

# Marne Saunders water planning newsletter

Welcome to the Marne Saunders water planning newsletter for July 2018. This newsletter provides information on the progress of the implementation of the Marne Saunders Water Allocation Plan (WAP).



## Flows for the Future Program

The world's first landscape-scale intermittent stream management program

Livestock SA are partnering with Natural Resources SA Murray-Darling Basin in support of the Flows for the Future Program (F4F Program).

To date, field officers from the F4F Program, Livestock SA, and the Goolwa to Wellington Local Action Planning Association have contacted landholders at more than 200 priority sites throughout the Eastern Mount Lofty Ranges (EMLR) to discuss low flow device installation on their dams and watercourse diversions. Over 110 landholders are on the path towards installing devices on their properties and low flows are now being passed at over 60 sites, with the numbers increasing daily.

Low flows of water are intercepted by over 20,000 dams in the Mount Lofty Ranges. These flows need to pass through catchments at the right times to maintain catchment health, which is declining in many areas. The installation of low flow devices helps to mimic the natural pattern of flow by allowing these flows to pass when they would normally occur. This allows for

connectivity of permanent pools and survival of aquatic plants and animals.

Eden Valley producer Mark Bartholomaeus said he was pleased that Livestock SA was working on the F4F Program.

"It's been good dealing with Livestock SA field officers to talk about the F4F Program, they understand my particular concerns as a producer," Mr Bartholomaeus said.

"Having a low flow by-pass device installed had always been a condition of the water licence I was granted.

"Having the cost covered for me through this project is a huge saving for me – both in time and money."

Productive and sustainable businesses need healthy water catchments. Reinstating a more natural water flow pattern is crucial to help ensure water resources are maintained into the future.

*(continued overleaf)*



Government of  
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SA Murray-Darling Basin

## Flows for the Future Program *continued*

Low flows are also needed to maintain water allocations at current levels. The EMLR and Marne Saunders water allocation plans and resulting water allocations to licence holders are based on low flows being passed.

The F4F Program offers funding for the design and installation of site-specific, tailored low flow devices at no up-front cost to the landholder.

The F4F Program's field officers are continuing to meet with landholders of priority sites to discuss which design would work best on each individual property.

The F4F Program currently operates in the Angas River, Rodwell Creek, Marne River and Saunders Creek catchments. By mid-2018, the focus will shift toward other areas of the Bremer catchment.

The Flows for the Future Program is a \$13.48 million program funded by the Australian and South Australian governments.

To help understand the concept of low flows and why they are important, an animation video is available on the Flows for the Future website, as well as a summary of the science informing the F4F Program:

[www.naturalresources.sa.gov.au/flows-for-future](http://www.naturalresources.sa.gov.au/flows-for-future)



## Results of annual water use surveys for 2016-17

Water licensees in the Marne Saunders area complete an annual water use survey each year. This survey gathers information on how people used their allocations over the water use year, and how this may change in the future. This information is important for managing water resources in the region based on the changing needs of the community.

In April 2017, 104 respondents provided information representing 68% of licensees in the region. This is a good improvement on the 2014-15 survey, where 55% of licensees provided information.

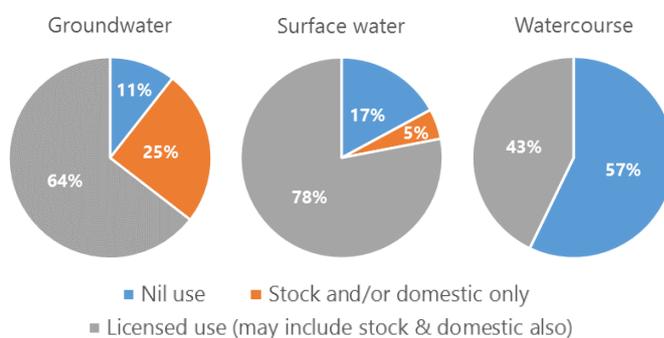
The information presented below is drawn from these responses and is about use from licensed sources only.

Most respondents reported having groundwater as a licensed resource (74%), with 41% having surface water, and 8% having watercourse water. Note that 22% of respondents had access to more than one water resource for licensed use.

In 2016-17, 65% of respondents used water for licensed purposes (e.g. irrigation, industrial use, intensive animal keeping), compared to 64% in the 2014-15 survey.

Figure 1 shows a comparison of water use from licensed sources for 2016-17, across the three water resources.

