

**Response provided to journalist  
10 May 2019**

**Question:**

Oakey:

What is the size of the underground plume - distance it covers?

What direction is it moving?

What is the modelling saying about how fast it is travelling?

I have been told by residents they heard Defence say in a meeting based on AECOM modelling that the plume is moving 100m a year - is this correct?

What is your understanding about how many Oakey residents are in the class action?

Do you have knowledge of how many public utilities/service etc. are located in Zone 1 - it is my understanding there is an abattoir and a hospital there?

Do you have knowledge of how many residential properties/homes would be situated within each management zones?

There is mention in several reports about landfills being suspected secondary sources of PFAS - can you please provide detail of these landfills - i.e. location, who owns them (responsible for them) and maximum concentrations you found?

My understanding (from the owners of Berwick Stud) is that Zone 2 has expanded to now include Berwick Stud in this zone, can you please confirm?

**Response:**

The Oakey groundwater plume, which flows from east to west, covers an approximate distance of five kilometres south west of Army Aviation Centre Oakey (the Base).

As the actual movement of PFAS in groundwater depends on a range of complex factors, it is recognised that groundwater models are simplifications of real systems.

Hydrogeological estimates show the groundwater plume is moving at an average rate of approximately 52 metres per year to the west.

The results of this modelling are summarised below and do not take into account the management actions being implemented by Defence.

- The 2025 projection estimated a plume approximately 3.3km east to west and approximately 3km north to south.
- The 2115 projection estimated a plume approximately 8km east to west and approximately 3km north to south.

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The model has been used to inform management decisions by indicating where PFAS may move in the future.

It is important to note that an increase in the groundwater plume size does not necessarily mean an increase in exposure risks if no new exposure pathways are introduced.

Defence has implemented management and remediation measures in Oakey to remove or reduce exposure pathways, including funding town water connections and operating water treatment plants.

Further information about management activities is available at the following link:

<http://www.defence.gov.au/environment/pfas/oakey/managementactivities.asp>

The total Management Area contains approximately 1613 properties. The number of properties per management zone is detailed below:

<b>Zone</b>	<b>No of Lots</b>	<b>No of properties*</b>	<b>Size (ha)</b>
Management Zone 1	224	152	306
Management Zone 2	641	372	609
Management Zone 3	1523	1089	2,770
Total	2388	1613	3,685

\*data is based on information provided to Defence by Colliers in 2017

Utilities/services located in Management Zone 1 include: Football Club, Bowls Club, Hospital, Child Service Centre, Sporting Clubs, Art Group and Industrial Estate. The abattoir is not located in Management Zone 1.

The former landfill (Council-owned) at the western end of Lorimer Street is considered a potential secondary PFAS source area. The maximum groundwater Perfluorohexane sulfonate + Perfluorooctanesulfoni concentration detected in groundwater was 6.9 µg/L on 22 March 2017.

Due to privacy reasons Defence is unable to discuss specific properties contained within the Management Area.

Shine Lawyers indicate on their website that they have brought an action on behalf of over 450 individuals in relation to the Oakey Class action. As this matter is currently before the court, it would not be appropriate for Defence to comment further.