

Water Markets and Water Information

Matthew Walker

Manager, Water Markets
Bureau of Meteorology

26 May 2016

Overview

- Trading as part of water management decisions
- Role of water information
 - water requirements
 - water availability
- What the Bureau has to offer
 - water information products
- Future improvements



Water market information

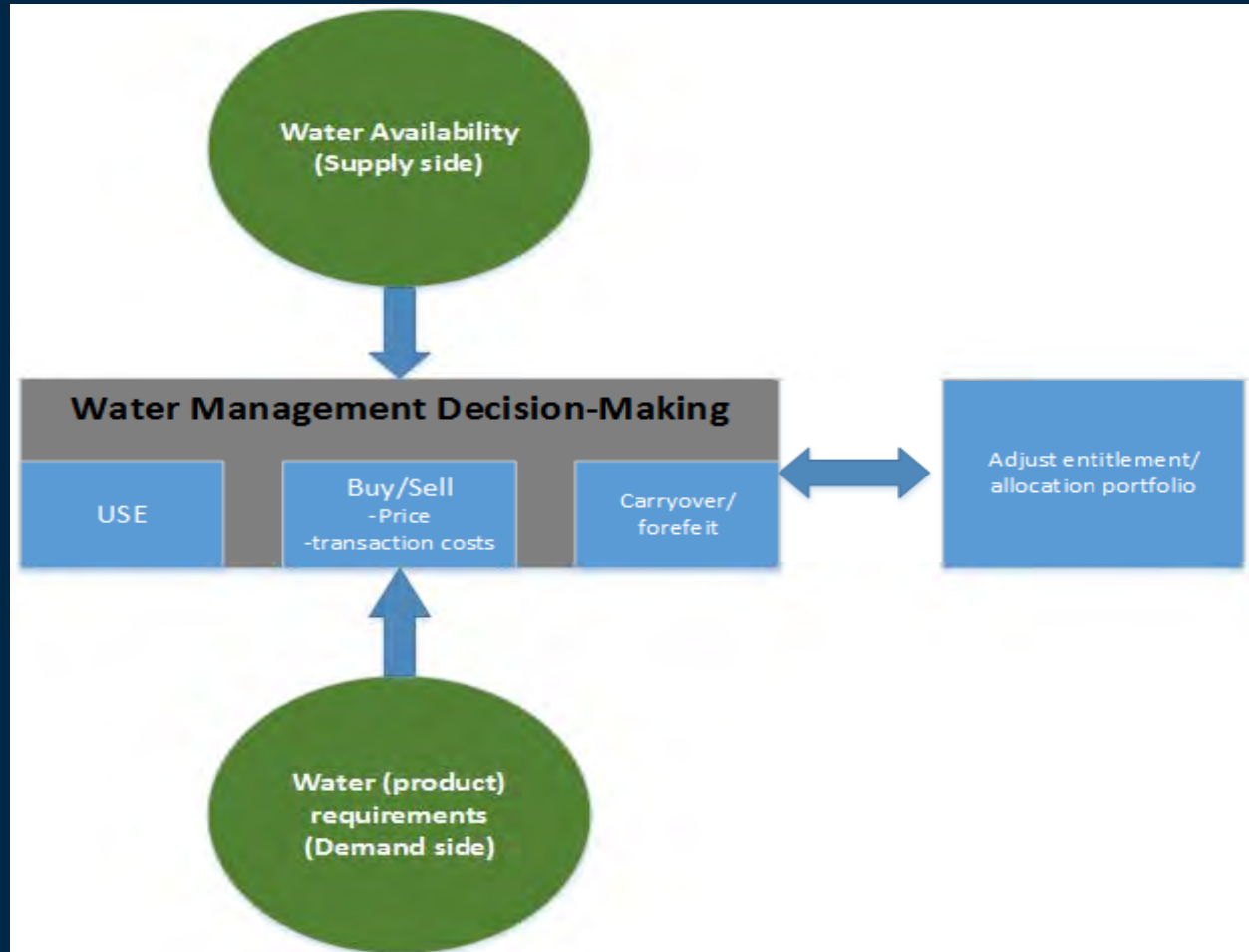
- Water trading worth \$1-2bn pa
- Good information is important to support efficient markets



Decision to trade water

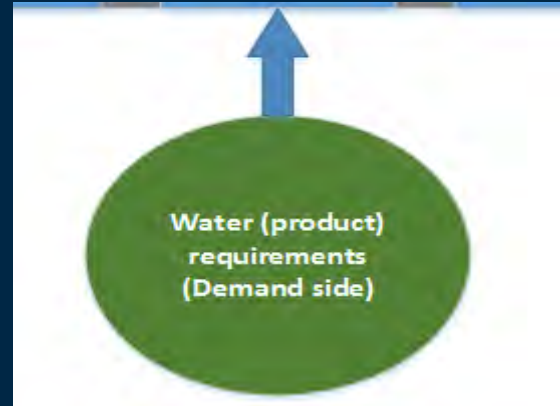


Water management decision



Water requirements

- Demand side
- Type of user
- Crop type requirements (timeline)
- Crop size planted
 - Commodity prices
- Temperature, evapotranspiration
- Seasonal asset requirements
- Expected returns



