



CROW Newsletter

July, 2019

Wagga Wagga City Council and the Declaration of a Climate Emergency

At the WWCC meeting on 8 July, there was a vote to declare a climate emergency. It was passed narrowly and Councillor Funnel has since lodged a rescission motion in order to try and cancel it at the next meeting.

The motion was moved by Councillor Keenan and was strongly supported by community groups including Wagga Wagga Fridays for Future (who took the lead and pushed the hardest), CROW, Stop Adani Wagga and Climate Action Wagga. Along with letters to the DA and other activities, a rally was held on Friday 5 which attracted about 100 people to the Council forecourt to hear speaker including Joe McGurr, Vanessa Keenan, Trudi Mumme (WWFF) and Greg Conkey. William Adlong was one of the speakers at the actual council meeting.

Importantly, the job is not yet done. We are getting push back from Funnel, a couple of local businessmen, the usual gaggle of climate science deniers and Michael McCormack.

We need your help to keep the pressure on by writing to the local press, to any councillors that you may know, turning up at any future rallies that are organised and going along to the Picnic with Michael, which the WWFF group hold on the lawns outside McCormack's office every Friday at 9.30am.

"2040" was a major success

The screening of the movie, 2040 was a great success. Over 250 people came along and the general consensus was that this is a great movie with a message which is both frightening and optimistic at the same time as it explores ways in which we can directly address the issues of climate change.

Again, we owe thanks to the folk from Wagga Wagga Fridays for Future who were the driving force behind the screening.

Thanks to all the CROW members who went along and who helped to publicise the event.

Even the mega-rich are recognising the climate emergency

A group of wealthy US philanthropists and investors have donated almost half a million pounds to support the grassroots movement [Extinction Rebellion](#) and school strike groups – with the promise of tens of millions more in the months ahead.

Trevor Neilson, an investor and philanthropist who has worked with some of the world's richest families, has teamed up with Rory Kennedy – daughter of Robert Kennedy – and Aileen Getty, whose family wealth comes from the oil industry, to launch the [Climate Emergency Fund](#).

Neilson said the fund was inspired by Swedish teenager Greta Thunberg and the Extinction Rebellion protesters in the UK in April.

Neilson said the three founders were using their contacts among the global mega-rich to get "a hundred times" more in the weeks and months ahead. "This might be the single best chance we have to stop the greatest emergency we have ever faced," he told the Guardian.

The new fund has the author and environmentalist Bill McKibben, who set up [350.org](#), and David Wallace Wells, who wrote international best seller Uninhabitable Earth, on its advisory board.

The money will initially be used to support school strike and Extinction Rebellion groups in the US, but will also be available to help "seed" similar groups around the world.

[Australian hits the highlights – but not in a good way](#)

[David Attenborough](#) has highlighted Australia as an “extraordinary” example of a country where people in power remained climate change deniers despite the country facing some of the worst effects of global heating.

[Appearing before the UK parliament’s business, energy and industrial strategy committee](#) on how to tackle the climate emergency, the celebrated broadcaster and natural historian was asked about claims people were overreacting to the threat of a climate emergency.

He replied: “I am sorry that there are people who are in power ... notably, of course, [in] the United States but also in Australia [who are climate change deniers], which is extraordinary because Australia is already facing having to deal with some of the most extreme manifestations of climate change.

“Both [in] Australia and America, those voices are clearly heard and one hopes that the electorate will actually respond to those.”

Asked to recall his most vivid impressions of humans’ impact on the planet, [Attenborough](#) said it was returning to the Great Barrier Reef, where he had first dived in the 1950s.

“I will never forget diving on the reef about 10 years ago and suddenly seeing that instead of this multitude of wonderful forms and life that it was stark white. It had bleached white because of the rising temperatures and the increasing acidity of the sea,” he said.

A plea from Oxfam – and please click on and sign the pledge at the end.

We know that a future of zero poverty, zero carbon pollution, and jobs and prosperity for all is possible.

And that everyone, including our new government, is concerned with people’s welfare and wants to see secure jobs, a safer climate and healthy thriving communities.

Now it’s time for all of us to lead the way.

Let’s be frank, climate action has suffered a setback. But some things have not changed. The climate crisis is here, now. The solutions already exist. And the movement for climate justice is strong and growing.

From crippling droughts to rising seas, the cost of digging and burning coal is being measured in more hunger, communities forced from their land and homes, and entrenched poverty.

Big money and fossil fuel interests will fight hard to protect their profits and steal our future.

The only defence we have is a united voice that stands up for communities against vested interests and holds our government to account.

Our new government must find a path beyond coal, unlock Australia’s renewable energy potential, and support communities here and overseas with adapting to extreme weather and growing disaster risks.

[Sign our pledge to show your commitment to stopping climate damage, ending poverty, and building a brighter future for all.](#)

[The NSW Nationals really don’t get it](#)

The NSW Nationals have further positioned themselves as a party that fails to recognise the threat climate change poses to farmers, passing motions at its state conference that call for the abolition of climate funding and for the protection of coal companies from legal challenges.

