# It's All About the Data – a 21st Century Value Proposition

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## eResearch

A key building block of Australia's National eResearch priorities is the transformation of institutional research data

**FROM being unstructured collections:** 



\* Invisible

\* Single-use

**TO being structured collections:** 

- \* Managed
- \* Connected
- Findable
- \* **Reusable**

(Australian National Data Service)

## **VVG - Visualising Victoria's Groundwater**

VVG provides access to research significant data held outside research institutions

by developing tools for data linking, analysis and visualisation.

It draws together a unique collaboration of regional, state, national and international organisations which share

the aim of building tools for researchers to access the most current environmental datasets

applicable to integrated catchment management and modelling.

### **Existing Fragmented Data Sets**

For over 130 years, groundwater data has been collected in Victoria.

### BUT

it has been gathered by a range of agencies, captured in various ways and held in separate formats.

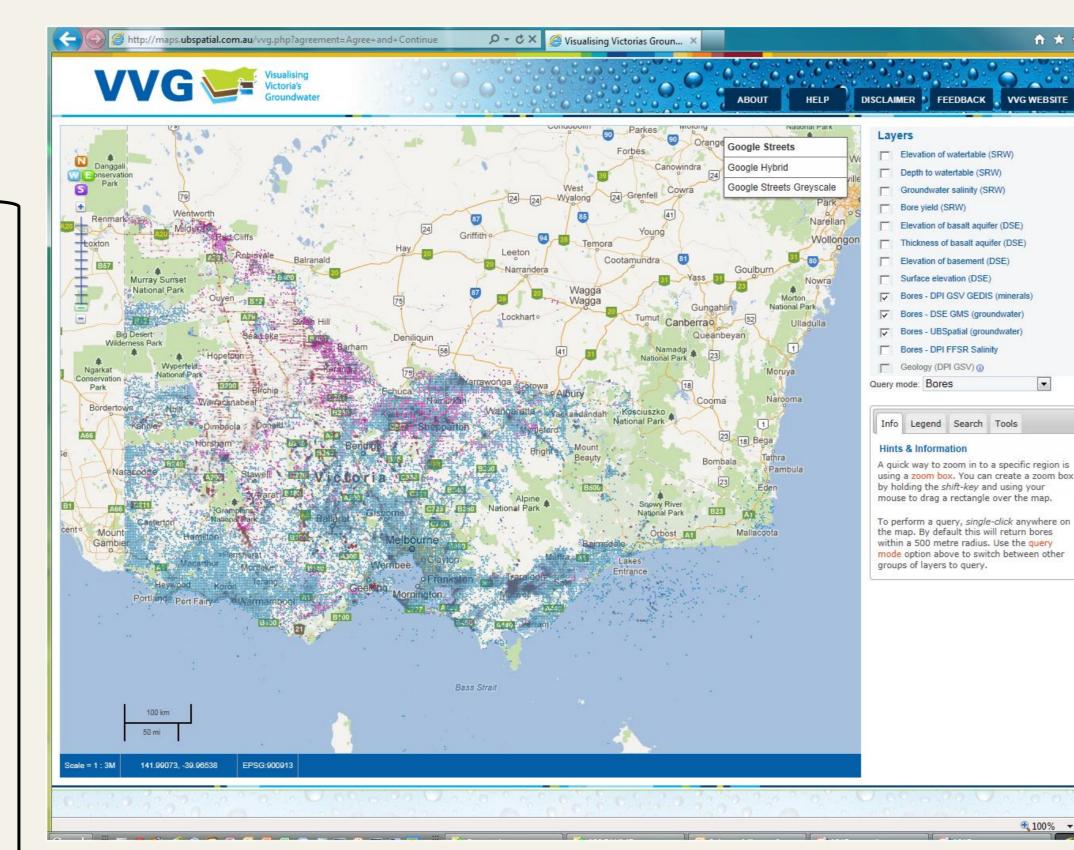
#### For example

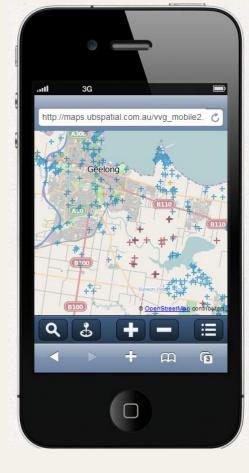
#### **Department of Environment and Primary Industries**

- ✓ Groundwater Management System
- ✓ Victorian Aquifer Framework
- ✓ Salinity observation bores
- ✓ Groundwater dependent ecosystems
- ✓ Depth to watertable
- ✓ Groundwater salinity

