What is the aim of this study?

This study aims to:

1) Measure changes over time in the concentration of PFASs in the blood of individuals who lived in the Williamtown, Oakey and Katherine PFAS Management Sites

2) understand what factors could help to reduce PFASs in the blood

Efforts have been made in Williamtown, Oakey and Katherine to control the community’s exposure to PFASs present in the environment. By collecting and analysing blood from individuals in these communities over time, we can determine how effective the efforts to control exposure have been and we can better understand why some individuals’ PFAS levels reduce faster than others.

Who can take part in this study?

This study focuses on adults from three Australian towns with PFAS in the environment - Oakey (Qld), Williamtown (NSW) and Katherine (NT) - and individuals from specific exposed occupational groups where PFAS exposure has occurred (such as firefighters).

In particular, this community study focuses on adults who have previously had blood samples taken for the PFAS Health Study, led by the Australian National University (ANU), who were found to have higher concentrations for the PFASs chemicals within their blood.

To be eligible to take part in this study, participants’ PFAS levels (measured during their participation in the ANU PFAS Health Study) need to be higher than any of the cut-off concentrations for the PFASs chemicals listed below. As long as individuals’ levels are above at least one of the cut-off values for the three chemicals, they are eligible to take part.

<table>
<thead>
<tr>
<th>PFASs</th>
<th>PFOA</th>
<th>PFHxS</th>
<th>PFOS</th>
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</thead>
<tbody>
<tr>
<td>Serum concentration in ng/mL serum</td>
<td>&gt;3.5</td>
<td>&gt;5</td>
<td>&gt;8</td>
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</tbody>
</table>

*These levels were chosen because they represent the concentrations in the 95th percentile for these key PFAS chemicals.*

Even if your levels were not this high, you can still help and participate in this study. Our study team is also asking for a limited number of individuals who have lower PFAS levels to be part of the comparison group for this study. If you are interested in being in this group, please let us know when you express your interest.

Why should I participate in yet another study?

It has been some time since PFAS contamination from Defence bases was first made public in Williamtown (September 2015), Oakey (July 2014) and Katherine (November 2016). We realise that some community members may not wish to take part, which is fine. However, there is still so much that is unknown about PFAS chemicals, particularly how levels change over time. The continued
participation of Williamtown, Oakey and Katherine residents in this research study will help people understand their exposure to PFAS now and into the future.

This study will assist us to understand how the levels change over time and will provide insights into reducing exposure. The study will benefit affected communities, along with occupational groups and other communities who have also been exposed to PFASs.

Can I participate if I have moved out of the town?

Yes you can. Participants do not need to currently live in one of the exposed communities at the start of or during this study. We understand that people move home over time. This study focuses on participants who have previously had high exposure to PFAS chemicals in the past rather than their current exposure to these chemicals.

How will this study be different to the other PFAS studies that have already been done?

Because this study looks at changes in the PFAS levels over time, it will provide important information about how PFAS levels change after individuals have been exposed. This study will help us understand what factors might help reduce these PFAS levels more quickly. In the longer term, the study is designed to contribute to the broader knowledge about PFAS exposure and the potential association of these chemicals with human health issues. The continued follow-up and monitoring of individuals from exposed communities and occupational groups has been recommended to monitor the effectiveness of measures being used to identify and reduce PFAS exposure pathways in affected communities and in occupational settings. This will necessitate longitudinal analysis (that is, analysis over time) of those who have been previously tested.

What will I need to do if I choose to participate in this study?

Participants will be asked to complete a questionnaire (either online or paper format) and to provide a blood sample at two different times (the first sample in 2021 and a second sample in 2023). These blood samples will be analysed for PFASs. The study team will also measure other common blood chemicals that may have an association with PFASs exposure (e.g. uric acid, blood fats, cholesterol, kidney and liver function and thyroid hormone measurements). Participants will be sent a personalised report of their test results.

Where does this study fit in with the other PFAS studies?

This study is one of several projects funded by the National Health and Medical Research Council (NHMRC) that is focused on PFAS research. Together these studies will help us learn more about PFAS chemical exposure in the Australian setting.

Why is UQ conducting this study instead of ANU?

Professor Jochen Mueller, Theme Leader of the Emerging Environmental Health Risks Group at the Queensland Alliance for Environmental Health Sciences (QAEHS) at the University of Queensland (UQ), is one of Australia’s leading experts on environmental toxicology. Jochen and his team of researchers from UQ received funding from the National Health and Medical Research Council (NHMRC) to lead a study that focusses on assessing whether exposure control of PFAS is effective. The research team at UQ is working closely with researchers from ANU, and other institutions, on this study and researchers from the ANU PFAS Health Study are part of the research project team.