

Broken Hill-Menindee Groundwater Bore Drilling Project

November 2014

What's happening and when?

The NSW Office of Water is undertaking a groundwater investigation in order to find water to secure emergency town water supply for Broken Hill's supply during times when there is insufficient surface water to meet that need.

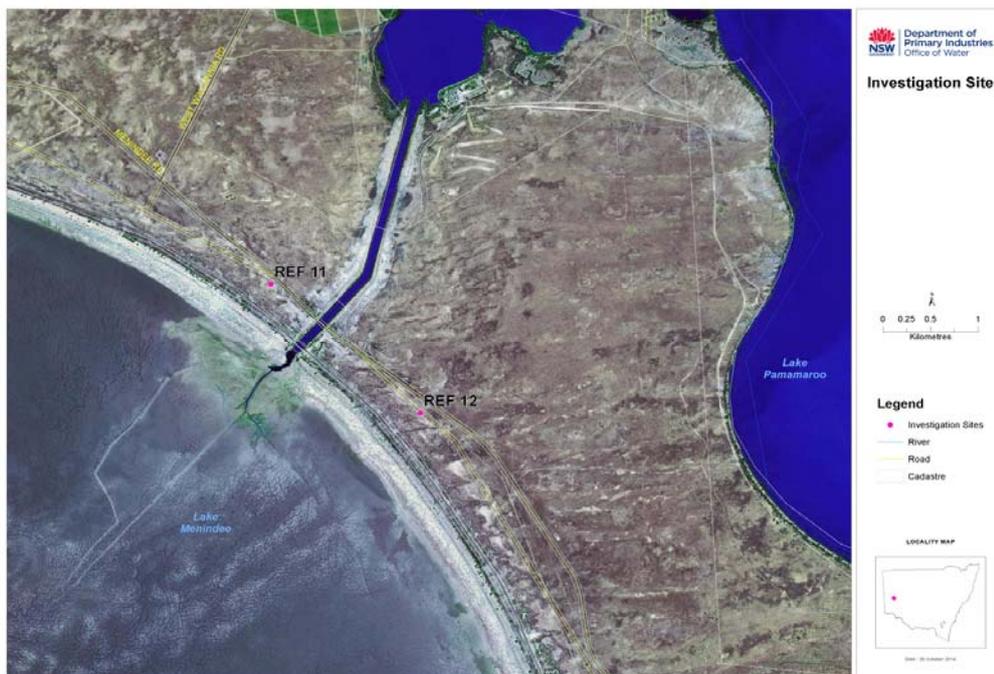
The investigation is being undertaken on the northern margin of Lake Menindee in the vicinity of the interconnecting channel between Lake Copi Hollow and Lake Menindee. This area has been selected due to its proximity to the Broken Hill pipeline, existing infrastructure, as well as the potential suitability of the groundwater aquifers to meet supply requirements.

The investigations are being undertaken with input of the Aboriginal community and are proposed to initially consist of some exploratory bores drilled to a depth of about 250m.

These bores will assess the geology, groundwater quality and available quantity. **If a suitable supply is sourced, production bores will then be constructed to meet Broken Hill's emergency water supply requirements.**

The initial investigation commenced in early November 2014 and will continue into 2015.

Figure 1: Location of investigation bores



The environmental and cultural assessment process

Before work can start, there needs to be an environmental impact assessment which is being undertaken by the Office of Water under the *State Environmental Planning Policy (Infrastructure)*.

