

## Beverley and surrounding suburbs

### Community Working Group meeting notes

*Tuesday 7 July 2015, 6.30pm Maltese Cultural Centre 6 Jeanes Street, Beverley*

#### Attendees

Name	Representation	Name	Representation
Tim Saul	EPA	Diane	Resident
Laura Otrakdjian	EPA	Jayne Willcocks	Resident
Andrew Pruszinski	EPA	Mat Way	Resident
Mark Hassam	EPA	Tina Meakin	Resident
Mitchell Talbot	EPA (observer)	Julie O'Leary	Resident
Debra Harding	Charles Sturt Council	Susan Ovenden	Resident
John Moore	Resident	Tony Kyriacou	Flinders Park Residents Association
Cate Moore	Resident	Roy Erzinger	Resident
Doug Scotney	Resident		

#### Apologies

Name	Representation
Adam Filipi	Charles Sturt Council
Stephen Prisco	Resident

#### Discussion

- Tim Saul addressed the actions from the last meeting including:
  1. Comparison of the groundwater data from the 2008 assessment with current raw data
  2. Any available information regarding TCE exposure and health, recognising much of the information available is based on occupational exposures
  3. General mitigation measures and what may be relevant to Beverley.
- Tim Saul also provided an overview of the next stage of assessment works planned for the identified areas of interest, and the planned community engagement activities in the coming weeks.

- Andrew Pruzskinski provided a presentation on mitigation and remediation options.
- Please see the presentation for further information on each topic. A summary of the key questions and answers raised during the meeting are captured below.

## 1. Comparison of the groundwater data from the 2008 assessment with current raw data

### ▪ Why have the TCE levels in groundwater decreased between 2007 and 2015?

The two groundwater results represent samples from two points in time, which can vary depending on the season (including rainfall). More information will be required to understand how groundwater concentrations are changing and what this means.

### ▪ Could groundwater levels have decreased because the TCE is turning in to vapour?

Although TCE does vaporise, this would not be occurring at a significant enough rate to reduce the concentration of contamination in groundwater.

### ▪ Can you tell how far the groundwater has moved?

The current assessment program will provide more information about how the groundwater may have moved. We do know groundwater moves naturally towards the ocean in a north-westerly direction, at a slow rate.

### ▪ Why was soil vapour not tested in 2007?

This type of testing was not a common part of standard assessment programs when the first round of groundwater assessment was completed in 2007/8. Based on advances in the science of measuring soil vapour, and the EPA's experience with soil vapour at other sites, it is becoming a more common part of environmental assessments. The EPA measured soil vapour in this area for the first time in 2015.

### ▪ Do the indoor air samplers also test for breakdown products of TCE, such as vinyl chloride?

Yes, the breakdown products of TCE including vinyl chloride are tested for when using the radiello indoor air samplers. This information is considered when understanding the nature and extent of TCE contamination in an assessment area. All results are or will be reported in the consultant's report.

## 2. Any available information regarding TCE exposure and health, recognising much of the information available is based on occupational exposures

### ▪ Can exposure to vinyl chloride cause the same health effects as exposure to TCE?

It is important to note exposure itself does not necessary translate to a health impact for TCE or vinyl chloride. SA Health would need to provide advice on health related questions. Vinyl chloride typically degrades much faster than TCE, and in the case of Beverley vinyl chloride has not been observed in the area through testing to date.

### ▪ What are the health effects of short-term acute exposure to TCE?

There is limited information available regarding residential exposures to TCE, which occurs over a lifetime. Some potential health effects could include liver or kidney disease. Importantly, there are a number of factors (outlined in the presentation) which can influence whether or not exposure occurs, and exposure itself does not necessary translate to a health impact.

### ▪ It was noted that there are a number of further studies with information about TCE and health, including pregnancy. How does the EPA make sure this information is incorporated in to the health response?

The Indoor Air Levels Action Framework has been developed to provide a consistent response to predicted indoor air levels of TCE. The framework has been developed to take a conservative approach to ensure the appropriate response protects all members of the community including those most vulnerable. It also considers a lifetime of exposure, which is taken to be 70 years.

SA Health and the EPA prepared the framework which was peer reviewed by independent experts in the field of TCE and health. It has therefore been endorsed by SA Health and EPA as the best approach to managing the response to predicted indoor air levels and will inform the response for properties at Beverley.

*Mr Kyriacou highlighted that the Action Level Framework considers a 70 year lifetime of exposure and as such does not address short-term health risks such as foetal heart malformations and other non-cancer endpoints. Mr Kyriacou felt that the community has the right to be informed of this important distinction and that this needed to be highlighted in any communication with the community. Mr Kyriacou recommended that the community be advised of the fact that there are documented short-term risks associated with TCE exposure, so that residents can make informed decisions about their health and that of their un-born children.*

SA Health have published a [Trichloroethene \(TCE\) fact sheet](#) which provides specific information on the health risks of TCE exposure. It specifies that the “approach of using excess cancer risk to assess risk to the community from exposure to TCE is accepted as a safe and acceptable scientific method for both cancer and noncancer outcomes”.

If community members have any further questions about this specific issue they should contact SA Health on (08) 8226 7100 or at [public.health@health.sa.gov.au](mailto:public.health@health.sa.gov.au).

### **3. General remediation techniques and mitigation measures and what may be relevant to Beverley.**

#### **▪ What remediation can be done?**

There are a number of remediation techniques to be considered, although many of these options can be expensive and have limited success over large areas, particularly with TCE. Options which can be considered based on experience with other chemicals such as petrol include:

- Where a soil source location is identified and can be accessed, contaminated soil can be dug out and removed
- Contaminated groundwater can be pumped out, treated and reinjected in to the groundwater table
- Treatment walls can be constructed below ground that either use chemicals to break down the TCE or act as physical barriers to stop it moving
- Chemicals can be injected in to the groundwater to expedite the chemical breakdown

#### **▪ Are there opportunities to remediate the site?**

The remediation of TCE in groundwater has been shown to have limited success to date across the world, and can be prohibitively expensive. The EPA will work with the consultant once the Stage 2 report is received in August to understand what the next steps may be. Remediation options can be considered once the source or sources are understood. At this stage, the most viable options for Beverley (if required) are mitigation options which aim to prevent human exposure to TCE. The other risk is contaminated groundwater (borewater) consumption. This is managed by limiting access to groundwater, which is already advised by the EPA.

#### **Actions**

- Tim Saul to send a copy of the media release outlining the next round of drilling works to the CWG for information.
- Tim Saul to forward copies of formal Council briefings to the group as they are distributed.
- A copy of the presentation provided and draft meeting notes summarising key questions will be sent to CWG members. The final notes will be uploaded on to the website once agreed by the group.

**Next meeting**

- Tuesday 28 July 2015 was suggested as the next meeting date, to be confirmed.
- The key topic to be discussed will be the proposed mitigation strategy ahead of the availability of the human health risk assessment in late August 2015.

**More information**

Community Information line 1800 729 175

Email [EPASiteContam@epa.sa.gov.au](mailto:EPASiteContam@epa.sa.gov.au)

Website [www.epa.sa.gov.au](http://www.epa.sa.gov.au)