



FINAL REPORT

OCTOBER 2015

Water Entitlement Market Prices Murray-Darling Basin (September Quarter 2015)

Report prepared for Australian Government
Department of Agriculture and Water Resources

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1. Introduction

This September 2015 quarter water entitlement¹ market prices report was prepared by Marsden Jacob Associates (Marsden Jacob) for the Australian Government Department of Agriculture and Water Resources. The report includes:

- Southern MDB market activity and price information by region and entitlement type (Section 2); and
- Northern MDB market activity and price information by region and entitlement type (Section 3);
- Catchment and water sources list (Appendix 1).

Region, entitlements and key statistics

The entitlement price report is broadly split into southern and northern Murray-Darling Basin (MDB), as detailed in Table 1. Interactive maps showing the location of these trading regions are available on the Murray-Darling Basin Authority's website². The water sources included in each of the regions are listed in Appendix 1.

Table 1: Regions and entitlement types

Southern MDB		Northern MDB	
Region	Entitlement Type	Region	Entitlement Type
SA Murray	Class 3a	Macquarie	General Security
VIC Murray above Barmah Choke	High Reliability	Namoi	General Security
VIC Murray above Barmah Choke	Low Reliability	Gwydir	General Security
Vic Murray below Barmah Choke	High Reliability	NSW Border Rivers	General Security
Vic Murray below Barmah Choke	Low Reliability	Barwon Darling	Unregulated
Goulburn	High Reliability	Lachlan	General Security
Goulburn	Low Reliability	Condamine Balonne (St George)	Supplemented
Campaspe	High Reliability	Condamine Balonne (Upper Condamine and Lower Balonne)	Unsupplemented
Campaspe	Low Reliability	Upper Condamine Alluvium Groundwater (1, 2, 3 and 4)	Groundwater (Sub Areas 1, 2, 3 and 4)
Loddon	High Reliability	QLD Border Rivers	Supplemented
NSW Murray	General Security	QLD Border Rivers	Unsupplemented
NSW Murray	High Security	Lower Balonne	Overland Flow
NSW Murray Irrigation Limited	General Security		
Murrumbidgee	General Security		

¹ Water access entitlement is a perpetual or ongoing entitlement to exclusive access to a share of water from a specified consumptive pool as defined in the relevant water plan, Source: Schedule B(ii), Intergovernmental Agreement on a National Water Initiative (NWI)

² <http://www.mdba.gov.au/what-we-do/managing-rivers/water-trade/water-markets-product-info>
<http://www.mdba.gov.au/what-we-do/managing-rivers/water-trade/southern-connected-trading-zones>

Southern MDB		Northern MDB	
Region	Entitlement Type	Region	Entitlement Type
Murrumbidgee	High Security		
Lower Darling	General Security		
Lower Darling	High Security		

As requested by the Department, for each of the regions and water entitlement categories Marsden Jacob reports a range of measures, subject to data availability and the number of trades:

- volume weighted average prices (VWAP);
- median price;
- mean price;
- mode price;
- percentile price 25th and 75th;
- price quintiles;
- trade volume;
- number of trades; and
- water trading exchange prices.

Data sources

The data sources for this report are:

- National Water Market Register data, up to 31 December 2013;
- State Government water registers and websites; and
- Water exchange and broker noticeboard prices.

Notes

Entitlement prices in the State Government water registers can lag the exchange date of contracts or the water sale agreement by periods of days to several months, this means the entitlement prices shown in the monthly and quarterly VWAPs may not reflect exchanges during the month.

Entitlement prices that do not appear to reflect arms-length transactions have been excluded in the data cleaning process. Removing these values reduces price distortions in the reporting. This means prices in this report may differ from prices shown in registers where these transactions have not been removed.

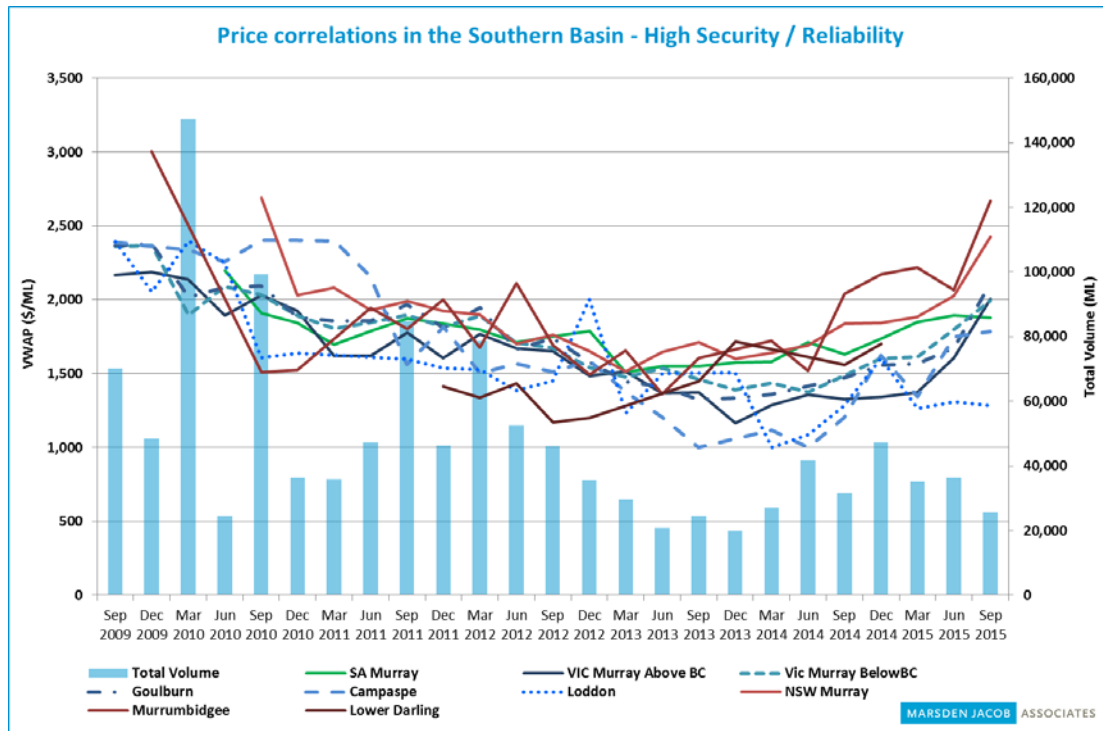
Marsden Jacob uses a two stage process to clean the data, which is based on the approach used by the Australian Bureau of Agricultural and Resource Economics and Sciences (ABARES) and the former National Water Commission (NWC):

1. Removing prices that may not be genuine, e.g. removing transactions where the price was reported to be null (\$0 per ML); and
2. Reviewing and potentially removing transactions outside two standard deviations from the average price of water entitlements by region (or trading zone) and by water product.

Marsden Jacob does not necessarily remove all trades that fall outside two standard deviations as some of these reflect arms-length trades. If trades which fall outside two standard deviations are retained in the regional dataset this is noted in the region and entitlement specific reports.

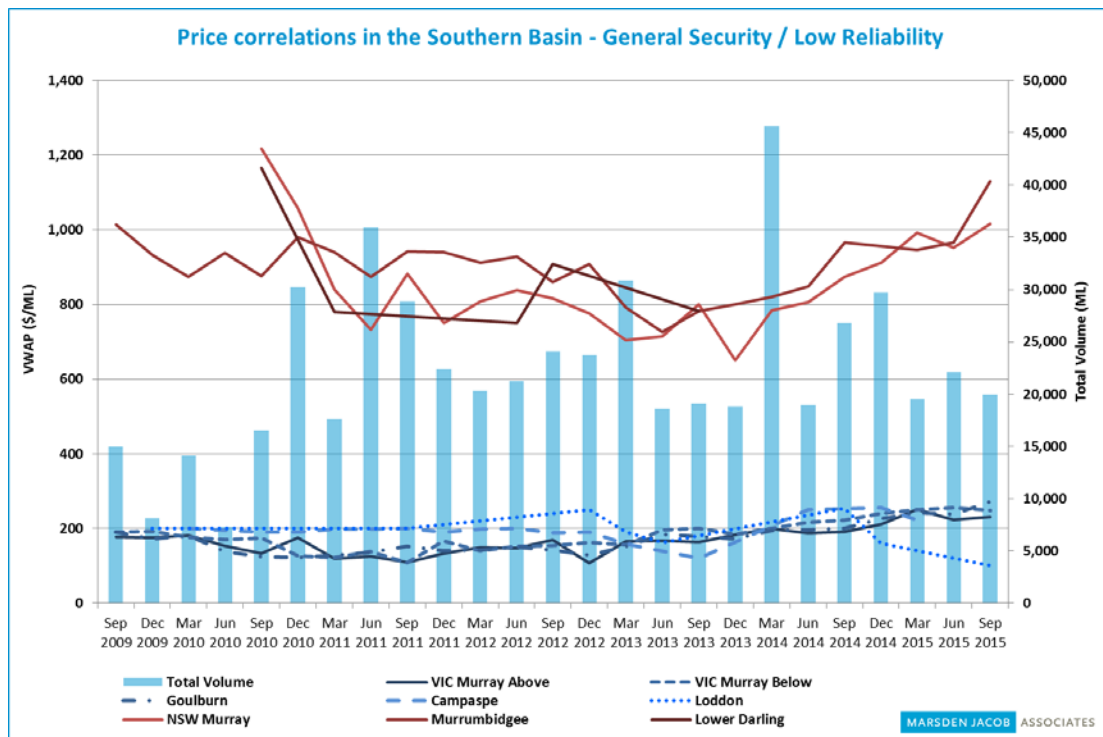
2. Southern Murray-Darling Basin

Figure 1: Price correlation in the Southern Basin: High Security / Reliability / Class 3a



Source: Marsden Jacob analysis, 2015

Figure 2: Price correlation in the Southern Basin: General Security / Low Reliability



Source: Marsden Jacob analysis, 2015

Note: Where possible, zero values have been interpolated in these charts so they differ slightly from the region and entitlement specific charts.

2.1 SA Murray: Class 3a

Figure 3: Entitlement market prices and volumes

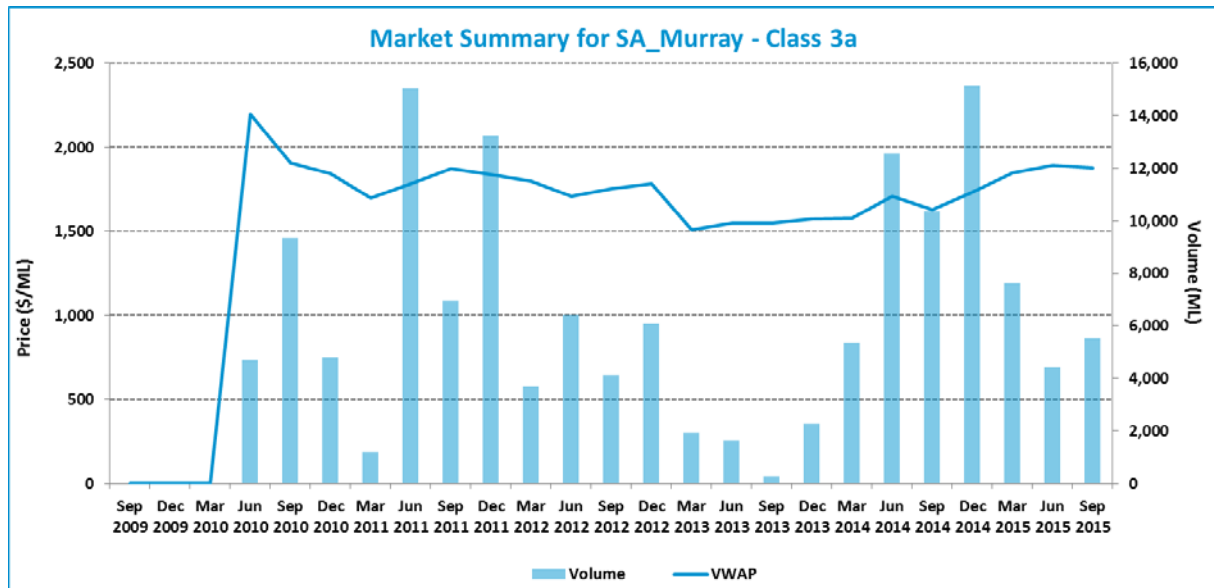
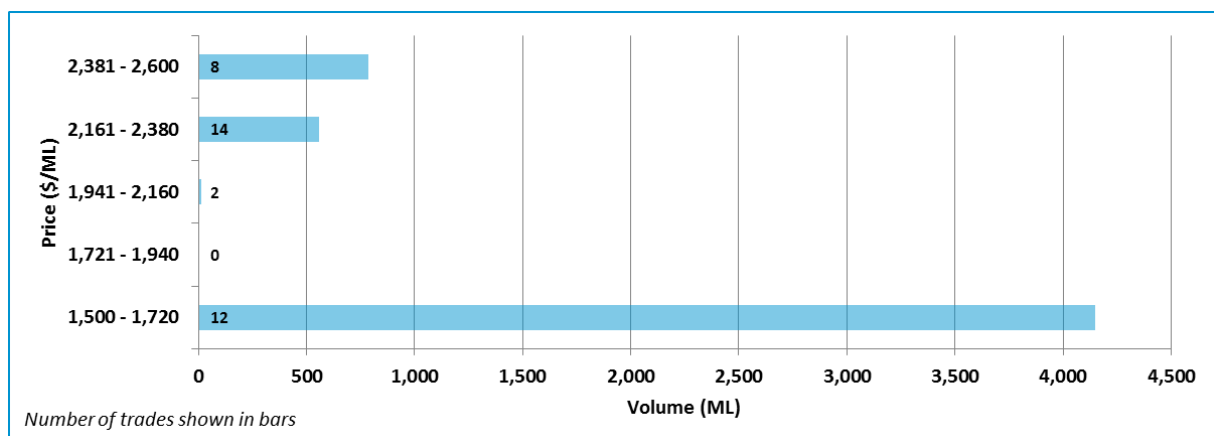


Table 2: Entitlement market prices and volumes

Volume weighted average price (\$/ML)			September 2015 Quarter (in \$/ML)					Sept 2015 Quarter Volume (ML)	Sept 2015 Quarter # of trades	Market Spot Price (\$/ML)
Month of Sept 2015	Sept 2015 Quarter	YTD	25 th percentile	75 th percentile	Median	Mean	Mode			
1,932	1,875	1,875	1,710	2,350	2,200	2,102	1,710	5,505	36	2,350 – 2,750

Figure 4: Entitlement market price range by volume



Data Sources: SA Water Register (www.waterconnect.sa.gov.au/Systems/WTR/Pages/default.aspx), National Water Exchange (www.waterexchange.com.au), Waterfind (www.waterfind.com.au), H2OX (www.h2ox.com)