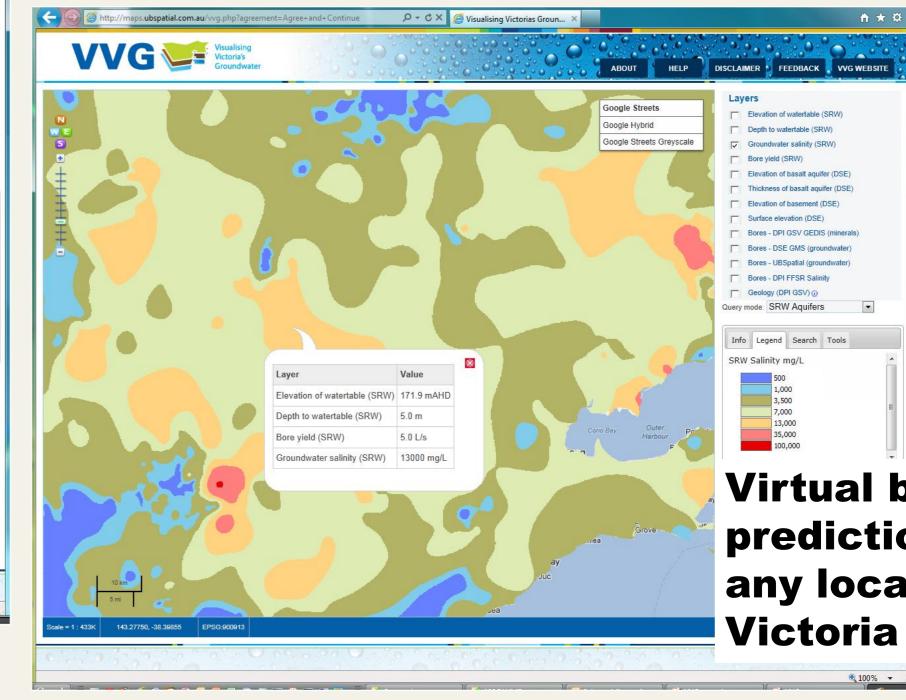
# **VVG Interoperability** www.vvg.org.au

- Maps dynamically generated from many separate data sources
- Map data is consumed via OGC web service





#### **Mobile interface with** tailored functionality



#### **University of Ballarat**

- ✓ Groundwater research data
- ✓ Orphaned bores
- ✓ Historic groundwater maps

#### **Department of State Development, Business and Innovation**

- Geological Exploration and Development Information System
- ✓ Seamless Geology Map
- $\checkmark$  3D models of basins

#### **State Library of Victoria**

- ✓ Historic boring records
- ✓ Historic maps

#### **Environment Protection Authority**

✓ Audit data for rehabilitated sites

#### **Community data (Citizen Science)**

- ✓ Mineral springs data
- Groundwater discharge observations
- ✓ Watertable monitoring (Landcare)
- ✓ Unpublished reports and theses

#### **Catchment Management Authorities** ✓ Groundwater monitoring data

The VVG portal provides access to groundwater data from across Victoria.

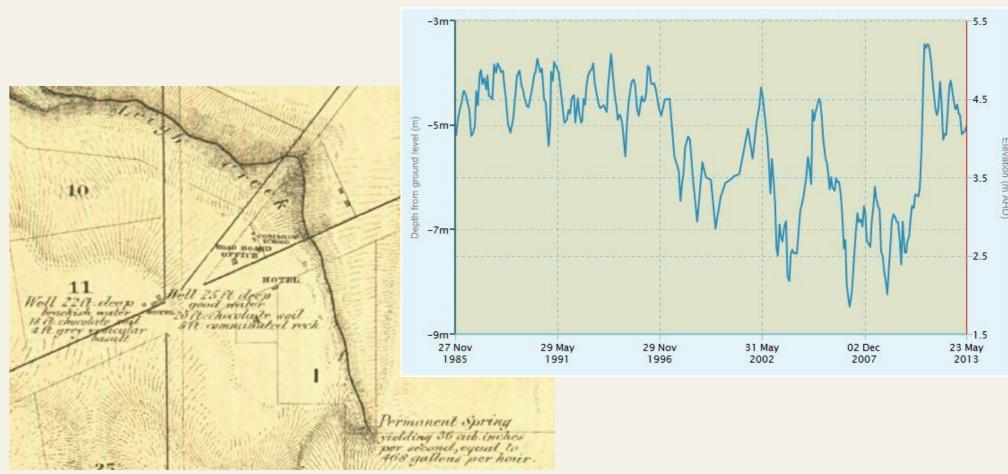
It features a unique state-wide map of over 300,000 bores, as well as mapped and modeled surfaces, providing access to a user-friendly database offering the most comprehensive view of groundwater data in Victoria.

#### VVG Cross Section Tools Bore Group JSON Bores U Toggle slice mode on/off Cut slice Surface C Reset Slice DEN Visual Preference Lower Tertiary Aquife Perspective Orthographic **Quality Settings** DEM Edges Clipped? Slice Visibility Elevation Map Contour Visibility Contour Labe Decimate (%

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#### **Virtual bore** predictions for any location in Victoria

#### Links to current and Historical data









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