**Case Study: Multiagency Response to chronic contamination of toxic blue/green algae (cyanobacteria) in three dams surrounding the remote Indigenous community of Yuelamu**

**Presenter:** Aaron Clifford – Team Leader – Environmental Health Central Australia

**Abstract Summary**

This presentation discusses participatory approaches and tools employed by a multiagency working group, to address chronic contamination of toxic blue/green algae (cyanobacteria) in three dams surrounding the remote Indigenous community of Yuelamu. This project followed concerns from the community about an increase of dead animals surrounding the dams and risks to children and other community members that used them for swimming.

The working group consisted of representatives from: Department of Health; Power and Water Corporation; Central Desert Regional Council; Department of Housing and Community Services; and the Department of Education. Central Land Council also later joined the working group in February 2018.

Outcomes followed extensive community consultations, with the local authority, community leaders, & service providers. Significant outcomes included ongoing community awareness programs; installation and maintenance of infrastructure; ongoing water analysis; a uniquely developed clinical data capture system; and strengthening of existing diversionary programs.

**Abstract**

Since 2015, Yuelamu Dam and the nearby Centipede Dam, and Kadaicha Dam (located within the Yalpirakinu Land Trust) have become persistently contaminated with cyanobacteria (blue / green algae) including the species *Cylindrospermospsis Raciborskii* (blue / green Algae). This has caused significant risk to community members as the Yuelamu Dam was utilised as a source of potable water, for Yuelamu Community; and all three dams were utilised for recreational purposes.

As toxigenic algal blooms within Yuelamu are recent, the perception by the local Warlpiri and Anmatjere residents was that the water is safe for swimming, despite the presence of many dad animals. Therefore, a permeation of repetitive and culturally appropriate health messaging became necessary, in conjunction with appropriate monitoring of algal levels and monitoring of clinical presentations stemming from cyanobacterial (algal) exposure.

Responsively, a working group was developed in October 2017, consisting of representatives from: Department of Health; Power and Water Corporation; Central Desert Regional Council; Department of Housing and Community Services; and the Department of Education. Central Land Council also later joined the working group in February 2018 to contribute to ongoing actions. Outcomes followed extensive community consultations, with the local authority, community leaders, & service providers. Subsequently, the working group was able to develop the following:

* Effective community messaging via: health promotion resources; community meetings; and radio announcements
* Establish a community assisted approach to develop culturally appropriate warning signs that were placed at close intervals surrounding the Yuelamu Dam, and at the entry points to the remaining dams
* Establish an infrastructure monitoring and maintenance program for fencing at the nearby Yuelamu Dam & signage at all dams
* Establish water monitoring program to ensure laboratory analysis for across to summers at all dams to determine levels of algal growth
* Alteration of the Primary Care Information System (PCIS); and agreement with the local clinic to establish ongoing monitoring and recording of exposure to the dams, symptoms, and treatment recorded

A culturally appropriate semi-structured interview questionnaire was developed to ensure program efficacy was evaluated via a qualitative Yarning process. This Yarning process will be facilitated by an Indigenous health promotion officer, and filmed (with permission) for display as part of the presentation.

Below is the ‘Evaluation’ and ‘Yarning Strategy’ developed as part of the Seasonal Action Plan.