2.2 VIC Murray above Barmah Choke: High Reliability

Figure 5: Entitlement market prices and volumes

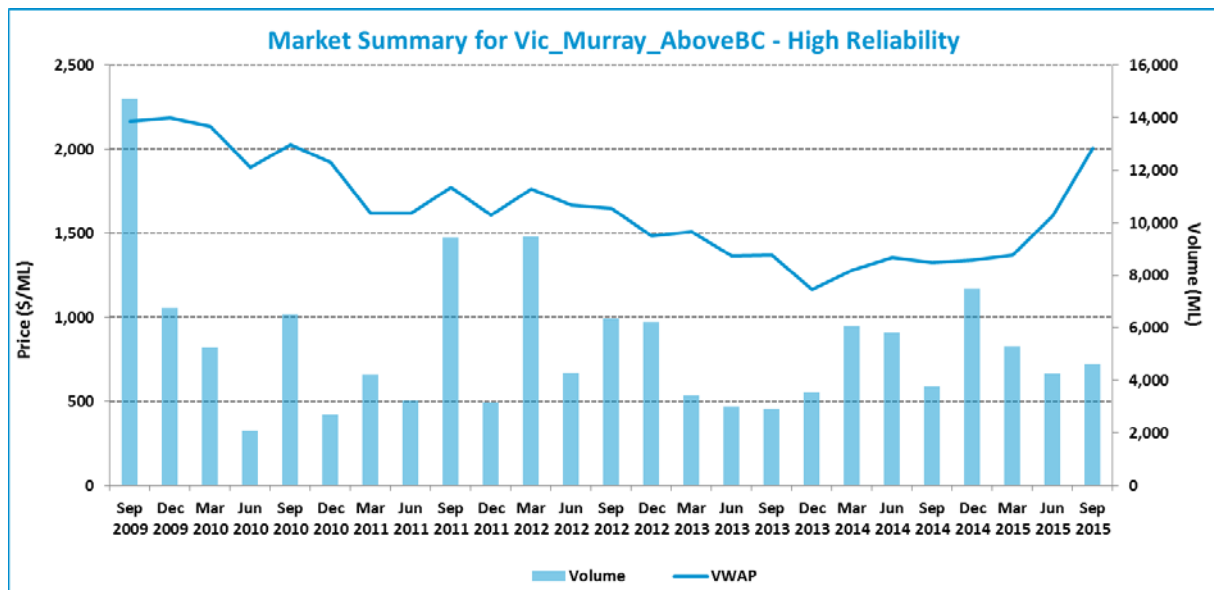
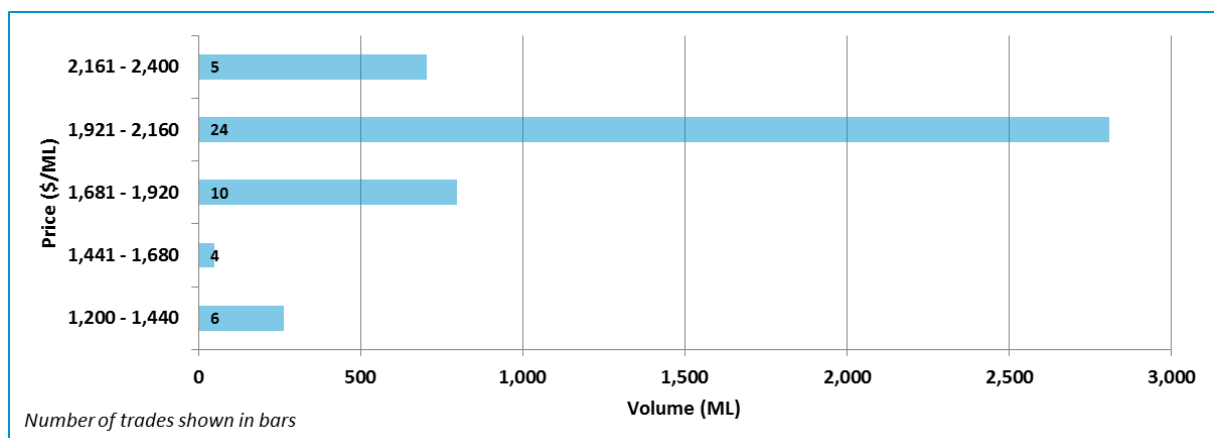


Table 3: Entitlement market prices and volumes

Volume weighted average price (\$/ML)			September 2015 Quarter (in \$/ML)					Sept 2015 Quarter Volume (ML)	Sept 2015 Quarter # of trades	Market Spot Price (\$/ML)
Month of Sept 2015	Sept 2015 Quarter	YTD	25 th percentile	75 th percentile	Median	Mean	Mode			
2,062	2,006	2,006	1,762	2,000	1,980	1,888	2,000	4,625	49	2,500 – 2,700

Figure 6: Entitlement market price range by volume



Note: Some trades which are outside two standard deviations of the average price of water entitlements have been included for this region.

Data Sources: VIC Water Register (waterregister.vic.gov.au/water-trading/water-share-trading), National Water Exchange (www.waterexchange.com.au), Waterfind (www.waterfind.com.au), H2OX (www.h2ox.com)

2.3 VIC Murray above Barmah Choke: Low Reliability

Figure 7: Entitlement market prices and volumes

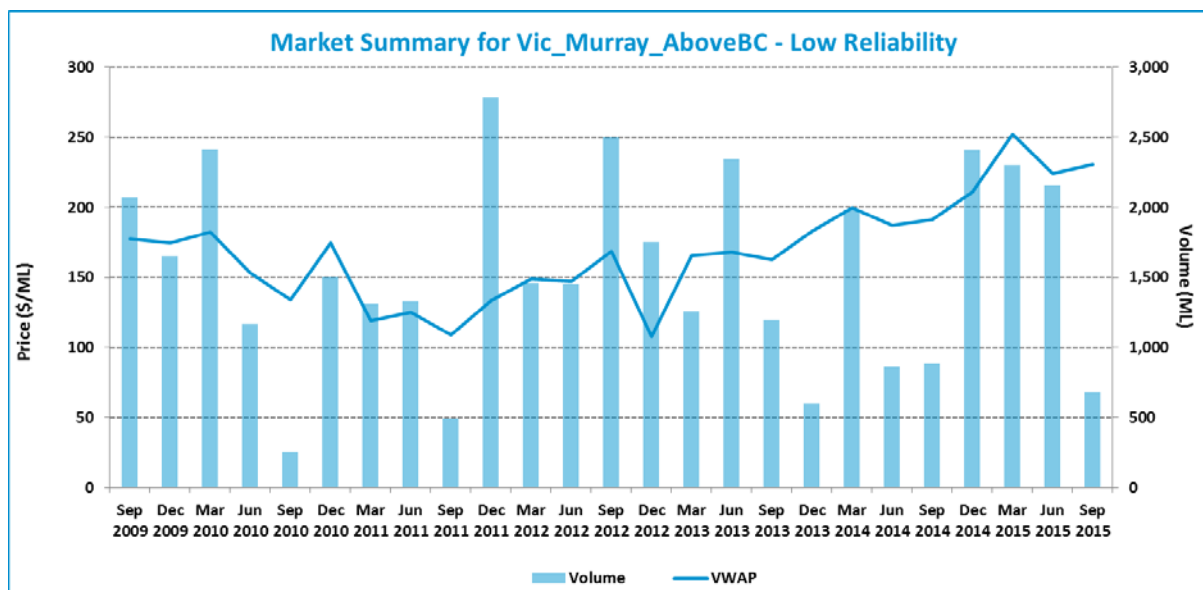
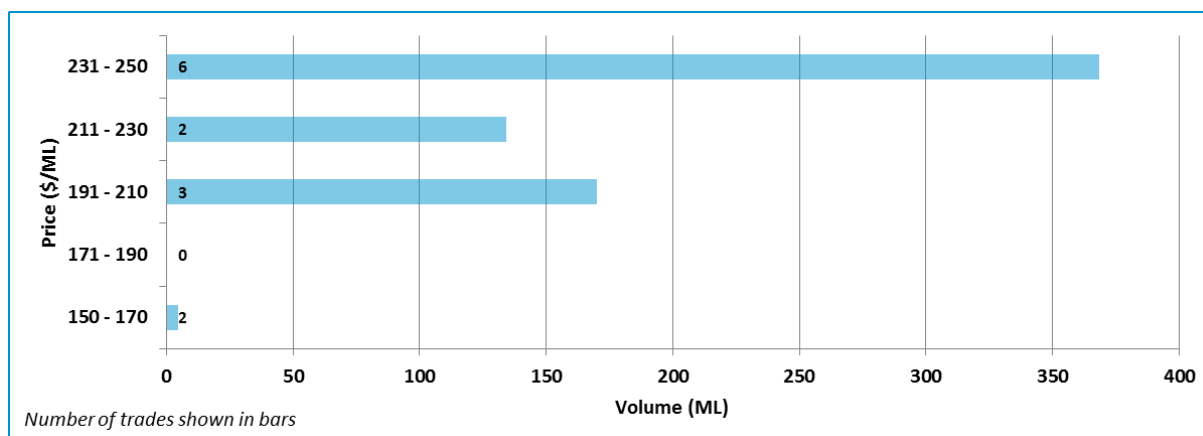


Table 4: Entitlement market prices and volumes

Volume weighted average price (\$/ML)			September 2015 Quarter (in \$/ML)					Sept 2015 Quarter Volume (ML)	Sept 2015 Quarter # of trades	Market Spot Price (\$/ML)
Month of Sept 2015	Sept 2015 Quarter	YTD	25 th percentile	75 th percentile	Median	Mean	Mode			
250	231	231	200	250	220	218	250	677	13	225 – 300

Figure 8: Entitlement market price range by volume



Data Sources: VIC Water Register (waterregister.vic.gov.au/water-trading/water-share-trading), National Water Exchange (www.waterexchange.com.au), Waterfind (www.waterfind.com.au), H2OX (www.h2ox.com)

2.4 VIC Murray below Barmah Choke: High Reliability

Figure 9: Entitlement market prices and volumes

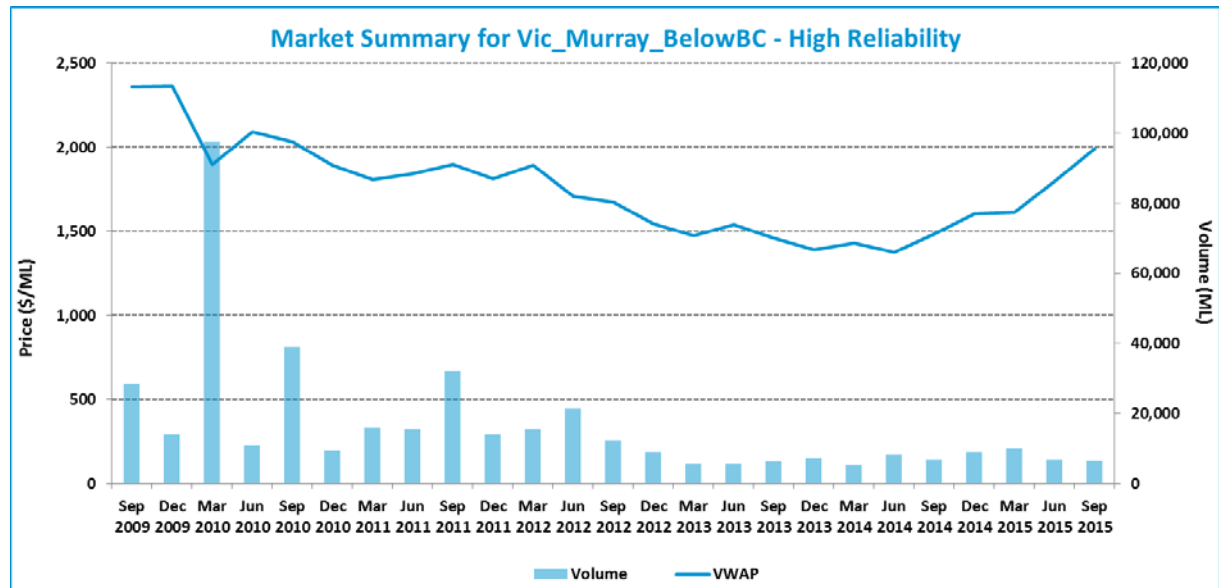
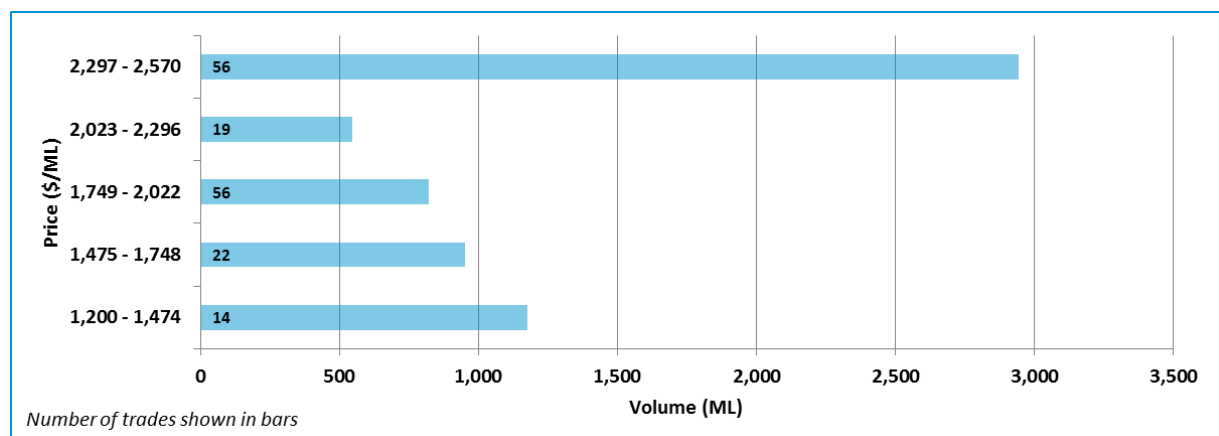


Table 5: Entitlement market prices and volumes

Volume weighted average price (\$/ML)			September 2015 Quarter (in \$/ML)					Sept 2015 Quarter Volume (ML)	Sept 2015 Quarter # of trades	Market Spot Price (\$/ML)
Month of Sept 2015	Sept 2015 Quarter	YTD	25 th percentile	75 th percentile	Median	Mean	Mode			
2,305	1,992	1,992	1,800	2,350	2,000	2,009	2,000	6,438	167	2,500 – 2,750

Figure 10: Entitlement market price range by volume



Note: Some trades which are outside two standard deviations of the average price of water entitlements have been included for this region.

