

URALLA IS TALKING ABOUT WATER!

WHY DID WE
HAVE A WATER
"EMERGENCY"
IN 2020?

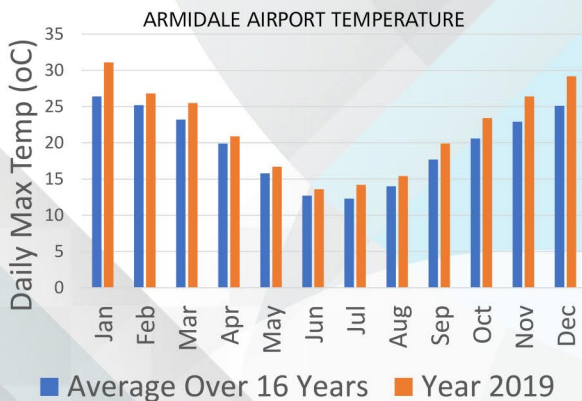
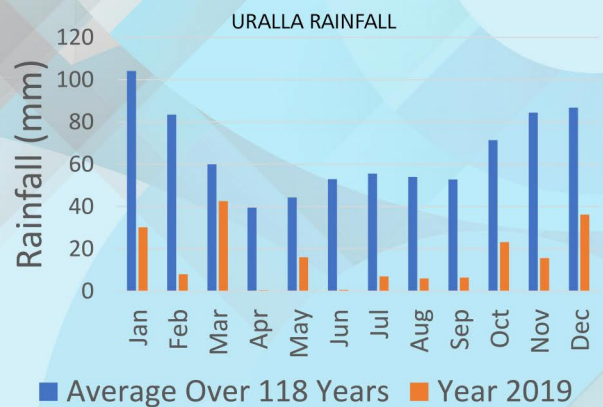
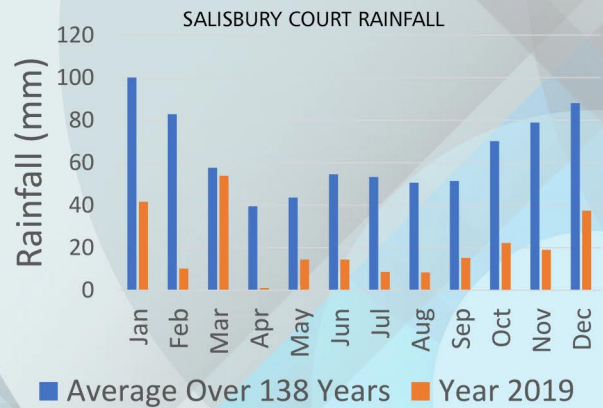
AND WHY DID
IT GET ARSENIC
IN IT?

ZNET Plus in partnership with Uralla Shire Council and Global Water Institute are facilitating a community discussion on how we can best achieve water security. The first step is to become informed. Our first topic is rain and arsenic.

The water problem seems so 2019 now given all that has happened with COVID-19! But we came within 3-4 months of running out of usable water in February 2020 and we certainly could not drink it....

So why did this happen?

Well, low dam levels (down to 29%) is reasonably easy to understand – it just did not rain much! Rainfall records for Uralla and Salisbury Court (very close to the dam catchment) show how low 2019 rainfall was. At both locations it was the lowest on record being about 24% of long-term average for Uralla and 32% of long-term average for Salisbury Court.

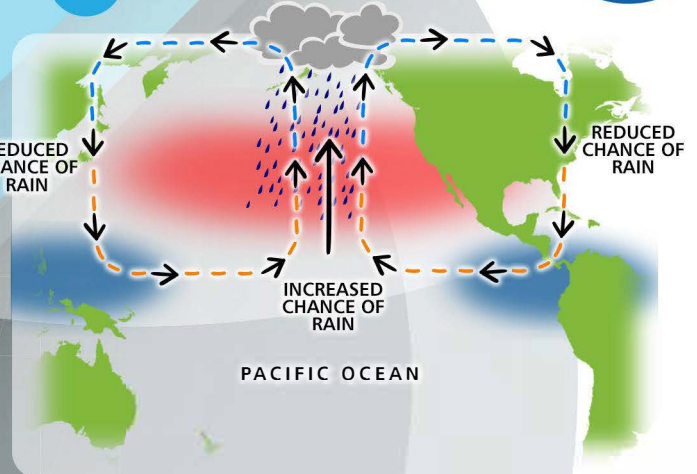
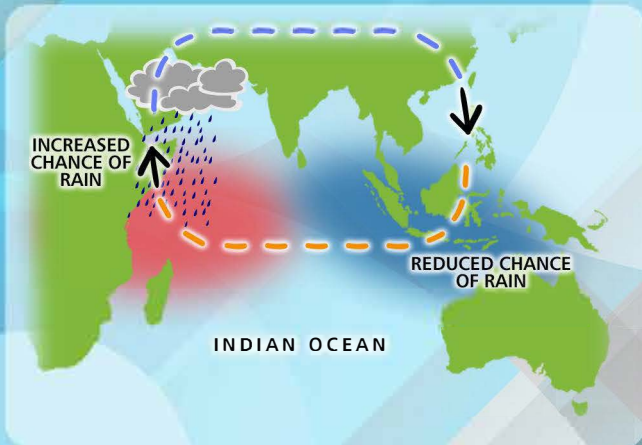


2019 was also hotter than average which means more water was lost through evaporation from the dam than would have normally occurred (BOM only has records from Armidale for temperature).

SO WHY DIDN'T IT RAIN?

Well if we knew the answer to no rain 😊 But there are some indicators that contributed to the really dry weather. They were a combination of an Indian Ocean Dipole in Positive Phase (more rain for India and less for Australia) and the occurrence of a Central Pacific El Nino event

- stay with us there are drawings!



In 2019, these ocean hotspots (which cause lots of moisture to rise up and condense as rain) were well away from Australia. The tricky thing is we don't really know when this will happen again, especially as the dynamics of ocean temperatures become less predictable as our oceans continue to absorb the heat from global warming.

SO WHY DID OUR WATER HAVE ARSENIC IN IT?

The short answer on arsenic is that we don't know – yet. Council is undertaking more investigations in 2020/21. What we do know is that the testing that first detected an elevated level of arsenic was in November 2019 when dam levels were low and inflow was coming from natural springs that had opened up in the dry weather.

Possible sources of the arsenic are:

- naturally occurring in this spring water,
- long term concentration in the dam silt from historic agricultural use,
- or run-off from catchments with residual arsenic from historic agricultural use.

Hopefully, over the coming year we will know more about the origin which will help Council manage water quality during the next drought.

What we also know is that the new Granulated Activated Carbon filters are working well and we now have great drinking water!

Join the conversation

There is a quick poll on the ZNET web page where you can share your experiences on how the water restrictions and arsenic affected your family/business. Every voice counts! zneturalla.org.au/water

Contact Water Project Officer: 0474 297 790
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Resources

Uralla Shire Council:
<http://bit.ly/USC-water-quality>
<http://bit.ly/USC-water-update>
<http://bit.ly/USC-usage-storage>

BOM Site on weather influences:
<http://www.bom.gov.au/climate/enso/>
<http://www.bom.gov.au/climate/data/>

Paper on Central Pacific Central Pacific El Niño events:
<http://bit.ly/el-nino-stronger>