

## Q&A from HEN members for The Department of Defence "Community Walk-In Session"—13th August 2019

Prior to the day the Hawkesbury Environment Network (HEN) asked its members (via Facebook and www.sli.do.com) what questions they might have for the Department of Defence and other agencies present regarding PFAS contamination in our area. Members of HEN and Hawkesbury PFAS Community Network gathered all the answers to these questions, as well as, reviewed the newly published PFAS Management Plan.

	<b>HEN's Questions:</b>	<b>Answers collated from various agencies present:</b>	<b>Follow Up Items:</b>
1	How was the study area determined?	<p>The short answer is it was determined by the landscape and the lay of the land and the flow of the water.</p> <p>In 2017, The Department of Defence hired <b>Aecom</b> to be their environmental scientists to lead their PFAS study. Aecom helped determined the study area which was then audited/verified by an independent third party. Aecom said a boundary of the study area was determined on the best available evidence. Defence made a point to say the boundary had to stop somewhere- they couldn't claim responsibility for PFAS everywhere.</p>	<p><b>Aecom</b> <a href="https://www.aecom.com/au/">https://www.aecom.com/au/</a></p>
2	If I grow veggies is there a chance, there is PFAS on them? Is this from the soil or the water? And is it ok for me to eat them?	<p><b>Department of Defence</b> said in the "Study Area" there is a chance PFAS is on the veggies you grow. There is also a chance if you are outside the "Study Area." This could be from either the soil and/or water. The <b>Department of Defence</b> also wanted to make is clear that each property is unique, and you should seek site specific advice from their team and the NSW EPA. To do so <b>request a free soil/water test</b> from the Department of Defence. And you also can refer to the <b>Human Health Risk Assessment</b> for health advice which can be found on the Department of Defence's website.</p> <p><b>The Department of Health</b> said it depends on the vegetables and the soil and the water being used to water the vegetables. Root vegetables are known to be more likely to be contaminated. Things with protein are more likely to be contaminated than fruit like citrus which have no protein.</p>	<p><b>To request a free soil/water test from the Department of Defence contact them at:</b> 1800 789 291 <a href="mailto:richmond.defence@aecom.com">richmond.defence@aecom.com</a></p> <p><b>Human Health Risk Assessment</b> <a href="http://www.defence.gov.au/environment/pfas/Richmond/publications.asp">http://www.defence.gov.au/environment/pfas/Richmond/publications.asp</a></p>

3	<p>If I raise chickens is there a chance, there is PFAS in their eggs? It is ok for me to eat them?</p>	<p><b>Department of Health's</b> advice was it depends on their feed and water and where you live. Chickens do accumulate higher quantities than background contamination because of the way they feed. So, eggs are a concern. You need to have them tested first and then check the <a href="#">Human Health Risk Assessment</a> which can be found on the Department of Defence's website.</p>	<p><b>To request a free soil/water test from the Department of Defence contact them at:</b> 1800 789 291 <a href="mailto:richmond.defence@aecom.com">richmond.defence@aecom.com</a></p> <p><a href="http://www.defence.gov.au/environment/pfas/Richmond/publications.asp">Human Health Risk Assessment http://www.defence.gov.au/environment/pfas/Richmond/publications.asp</a></p>
4	<p>What's the best way for me to find out how much PFAS is in my body?</p>	<p>A blood test is the best way to find out how much PFAS is in your body. But the</p> <p><b>Department of Defence's</b> advice was not to do a blood test. They said...</p> <ol style="list-style-type: none"> <li>1. There is nothing you can do about PFAS once it is in your body- it's a waiting game until it finally makes its way out.</li> <li>2. It will only cause you anxiety. (This is what they found in other towns that had been affected) It's more worthwhile testing the routes of exposure.</li> </ol> <p><b>Department of Health</b> said since we do not know whether PFAS cause adverse health effects, blood tests cannot help determining the next course of action, but they do help inform research into the potential health effects of PFAS exposure. Another problem is that your doctor won't know what to do with the test results.</p> <p>If you would like to get your blood tested, you must go to a reputable organisation and you will have to pay about \$700. Your doctor can arrange it. Call the <b>Department of Health</b> for who does testing.</p> <p><b>HEN</b> found some differing advice from <a href="#">enHealth Guidance Statement</a> on per- and poly-fluoroalkyl substances. They state that blood testing has no current value in informing clinical management of PFAS in your body, but it does help a community monitor as a whole the success of exposure reduction measures.</p>	<p><b>Department of Health</b> (02) 9391 9000</p> <p><a href="https://www1.health.gov.au/internet/main/publishing.nsf/Content/A12B57E41EC9F326CA257BF0001F9E7D/\$File/PFAS-guide-stat-enHealth-2019.pdf">enHealth Guidance Statement https://www1.health.gov.au/internet/main/publishing.nsf/Content/A12B57E41EC9F326CA257BF0001F9E7D/\$File/PFAS-guide-stat-enHealth-2019.pdf</a></p>
5	<p>If my horses drink bore water is PFAS harmful to them?</p>	<p><b>Department of Defence</b> said they had not tested any horses so they have no indication of how it will affect horses. They said there is no PFAS risk near stock watering bores in the "Study Area."</p> <p><b>HEN</b> found differing advice from Aecom's onsite tester. They said they had tested stock watering bores in our area, but they could not reveal the results.</p>	