Water availability

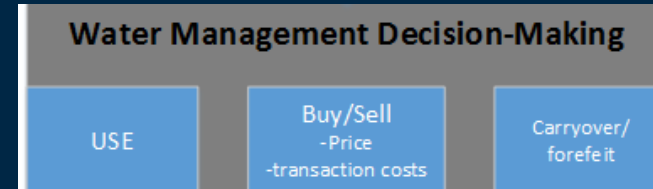
- Supply side
 - Annual allocations
 - Storage levels
 - Inflows
 - Entitlement reliability
 - Carry over provisions
 - On-site water availability
 - Rainfall
 - Temperature
 - Soil moisture
- Water planning/trade rules



Situational awareness products



- Climate/Weather Products
 - Temperature, evapotranspiration
 - Rainfall
- Water Storages
- Water Data Online (Inflows)
- Streamflow Forecasts
- Water Markets (Entitlements)
- Landscape Water Balance (Soil moisture)
- National Water Account (Carryover, entitlements)
- Groundwater Information
- Climate/Weather Products (Rainfall, temperature)
- Monthly Water Update (Rainfall, streamflow)



- Water Markets
 - Buy/sell, price
- National Water Account
 - Use, trade, carryover



[Bureau Home](#) » [Water Information](#)

[Water Information](#) | [Regulations](#) | [Standards](#) | [News and events](#) | [About](#)

[Water data](#) | [Water status](#) | [Water forecasts](#)

Improving water information



Urban National Performance Report 2014–15

Annual report on the performance of urban water utilities.

[» Continue reading about the Urban National Performance Report](#)

1 2 3 4 5



Water data

- Climate Resilient Water Sources
- Design Rainfalls
- Environmental Monitoring Sites
- Geofabric
- Groundwater information
- Hydrologic Reference Stations
- Water markets information
- Water Data Online



Water status

- Australian Water Resources Assessment
- Landscape Water Balance
- Monthly Water Update
- National Water Account
- Regional Water Information
- Urban National Performance Report
- Water in Australia
- Water Restrictions
- Water Storage



Water forecasts

- Floods
- 7-day Streamflow Forecasts
- Seasonal Streamflow Forecasts

Related links

- [Rain, River & Storage Data](#)

Water links

- [Water Act 2007](#)
- [Water Regulations 2008](#)
- [Water market information](#)
- [Water Dictionary](#)
- [Publications](#)
- [News](#)
- [Contact Us](#)



Water data online: Streamflow

Murrumbidgee River at Hall's Crossing

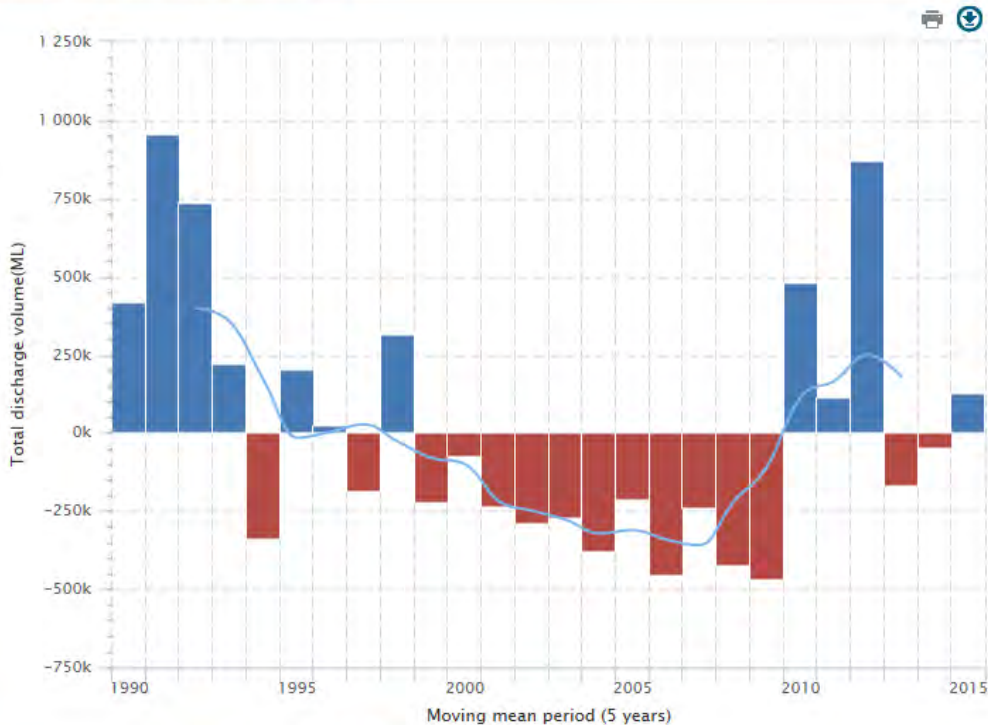
Station number 410777
Latitude -35.13
Longitude 148.94
Data owner ACT - Environment and Planning Directorate



Watercourse discharge

- Time series explorer
- Period of record summary
- Quality and gap summary
- Daily data summary
- Monthly data summary
- Yearly data summary
- Monthly mean statistical analysis
- Yearly statistical analysis
- Ratings and gaugings
- Duration curve
- Flood frequency analysis
- Difference from mean analysis**

Difference from mean analysis ?



