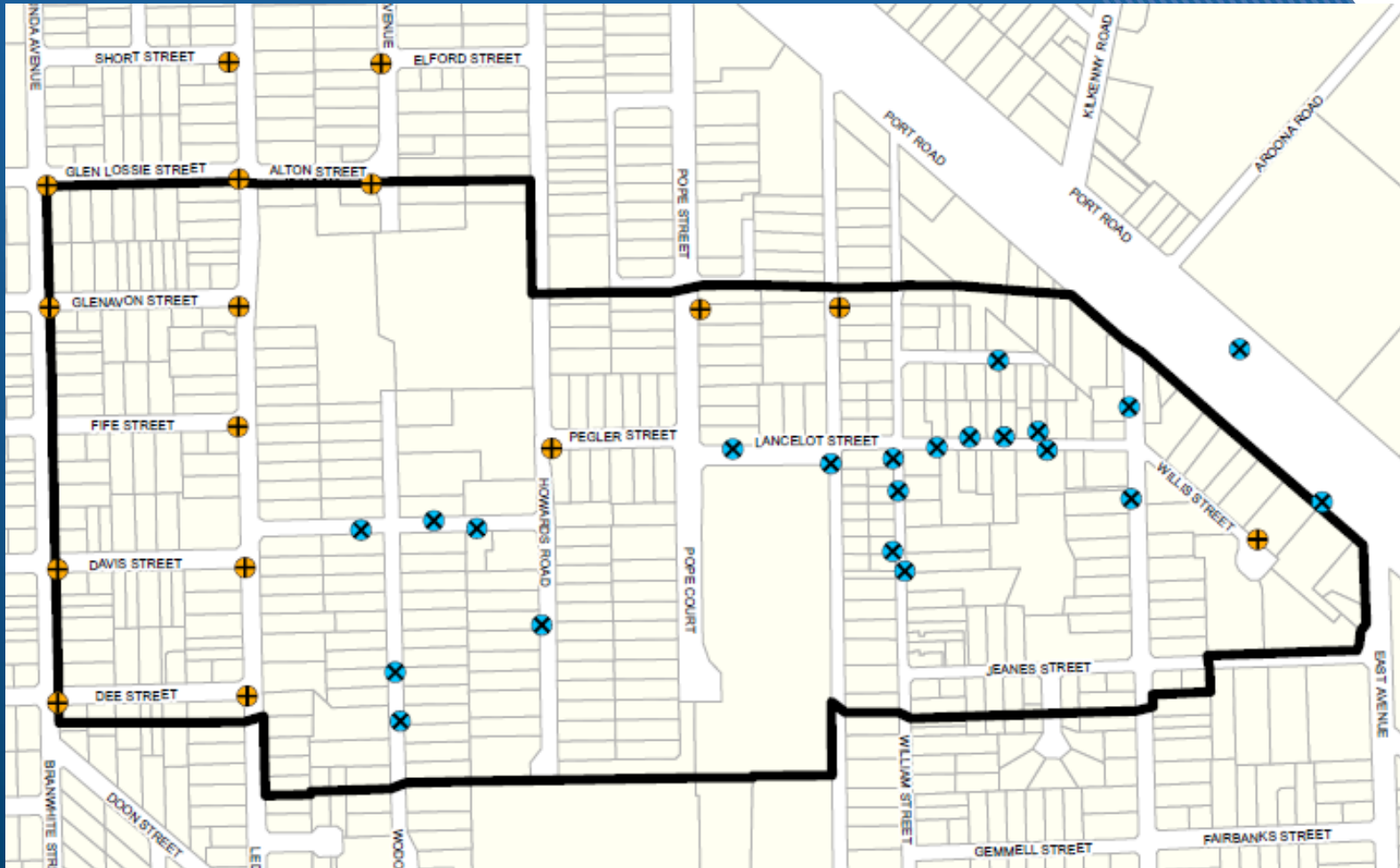


# Beverley 4A – soil vapour

Soil vapour sampling locations:

- Further delineation of the soil vapour plume in West
- Targeting shallow depths (1m)

# Beverley 4A – soil vapour



# Beverley 4B - properties

Objectives – seasonal variations in crawlspace, sub-slab and/or indoor air:

- Works commence next week.
- Sampling through Mar/Apr followed by sampling in Jul/Aug (to test seasonal variation).
- EPA has approached 46 property owners for a combination of soil vapour, crawlspace, sub-slab or indoor air testing.





# Beverley 4B - properties

- Results will be provided a couple of weeks after sampling, with final report to be prepared in early July from the first sampling event. The report for the second sampling event is expected by the end of the year.



# Beverley 4C

Objectives – validate modelling for 8 properties where indoor air predicted to be  $>20\mu\text{g}/\text{m}^3$  TCE:

- 3 out of 8 property owners gave permission to sample.
- Sampling was undertaken in September 2016.
- 3 new soil vapour bores installed adjacent to 3 of the properties where owners did not permit EPA to sample
- Results were provided to property owners approximately 2 weeks after testing.