6	How can I have my water tested? (bore and potable drinking water)	Bore water can be tested by the <b>Department of Defence</b> for free if you are in the "Study Area" and only maybe if you are outside the "Study Area." To find out <a href="#">request a free soil/water test</a> from the Department of Defence. They will not test potable drinking water, though. This can be tested at a cost to you by an entity such as National Measurement Institute. But <b>Sydney Water</b> will be posting their results from their recent PFAS tests very shortly. They said up to 10 nanograms per 1 Litre of PFAS was detected in our local water at the North Richmond Water Filtration Plant. This amount is below the international standard for "acceptable" amounts which is 70 nanograms per 1 Litre. The consensus from Sydney Water is that the amount of PFAS detected was negligible.	<p><a href="#">To request a free soil/water test from the Department of Defence contact them at: 1800 789 291 richmond.defence@aecom.com</a></p> <p><b>Sydney Water</b> <a href="http://www.sydneywater.com.au/SW/water-the-environment/how-we-manage-sydney-s-water/wastewater-network/epa-reports/water-filtration-plants/index.htm">http://www.sydneywater.com.au/SW/water-the-environment/how-we-manage-sydney-s-water/wastewater-network/epa-reports/water-filtration-plants/index.htm</a></p>
7	Is PFAS in our bore water?	<p>They said where there are operational bores- no there is not. But this has only been determined within the "Study Area."</p> <p>To find out if PFAS is in your bore water <a href="#">request a free soil/water test</a> from the <b>Department of Defence</b>.</p> <p><b>HEN</b> found differing advice from Aecom's onsite tester. They said they had tested stock watering bores in our area, but they could not reveal the results.</p>	<p><a href="#">To request a free soil/water test from the Department of Defence contact them at: 1800 789 291 richmond.defence@aecom.com</a></p>
8	If it's in our bore water can you filter it? On significant scale?	There are no household filters available that can remove PFAS. The cost would be prohibitive. So, if there is PFAS in your bore water, you cannot filter it out to make it potable (drinkable) for humans. <b>Department of Defence</b> are actively seeking new technology that will allow this. However, there are filters available today that may be suitable (but most probably not affordable) to filter bore water for possible use to feed animals.	
9	Is PFAS in our potable (drinking) water?	<b>Department of Defence</b> said yes, it is in our drinking water and suggested speaking to <b>Sydney Water</b> about their recent tests for PFAS in our area. <b>Sydney Water</b> said they will be posting their results from their recent test on their website very shortly. They confirmed that yes 10 nanograms per 1 Litre of PFAS was detected in our local Sydney Water at the North Richmond Water Filtration Plant. The international standard for "acceptable" amounts is 70 nanograms per 1 Litre. The consensus from Sydney Water is that this amount detected in our local drinking water is negligible.	<p><b>Sydney Water</b> <a href="http://www.sydneywater.com.au/SW/water-the-environment/how-we-manage-sydney-s-water/wastewater-network/epa-reports/water-filtration-plants/index.htm">http://www.sydneywater.com.au/SW/water-the-environment/how-we-manage-sydney-s-water/wastewater-network/epa-reports/water-filtration-plants/index.htm</a></p>