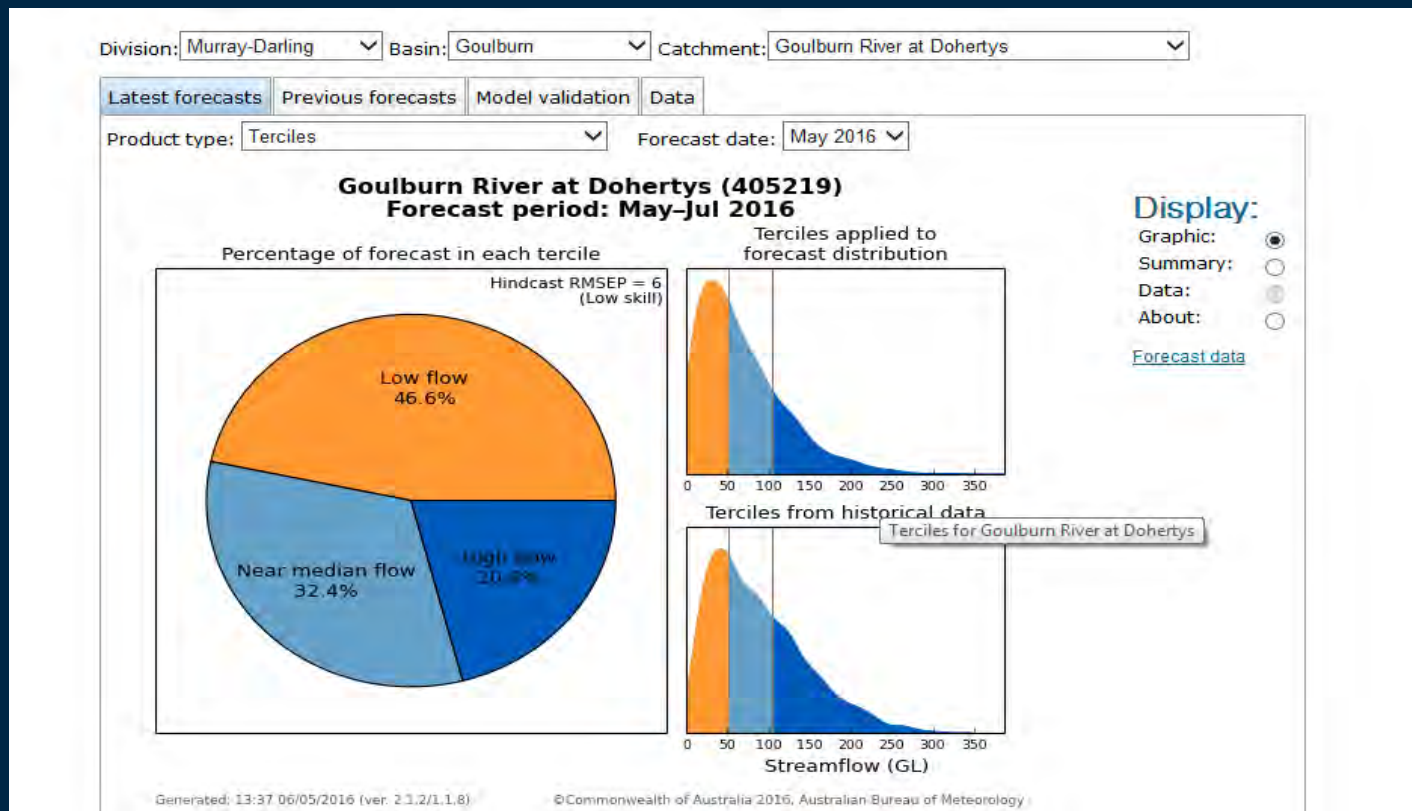
Watercourse level

Data download



Australian Government
Bureau of Meteorology

Seasonal streamflow forecast

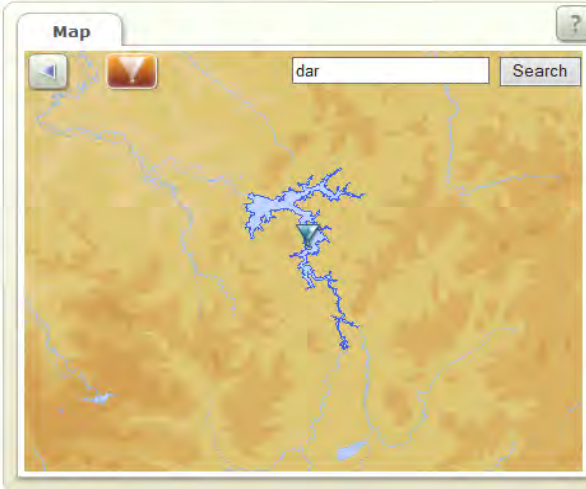


Storages

Place: Australia > Dartmouth

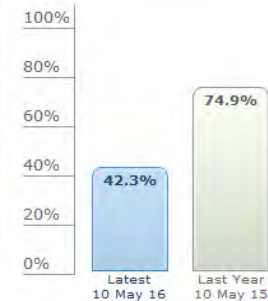
Date: 13 May 2016

Water Storage

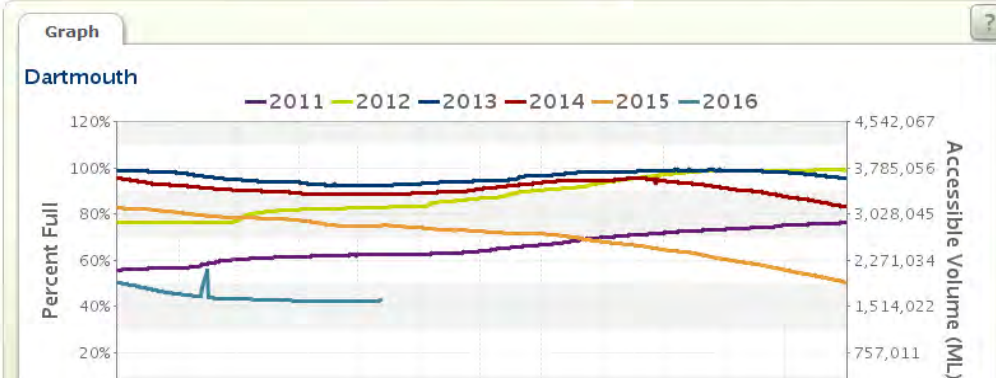


Snapshot Summary Changes

Dartmouth



Latest Volume: 1,601,410ML
Accessible Capacity: 3,785,056ML



- About
- Data Availability
- Copyright
- Help
- FAQs
- Glossary
- Feedback
- iPhone App