Data Sources: VIC Water Register (waterregister.vic.gov.au/water-trading/water-share-trading), National Water Exchange (www.waterexchange.com.au), Waterfind (www.waterfind.com.au), H2OX (www.h2ox.com)

2.5 VIC Murray below Barmah Choke: Low Reliability

Figure 11: Entitlement market prices and volumes

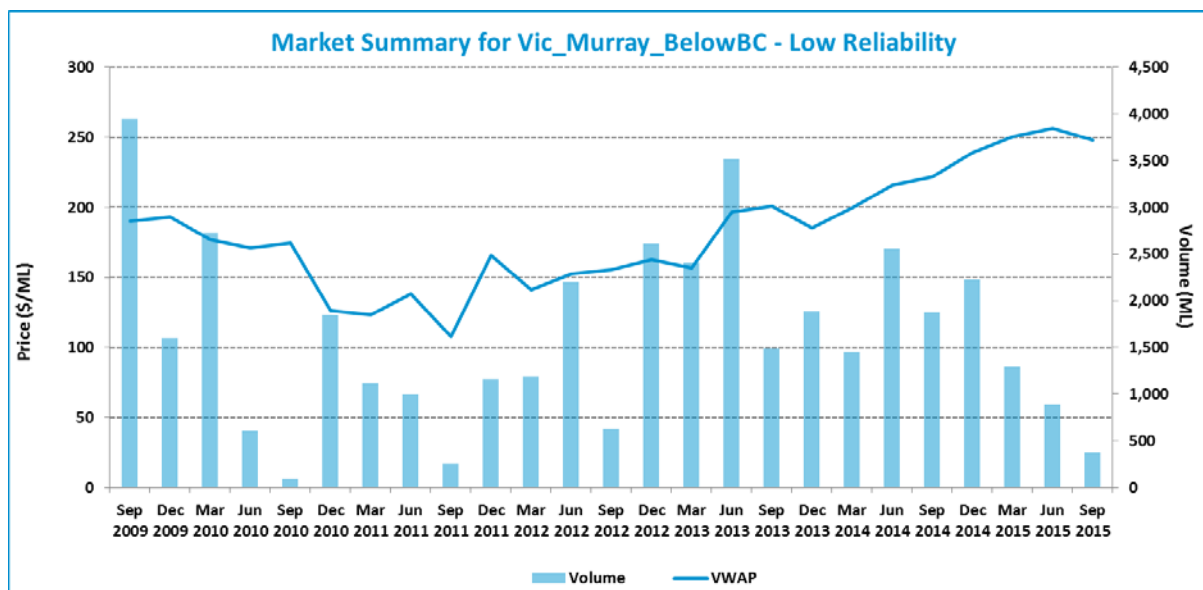
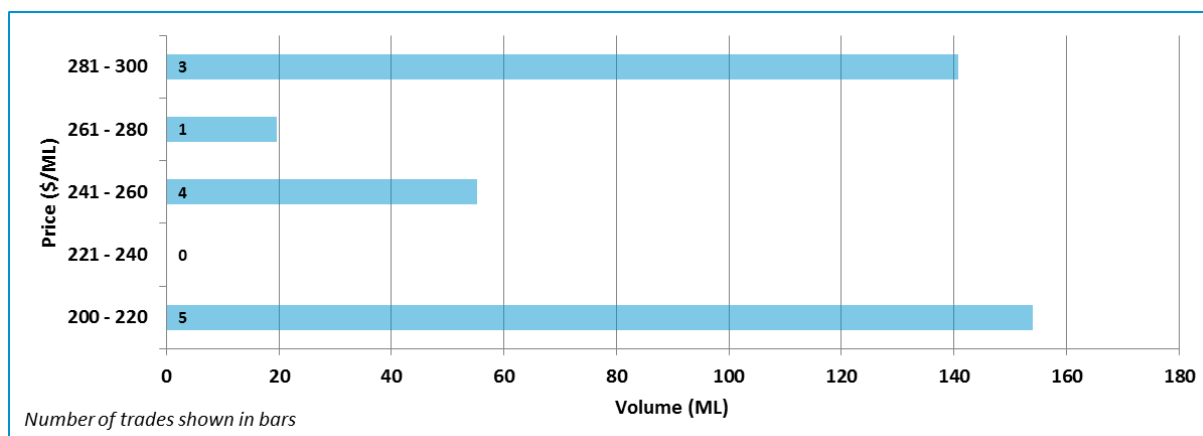


Table 6: Entitlement market prices and volumes

Volume weighted average price (\$/ML)			September 2015 Quarter (in \$/ML)					Sept 2015 Quarter Volume (ML)	Sept 2015 Quarter # of trades	Market Spot Price (\$/ML)
Month of Sept 2015	Sept 2015 Quarter	YTD	25 th percentile	75 th percentile	Median	Mean	Mode			
295	248	248	200	265	250	245	200	370	13	240 – 300

Figure 12: Entitlement market price range by volume



Data Sources: VIC Water Register (waterregister.vic.gov.au/water-trading/water-share-trading), National Water Exchange (www.waterexchange.com.au), Waterfind (www.waterfind.com.au), H2OX (www.h2ox.com)

2.6 Goulburn: High Reliability

Figure 13: Entitlement market prices and volumes

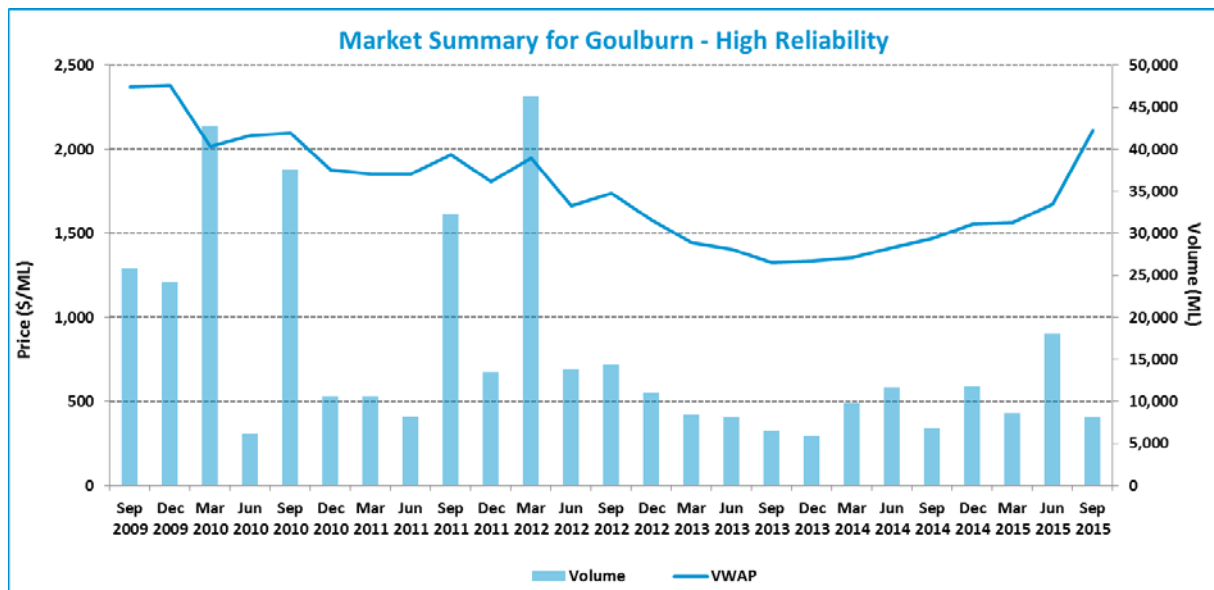
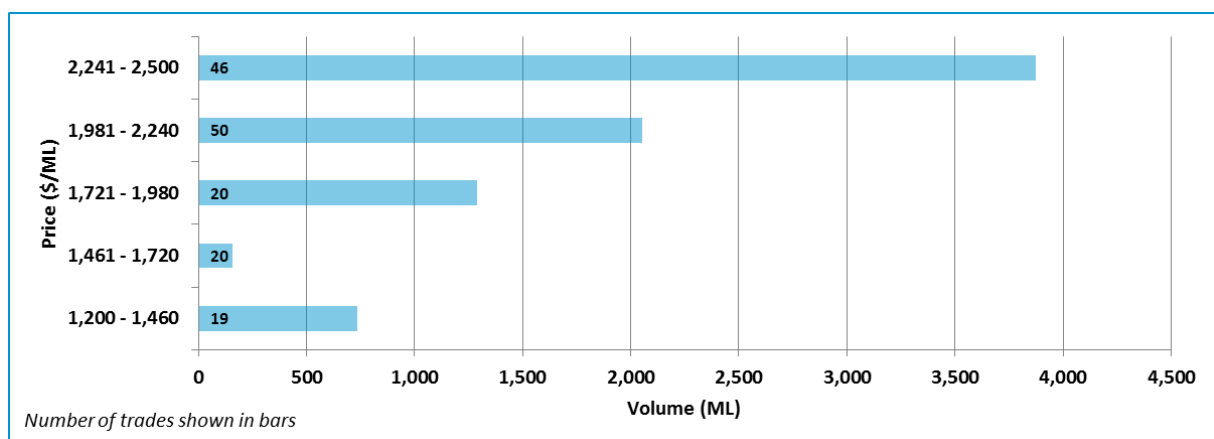


Table 7: Entitlement market prices and volumes

Volume weighted average price (\$/ML)			September 2015 Quarter (in \$/ML)					Sept 2015 Quarter Volume (ML)	Sept 2015 Quarter # of trades	Market Spot Price (\$/ML)
Month of Sept 2015	Sept 2015 Quarter	YTD	25 th percentile	75 th percentile	Median	Mean	Mode			
2,135	2,110	2,110	1,725	2,300	2,000	1,981	2,000	8,109	155	2,200 – 2,700

Figure 14: Entitlement market price range by volume



Note: Some trades which are outside two standard deviations of the average price of water entitlements have been included for this region.

Data Sources: VIC Water Register (waterregister.vic.gov.au/water-trading/water-share-trading), National Water Exchange (www.waterexchange.com.au), Waterfind (www.waterfind.com.au), H2OX (www.h2ox.com)

2.7 Goulburn: Low Reliability

Figure 15: Entitlement market prices and volumes

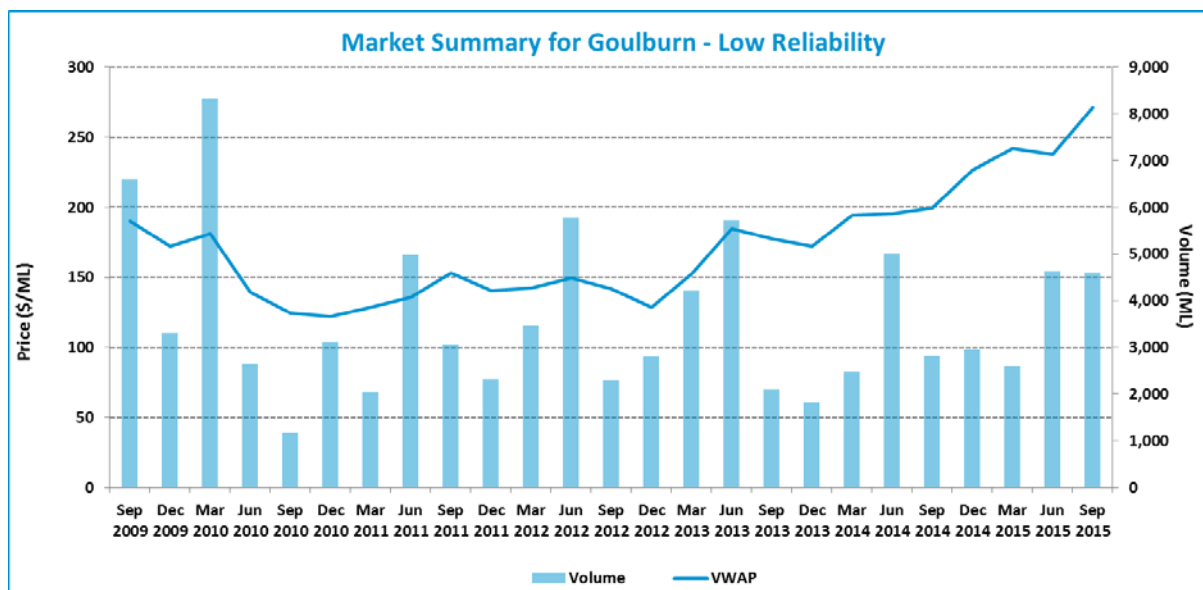
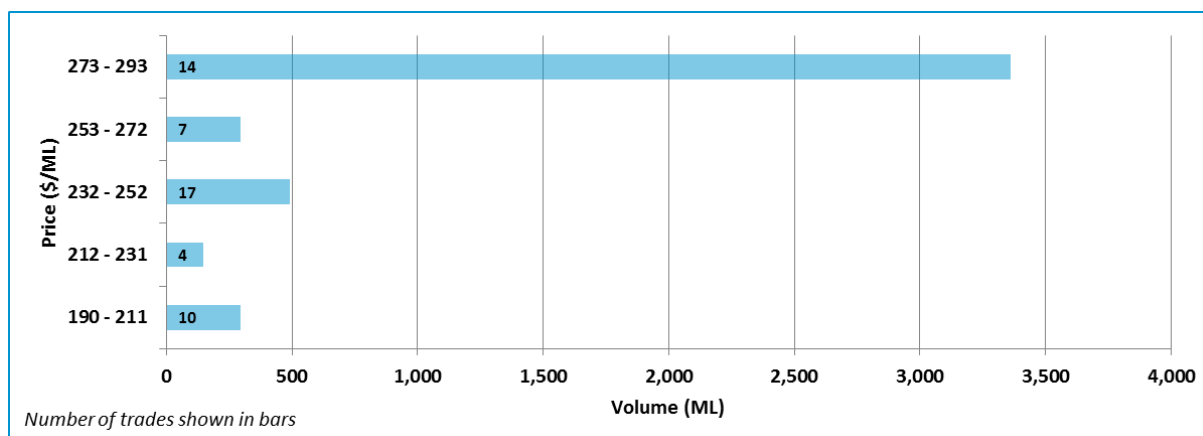


Table 8: Entitlement market prices and volumes

Volume weighted average price (\$/ML)			September 2015 Quarter (in \$/ML)					Sept 2015 Quarter Volume (ML)	Sept 2015 Quarter # of trades	Market Spot Price (\$/ML)
Month of Sept 2015	Sept 2015 Quarter	YTD	25 th percentile	75 th percentile	Median	Mean	Mode			
265	271	271	228	275	250	247	250	4,587	52	230 – 270

Figure 16: Entitlement market price range by volume



Data Sources: VIC Water Register (waterregister.vic.gov.au/water-trading/water-share-trading), National Water Exchange (www.waterexchange.com.au), Waterfind (www.waterfind.com.au), H2OX (www.h2ox.com)