Licensed groundwater sources were more likely to be used for stock and domestic purposes only (25% of respondents), compared to the other water resources (5% for licensed surface water sources and 0% for licensed watercourse sources). A higher percentage of respondents reported nil use from their licensed watercourse sources (57% of respondents), compared to 17% for surface water and 11% for groundwater. This result may reflect the more variable availability of water over time from watercourses compared to dams and bores, but also may be affected by the small number of respondents using watercourses as a licensed source.



▲ Figure 1: Percentage of respondents using licensed sources for nil use vs stock and domestic use only vs licensed use, for the three water resources in 2016-17



There were 14 different licensed purposes across all the respondents for 2016-17. Wine grapes was the most common purpose reported (39% of respondents), followed by lucerne (12%), olives (4%) and turf - including commercial production and recreational use such as ovals (4%).

Figure 2 shows the number of respondents using water for different categories of licensed purposes, across the three water resources.

Over 90% of respondents provided information on the scale or size of their licensed water use, such as the number of hectares for a crop or number of tonnes crushed at a winery. Figure 3 shows the number of hectares of different crop types watered with licensed sources reported for 2016-17. The largest reported crop area was for wine grapes (540 hectares or 72% of the total crop area), followed by lucerne (101 ha or 13%), turf (78 ha or 10%), and olives (27 ha or 4%).

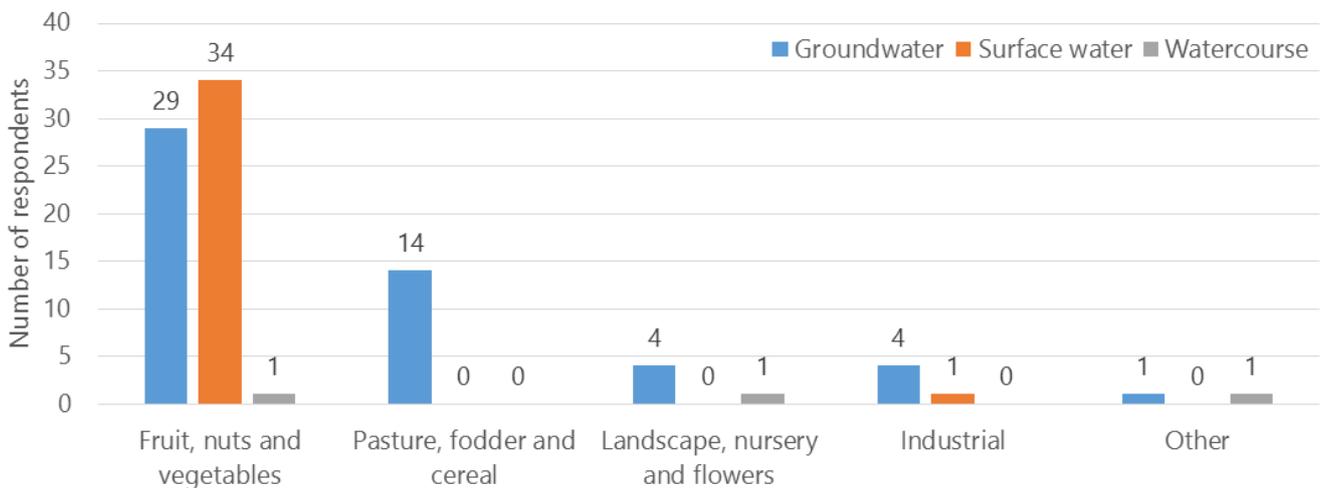
The survey asked people to indicate whether they expected the size of their water-using purpose to increase, decrease or stay the same in future (e.g. crop area expected to increase, decrease or stay the same). 75% of respondents expected the size to stay the same;

24% expected to increase, and 1% expected to decrease.

