

## NSW Health Uranium Expert Panel

12:30 – 1:30pm

Friday, 7 October 2016

### AGENDA

#### Attendees

<b>Expert Panel</b>	
Professor Alison Jones	Toxicologist Executive Dean of Science, Medicine and Health University of Wollongong
Professor Bernard Stewart	Head Cancer Control South Eastern Sydney Public Health Unit
Professor Mark Ferson	Director Public Health South Eastern Sydney Public Health Unit
Professor Darren Roberts (part)	Staff Specialist Nephrology and Clinical Pharmacology/Toxicology Royal Prince Alfred Hospital
<b>Health Protection NSW</b>	
Dr Jeremy McAnulty (Chair)	Director Health Protection
Dr Ben Scalley	Director Environmental Health
Dr Jo Cochrane	Acting Medical Advisor
Dr Katrina Wall	Acting Manager Water Unit
<b>Hunter New England Population Health</b>	
Professor David Durrheim	Director Health Protection
Dr Tony Merritt	Public Health Physician
Dr Kathryn Taylor	Public Health Registrar

#### 1. Summary of discussion

- The ADWG value for uranium is highly conservative and has large safety factors
- Calculated annual dose for radiation is below ADWG
- Uranium concentrations have been elevated above ADWG in bore 5 in Kootingal/Moonbi and in Airlie Rd bore in Bendemeer
- There is limited scientific data on the health effects of uranium and studies are mostly about inhalation and/or occupational exposure and cross-sectional studies of communities with elevated uranium levels in drinking water
- Epidemiological evidence suggests renal proximal tubular damage by the presence of biomarkers may occur at levels above 0.1 mg/L and there is little information on chronic long term exposure
- For the Kootingal/Moonbi community Uranium concentration in the reticulated water tested over 2015 and 2016 range from 0.022 mg/L up to 0.043 mg/L.

- For the Bendemeer community, the affected bore was commissioned in 2014 and has provided only up to 20% of the drinking water supply since 2015. Exposure to water from this bore was not considered a concern due to the part contribution and shorter exposure time.
- There is no clear dose response identified in the 7 studies examined
- There is no clinical or histological evidence of kidney disease in the affected populations at various levels of exposure in the studies examined
- Community testing would provide limited to no benefit due to lack of specificity in biomarkers

## 2. Recommendations on communications to community

The Expert Panel reviewed the levels of uranium and measures of radiation results<sup>1</sup> from the affected communities against available scientific data and concluded that there is negligible risk of adverse health effects to members of the Moonbi/Kootingal or Bendemeer communities from historical consumption from either radiation or the direct effects of uranium at the levels identified in drinking water supplies.

1. Still awaiting most recent radioisotope analysis to determine annual radiation dose for Bore 5 in Kootingal/Moonbi and Airlie Road Bore in Bendemeer