2.8 Campaspe: High Reliability

Figure 17: Entitlement market prices and volumes

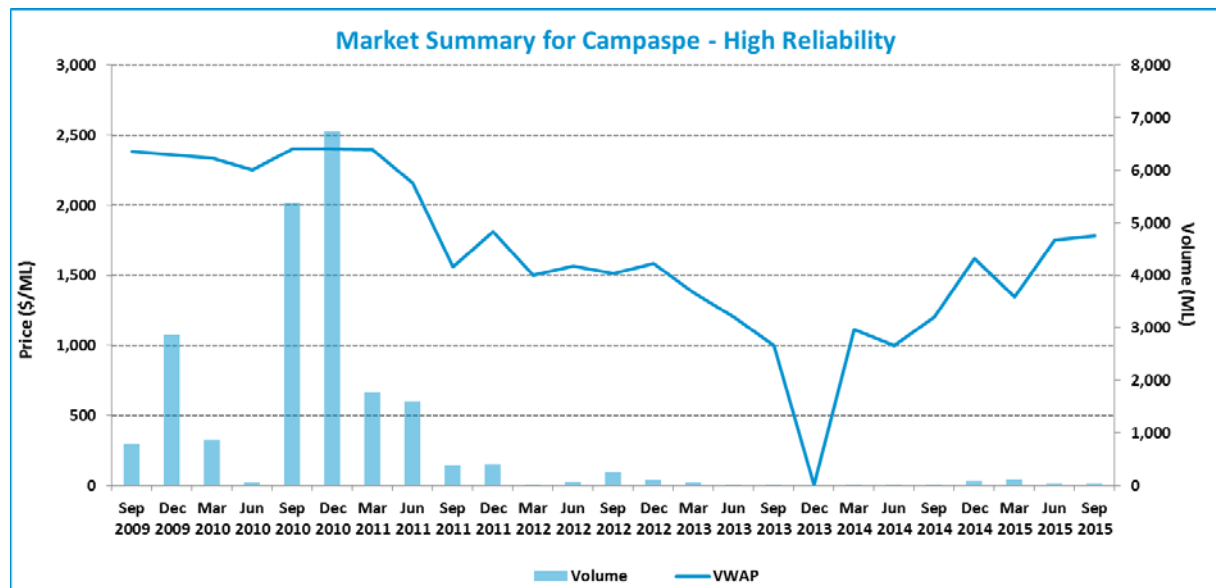
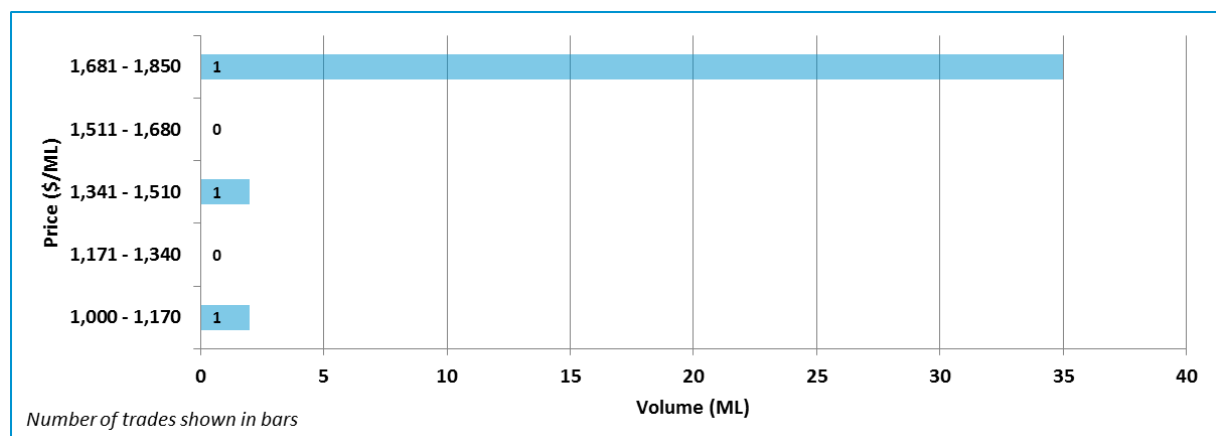


Table 9: Entitlement market prices and volumes

Volume weighted average price (\$/ML)			September 2015 Quarter (in \$/ML)					Sept 2015 Quarter Volume (ML)	Sept 2015 Quarter # of trades	Market Spot Price (\$/ML)
Month of Sept 2015	Sept 2015 Quarter	YTD	25 th percentile	75 th percentile	Median	Mean	Mode			
-	1,783	1,783	1,200	1,625	1,400	1,417	-	39	3	2,500 – 2,600

Figure 18: Entitlement market price range by volume



Data Sources: VIC Water Register (waterregister.vic.gov.au/water-trading/water-share-trading), National Water Exchange (www.waterexchange.com.au), Waterfind (www.waterfind.com.au), H2OX (www.h2ox.com)

2.9 Loddon: High Reliability

Figure 19: Entitlement market prices and volumes

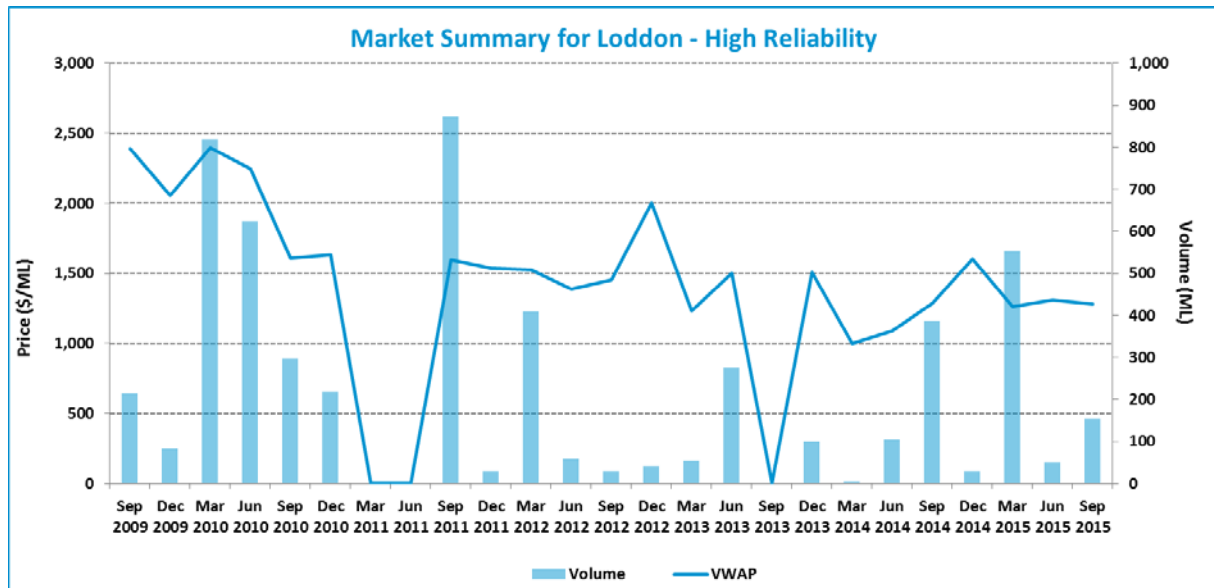
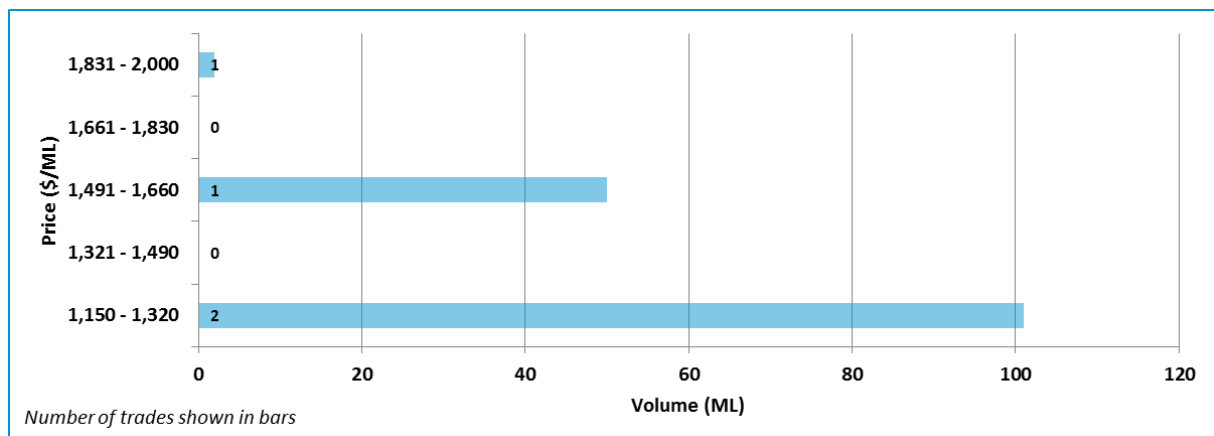


Table 10: Entitlement market prices and volumes

Volume weighted average price (\$/ML)			September 2015 Quarter (in \$/ML)					Sept 2015 Quarter Volume (ML)	Sept 2015 Quarter # of trades	Market Spot Price (\$/ML)
Month of Sept 2015	Sept 2015 Quarter	YTD	25 th percentile	75 th percentile	Median	Mean	Mode			
1,487	1,282	1,282	1,158	1,625	1,330	1,453	-	153	4	2,500 – 2,600

Figure 20: Entitlement market price range by volume



Data Sources: VIC Water Register (waterregister.vic.gov.au/water-trading/water-share-trading), National Water Exchange (www.waterexchange.com.au), Waterfind (www.waterfind.com.au), H2OX (www.h2ox.com)

2.10 NSW Murray: General Security

Figure 21: Entitlement market prices and volumes

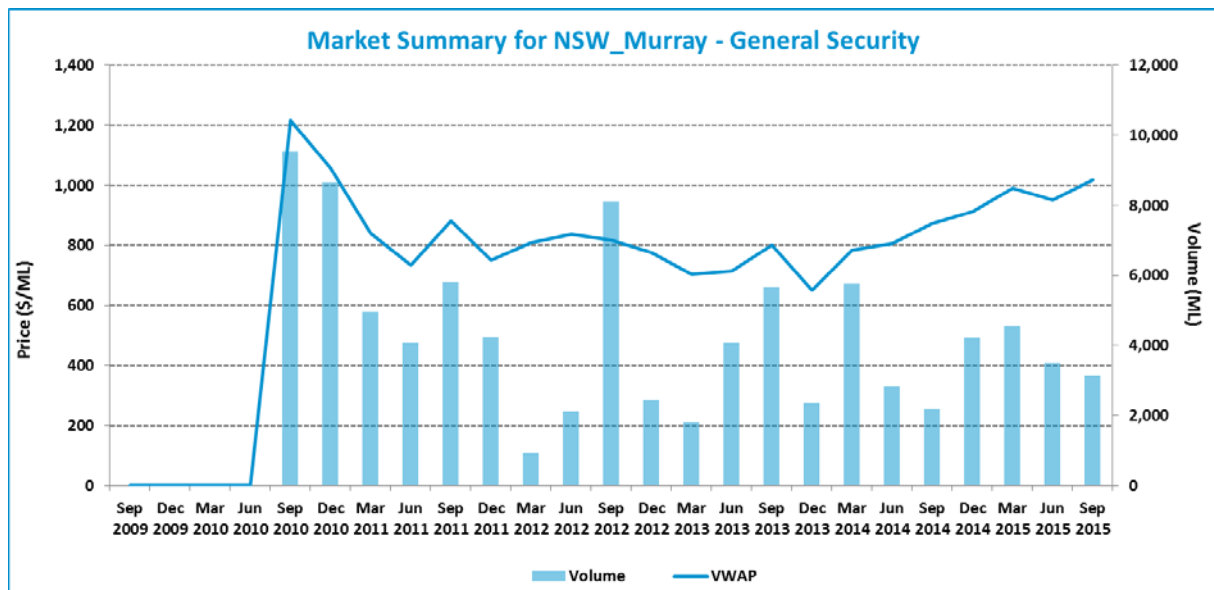
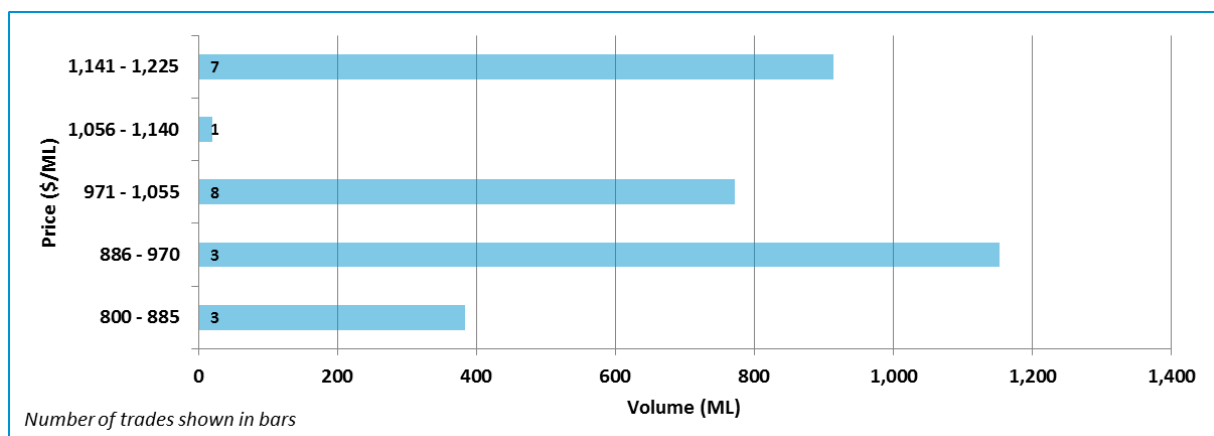


Table 11: Entitlement market prices and volumes

Volume weighted average price (\$/ML)			September 2015 Quarter (in \$/ML)					Sept 2015 Quarter Volume (ML)	Sept 2015 Quarter # of trades	Market Spot Price (\$/ML)
Month of Sept 2015	Sept 2015 Quarter	YTD	25 th percentile	75 th percentile	Median	Mean	Mode			
1,161	1,016	1,016	963	1,200	1,000	1,041	1,000	3,243	22	1,200 – 1,300

Figure 22: Entitlement market price range by volume



Data Sources: NSW Water Register

(<http://registers.water.nsw.gov.au/wma/WaterShareIntraWSLocSearch.jsp?selectedRegister=WaterShare>,
<http://www.water.nsw.gov.au/water-licensing/registers>), National Water Exchange (www.waterexchange.com.au), Waterfind (www.waterfind.com.au), H2OX (www.h2ox.com)