The NSW Nationals currently share power in the NSW Parliament, as the junior member of the Liberal-National Coalition that was re-elected in March.

At the 2019 State Conference held in Inverell last weekend, NSW Nationals members passed a motion that called for the NSW government to abolish the “Climate Change Fund,” along with a separate motion that expressed support for nuclear power in Australia.

But enough politics – now for some science (unfortunately not much cheerier)

Hard coral cover on the [Great Barrier Reef](#) remains near record lows in its northern stretch and is in decline in the comparatively healthy south, government scientists have found.

A [report card](#) by the government’s Australian Institute of Marine Science says hard coral cover in the northern region above Cooktown is at 14% – a slight increase on last year but close to the lowest since monitoring began in 1985.

A series of “disturbances” – coral bleaching linked to rising water temperatures, crown-of-thorns starfish outbreaks and tropical cyclones – caused a 10% to 30% decline in hard coral cover across much of the world heritage landmark over the past five years.

Mike Emslie, the institute’s acting head of long-term monitoring, said the report included glimmers of hope: individual reefs, including those on the outer shelf in the Whitsunday Islands, were found to have lively communities and tiny juvenile corals were discovered across the 2,300km reef system. The density of juvenile coral suggested recovery was possible if there were not further disturbances.

He said it indicated there was some resilience in the system but added: “The important thing is the absence of further disturbances. If we have more coral bleaching events all bets are off.”

[See more here](#)

Bureau of Meteorology Murray Basin climate predictions

The Murray Basin cluster comprises NRM regions across New South Wales, Victoria and South Australia. The cluster extends from the flatlands of inland New South Wales to the Great Dividing Range along the southern and eastern boundaries and includes Australia’s highest mountain; Mt Kosciusko, at 2228m.

The cluster is relatively dry and temperate, with a warm and dry grassland climate in the north-west ranging to temperate with hot summers further east.

KEY MESSAGES

- Average temperatures will continue to increase in all seasons (*very high confidence*).
- More hot days and warm spells are projected with *very high confidence*. Fewer frosts are projected with *high confidence*.
- By late in the century, less rainfall is projected during the cool season, with *high confidence*. There is *medium confidence* that rainfall will remain unchanged in the warm season.
- Even though mean annual rainfall is projected to decline, heavy rainfall intensity is projected to increase, with *high confidence*.
- A harsher fire-weather climate in the future (*high confidence*).

TEMPERATURE PROJECTIONS

There is *very high confidence* in continued substantial increases in projected mean, maximum and minimum temperatures in line with our understanding of the effect of further increases in greenhouse gas concentrations.

For the near future (2030), the annually averaged warming across all emission scenarios is projected to be around 0.6 to 1.3 °C above the climate of 1986–2005.

By late in the century (2090), for a high emission scenario (RCP8.5) the projected range of warming is 2.7 to 4.5 °C. Under an intermediate scenario (RCP4.5) the projected warming is 1.3 to 2.4 °C.

EXTREME RAINFALL & DROUGHT

Even though mean annual rainfall is projected to decline, heavy rainfall intensity is projected to increase, with *high confidence*.

Understanding of the physical processes that cause extreme rainfall, coupled with modelled projections, indicate with *high confidence* a future increase in the intensity of extreme rainfall events, although the magnitude of the changes cannot be confidently projected.

Time spent in drought is projected, with *medium confidence*, to increase over the course of the century.

A brief history of Australia’s climate over the last century

Australia

- Australia's climate has warmed just over 1 °C since 1910 leading to an increase in the frequency of extreme heat events.
- Oceans around Australia have warmed by around 1 °C since 1910, contributing to longer and more frequent marine heatwaves.
- Sea levels are rising around Australia, increasing the risk of inundation.
- The oceans around Australia are acidifying (the pH is decreasing).

- April to October rainfall has decreased in the southwest of Australia. Across the same region May–July rainfall has seen the largest decrease, by around 20 per cent since 1970.
- There has been a decline of around 11 per cent in April–October rainfall in the southeast of Australia since the late 1990s.
- Rainfall has increased across parts of northern Australia since the 1970s.
- Streamflow has decreased across southern Australia. Streamflow has increased in northern Australia where rainfall has increased.
- There has been a long-term increase in extreme fire weather, and in the length of the fire season, across large parts of Australia.

[Australia's emissions still going up in a canter](#)

Australia's emissions are again the highest on record, driven this time by an increase in emissions from the electricity sector, which rose to their highest levels in two years, according to new figures.

Fugitive emissions from Australia's LNG industry also continue to fuel rising national emissions.

[Ndevr Environmental](#), an emissions-tracking organisation that publishes quarterly greenhouse gas emissions data months ahead of the federal government, says its latest [research](#) shows emissions for the year to March 2019 increased to 561 million tonnes of carbon dioxide equivalent.

That was up from 554.5 million tonnes the previous year and 551.2 million tonnes in 2017.