# Beverley 4C

Soil Vapour Probe ID	Soil Vapour TCE Concentration at 1 mbgl ( $\mu\text{g}/\text{m}^3$ )	Predicted Indoor Air TCE Concentration ( $\mu\text{g}/\text{m}^3$ )
SV116-1m	74	0.23
SV117-1m	20	0.06
SV118-1m	350	1.09

Property ID	Golder 2016 Classification	Soil Vapour Data 1 mbgl	Crawlspace Data	Indoor Air Data
Hierarchical Data Priority		3	2	1
Property 12	Intervention <sup>1</sup>	Investigation <sup>2</sup>	Intervention	Investigation
Property 25	Intervention <sup>1</sup>	Investigation <sup>2</sup>	Intervention <sup>3</sup>	Investigation
Property 26	Intervention <sup>1</sup>	N/A <sup>4</sup>	N/A <sup>3</sup>	Investigation



# Beverley 4C

- No detections came back above  $20\mu\text{g}/\text{m}^3$ , three properties tested fell into the 'investigation range' of between  $2\mu\text{g}/\text{m}^3$  and  $20\mu\text{g}/\text{m}^3$  of TCE in their indoor air.
- Low concentrations were detected in three soil vapour bores, which enabled the EPA to ascertain that there is not expected to be a vapour risk in this area.

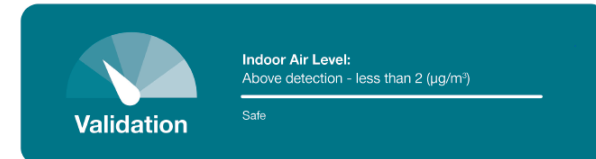
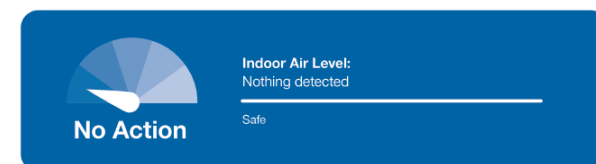
# Need for mitigation

SA Health advised that indoor air concentrations of TCE greater than  $20 \mu\text{g}/\text{m}^3$  ('Intervention') may require mitigation to reduce exposure.

Multiple rounds of testing had shown concentrations in excess of  $20 \mu\text{g}/\text{m}^3$  mitigation was deemed necessary.

Approval was granted to proceed with mitigation as part of a 'Pilot Trial' of mitigation technologies.

## Indoor air level response range (TCE)



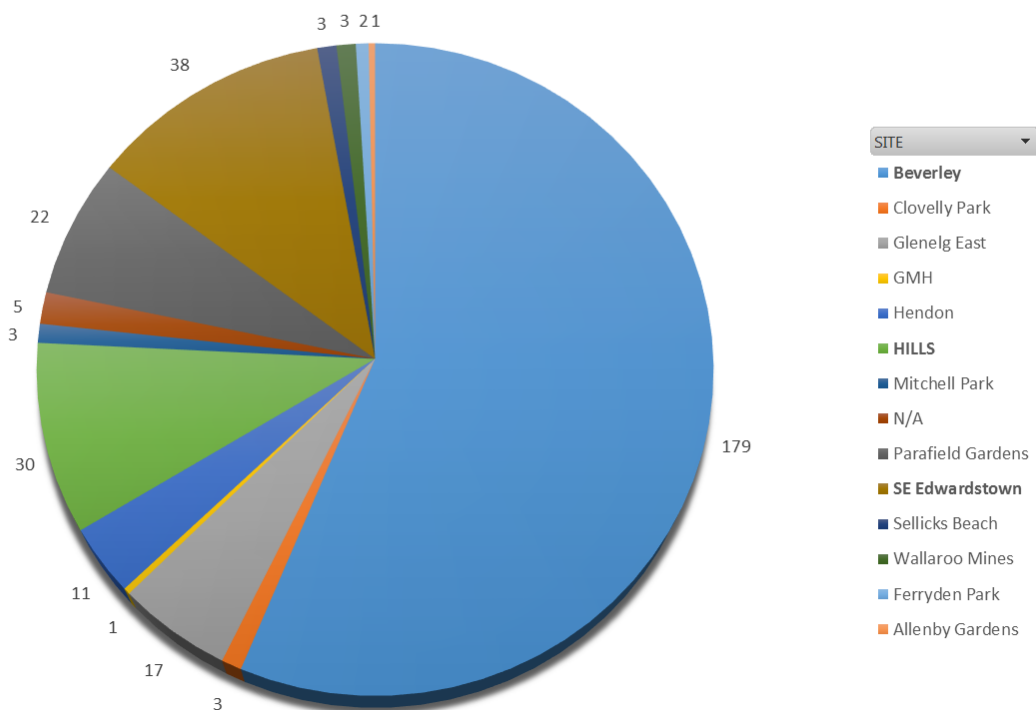
# Community Engagement

Count of SITE

## Principal Adviser Community Engagement

318 total interactions since 22/2/2016

(excluding 209 phone enquiries made through the EPA call centre)







# Thank you & questions