2.11 NSW Murray: High Security

Figure 23: Entitlement market prices and volumes

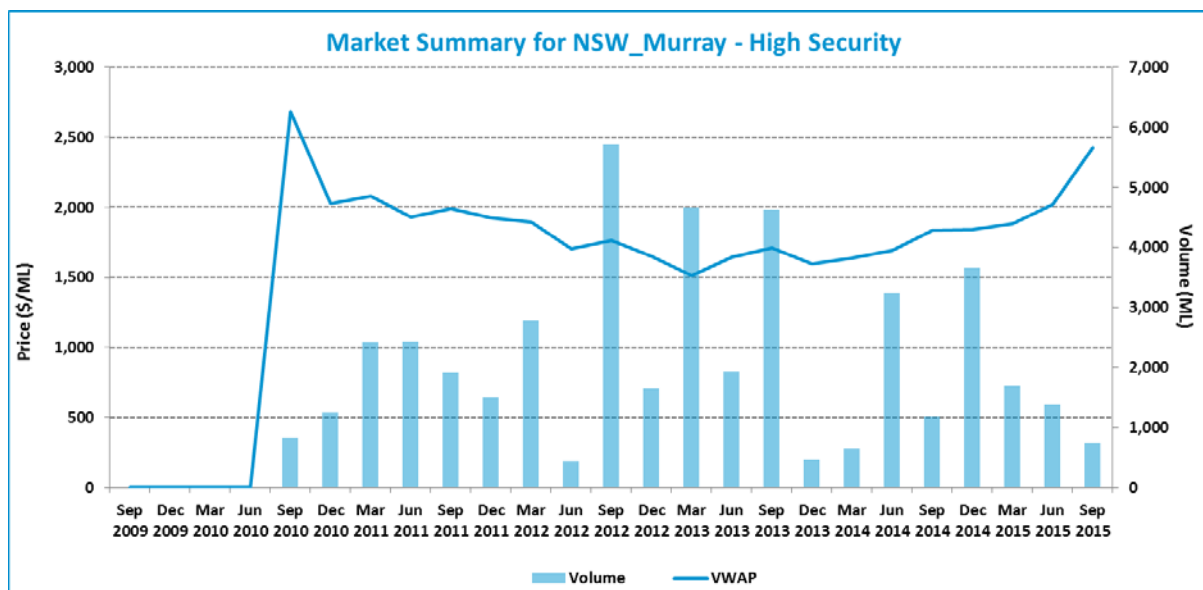
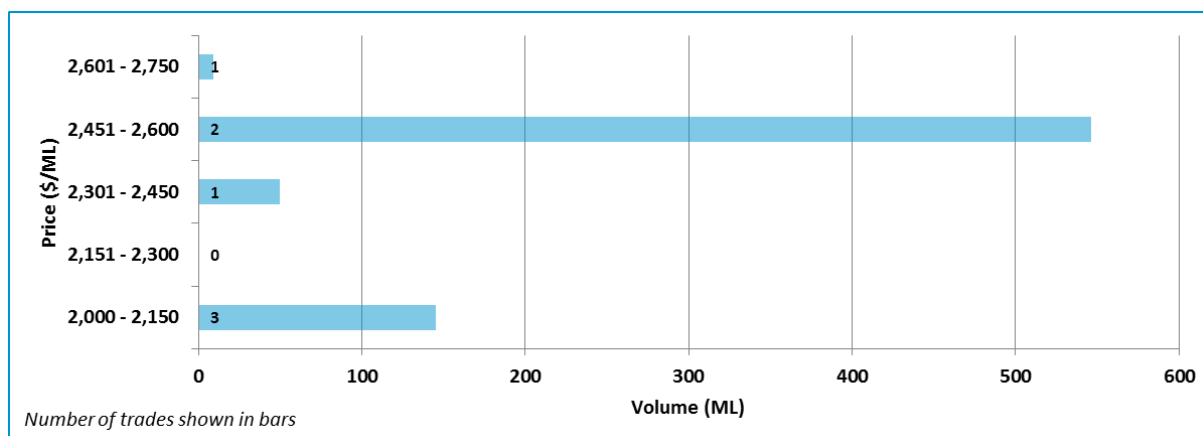


Table 12: Entitlement market prices and volumes

Volume weighted average price (\$/ML)			September 2015 Quarter (in \$/ML)					Sept 2015 Quarter Volume (ML)	Sept 2015 Quarter # of trades	Market Spot Price (\$/ML)
Month of Sept 2015	Sept 2015 Quarter	YTD	25 th percentile	75 th percentile	Median	Mean	Mode			
-	2,427	2,427	2,150	2,500	2,400	2,350	2,150	750	7	2,750 – 3,200

Figure 24: Entitlement market price range by volume



Note: Two trades which are inside two standard deviations of the average price of water entitlements have been excluded for this region.

Data Sources: NSW Water Register

(<http://registers.water.nsw.gov.au/wma/WaterShareIntraWSLocSearch.jsp?selectedRegister=WaterShare>,

<http://www.water.nsw.gov.au/water-licensing/registers>), National Water Exchange (www.waterexchange.com.au), Waterfind

(www.waterfind.com.au), H2OX (www.h2ox.com)

2.12 NSW Murray Irrigation Limited

Figure 25: Entitlement market prices and volumes

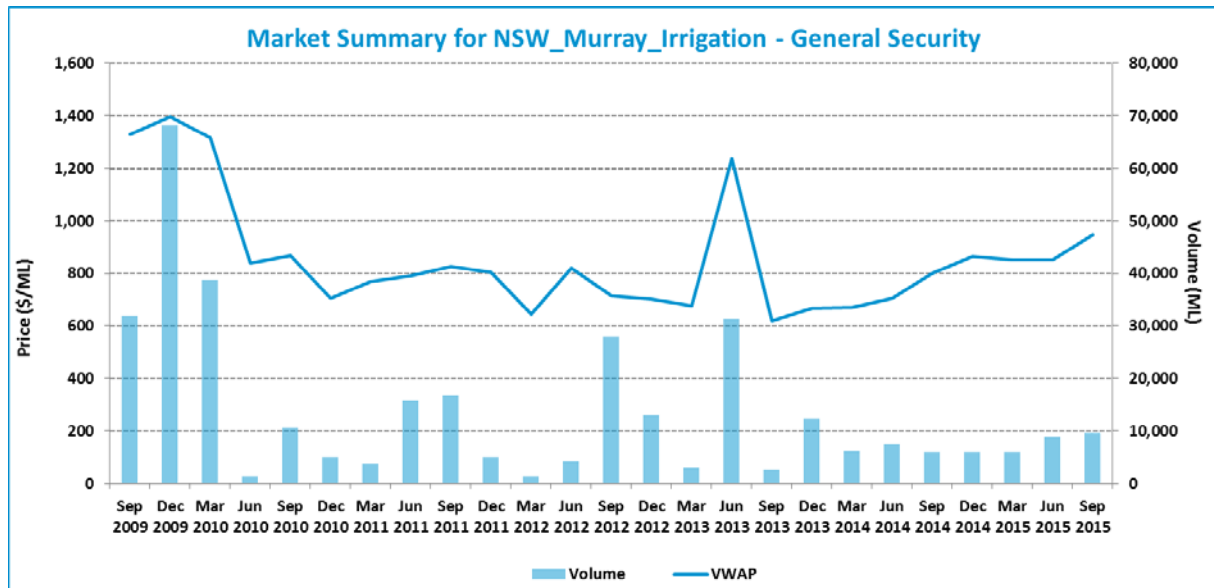
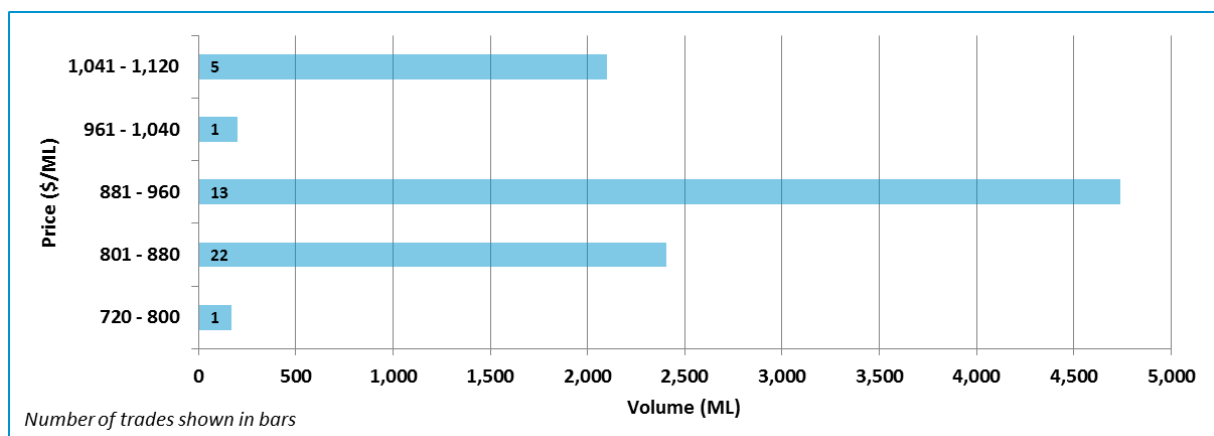


Table 13: Entitlement market prices and volumes

Volume weighted average price (\$/ML)			September 2015 Quarter (in \$/ML)					Sept 2015 Quarter Volume (ML)	Sept 2015 Quarter # of trades	Market Spot Price (\$/ML)
Month of Sept 2015	Sept 2015 Quarter	YTD	25 th percentile	75 th percentile	Median	Mean	Mode			
946	946	946	850	950	850	907	850	9,614	42	850 – 950

Figure 26: Entitlement market price range by volume



Note: Some trades which are outside two standard deviations of the average price of water entitlements have been included for this region.

Data Sources: Murray Irrigation Limited (www.murrayirrigation.com.au)

2.13 Murrumbidgee: General Security

Figure 27: Entitlement market prices and volumes

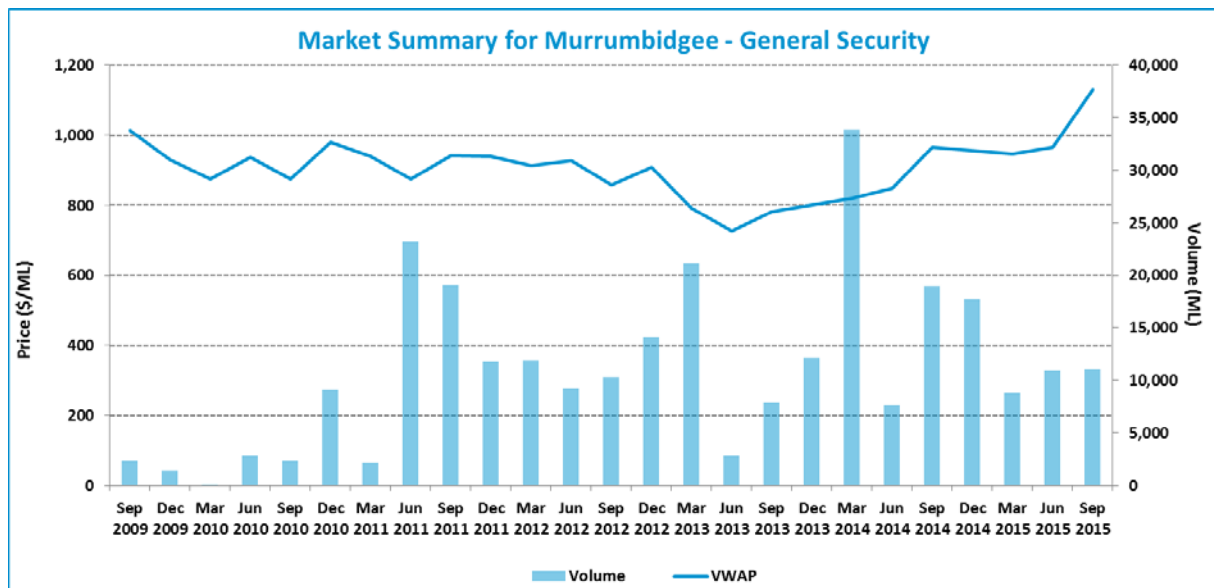
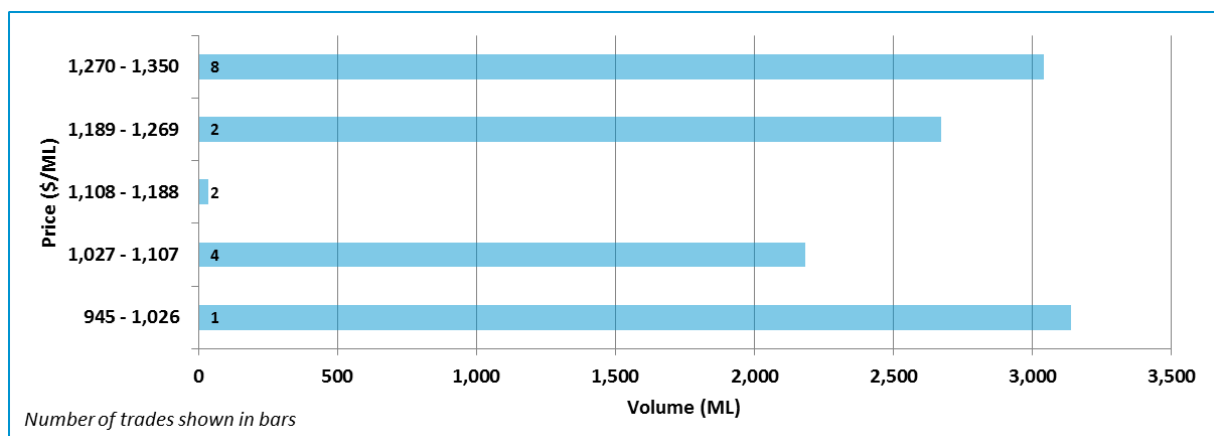


Table 14: Entitlement market prices and volumes

Volume weighted average price (\$/ML)			September 2015 Quarter (in \$/ML)					Sept 2015 Quarter Volume (ML)	Sept 2015 Quarter # of trades	Market Spot Price (\$/ML)
Month of Sept 2015	Sept 2015 Quarter	YTD	25 th percentile	75 th percentile	Median	Mean	Mode			
1,248	1,130	1,130	1,100	1,310	1,200	1,201	1,340	11,070	17	1,350 – 1,400

Figure 28: Entitlement market price range by volume



Data Sources: NSW Water Register

(<http://registers.water.nsw.gov.au/wma/WaterShareIntraWSLocSearch.jsp?selectedRegister=WaterShare>,
<http://www.water.nsw.gov.au/water-licensing/registers>), National Water Exchange (www.waterexchange.com.au), Waterfind
(www.waterfind.com.au), H2OX (www.h2ox.com)