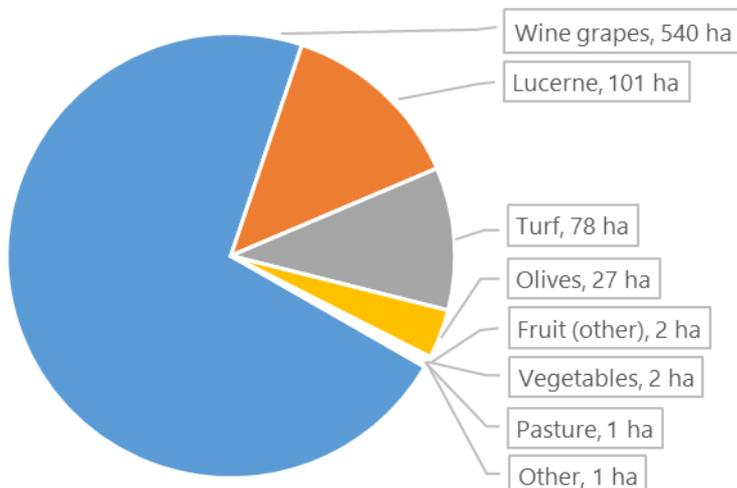
When people were asked about their preference for how to complete future surveys, 48% of responses preferred to complete an online survey, and 52% preferred to complete a hard copy survey. For the 2017-18 survey, both online and hard copy options are being provided.

Information about total licensed water usage and water resource status is provided in the annual groundwater and surface water status reports, available at [www.waterconnect.sa.gov.au/systems/GSR/](http://www.waterconnect.sa.gov.au/systems/GSR/).

Thank you to all who participated in the 2016-17 annual water use survey. Ongoing participation by all licensees is greatly appreciated. If you are a Marne Saunders water licence holder and have not yet received the request to complete the 2017-18 survey, please visit [www.naturalresources.sa.gov.au/water-use-survey-SAMDB](http://www.naturalresources.sa.gov.au/water-use-survey-SAMDB) to link to the online survey or download the survey form, or phone the Annual Water Use Survey Project Officer on 8391 7509 to request a copy to be posted out.



▲ Figure 2: Number of respondents using water for different categories of licensed purposes, across the three water resources in 2016-17



◀ Figure 3: Area (hectares) of different crop types watered from licensed sources, reported by respondents in 2016-17



# Citizen Science

## Community filling important environmental data gaps in EMLR catchments

The catchments in the Eastern Mount Lofty Ranges (EMLR), including the Marne and Saunders catchments, have seen many changes over the last few decades. This will continue into the future as a result of the impacts of climate change, land use and development, and management actions like water allocation planning and the Flows for the Future Program.

Understanding the effects that these changes are having on the amount and quality of the water flowing in the rivers and through catchments is important as they have a direct impact on the local plants, animals and people that rely on the water. Regular monitoring of the river systems over time provide the information we need to understand if the condition of the water resource and the environment is getting better or worse.

Communities across the EMLR have been assisting with environmental monitoring by collecting water quality data for over 25 years.

Community members have been contributing in a number of ways;

- Through the 'Water Watch' program, community members regularly collect salinity and turbidity (suspended sediments in the water) measurements, record water levels and rate of water flow. Any changes in water appearance or odour that may suggest a serious water quality issue are also recorded and reported to the Environment Protection Authority (EPA) for further investigation.



- 'Waterbug Bioblitz' events enable freshwater scientists and community members to combine their talents to collect and identify waterbugs at a number of sites along a river system on a single day. Waterbugs are good indicators of the biodiversity impact of changes in water flow and water quality. Bioblitz events have been held in the Angas River, Finniss River and Marne River catchments to date.

Monitoring sites are chosen carefully to measure for long term catchment health but some sites are monitored because community members have a specific interest or concern for the site. The information collected is also very important for showing how water allocation planning and the Flows for the Future Program are benefiting the environment.

The collection of this data plus the community's local knowledge is a valuable addition to the EMLR water monitoring program.

If you would like more information please visit our website:

[www.naturalresources.sa.gov.au/samurraydarlingbasin/get-involved/citizen-science/water-monitoring](http://www.naturalresources.sa.gov.au/samurraydarlingbasin/get-involved/citizen-science/water-monitoring)

## For more information

**For more information on implementation of the Marne Saunders water allocation plan, please contact:**

**Natural Resources SAMDB – Mount Barker office**

P (08) 8391 7500 [SAMDB.water@sa.gov.au](mailto:SAMDB.water@sa.gov.au)

**For more information on water licensing, transfers and metering, please contact:**

**Murraylands Water Licensing**

P (08) 8595 2053 [DEWWaterTrade@sa.gov.au](mailto:DEWWaterTrade@sa.gov.au)

[www.naturalresources.sa.gov.au/samurraydarlingbasin](http://www.naturalresources.sa.gov.au/samurraydarlingbasin)



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