These figures exclude unreliable data from the land-use sector, but Ndevr said that even when land-use was included emissions had still increased for four consecutive years over the same period.

[World: climate disasters averaging one a week!](#)

Climate crisis disasters are happening at the rate of one a week, though most draw little international attention and work is urgently needed to prepare developing countries for the profound impacts, the UN has warned.

Catastrophes such as cyclones [Idai](#) and [Kenneth](#) in Mozambique and the [drought afflicting India](#) make headlines around the world. But large numbers of "lower impact events" that are causing death, displacement and suffering are occurring much faster than predicted, said Mami Mizutori, the UN secretary-general's special representative on disaster risk reduction. "This is not about the future, this is about today."

Advertisement

This means that adapting to the climate crisis could no longer be seen as a long-term problem, but one that needed investment now, she said. "People need to talk more about adaptation and resilience."

Estimates put the cost of climate-related disasters at \$520bn a year, while the additional cost of building infrastructure that is resistant to the effects of global heating is only about 3%, or \$2.7tn in total over the next 20 years.

Mizutori said: "This is not a lot of money [in the context of infrastructure spending], but investors have not been doing enough. Resilience needs to become a commodity that people will pay for." That would mean normalising the standards for new infrastructure, such as housing, road and rail networks, factories, power and water supply networks, so that they were less vulnerable to the effects of floods, droughts, storms and extreme weather.

[Does Australia have a hydrogen future?](#)

This is a longish and wonkish article, but well worth clicking along to if you are interested in this sort of thing.

The cost of electrolyzers to create hydrogen are likely to fall by more than 70 per cent over the next decade – matching the recent dramatic cost falls of solar PV and battery storage – but it may still not be enough to provide Australia with a breakthrough in green hydrogen exports.

Many in Australia are looking to green hydrogen – the green meaning it is sourced from wind and solar power – as a potential long term replacement for coal and LNG exports as a cleaner and cheaper alternative to fuel the energy-hungry economies in Asia, and Japan and South Korea in particular.

But while the costs of electrolyzers – the technology that uses electricity to split water into hydrogen and oxygen – are tipped to fall by at least 70 per cent, and Australia enjoys a significant cost advantage thanks to its wind and solar resources, the heavy cost of transport and shipping means that other things have got to go its way to get a cost advantage of alternatives.

[Australian mining is going renewable](#)

Consider this statistic. An average size off grid mine with a 30MW power plant will likely burn about \$1.4 billion of diesel fuel over a 20-year period, at current prices. That's about one third of the total cost of the mine.

Now, the Australian mining industry has suddenly discovered that there is a cheaper, cleaner and smarter way to power their operations, and the sector is now emerging as the unlikely source of the next boom in renewables investment.

But while the likes of the Minerals Council of Australia spend enormous resources pushing for new coal generators and even nuclear, [and promoting these ideas through their close links with the government](#), the industry itself now find themselves at the forefront of the transition to renewable energy.

Which makes the principal theme at this week's Energy and Mines conference in Perth all the more extraordinary. If there was consensus among the 300-strong people in attendance, it could possibly be best summed this way: **More than 50 per cent renewable share at Australian mine sites should now be considered the norm, and 100 per cent renewables will follow soon enough.**

All the more striking was the mood that this was more than just a change in electricity supply. It could preface a fundamental re-think about the nature of mining in Australia.

Low cost renewable electricity means mining companies will no longer just shovel ore into shipping containers to export it for value-adding overseas, they will now look at establishing refining, processing and smelting industries considered impossible up to now.

"I think there is a huge opportunity for industry, and for the refining and processing of copper, lead, zinc, and manganese. says Justin Brown, the executive director of Element 25, [which is looking to source a minimum 50 per cent and up to 90 per cent renewables for the 100MW supply needed at its Butcherbird manganese project in the Pilbara.](#)

The Butcherbird project is looking to export value-added manganese plate, now that wind and solar has provided cheap power to enable Australian companies to compete with Chinese producers. And the Australian project will have the added advantage of being low-carbon.

"It can be a viable alternative to just shipping the ore out," Brown says, suggesting that the renewable hydrogen export story should be supplemented by the side of exporting zero carbon products such as steel, alumina and others. "Why not?" he asks.

[Renewables are winning the economics battle against new coal and gas](#)

By 2030, wind and solar will "undercut existing coal and gas almost everywhere."

A new study reveals just how stunningly rapid the clean energy transition is.

Bloomberg New Energy Finance (BNEF) reported on Tuesday that renewables are now the cheapest form of new electricity generation across two thirds of the world — cheaper than both new coal and new natural gas power.

Yet just five years ago, renewables were the cheapest source of new power in only 1% of the world, explains [BNEF in its New Energy Outlook 2019](#).

Equally remarkable, BNEF projects that by 2030, wind and solar will "undercut existing coal and gas almost everywhere."

In other words, within a decade it will be cheaper to build and operate new renewable power plants than it will be to just keep operating existing fossil fuel plants — even in the United States.

. As BNEF puts it, we are "ending the era of fossil fuel dominance in the power sector."