10	What's the Australian standard for PFAS in drinking water? Does it conform with international standards?	<p><b>The Department of Defence</b> said the Australian standard aligns with international standards. The international standard for the "acceptable" amount of PFAS in drinking water is 70 nanograms per 1 Litre.</p> <p><b>Sydney Water</b> said PFAS chemicals have separate testing regimes and accepted levels. E.g. For PFOS and PFHx the accepted level is 70 Nano grams per litre of water Hawkesbury water has 10 Nano grams per litre. But then, for PFOAs the accepted safe level is 560 Nano grams per 1 litre of water and Hawkesbury water has 56 Nano grams per litre.</p>	
11	What's your sampling regime for the Hawkesbury for the following food items? Beef, Fish, Chicken, Offal, Eggs, Milk, Vegetables, Fruit, Water	<p><b>Department of Defence</b> said their sampling regime satisfies the NSW EPA's "National Environment Protection Measure for Site Contamination", as well as, it has been independently audited. Results and methodology of their sampling can be found on their <a href="#">website</a>.</p> <p><b>Department of Health</b> said in the Hawkesbury they have not tested beef or offal but we have checked all the rest.</p>	<p><b>Department of Defence</b> <a href="http://www.defence.gov.au/Environment/PFAS/docs/Richmond/Factsheets/201811.Richmond.ERA.Factsheet.pdf">http://www.defence.gov.au/Environment/PFAS/docs/Richmond/Factsheets/201811.Richmond.ERA.Factsheet.pdf</a></p>
12	How many samples have been requested so far from local residents?	<p><b>Department of Health</b> said 40 sites have been sampled while more than 1,000 samples have been taken. <b>Department of Defence</b> gave the same answer.</p>	
13	What is your Department doing to help Hawkesbury residents with the PFAS contamination in our area?	<p>1. In 2017 they started their investigation in the Richmond area. 2. They have just released their <b>PFAS Management Plan</b> for our area (Aug 2019) 3. They will in the next 12 months start to remediate the soil on the RAAF base. 4. They have also now commenced with Aecom a monitoring role for at least the next 3 years.</p>	<p><b>PFAS Management Plan</b> <a href="http://www.defence.gov.au/Environment/PFAS/docs/Richmond/Reports/201908PFASManagementAreaPlan.pdf">http://www.defence.gov.au/Environment/PFAS/docs/Richmond/Reports/201908PFASManagementAreaPlan.pdf</a></p>
14	How will you communicate the test results and plan to local residents?	<p>If you get your soil and/or water tested by the Department of Defence, the <b>Department of Defence</b> will communicate your results to you in person. If there is any further advice required on how to manage PFAS in your soil and/or water the EPA will follow up. These results will be treated as private. All tests that have been run on non-residential sites have been posted on the Department of Defence's <a href="#">website</a>.</p>	

15	When you buy or lease a property in the Hawkesbury how can we find out if it is contaminated with PFAS?	New residents will have to look it up themselves or ask the landowner. We asked what if the purchaser hasn't heard of the problem because they are from out of area and they don't know who to ask, but <b>Department of Defence</b> gave no a response.	
16	Are there any health risks I need to be concerned with?	<p>The <b>Department of Defence</b> wanted to be clear that "the presence of PFAS does not equal exposure." Each site and case need to be assessed individually.</p> <p>The National Health Panel for PFAS has written a document stating- there are associations, but nothing is clear.</p> <p>To find out what risks have been identified the <b>Department of Defence</b> referred to the <a href="#">Human Health Risk Assessment</a>.</p> <p>We were also referred to the updated "<a href="#">enHealth's Guidance Statement on per- and poly-fluoroalkyl substances</a>."</p>	<p><a href="http://www.defence.gov.au/environment/pfas/Richmond/publications.asp">Human Health Risk Assessment</a> <a href="http://www.defence.gov.au/environment/pfas/Richmond/publications.asp">http://www.defence.gov.au/environment/pfas/Richmond/publications.asp</a></p> <p><a href="https://www1.health.gov.au/internet/main/publishing.nsf/Content/A12B57E41EC9F326CA257BF0001F9E7D/\$File/PFAS-guide-stat-enHealth-2019.pdf">enHealth Guidance Statement</a> <a href="https://www1.health.gov.au/internet/main/publishing.nsf/Content/A12B57E41EC9F326CA257BF0001F9E7D/\$File/PFAS-guide-stat-enHealth-2019.pdf">https://www1.health.gov.au/internet/main/publishing.nsf/Content/A12B57E41EC9F326CA257BF0001F9E7D/\$File/PFAS-guide-stat-enHealth-2019.pdf</a></p>
17	Is PFAS still being used at the RAAF base?	The <b>Department of Defence</b> said they changed in 2004 when they switched to a PFAS product that does not contain PFOA. But they are containing the run off so it does not go into the ground water.	
18	If your land or body is affected by PFAS who do we go to for compensation and remediation?	<p>Department of Defence said there is an avenue for compensation for residents in the "effected zone." It's through a process called "<a href="#">Non Litigated Claim</a>"</p> <p>There is a form on the web site under financial claims. (they indicated that they do not respond to litigious claims but only to individuals representing themselves.)</p> <p><b>Answer from NSW EPA:</b> The polluter pays and in this circumstance the Department of Defence is the polluter.</p>	<p><a href="http://www.defence.gov.au/Legal/Directorates/dlit.asp">Non Litigated Claim</a> <a href="http://www.defence.gov.au/Legal/Directorates/dlit.asp">http://www.defence.gov.au/Legal/Directorates/dlit.asp</a></p>
19	When will the defence force start cleaning up the contamination in the Hawkesbury?	<b>Department of Defence</b> will start to clean up the effected sites located on the RAAF base in the next 12 months- there is no current plan to clean up land outside the RAAF base.	