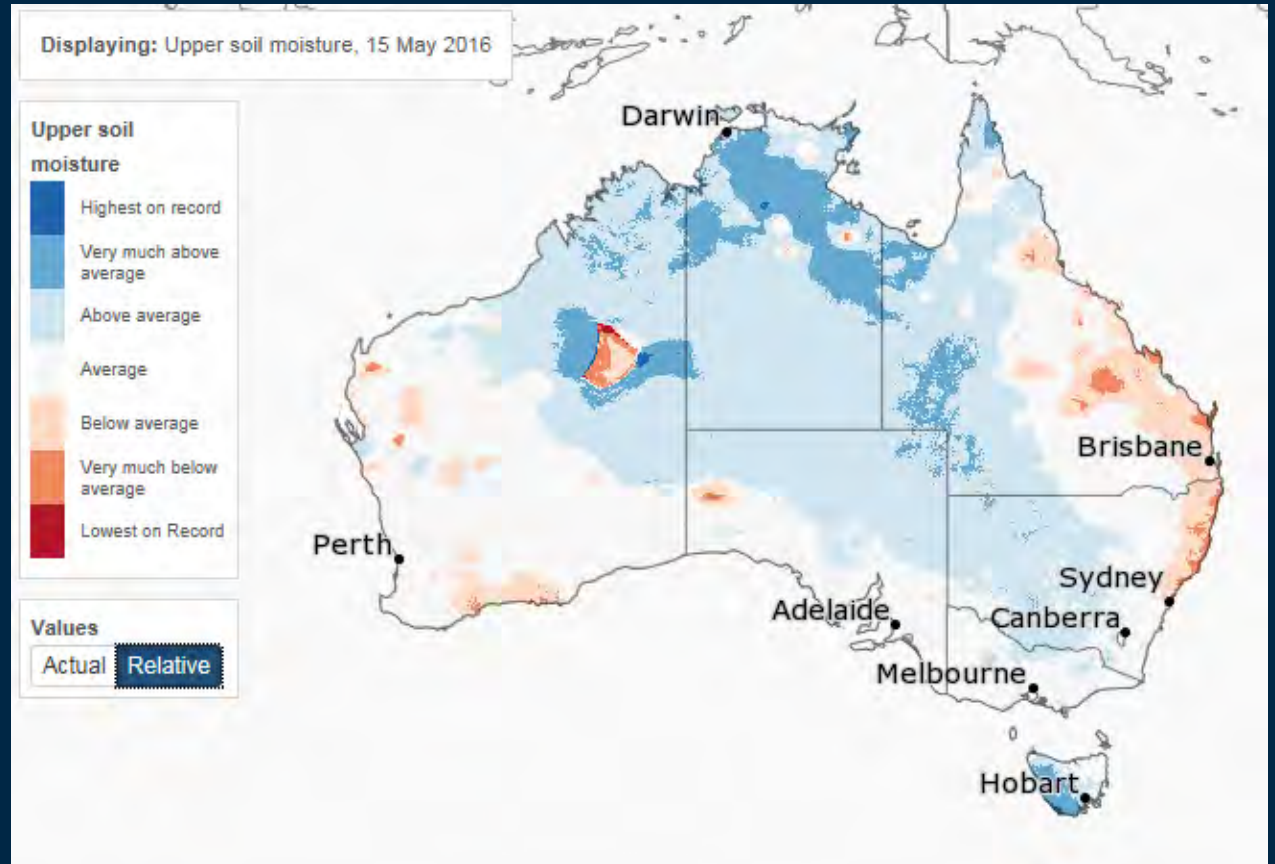
LINKS

- Bureau of Meteorology - Water Information
- Water Regulations
- National Water Commission

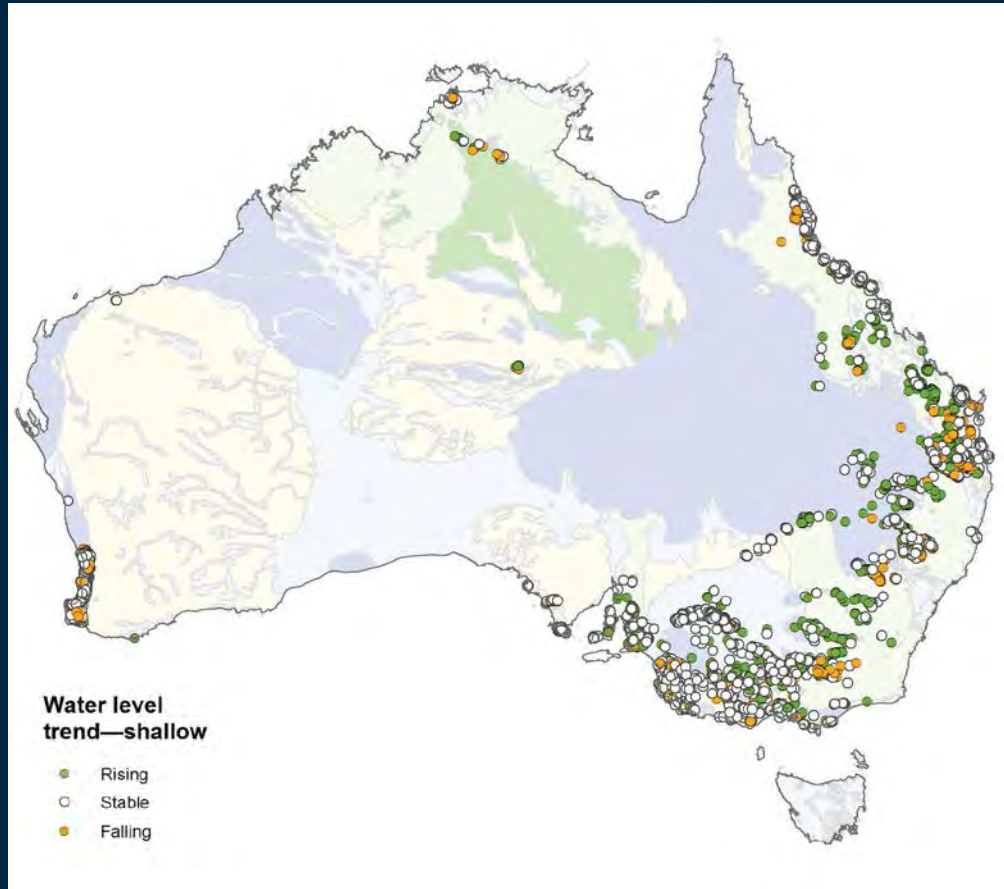
Funded by the National Water Commission under the Raising National Water Standards Program.



