

Bore completion reports in NSW

Explanatory Notes for Form A

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Disclaimer: The information contained in this publication is based on knowledge and understanding at the time of writing (October 2017). However users are reminded of the need to ensure that the information upon which they rely on is up to date and to check currency with WaterNSW or with the user's independent adviser.

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Important user information

Use the Form A to record construction details about groundwater works, ready for entry to the Groundwater Data System.

WaterNSW has the responsibility for managing groundwater in New South Wales. To protect this resource, there are requirements on accessing and drilling for groundwater. For more details please visit the [WaterNSW website](#).

Driller's obligation to provide groundwater work information

Section 118A, Clause 4 of The Water Act 1996 states:

“A holder of a driller's license who acts as a driller on or in connection with the construction of a bore shall, upon demand being made by the Ministerial Corporation and within such time as the Ministerial Corporation may specify, furnish to the Ministerial Corporation or to such person as the Ministerial Corporation may direct and in such form as the Ministerial Corporation may require, such information relating to –

- (a) the nature and thickness of the various strata met with during the drilling performed by him in connection with the bore;
- (b) the location, quantities and quality of all supplies of water met with during such drilling;
- (c) the height each such supply of water stands relative to the natural surface of the ground at the site of the bore; and
- (d) the depth, diameter and other particulars of the bore and the casing inserted in the bore, as the Ministerial Corporation may require.”

Similar provisions are made in Section 400, Clauses (d) and (e) of the *Water Management Act 2000 No 92*.

It is imperative that the driller/contractor must sight a current and appropriate groundwater work approval and be aware of the conditions and restrictions of the licence PRIOR to commencement of any construction work. A work plan and contractual agreement, by both parties, PRIOR to commencement of construction work is highly recommended.

How to use Form A

Form A is the authorised means for drillers to provide the required information. The Groundwater Data System [GDS] is the authorised database for storing all groundwater information including the information provided by drillers via the **Form A**.

The **Form A** is included with the groundwater work approval. You can download extra copies from the DPI Water website.

Complete **Form A**, either by hand, or in Excel, to capture most of the information obtained during the construction of a groundwater work. The form allows accurate transfer of field information from the driller/contractor into the WaterNSW database.

Form A comprises a set of three pages plus a page of code tables. Complete the Form A, and make 2 copies. Distribute copies as follows:

- Send the original copy to WaterNSW PO Box 398, Parramatta 2124. Mark this copy “WATERNSW”. If you complete the form in Excel, also email a copy to water.gds@dpi.nsw.gov.au
- Provide the second copy to the licensee. Mark this copy “CLIENT”
- The driller **must keep** the third copy for their records.

If you make a mistake in completing any of the pages, start a new Form A.

Explanatory Notes for Completing Form A

Please make sure that the groundwater work licence number appears on every page in the space provided and on any attachment of additional information.

Always use **Metric units**, i.e.

metres (m);
millimetres (mm);
litres per second (L/s);
cubic metres (m³) etc.

Please make sure that you provide the information in the correct units as marked on the form. All depth measurements must be from **Ground Level**. All measurements below ground level must be a positive value. Any measurement above Ground level e.g. A.G.L. must be a **negative value**.

The following easy steps explain the filling of the form.

A valuable Tip: It becomes easier to fill this form if you have a sketch of the completed work in front of you.

Therefore, it is suggested that you complete **Box 15** first.

Box 1 – DRILLER INFORMATION

- All information regarding the driller must be completed.
- Please put a Tick in the appropriate work type box and enter the final depth.

Box 2 – GROUNDWATER WORK APPROVAL DETAILS

- Fill in the G.W. Approval number and the date of completion.

Box 3 – DRILLING DETAILS

- Please enter the drilled hole details. Select drilling method code number from the Codes Tables 3, and write the appropriate code.

Box 4 – WATER BEARING ZONES

- Enter water bearing zone (Aquifer) details and water salinity data—one row per zone.

- Two Salinity measures (Electrical Conductivity in $\mu\text{S}/\text{cm}$ and TDS in mg/L) are accepted. You must have a Salinity meter that reads either Conductivity or TDS or both. Enter the measured value in the appropriate column.
- Use appropriate Test codes from Codes Table 4. The TEST code would be a number and an alphabetical letter:
 - e.g. 5B = electric-submersible pump and yield measured by flow meter.

Box 5 – CASING / LINER DETAILS

- Enter casing details. Use appropriate codes from **Codes Table 5**.
- Also put a tick in the appropriate box for centralisers, sump, pressure cementing and casing protector details.

Box 6 – WATER ENTRY DESIGN

- Provide details of Water Entry design - ie: slots/screens.
- Select appropriate Opening type and Slot Alignment codes from **Codes Table 6**.
- Use **Codes Table 5** for Material type and Fixing method codes.