20	How do I know if the value of my property will drop due to the contamination? What can be done to remediate the land?	There is no guarantee on what will happen to property values. <b>Department of Defence</b> will remediate the effected sites located on the RAAF base in the next 12 months- there is no current plan to clean up land outside the RAAF base.	
21	Do people working on turf farms need to take extra precautions to avoid PFAS from soil and dust?	Turf farms have been tested and the concentration of PFAS in the soil is low so the amount ingested would be minimal. The <b>Department of Defence</b> said to just continue to practice normal hygiene measures.	
22	When did your department determine PFAS might be a harmful substance?	<b>Department of Defence</b> said "we are not a health authority, " but it has not been determined as "harmful". What has been determined is that PFAS is persistent in nature and it's biocumulative. Since PFAS group of chemicals are persistent they should be limited or avoided. From an environmental perspective they are investing energy and time and money into assessing the risk of PFAS.	
23	If the Lowlands is mined for sand and minerals does PFAS ruin the market value for these materials?	Aecom said they tested PFAS on sand and it does not have a tendency to "stick." It does however stay with clay and silt. There was no comment made on the market value of sand and minerals as a commodity. Sampling should be done as part of the mining feasibility study.	
24	Why is the government disregarding USA EPA levels for PFAS tolerable daily intakes?	<b>Department of Defence</b> said they are consistent with USA EPA levels for tolerable levels in drinking water.	
25	Why has there been a PFAS compensation payment to an affected property owner in Oakey if there are no known health effects or loss of property value?	<b>Department of Defence</b> said no comment to this question but did point out that this case was not a health-based claim.	

26	What about the PFAS contamination of beef cattle in all areas? This contaminated product is then processed and sold on to the wider population. Why?	There are no set standards for levels of PFAS in food at this point in time. <b>Department of Primary Industries</b> say since the majority of Australians do not eat from one source then any presence of PFAS found in our food is diluted across the wide range of food we eat.	
27	Why has there not been testing upstream?	The furthest testing that was done was right near North Richmond Bridge.	
28	Is it in the grass?	They said the amount of PFAS in grass is insignificant. When they tested fodder for cattle, they found that the PFAS molecule struggles to make its way to the top of grass since it is such a complex molecule.	
29	Why is it OK for contaminated beef to be sold to the public unknowingly?	<b>The Department of Health and The Department of Primary Industries</b> said there are two tests for meat produce which farmers have to sign off on—one is for contamination known to cause harm—the other is for contaminants not known to cause harm. PFAS falls into the latter.	

There is plenty more to learn about PFAS and its effects. All HEN members new and old are encouraged to come to our Annual General Meeting on the 2<sup>nd</sup> of October 2019 where we have arranged a panel of experts to further discuss the issue of PFAS in our area.

To stay in the loop follow or contact us at [@Hawkesbury Environment Network HEN](#) and [@The Hawkesbury PFAS Community Network](#) on Facebook.



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