



Beverley and surrounding suburbs Proposed groundwater prohibition area

Issued 26 July 2022

Beverley, Woodville and Woodville South have been the site of significant commercial, industrial and manufacturing activities.

Historical chemical disposal and handling practices by these industries, that were considered appropriate at the time, are no longer acceptable. Chemicals that leaked or spilled, or were tipped out onto the ground, have since moved down through the soil and contaminated the groundwater.

The Environment Protection Authority (EPA) is undertaking consultation in relation to the proposal to establish a groundwater prohibition area, which prohibits the taking of groundwater (bore water) due to the contamination. For more information please visit: <https://engage.epa.sa.gov.au/Beverley-GPA>



Groundwater (bore water) is contaminated

Groundwater (bore water) is water that is accessed by a bore which is drilled through the soil into underground aquifers and pumped to the surface.

The groundwater in this area has been contaminated with historical use of chemicals including metals such as chromium, per- and poly-fluoroalkyl substances (PFAS) and cyanide. Widespread use of solvents as degreasers has also resulted in contamination of the groundwater with petroleum and chlorinated hydrocarbons such as trichloroethene (TCE), tetrachloroethene (PCE) and their degradation products.

In order to protect residents both now and into the future, the EPA is proposing to establish a groundwater prohibition area in portions of Beverley, Woodville, Woodville South, Woodville West, Woodville Park, West Croydon, Kilkeny, Findon and Seaton in the area shown in the map overleaf. The prohibition is proposed to be to a depth of 0–45 m below ground level, which is the known extent of the contamination. Deeper tertiary aquifers, such as those typically used by schools and ovals, are not affected.

What's the risk to residents?

In order for site contamination to become an issue, there needs to be a source (contaminated groundwater), a pathway (extracting that water from a bore) and a receptor (a person coming into contact with that water).

Using contaminated bore water for drinking, showering, washing, filling swimming pools, watering lawns or irrigating edible produce over a long period of time is considered a health risk in these areas.

Not all properties with bores are registered or known, but the proposed prohibition covers the entire area of known contamination and a buffer zone.

Prohibiting groundwater use blocks the exposure pathway and protects public health.

Some groundwater contamination may also pose other health risks through the inhalation of volatile chemicals. The EPA provides support and advice on how to manage vapour inhalation risks with owners and residents of properties potentially affected.

Please DO NOT use bore water

Groundwater (bore water) to a depth of 45 m below ground level in this area should not be used for any purpose.

Veggies are safe if watered with tap or rainwater

Rainwater and mains water (tap water) are not affected by the groundwater contamination.

Home-grown fruit and vegetables are safe to consume, provided you are not watering them with bore water from the Quaternary aquifers.

Groundwater prohibition in SA

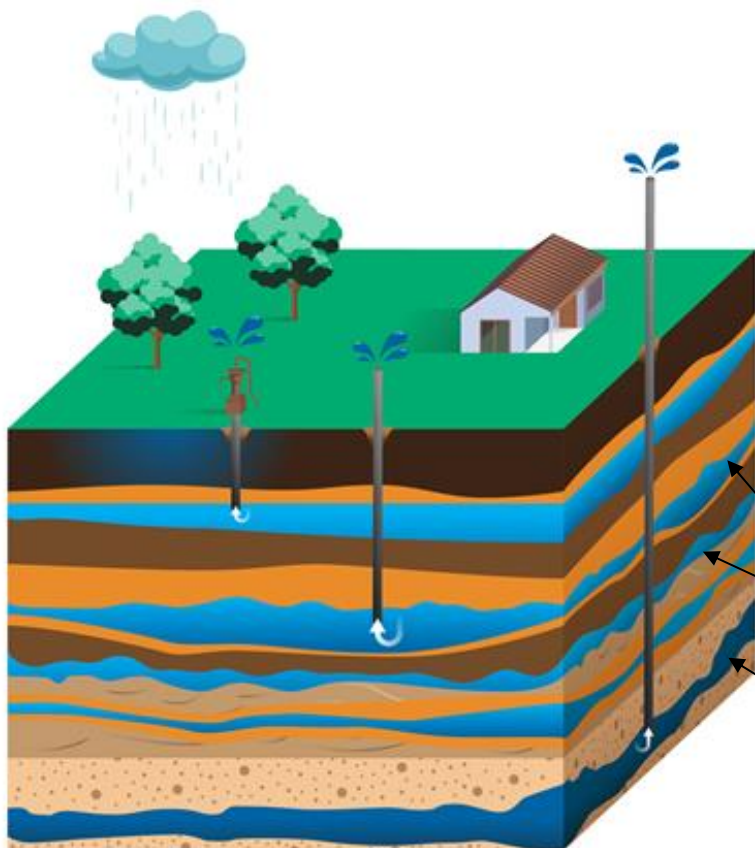
To date, eight [groundwater prohibition areas](#) have been established across metropolitan Adelaide. Please see the EPA website for further information.

