



Let's work together to say no to 'day zero' for our water on Norfolk Island

There is much work being undertaken in the local community on water since the last media release I wrote, which was a joint media release together with the Administrator Eric Hutchinson about the April Water Workshop. This media release is to provide the community with an overview and update in relation to a Water Response Plan that the Emergency Management Norfolk Island Committee (EMNIC) will be preparing.

EMNIC is a committee that is established under local Norfolk Island legislation, the *Disaster and Emergency Management Act 2001*, and EMNIC's role is to make provision for the protection of life and property in the event of a disaster or emergency, for recovery following such event and to provide for the management of disaster and emergency situations.

The Bureau of Meteorology (BoM) have, through recent presentations and media articles, detailed the changes in Norfolk Island's weather patterns. As our local BoM officer Adam Jauczius presented in his excellent article in the paper on Saturday 1 June 2019, 17 of the last 20 years have been below average annual rainfall, with 2017 being our driest year ever recorded, and this trend is set to continue. Whilst I acknowledge we have water in our tanks and the grass is green, we are still in a drought. This drought is currently the fourth most severe drought on record and the end does not appear to be in sight. We had 70% below average rainfall in April 2019, 66% below average rainfall in May, and 53% below average rainfall in June. From July to September 2019, there is a less than 25% chance of exceeding median rainfall.

For those of you who attended any of the CSIRO Water Resource Assessment Project Community meetings in May and June, you will have heard how the ridge of high pressure is no longer moving up seasonally to allow wet weather to reach Norfolk which is thought to be what is causing the dramatically reduced rainfall in the cooler months on Norfolk. The BoM has dedicated resources to examine and confirm the factors contributing to the change in weather patterns for Norfolk Island.

This phenomenon is being observed at many other locations of similar latitude in both the southern and northern hemispheres, from elsewhere in the Pacific to South Africa, Victoria to the south-west of WA, from UK to the USA. The very compelling key messages attendees heard at the community meetings was that – many consecutive years of below average rainfall (which we have experienced and is projected to continue to decline well into the future) can result in a large 'amplified' reduction in groundwater recharge. This can lead to a disconnection between surface water and groundwater systems, dramatically reducing streamflow (of surface water).

Whilst we can't control the weather patterns, there are things that we can control, for example, how much water we catch and store on our individual properties and for our businesses. There is undoubtedly much more we can do as a community to adapt to the changed weather patterns to protect our sustainability. Without taking action, the sustainability of our lifestyles, community, businesses, agricultural enterprise and essential services are threatened, and the risk of a water related emergency, as has happened on many other islands around the world, is increased.

As I have been writing this, I have just read an article about how almost a dozen towns in NSW and Queensland are less than 12 months away from running out of drinking water; what they are referring to as 'day zero'. Let's work together to prevent Norfolk from joining the growing statistics.

EMNIC's motto is to plan for the worst but hope for the best. Therefore, at our meeting on 13 May 2019 EMNIC declared they would create a Water Response Plan under NORDISPLAN and they would do this through a sub-committee. The NORDISPLAN is the regulatory document that provides for local provision of response to, and recovery from, disasters and major emergencies for a period of 48 hours. Response plans are the documents that guide EMNIC if an identified risk threatens to occur and/or occurs on Norfolk. There are currently two response plans under NORDISPLAN, they are the Cyclone and Tsunami response plans.

The Water Response Plan will detail steps that EMNIC will take if there is a water crisis on Norfolk Island and will include such things as what 'triggers' will determine when Norfolk Island is experiencing a water crisis that may be approaching an emergency – for example low rainfall, number of consecutive dry days, ground water levels and quality – and then what circumstances may constitute a water related emergency. The Water Response Plan will be designed to be activated before an emergency to help prevent and prepare the community. Once the emergency threshold is reached, NORDISPLAN is activated, but the water response plan will continue to help guide response and recovery to help mitigate the impact of a water emergency.

The Water Response Plan will detail particular stages in the lead up to a water emergency and what EMNIC can do within each stage – for example it may determine that, in the first stage (not yet an emergency), there is information issued alerting the community and visitors that conditions are approaching the high risk/extreme/catastrophic category and water should be used much more sparingly than in ordinary drought circumstances. A further stage could detail what assistance is available to the community if needed.

Nothing has been pre-determined at this time for the Water Response Plan, the aforementioned examples are provided to assist the community with an understanding of what a Water Response Plan could entail and to be thought provoking to encourage anyone to get in contact with further suggestions at this time. During the research phase, meetings with community members and organisations will occur and once a draft document has been prepared it will be provided to the Norfolk Island community for input and feedback before it is adopted.

- The EMNIC Water sub-committee is in the early stages of research for the Water Response Plan and if anyone is interested in learning more or providing information at this stage please contact Sarlu LeCren on cheryl.lecren@nirc.gov.nf or 22001 ext 125.

As the community would be aware, Norfolk Island Regional Council are also working on their own risk management strategies around water. They are developing a Water Management Strategy, which aims to shore up water security including by increasing water capture and storage so as to reduce the reliance on groundwater by Council and the community, identify pollution control measures and protect and preserve the island's water resources. They are also working on the upgrade of Council's rainwater harvesting systems. In the approved Operational Plan 2019-2020, Council has budgeted for rainwater storage for operational use and service delivery and dam design with the intent to increase the quantity of surface water for community and agricultural needs.

EMNIC would like to thank –

- Norfolk Island Meteorological Office and the Bureau of Meteorology for providing expertise and data and for taking a strong interest in assisting Norfolk Island.
- The CSIRO for its Water Resource Assessment Project and the CSIRO's Project Implementation Team including Snowy Tavener as well as all those members of the community who have joined the Project's community steering committee.
 - We encourage the community to get involved in the CSIRO Water Assessment Project and to be assured the intent of the project is to empower the community to enhance water security in the interests of sustainability. Please contact Project Leader Cuan Petheram on cuan.petheram@csiro.au or Snowy Tavener on 50558 to contribute.
- The Department of Infrastructure, Transport, Cities and Regional Development's island based team for initiating the CSIRO Norfolk Island project, as without the data that this project will collect (noting the Project also includes pre-feasibility of options), it would be difficult to determine triggers. CSIRO Project Leader Cuan Petheram has kindly offered to review the draft of the water response plan to provide their scientific expertise.
 - EMNIC also acknowledges the Australian Government's interest in supporting the community's efforts to adapt to the changed weather patterns, enhance water security and undertake emergency planning and looks forward to further conversations with the Administrator.
- Norfolk Island Regional Council for providing expertise, data and a commitment to increase water storage and develop a Water Management Strategy as part of Council's efforts to create a water secure future for the Norfolk Island community.
 - EMNIC looks forward to engaging further with the University of Newcastle's team who are delivering Council's Environmental Assessment and we thank them for their assistance and expertise also. The Environmental Assessment will complement the CSIRO's Project by having a focus on broader questions of sustainability as evidence for discussion of long term population targets and carrying capacity.
- The Mayor and Councillors for initiating discussions with and advocating to the community, Council and the Australian Government on water security, the need for a hydrological assessment, sustainability and on using our water resources more wisely.
- The Norfolk Island community for contributing to water security and emergency planning efforts – plans we hope we'll never have to use.

Bruce Walker

Controller, Emergency Management Norfolk Island Committee (EMNIC)

29 July 2019