Australian landscape water balance: Soil moisture



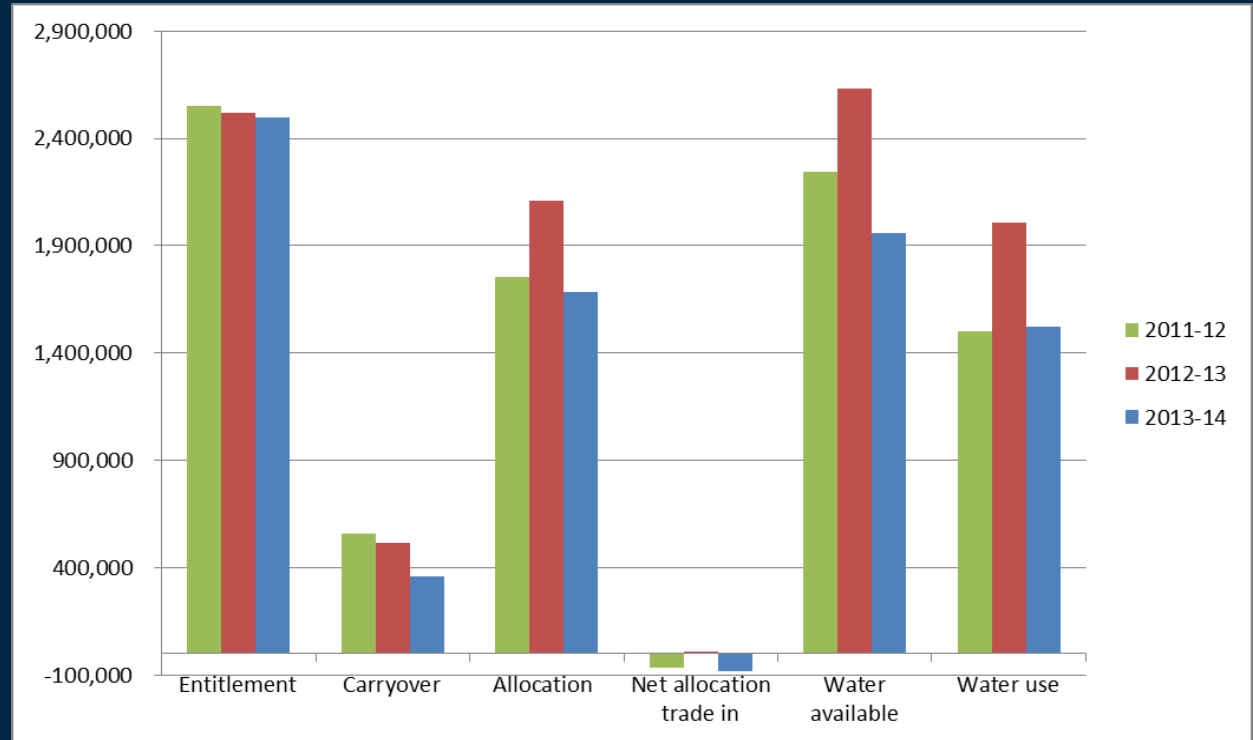
Groundwater



Entitlements, carry-over and water use

Derived from National Water Account

- Murrumbidgee Water Resource Plan Area



New South Wales

[Back to Australia](#)

Allocations

Entitlements

Entitlements on issue

Help

[Trade volume](#) | Price

Snapshot | [Historical](#)

Water allocation price

Reporting period: ▼

Report Rating: ☆☆☆☆☆ Incomplete

Last updated: 9 May 2016



[Footnotes](#) | [Copyright](#)

[Expand all](#) | [Collapse all](#)

Product or location

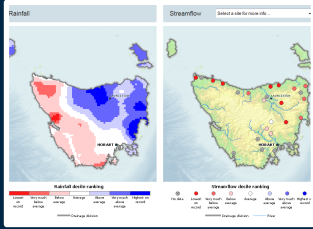
▼

[Filter](#)

[Clear](#)

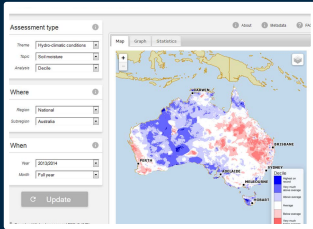
Product and location	High price (\$/ML)	Low price (\$/ML)	VWAP (\$/ML)	Number of trades	Vol. of trades (ML)
State summary	307	10	226	80	8 999
▶ Groundwater	100	30	77	5	636
☑ Regulated river	307	10	237	75	8 363
▶ Barwon	307	10	255	7	1 746
▶ Hunter	15	15	15	1	100
▶ Lachlan	140	140	140	2	630
▶ Lower Murray / Darling	281	230	249	13	627
▶ Macquarie	220	220	220	1	3
▶ Murray	275	235	259	33	3 414
▶ Murrumbidgee	230	200	220	18	1 843

Synthesis products



Monthly Water Update

Snapshot of rainfall and streamflow for previous month relative to average conditions