2.14 Murrumbidgee: High Security

Figure 29: Entitlement market prices and volumes

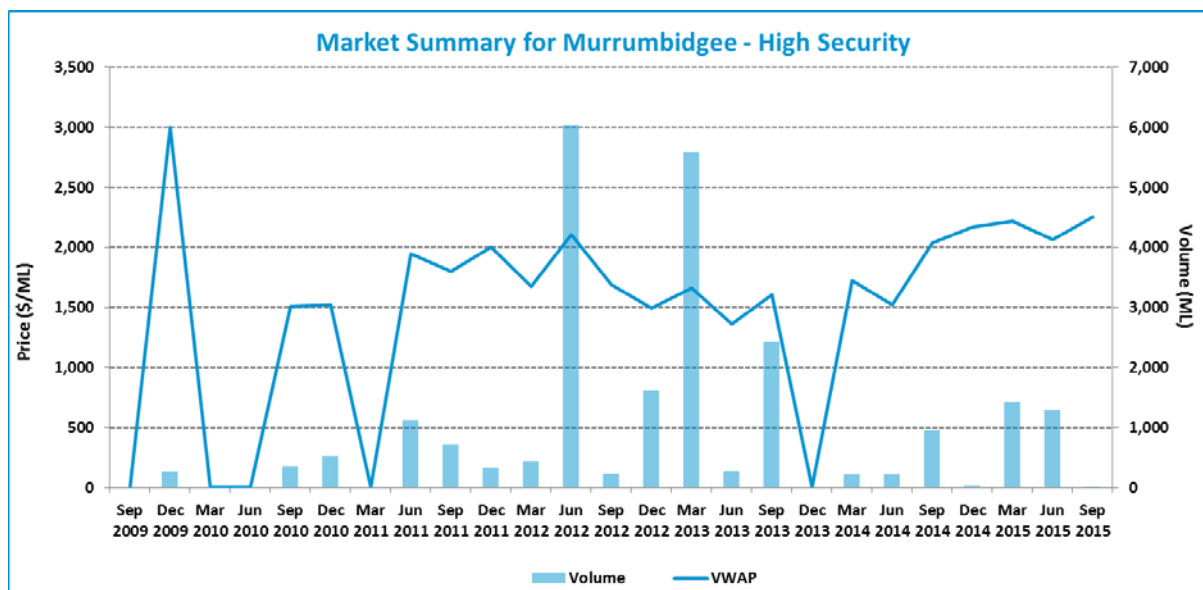
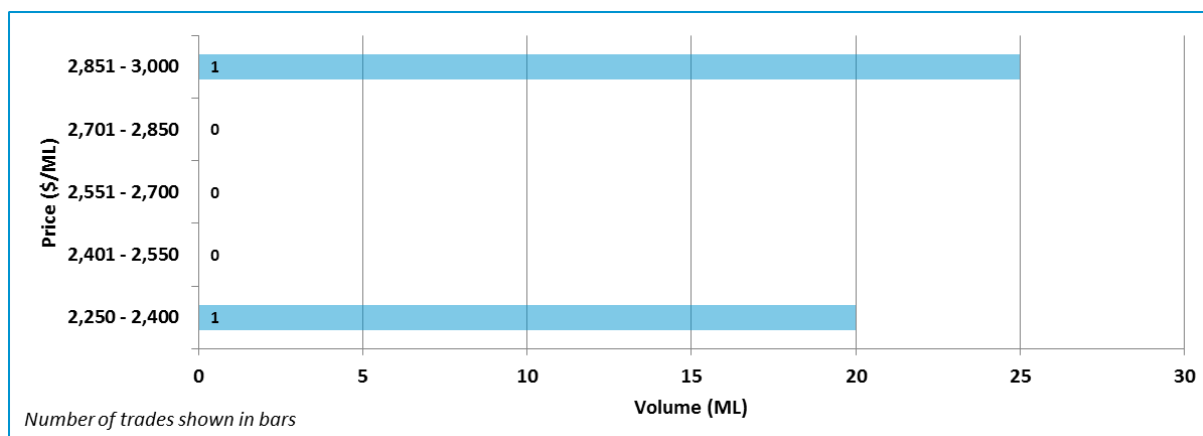


Table 15: Entitlement market prices and volumes

Volume weighted average price (\$/ML)			September 2015 Quarter (in \$/ML)					Sept 2015 Quarter Volume (ML)	Sept 2015 Quarter # of trades	Market Spot Price (\$/ML)
Month of Sept 2015	Sept 2015 Quarter	YTD	25 th percentile	75 th percentile	Median	Mean	Mode			
2,667	2,667	2,667	2,438	2,813	2,625	2,625	-	45	2	3,200 – 3,500

Figure 30: Entitlement market price range by volume



Data Sources: NSW Water Register

(<http://registers.water.nsw.gov.au/wma/WaterShareIntraWSLocSearch.jsp?selectedRegister=WaterShare>,

<http://www.water.nsw.gov.au/water-licensing/registers>), National Water Exchange (www.waterexchange.com.au), Waterfind

(www.waterfind.com.au), H2OX (www.h2ox.com)

2.15 Lower Darling: General Security

Figure 31: Entitlement market prices and volumes

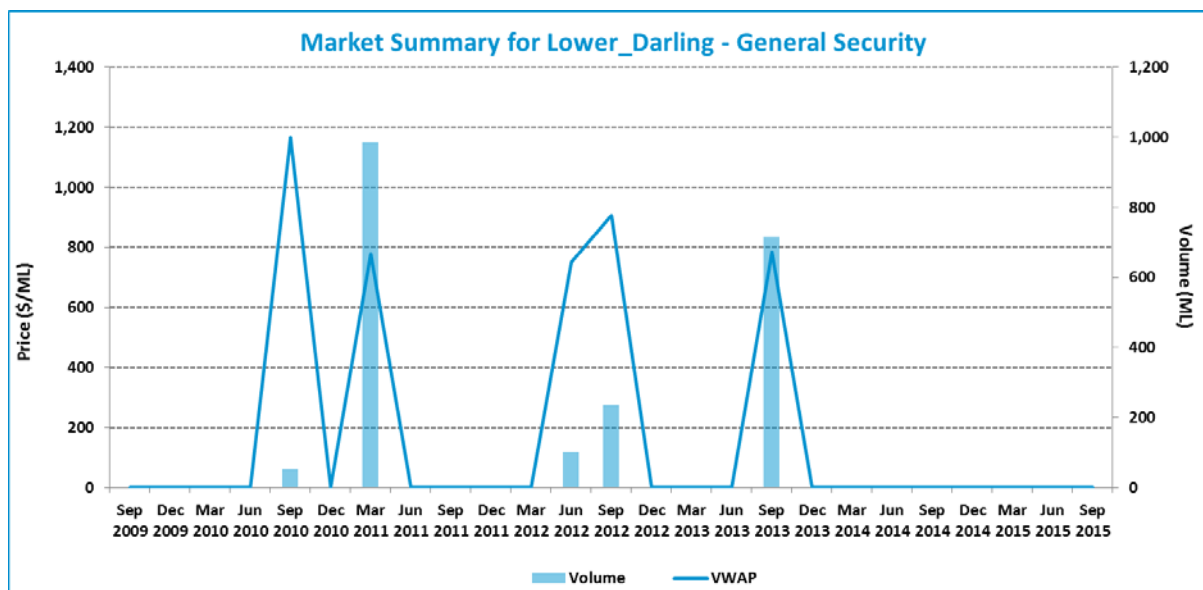


Table 16: Entitlement market prices and volumes

Volume weighted average price (\$/ML)			September 2015 Quarter (in \$/ML)					Sept 2015 Quarter Volume (ML)	Sept 2015 Quarter # of trades	Market Spot Price (\$/ML)
Month of Sept 2015	Sept 2015 Quarter	YTD	25 th percentile	75 th percentile	Median	Mean	Mode			
-	-	-	-	-	-	-	-	-	-	No listings

Data Sources: NSW Water Register

(<http://registers.water.nsw.gov.au/wma/WaterShareIntraWSLocSearch.jsp?selectedRegister=WaterShare>,

<http://www.water.nsw.gov.au/water-licensing/registers>), National Water Exchange (www.waterexchange.com.au), Waterfind

(www.waterfind.com.au), H2OX (www.h2ox.com)

2.16 Lower Darling: High Security

Figure 32: Entitlement market prices and volumes

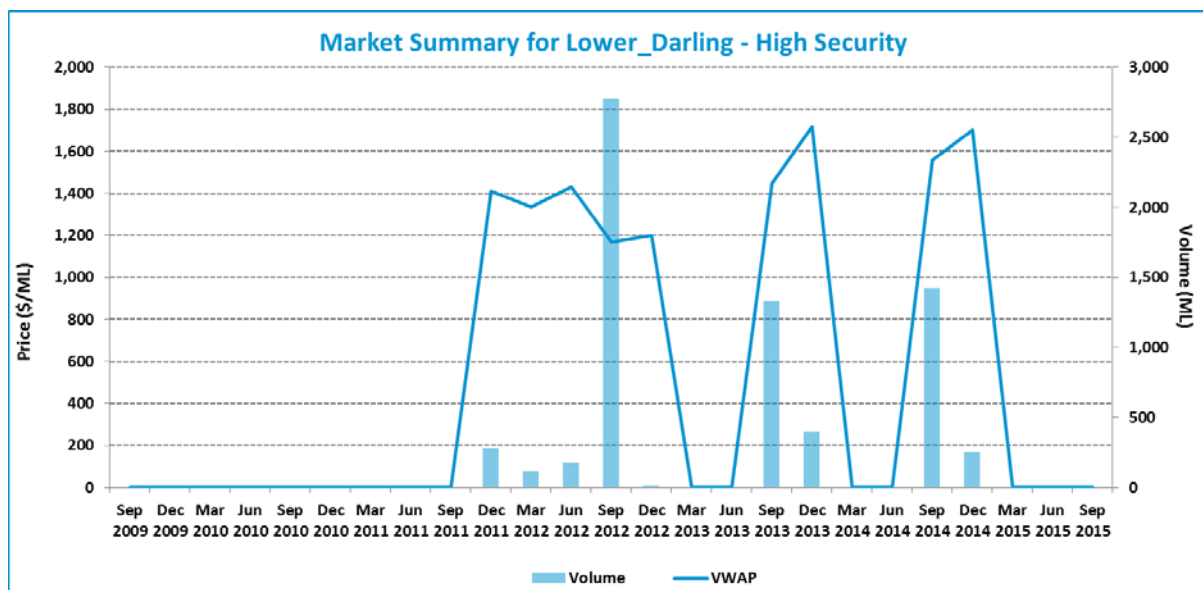


Table 17: Entitlement market prices and volumes

Volume weighted average price (\$/ML)			September 2015 Quarter (in \$/ML)					Sept 2015 Quarter Volume (ML)	Sept 2015 Quarter # of trades	Market Spot Price (\$/ML)
Month of Sept 2015	Sept 2015 Quarter	YTD	25 th percentile	75 th percentile	Median	Mean	Mode			
-	-	-	-	-	-	-	-	-	-	No listings

Data Sources: NSW Water Register

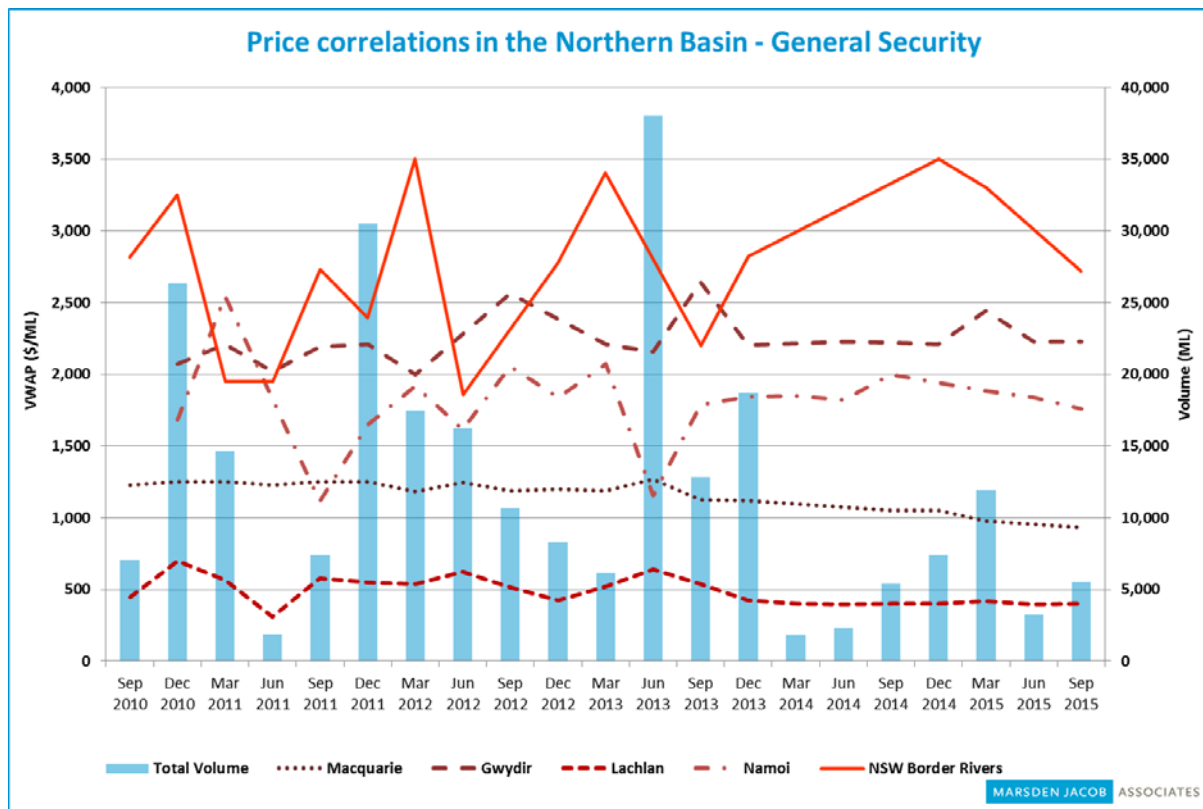
(<http://registers.water.nsw.gov.au/wma/WaterShareIntraWSLocSearch.jsp?selectedRegister=WaterShare>,

<http://www.water.nsw.gov.au/water-licensing/registers>), National Water Exchange (www.waterexchange.com.au), Waterfind

(www.waterfind.com.au), H2OX (www.h2ox.com)

3. Northern Murray-Darling Basin

Figure 33: Price correlation in the Northern Basin: General Security



Source: Marsden Jacob analysis, 2015

Note: Zero values have been interpolated in this chart so it differs from the region and entitlement specific charts.

