

Title	Location and extent of NZ's aquifers, 2015
Abstract	<p>A unit of rock or sediment is called an aquifer when it can yield a usable quantity of water.</p> <p>Aquifers may occur at different depths in the same location. The map shows the areas of New Zealand's land surface above one or more aquifers. The aquifer boundaries were described by White (2001), and some boundaries were updated by Moreau and Bekele (2015), using information provided by regional councils and from Lovett and Cameron (2015). The map has 153 polygons (aquifer outlines), some of which have more than one aquifer.</p> <p>Methods for defining aquifer boundaries generally rely on knowing the locations and characteristics of productive wells, and using geological maps to identify water-bearing materials. In many cases, these boundaries are also influenced by management attributes such as regional or property boundaries, and surface water catchments (Lovett & Cameron, 2015).</p> <p>This dataset relates to the "Location and area of New Zealand's aquifers" measure on the Environmental Indicators, Te taiao Aotearoa website.</p>
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<p>Methodology (collection & analyses)</p>	<p>The map shows a two dimensional projection of New Zealand’s aquifers. Locations on the land surface within a polygon are above an identified aquifer. In reality, aquifers are three dimensional and separate aquifers may occur in the same location but be at different depths.</p> <p>The aquifer extents were described by White (2001), and some boundaries were updated by Moreau and Bekele (2015) using information provided by regional councils and with information from Lovett and Cameron (2015). The resulting map consists of 153 polygons (outlines), although some polygons include more the one aquifer.</p> <p>Methods for development of aquifer boundaries generally rely on knowledge of productive well locations, associated hydraulic characteristics, and use of geological maps to identify water bearing materials. In many cases these boundaries have also been influenced by management attributes (e.g. regional boundaries, property boundaries and surface water catchments (Lovett and Cameron, 2015)).</p> <p>Accuracy is limited by the scale at which the mapping was undertaken, inconsistent approaches to delineating aquifer boundaries between regions and limited knowledge in some areas.</p> <p>The accuracy of the data source is of medium quality.</p> <p>References:</p> <p>Lovett, AP & Cameron, SG (2015). Development of a national groundwater atlas for New Zealand. Unpublished document. GNS Science Report 2014/30.</p> <p>Moreau, M & Bekele, M (2015). Groundwater component of the Water Physical Stock Account. GNS Science Consultancy Report 2014/290.</p> <p>White, PA (2001). Groundwater resources in New Zealand. In Rosen, MR & White, PA (Eds), Groundwaters of New Zealand (pp45–75). Wellington: New Zealand Hydrological Society.</p>
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