Regional Water Information

Spatial information down to river region on status of water resources and use

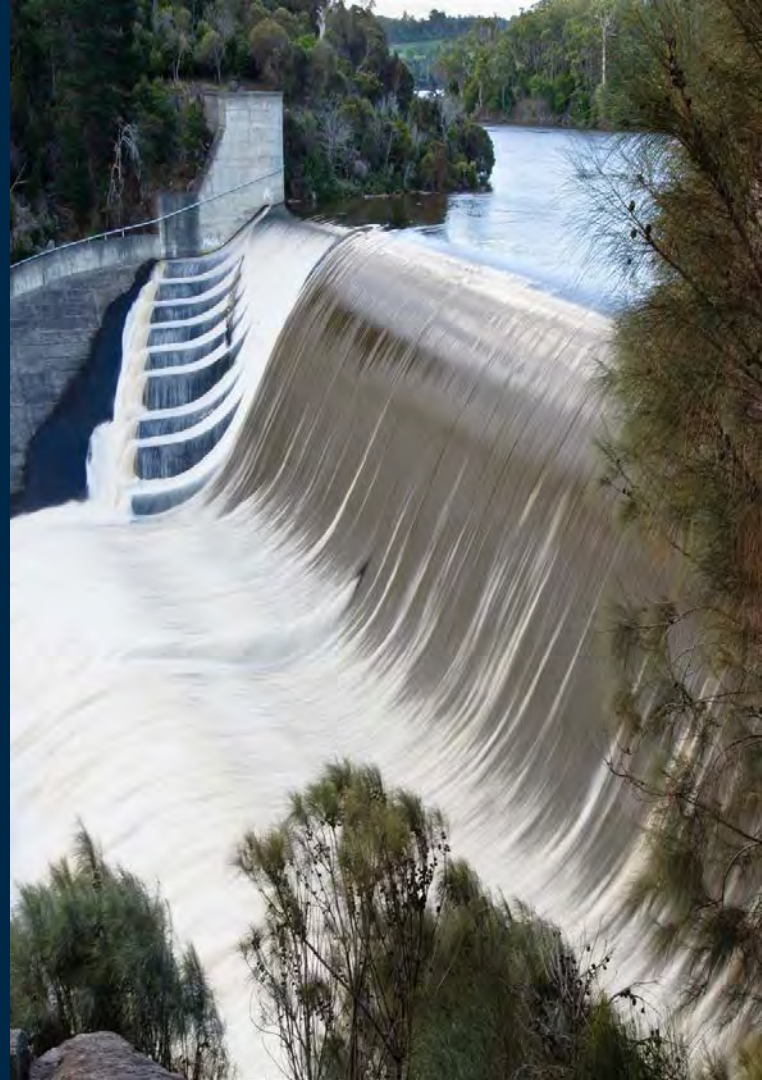


Water in Australia