3.1 Macquarie: General Security

Figure 34: Entitlement market prices and volumes

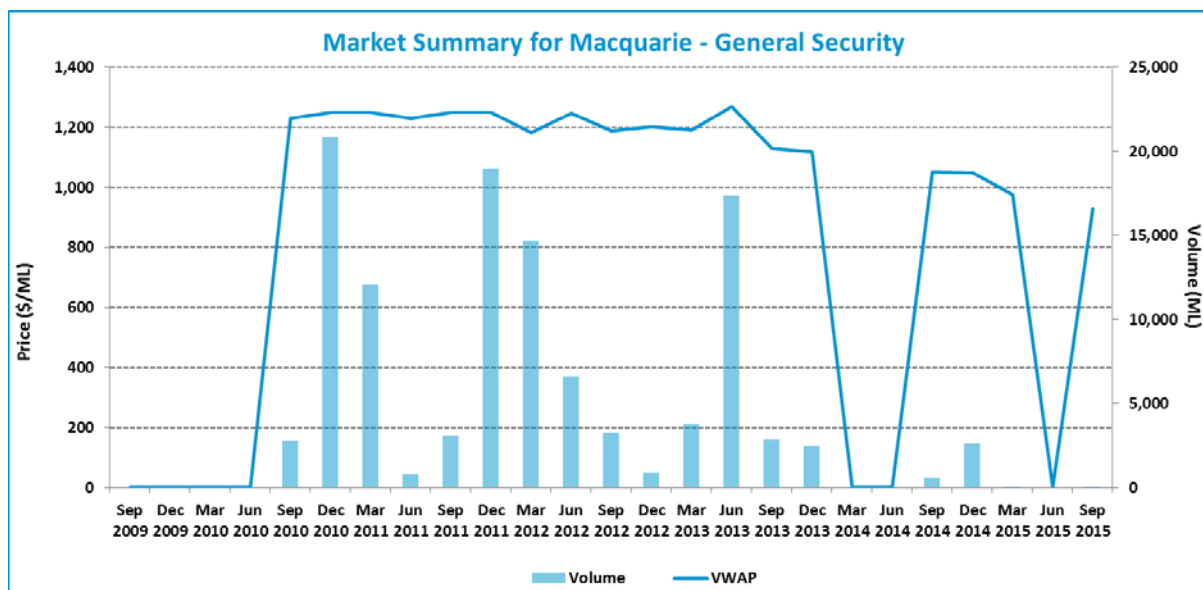
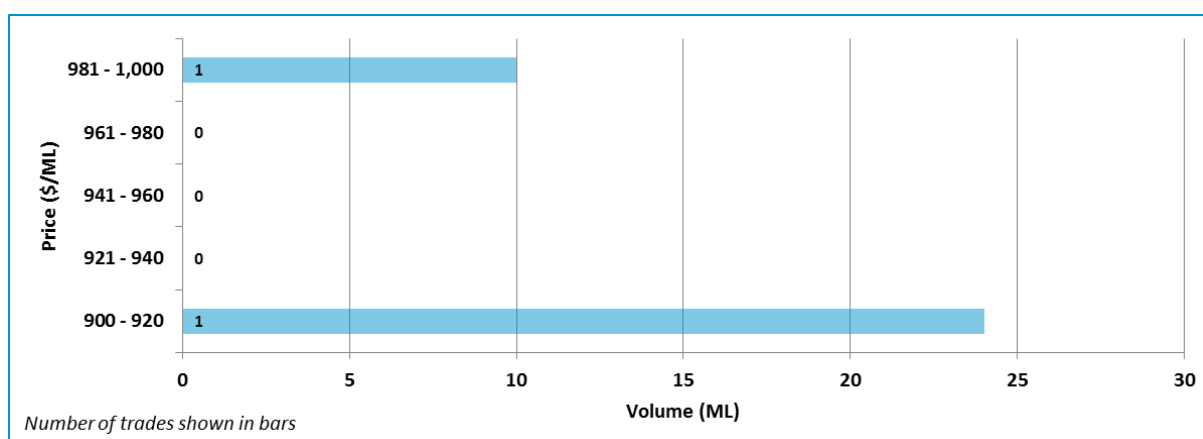


Table 18: Entitlement market prices and volumes

Volume weighted average price (\$/ML)			September 2015 Quarter (in \$/ML)					Sept 2015 Quarter Volume (ML)	Sept 2015 Quarter # of trades	Market Spot Price (\$/ML)
Month of Sept 2015	Sept 2015 Quarter	YTD	25 th percentile	75 th percentile	Median	Mean	Mode			
1,000	929	929	925	975	950	950	-	34	2	900 – 1,000

Figure 35: Entitlement market price range by volume



Data Sources: NSW Water Register

(<http://registers.water.nsw.gov.au/wma/WaterShareIntraWSLocSearch.jsp?selectedRegister=WaterShare>, <http://www.water.nsw.gov.au/water-licensing/registers>), Waterfind (www.waterfind.com.au)

3.2 Namoi: General Security

Figure 36: Entitlement market prices and volumes

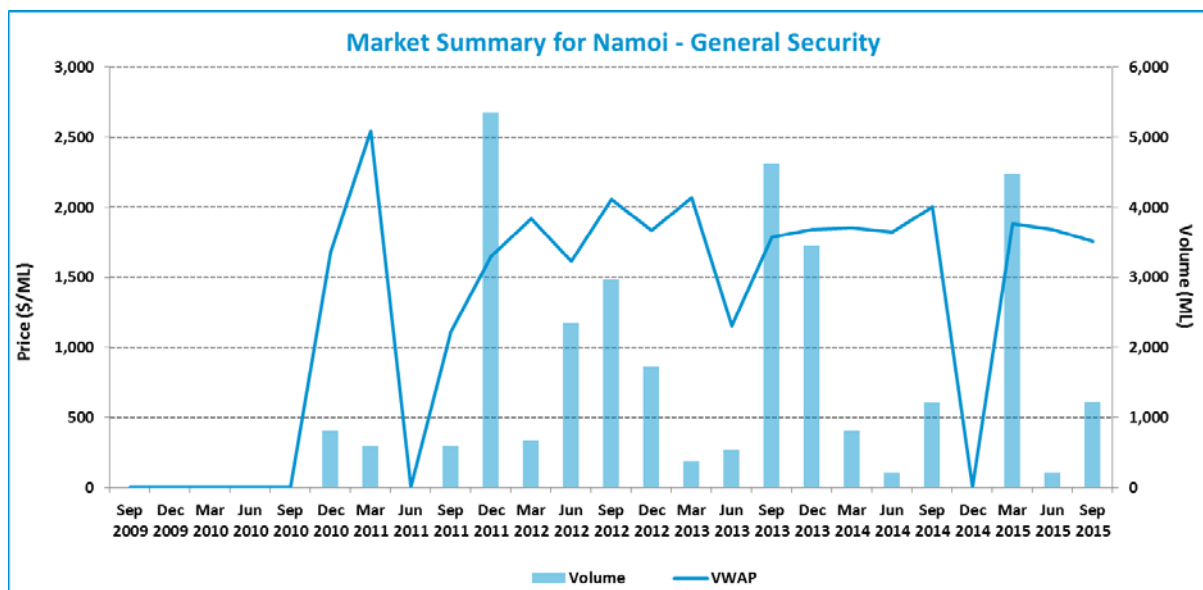
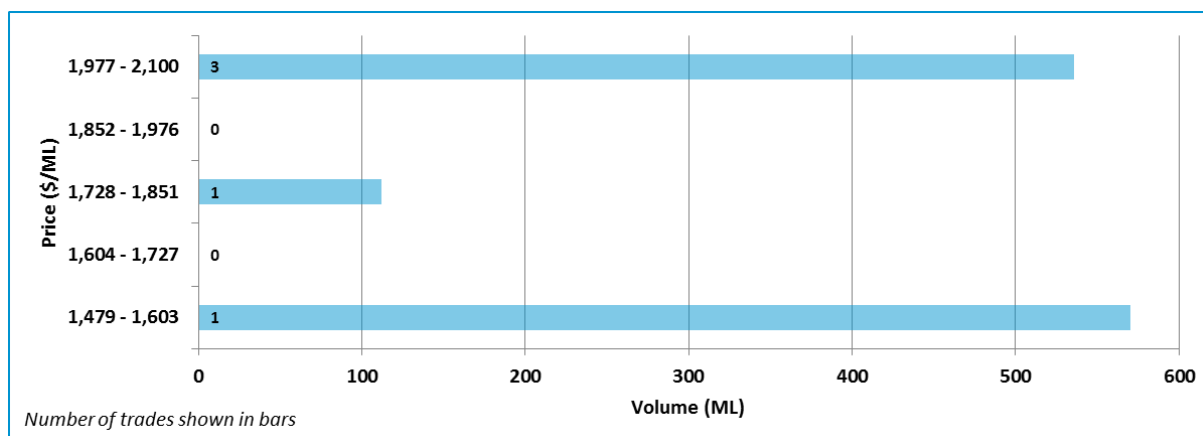


Table 19: Entitlement market prices and volumes

Volume weighted average price (\$/ML)			September 2015 Quarter (in \$/ML)					Sept 2015 Quarter Volume (ML)	Sept 2015 Quarter # of trades	Market Spot Price (\$/ML)
Month of Sept 2015	Sept 2015 Quarter	YTD	25 th percentile	75 th percentile	Median	Mean	Mode			
-	1,758	1,758	1,800	2,100	2,000	1,896	2,100	1,218	5	1,900 – 2,000

Figure 37: Entitlement market price range by volume



Data Sources: NSW Water Register

(<http://registers.water.nsw.gov.au/wma/WaterShareIntraWSLocSearch.jsp?selectedRegister=WaterShare>,

<http://www.water.nsw.gov.au/water-licensing/registers>), Waterfind (www.waterfind.com.au)

3.3 Gwydir: General Security

Figure 38: Entitlement market prices and volumes

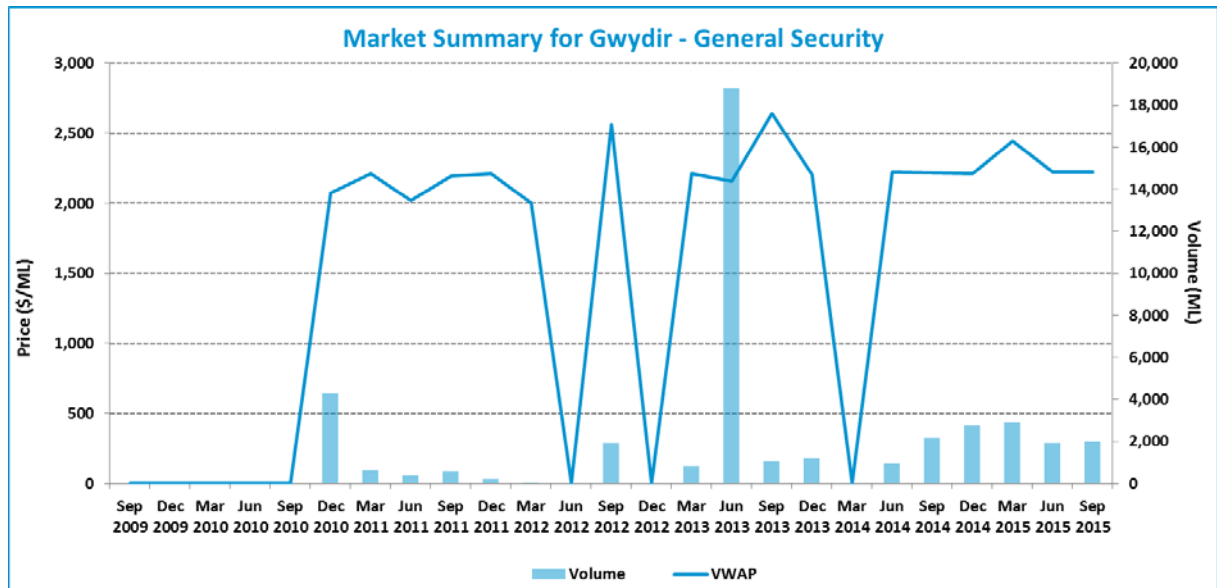
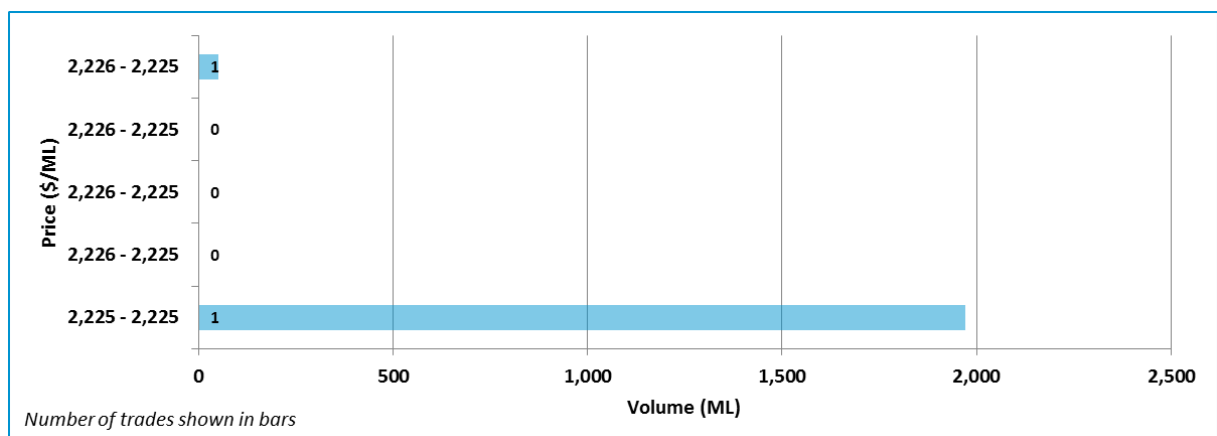


Table 20: Entitlement market prices and volumes

Volume weighted average price (\$/ML)			September 2015 Quarter (in \$/ML)					Sept 2015 Quarter Volume (ML)	Sept 2015 Quarter # of trades	Market Spot Price (\$/ML)
Month of Sept 2015	Sept 2015 Quarter	YTD	25 th percentile	75 th percentile	Median	Mean	Mode			
2,225	2,225	2,225	2,225	2,225	2,225	2,225	-	2,022	2	2,100 – 2,200

Figure 39: Entitlement market price range by volume



Data Sources: NSW Water Register

(<http://registers.water.nsw.gov.au/wma/WaterShareIntraWSLocSearch.jsp?selectedRegister=WaterShare>,
<http://www.water.nsw.gov.au/water-licensing/registers>), Waterfind (www.waterfind.com.au)