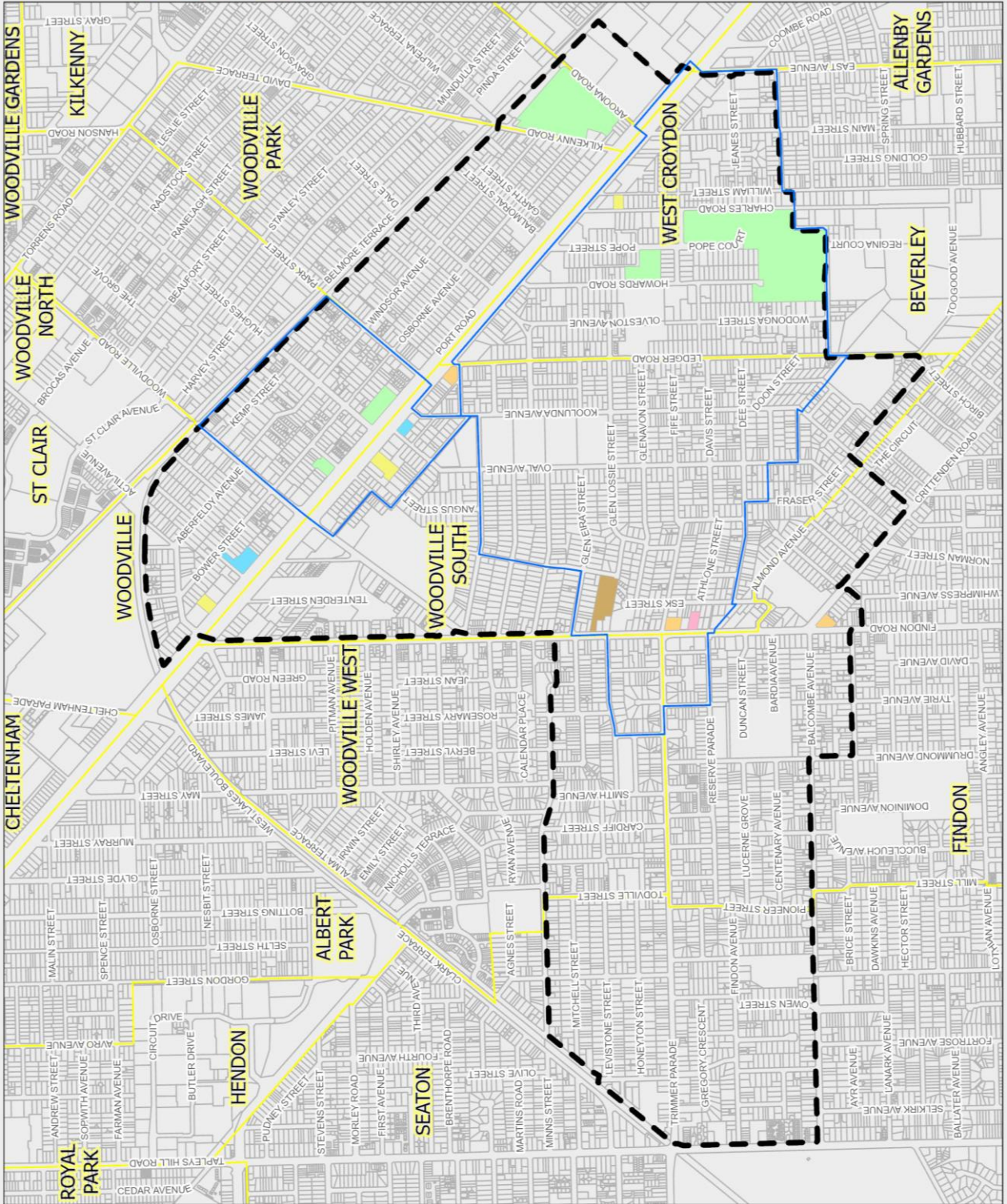
Aquifers included

Water table aquifer, otherwise referred to as the Pooraka Formation Quaternary (Q1) aquifer, 3.5–12 m below ground level.

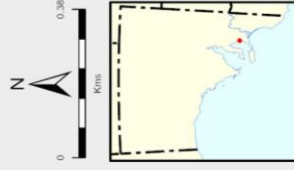
Deeper Hindmarsh Clay Quaternary aquifers including the (Q2) aquifer. 14–23 m below ground level and the (Q3) aquifer, 28–45 m below ground level.

Deeper Tertiary aquifers (not impacted by the proposed ban).





- EPA Assessment Areas
- EPA Groundwater Prohibition Area
- Former Agricultural activities
- Commercial site
- Fire Station
- Industrial activities site
- Manufacturing facility
- Service station



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Results from the latest stage of work in EPA assessment areas

Beverley–Woodville South EPA Assessment Area

Groundwater in the upper 3 aquifers within the Beverley–Woodville South EPA assessment area is contaminated with chlorinated hydrocarbons such as trichloroethene (TCE) above drinking water guidelines, which is moving slowly westwards. The buffer zone for the groundwater prohibition area takes this into consideration.

TCE is a volatile chemical that can migrate up through the soil and build up indoors. Where necessary the EPA has undertaken work on private properties to test indoor air for vapour contamination, and in some homes the EPA has installed mitigation systems to reduce this to very low, safe levels.

More groundwater and indoor air testing will occur in homes of residents who have already been contacted later this year and on road verges during 2023.

Woodville Port Road EPA Assessment Area

Groundwater within the upper 3 aquifers in the Woodville Port Road EPA assessment area is contaminated with chromium and PFAS above drinking water guidelines. PFAS and chromium are not volatile chemicals and do not present a vapour intrusion risk.

If your property is located outside these two EPA assessment areas, it has been included in a buffer area to account for the slow movement of groundwater over time.

Notification to future landowners – what happens when I sell my house?

Future purchasers of properties within this area will be made aware of the groundwater prohibition via the Form 1 statement provided to prospective buyers at the time of sale. This informs future purchasers that existing groundwater bores are no longer able to be used and no future bores can be installed at the property.

The Form 1 statement is required to be provided by a vendor (usually through the real estate agent or conveyancer) to a prospective buyer under Section 7 of the *Land and Business (Sale and Conveyancing) Act 1994*.

The report determining the need for this proposal means a YES response is generated for question 4(c) of the Particulars relating to environment protection in the *Land and Business (Sale and Conveyancing) Regulations 2010* which will inform future purchasers of the land that a copy of the GPA determination report is available to them from the EPA Public Register.

FURTHER INFO

For **further information** please contact:

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