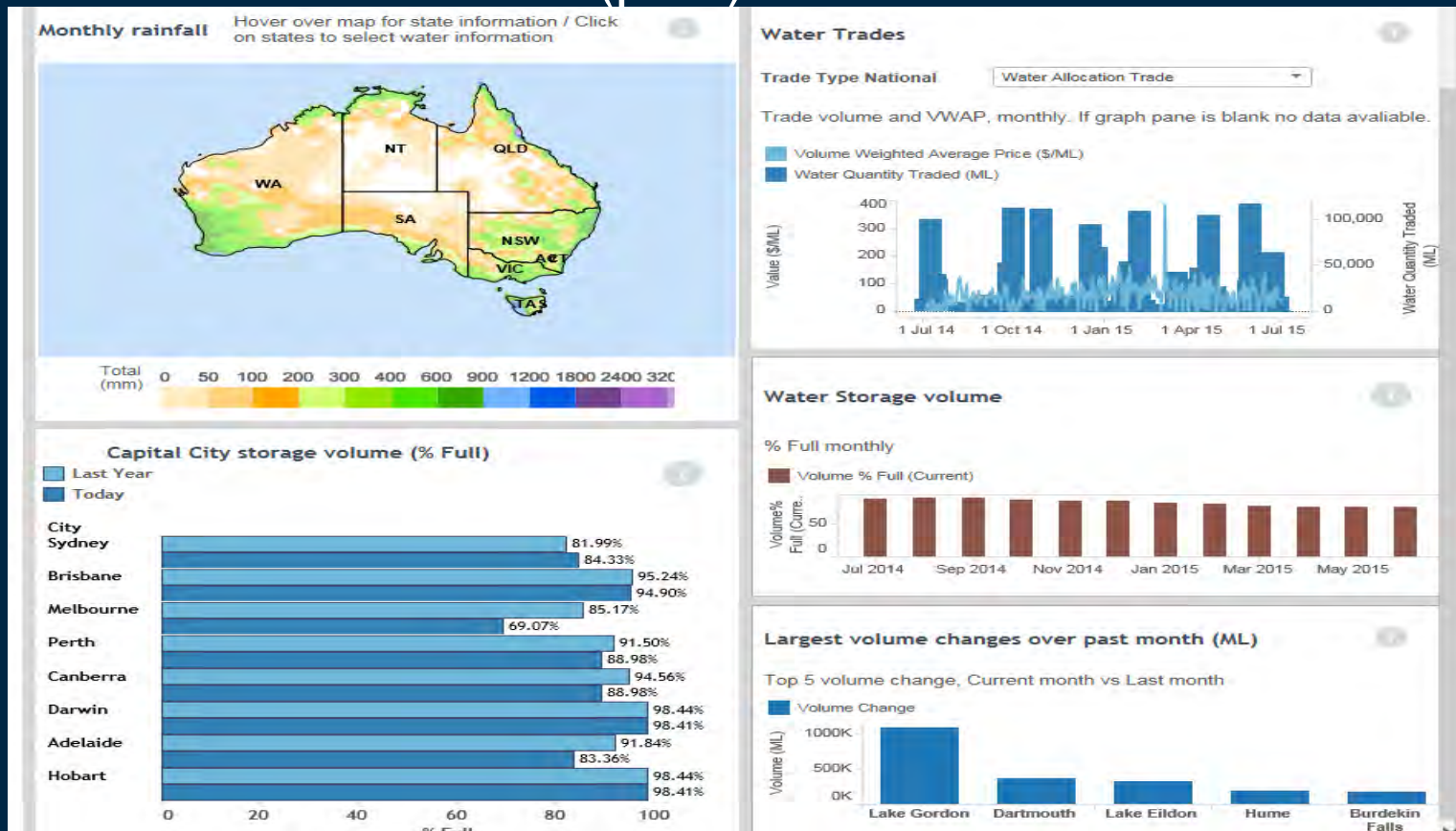
National report analysing information from many sources to paint a rich picture of the status water in Australia's for a particular year