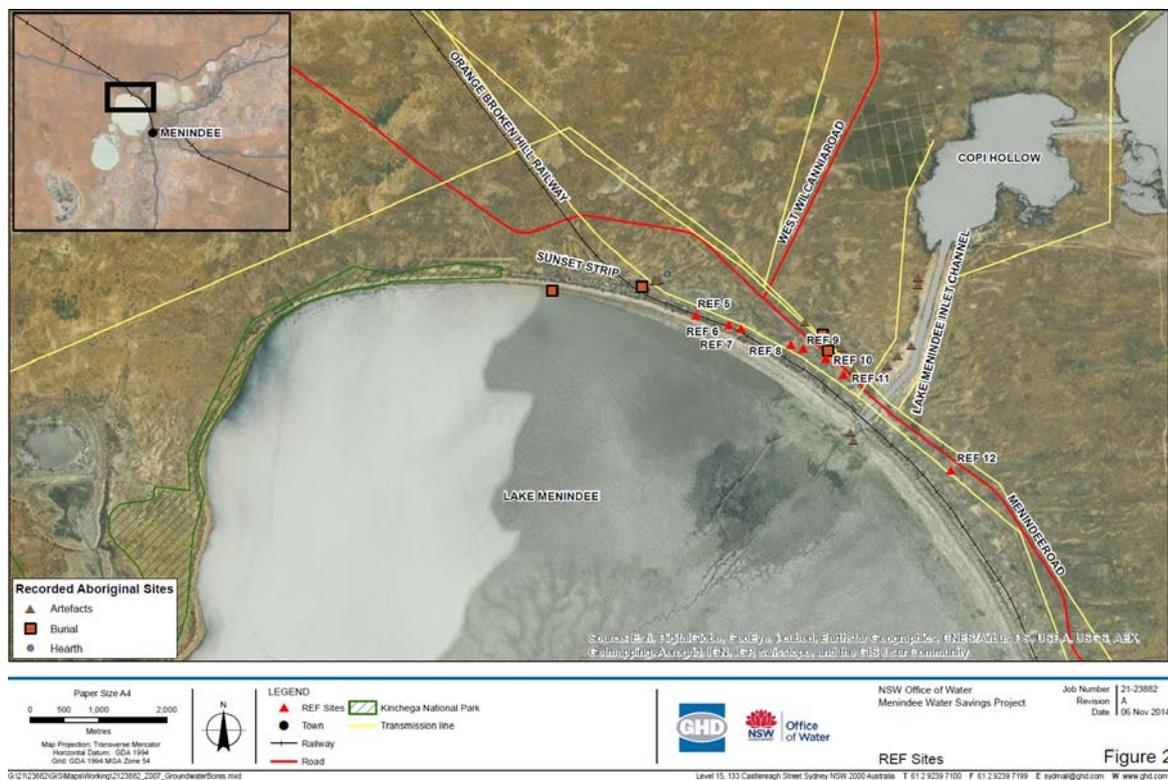
The Office of Water has been working closely with local Aboriginal stakeholders given the significance of the site to the community.

Initial inspections have found a number of artefacts on the proposed sites, and therefore, an Aboriginal Heritage Impact Permit (AHIP) will be developed.

Figure 2 shows the location of **potential drill sites** where a Review of Environmental Factors (REF) assessment has been undertaken. Final site selection will be based in part on the results of the REF process and the outcomes of the investigation bores.

The REF addresses matters for consideration listed under Clause 228 of the *NSW Environmental Planning and Assessment Regulation 2000* and provides an assessment of environmental impacts and suggested mitigation measures to minimise impacts during construction and operation of the bores. The REF is available on the Office of Water's website.

Figure 2: Location of potential drilling sites included in the REF



What will happen?

In the very short term the Office of Water will investigate suitable sites within the area of the REF that may not need an AHIP. These will be sites that are determined by a qualified archaeologist where there is little or no likelihood of cultural heritage disturbance.

Once an AHIP is granted by the Office of Environment and Heritage, the process of drilling each bore may take between three to six weeks, depending on the ground conditions encountered at each site. The work will be carried out each day of the week - Monday to Sunday - from 7am to 7pm and will be supervised by the Office of Water's Groundwater Drilling Unit and involving Aboriginal monitors as necessary.