3.4 NSW Border Rivers: General Security

Figure 40: Entitlement market prices and volumes

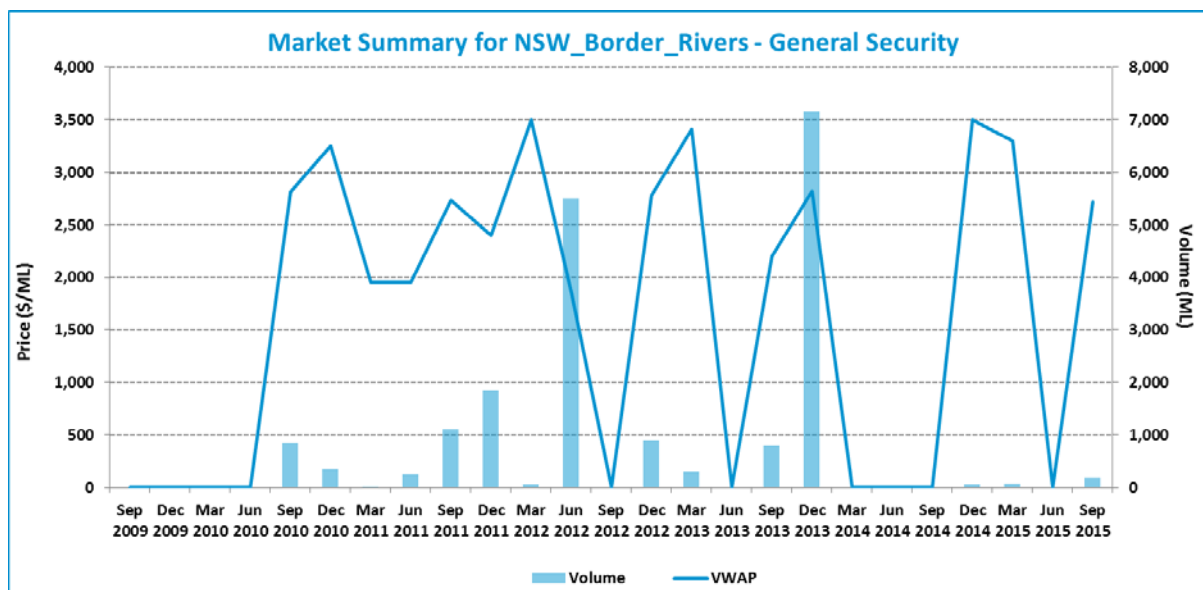
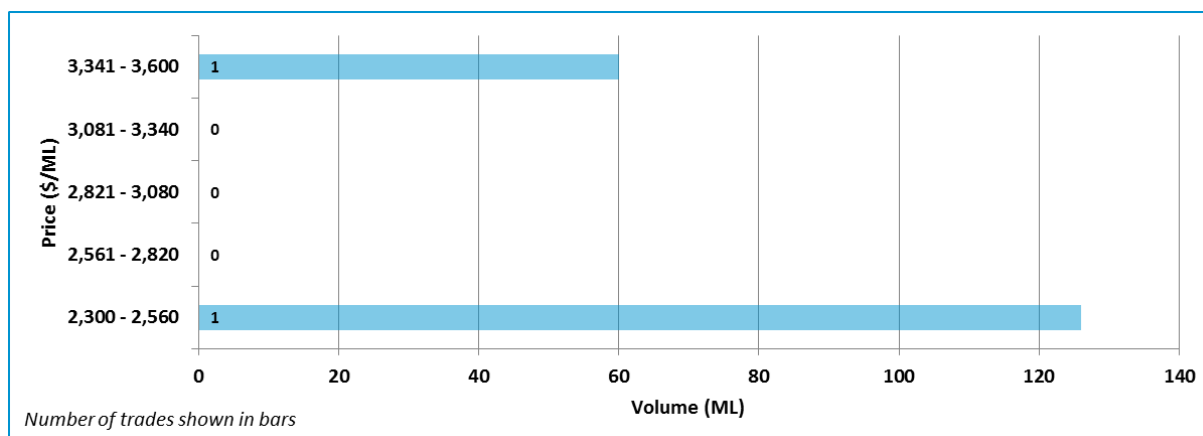


Table 21: Entitlement market prices and volumes

Volume weighted average price (\$/ML)			September 2015 Quarter (in \$/ML)					Sept 2015 Quarter Volume (ML)	Sept 2015 Quarter # of trades	Market Spot Price (\$/ML)
Month of Sept 2015	Sept 2015 Quarter	YTD	25 th percentile	75 th percentile	Median	Mean	Mode			
-	2,719	2,719	2,625	3,275	2,950	2,950	-	186	2	2,000 – 2,200

Figure 41: Entitlement market price range by volume



Data Sources: NSW Water Register

(<http://registers.water.nsw.gov.au/wma/WaterShareIntraWSLocSearch.jsp?selectedRegister=WaterShare>, <http://www.water.nsw.gov.au/water-licensing/registers>), Waterfind (www.waterfind.com.au)

3.5 Barwon Darling: Unregulated

Figure 42: Entitlement market prices and volumes

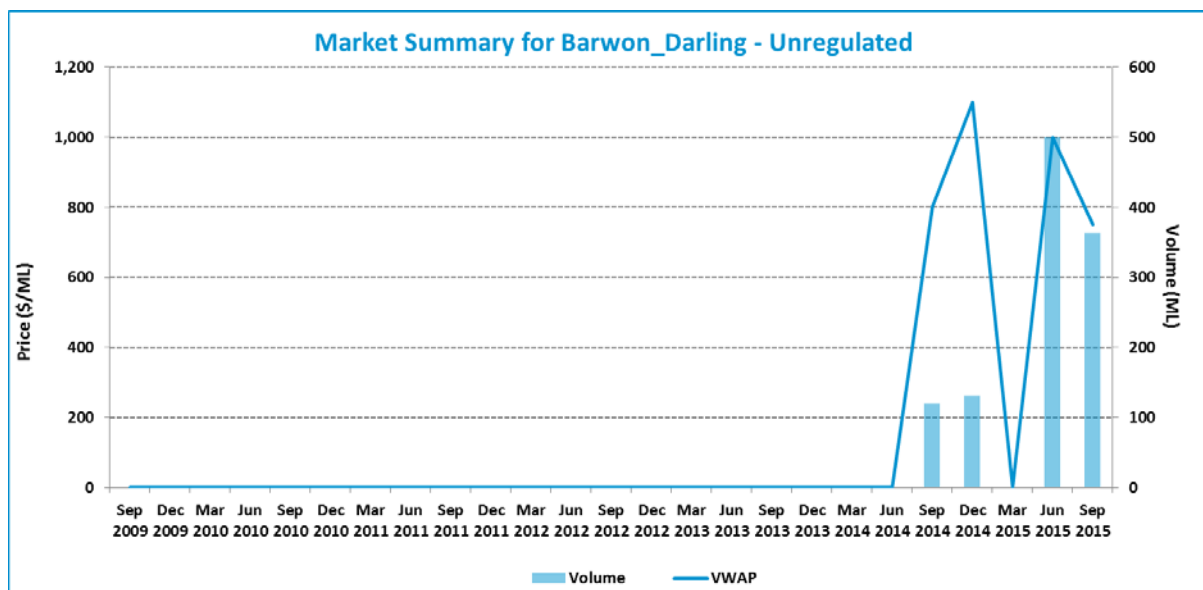


Table 22: Entitlement market prices and volumes

Volume weighted average price (\$/ML)			September 2015 Quarter (in \$/ML)					Sept 2015 Quarter Volume (ML)	Sept 2015 Quarter # of trades	Market Spot Price (\$/ML)
Month of Sept 2015	Sept 2015 Quarter	YTD	25 th percentile	75 th percentile	Median	Mean	Mode			
750	750	750	-	-	-	-	-	364	1	1,000 – 1,300

Data Sources: NSW Water Register

(<http://registers.water.nsw.gov.au/wma/WaterShareIntraWSLocSearch.jsp?selectedRegister=WaterShare>, <http://www.water.nsw.gov.au/water-licensing/registers>), Waterfind (www.waterfind.com.au)

3.6 Lachlan: General Security

Figure 43: Entitlement market prices and volumes

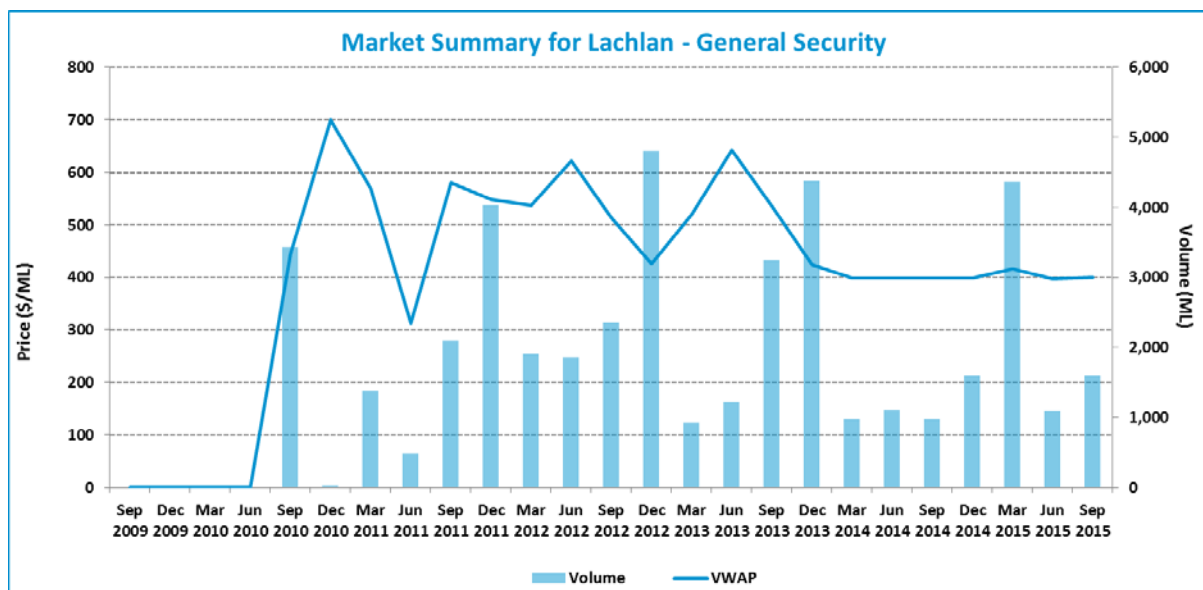
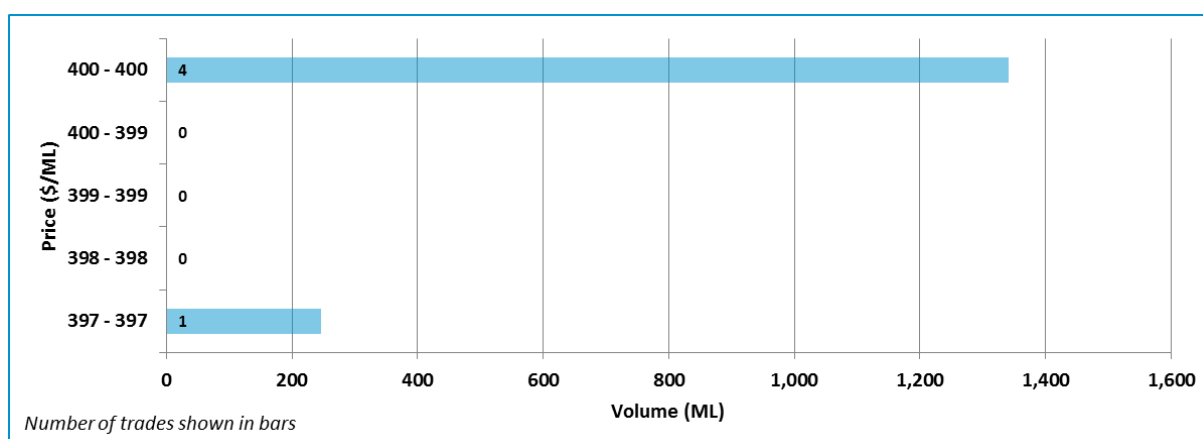


Table 23: Entitlement market prices and volumes

Volume weighted average price (\$/ML)			September 2015 Quarter (in \$/ML)					Sept 2015 Quarter Volume (ML)	Sept 2015 Quarter # of trades	Market Spot Price (\$/ML)
Month of Sept 2015	Sept 2015 Quarter	YTD	25 th percentile	75 th percentile	Median	Mean	Mode			
398	399	399	400	400	400	399	400	1,589	5	400 – 460

Figure 44: Entitlement market price range by volume



Data Sources: NSW Water Register

(<http://registers.water.nsw.gov.au/wma/WaterShareIntraWSLocSearch.jsp?selectedRegister=WaterShare>, <http://www.water.nsw.gov.au/water-licensing/registers>), Waterfind (www.waterfind.com.au)

3.7 Queensland

The markets in Queensland are very thin, with only limited trading of entitlements occurring.

Queensland does not maintain a publicly available trade register. Information on entitlement trades is provided on an aggregated monthly basis.

Table 24: Entitlement market prices and volumes

Resource Operation Plan	Water Supply Scheme / Water Management Area	Type of Entitlement	Volume weighted average price (\$/ML)			Sept 2015 Quarter Volume (ML)	Sept 2015 Quarter # of trades
			Month of Sept 2015	Sept 2015 Quarter	YTD \$/ML		
QLD Border Rivers	Border Rivers/ Macintyre Brook	Supplemented	No trade	1,692	1,692	584	5
QLD Border Rivers	Border Rivers	Unsupplemented	No trade	No trade	No trade	No trade	No trade
Condamine-Balonne	St. George	Supplemented	2,409	2,459	2,459	1,960	10
Condamine-Balonne	Condamine Balonne / Lower Balonne / Upper Condamine	Unsupplemented	No trade	414	414	29	2
Condamine-Balonne	Upper Condamine	Alluvium Ground-water ^a	-	-	-	-	-
Condamine-Balonne	Lower Balonne	Overland Flow	-	-	-	-	-

Note: a. Data is only available up to June 2015 on the QLD Government website: https://www.dnrm.qld.gov.au/_data/assets/pdf_file/0008/293579/central-condamine-alluvium-water-licence-relocation-reports-to-30-june-2015.pdf (accessed 19 October 2015)

Data Sources: Queensland Business and industry portal (<https://www.business.qld.gov.au/industry/water/managing-accessing/markets-trading/market-information>)

Appendix 1: Regions and water sources

Table 25: Water Sources (Southern MDB)

Region	Water Source
SA Murray	River Murray Prescribed Water Course (Class 3a)
VIC Murray above Barmah Choke	6 Vic Murray Dart to Barmah
Vic Murray below Barmah Choke	7 Vic Murray Barmah to SA 6B Lower Broken Creek
Goulburn	1A Greater Goulburn 1B Boort 3 Lower Goulburn
Campaspe	4A Campaspe Eppalock to WWC 4C Lower Campaspe
Loddon	5A Loddon – Coliban Channel to Lower Weir Pool (now 5A Loddon - CC/Tull to LWP) 5B Bullarook
NSW Murray	New South Wales Murray Regulated River Water Source
Murrumbidgee	Murrumbidgee Regulated River Water Source
Lower Darling	Lower Darling Regulated River Water Source

Table 26: Water Sources (Northern MDB)

Region	Entitlement Type
Macquarie	Macquarie and Cudgegong Regulated Rivers Water Source
Namoi	Lower Namoi Regulated River Water Source Upper Namoi Regulated River Water Source
Gwydir	Gwydir Regulated River Water Source
NSW Border Rivers	Border Rivers Regulated River Water Source
Barwon Darling	Barwon Darling Unregulated River Water Source
Lachlan	Lachlan Regulated River Water Source