

Renewable Energy & Storage Program 2025 Geotechnical Investigations

What is happening?

Private sector developers are continuing their project development work as part of the Renewable Energy and Storage Program (RESP), with geotechnical investigations on some projects planned from late 2025.

Groundwater monitoring bores are also planned to measure and track the condition of groundwater and ensure the project's environmental and regulatory compliance.

Why are developers carrying out geotechnical investigations?

Geotechnical investigations study underground conditions, including soil, rock, and groundwater. They are conducted to inform critical engineering, design and construction decisions.

These initial investigations are essential to inform the development of the projects. The work is being undertaken on behalf of WaterNSW, however is fully funded by the private sector developers.

What will work include?

Before drilling starts, the relevant sites will be checked for important issues such as local plants and animals, cultural heritage, and existing services like pipes or cables.

After these checks, small boreholes about 10–15 cm wide will be drilled to different depths, depending on the ground conditions (generally between 30 and 450 metres). The work will involve machinery such as a drilling rig, excavator, hand tools, tracked vehicles and trucks.

Are geotechnical investigations permitted on WaterNSW land?

Yes, these initial investigations are essential to inform RESP project development and enable the developer to make critical engineering, design and construction decisions. The investigations are to be completed on behalf of WaterNSW in its capacity as a public authority and to progress the RESP Projects. WaterNSW will assess the potential environmental impacts of these initial geotechnical investigation activities. WaterNSW will assess and determine the activity against the requirements of section 5.1 of the *Environmental Planning and Assessment Act 1979* and in accordance with the factors required to be considered under section 171 of the *Environmental Planning and Assessment Regulation 2021*.

This determination (or approval) allows the RESP projects to move forward to the next phase of investigations, while making sure the environment remains protected. The determination only covers the geotechnical investigations for the initial design and feasibility aspect of the developments. Any future approvals for the construction and operation of the RESP projects will need further detailed investigations and assessments under the State Significant planning process.

Are there water quality issues with carrying out geotechnical investigations in a water catchment area?

As landowner and regulator, WaterNSW carefully considers requests to undertake geotechnical investigations on a case-by-case basis, considering their location within a water catchment area.

The geotechnical investigations will follow strict environmental standards and mitigation measures will be in place to prevent impacts like sedimentation, erosion, and contamination, as well as to protect heritage items and ensure the minimal level of impacts to biodiversity, and a range of safeguards and management measures have been developed to protect the environment.

WaterNSW routinely conducts similar investigations on its land and near dam assets, and will ensure the same strict standards applied to these investigations are also maintained during the initial geotechnical investigations for the RESP Projects.

What impacts might nearby residents experience?

People near the investigation sites may notice some noise, temporary increases in vehicle movements, minor ground disturbance, and restricted access to certain areas. The private sector developer will keep affected residents informed and work to minimise disruptions where possible.

What are the benefits of the RESP projects being developed?

RESP projects aim to reduce energy emissions, align with State and Federal Government priorities, grow and diversify regional economies, deliver jobs and training opportunities, to support New South Wales' transition to a clean, affordable and secure energy supply.

As a state-owned corporation, one of WaterNSW's objectives is to be a successful business and, to that end, to maximise the net worth of the State of New South Wales' investment in WaterNSW. Importantly, these RESP projects will provide critical support to the electricity grid by storing and supplying energy when intermittent generators, such as wind and solar, are unable to produce power.

Who do I contact if I have future concerns or questions about the work?

For any questions or queries relating to RESP, please contact 0427 403 620 or engagement@waternsw.com.au.