Box 7 – GRAVEL PACK

- Provide information about the gravel filter pack.
- Put a tick in the appropriate box for Type and Grade of the Gravel Pack.
- Enter the quantity of gravel used. Two measurement units (Litres and m^3) are accepted. Use the appropriate column for quantity.
- Select Method of placement of gravel pack from **Codes Table 7**.

Box 8 – BORE DEVELOPMENT

- Bore development is necessary to bring a bore to its maximum production capacity. Refer to 'Bore Development' section of "**Minimum Construction Requirements for Water Bores in Australia**".
- Provide information for bore development and of any chemical used.

Box 9 – DISINFECTION ON COMPLETION

- It is compulsory to disinfect bores constructed to supply water for potable use. Refer to 'Disinfecting Water Bores' section of "**Minimum Construction Requirements for Water Bores in Australia**".
- Provide information on the chemical used, quantity and method of application.

Box 10 – PUMPING TESTS ON COMPLETION

- Pumping tests are carried out to determine work capacity and to obtain aquifer parameters. Pumping test should be performed according to **AS 2368 – 1990 Test Pumping of Water Wells**. Refer to 'Bore Yield Testing' section of "**Minimum Construction Requirements for Water Bores in Australia**".
- Provide appropriate information in this box and attach copy of measurement record sheet/s and any analyses carried out. Make sure to write the Groundwater work Licence number on each of the attached sheets.
- All readings will be taken from the measuring point. Provide details of measuring point and the appropriate Test method Code from **Codes Table 4**.

Box 11 – WORK PARTLY BACKFILLED OR ABANDONED

- If the work has been partly backfilled or abandoned, then provide appropriate information in this box.
- Use appropriate Sealing/Fill Type Code from **Codes Table 11**.

Box 12 – SITE SELECTION

- Put a tick in the appropriate box for “site chosen by”. You might have to consult the Landholder.

Box 13 – WORK LOCATION COORDINATES

It is absolute essential that you provide all information required in this box.

- Before Drilling, you **MUST** sight the current Groundwater Work Approval and confirm the proposed drill site location as indicated on the accompanied map, together with any other provision/restrictions on the bore licence conditions
- Provide the Lot No: and DP No:.
- Provide the measured Location coordinates either in **Easting and Northings** OR **Latitude and Longitudes**. For this you need to have access to a Global Positioning System (GPS) instrument.
- For Easting and Northings you must provide the appropriate Zone number. Most GPS will automatically display the Zone.
- For Latitude and Longitudes, you must provide them in Degrees Minutes Seconds format.
- Based on your GPS instrument setting, put a tick in the box to indicate that you have used Geocentric Datum of Australia [GDA94] / Map Grid for Australia [MGA] system. (Do not use Australian Geodetic Datum [AGD66] or Australian Map Grid.)

Mark the groundwater work location with a “X” on the FORM A copy of the location map provided with the groundwater work licence/approval.

Also indicate the distance in metres from two (2) adjacent boundaries.

Box 14 – SIGNATURES

- The Driller AND the Licensee both must sign this document to authenticate the information provided.

Box 15 – DRILLER’S ROCK/STRATA DESCRIPTION

Recommended to be completed first.

- Enter Driller’s rock /strata description. If the space is not enough, then please attach a separate sheet. Describe the rock strata according to the guide given in **Codes Table 15**.
- If you already have a legible written Driller’s Log, then you do not have to rewrite in this space but attach a copy of the log together with the work construction sketch. However, you must indicate in box 15 that the information is provided in separate sheet. Attach the log and sketch at the back of Box 15. Make sure your write the Groundwater work Licence number on **every** sheet attached.

Box 16 – WORK NOT CONSTRUCTED BY DRILLING RIG

- Provide appropriate information for any other work that is not constructed by a drilling rig.

Box 17 – ADDITIONAL INFORMATION

- Put a tick in the appropriate box for additional information provided.

Final Check List

Check that:

- All 3 pages of the Form A have been completed.
- The groundwater work approval number is shown on every page including all attachments of additional information.
- Both the driller and the licensee have signed box 14.
- All 3 pages and attachments have been securely attached together.
- The original is submitted to the office which issued the groundwater work approval.
- The first set of copies is given to the landholder / client.

References

Standards Australia (1990). AS 2368 – 1990 Test Pumping of Water Wells. Australian Government, National Water Commission (2012). *Minimum Construction Requirements for Water Bores in Australia*, National Uniform Drillers Licensing Committee 2011, ISBN 987-0-646-56917-8

Forms

Form A - Particulars of completed work.