Preliminary research indicates excessive levels of lead and other metal contamination in New South Wales' household drinking water, with various locations across the state found to contain up to 20 times the amount of lead recommended by the Australian Drinking Water Guideline.

Macquarie University researcher Paul Harvey is seeking to fill a gap in recent state-wide water testing, with the latest figures dating back to 1994. He will be undertaking a research tour of regional New South Wales to determine the extent of lead and other heavy metal contamination in Australian community centres.

"Some initial tests have demonstrated much higher levels of lead in drinking water than previously understood, which calls for a much broader assessment of the current levels across the state," said Harvey.

"So far I've discovered contaminated drinking water from ageing and inappropriate water infrastructure in a number of towns from New South Wales and Tasmania which showed to have lead, arsenic and cadmium in their water supplies.

"We're unsure of the extent and associated health burden of such high levels for the Australian community, but the data shows we need to reduce the risk of lead exposure through drinking water.

"My study into the contamination of grazing lands from lead solder joints used in large water supply pipes found significant lead contamination along the pipeline, which has been linked to cases of cattle lead poisoning."

Past international research reports possible health effects such as renal damage, anaemia and neuropathy.

Lead is a tasteless, odourless and colourless potent neurotoxin and can find its way into welding, pipes (including PVC) pipe fittings, roof materials and water tanks.

Provided by Macquarie University