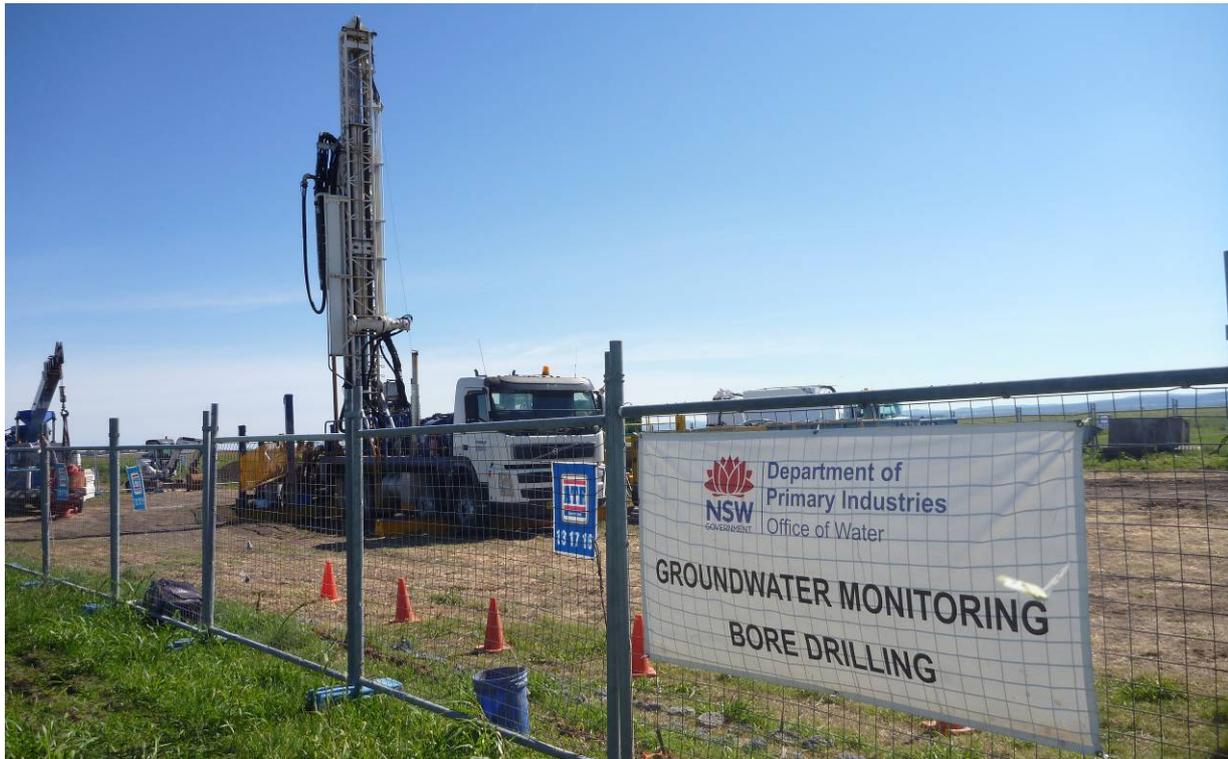
The installation of the groundwater bores may involve either of the following drilling processes known as 'rotary mud drilling' or 'cable tool drilling'. An illustration of a drilling site is shown in Figure 3. Access to each site will be restricted by fencing. The footprint of the site will be based on the local setting and likely

to be a fenced area of about 50m X 50m. All equipment will be located within the fenced area during bore installation. The drill site will include equipment such as:

- drilling rig
- portable site office
- portable toilet
- mud recycling system
- rubbish skip

The production bores will be tested for a period of up to seven days to assess the water quality and quantity. The Office of Water is presently assessing options for the managing the water that discharges from the bores.

Figure 3: A drill rig similar to this will be used to install the monitoring bores



What is expected to happen?

During the bore installation process, community members may see Office of Water staff at the sites and they may be using hand tools to commence work.

Drilling equipment, as well as vehicles entering and leaving the site, will also be visible. Mitigation measures to minimise noise are outlined in the 'Broken Hill emergency water supply groundwater investigation Review of Environmental Factors'. Residents may also see the drill rig and associated equipment at each site.

Drill support trucks, service vehicles and other smaller support vehicles can be expected in the area. Temporary signage will be erected to alert traffic that trucks are entering and crossing.

Who can I contact for more information?

information@water.nsw.gov.au

www.water.nsw.gov.au

© State of New South Wales through the Department of Trade and Investment, Regional Infrastructure and Services 2014. You may copy, distribute and otherwise freely deal with this publication for any purpose, provided that you attribute the NSW Department of Primary Industries as the owner.

Disclaimer: The information contained in this publication is based on knowledge and understanding at the time of writing (November 2014). However, because of advances in knowledge, users are reminded of the need to ensure that information upon which they rely is up to date and to check currency of the information with the appropriate officer of the Department of Primary Industries or the user's independent adviser.

Published by the Department of Primary Industries, a division of NSW Department of Trade and Investment, Regional Infrastructure and Services.