Future improvements

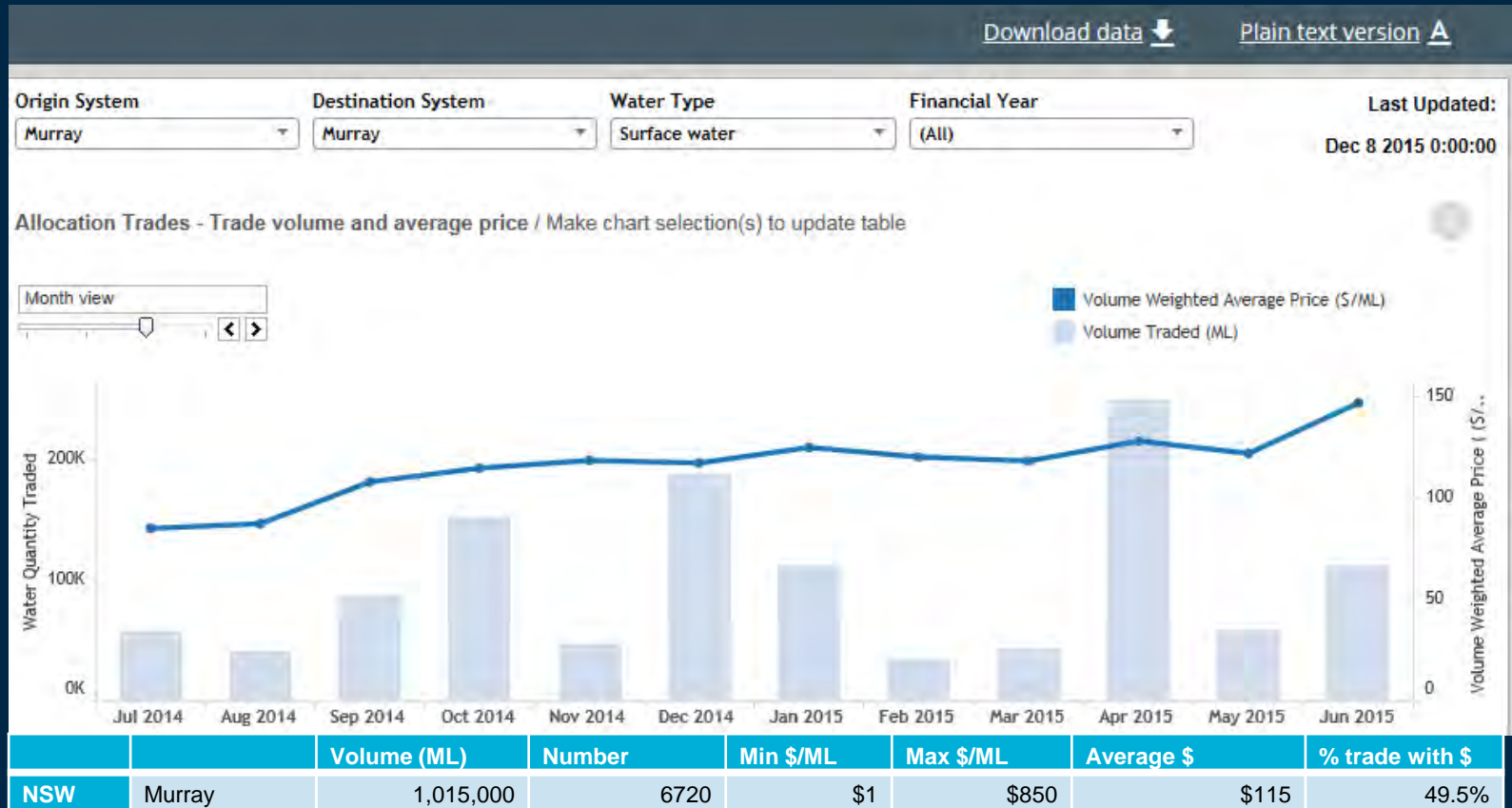
- Improved water information provision tailored to better meet user needs
- Water Information dashboard
 - One-stop-shop for water information (storages, markets) and climate information at national, state and regional levels



Water information dashboard (pilot)



Water information dashboard (pilot)



Concluding remarks

Thank you

Matthew Walker

m.walker@bom.gov.au

www.bom.gov.au/water