

Sensitive

Office of the Minister for the Environment

Chair

Cabinet

PFAS contamination: update on response and planned next steps

Purpose

1. The purpose of this paper is to update you on the response to the PFAS contamination at Ohakea and Woodbourne Air Force bases. This paper advises the next steps for testing, communications, and engagement with affected neighbours and the wider community.

Executive summary

2. The operating principles of the project to date have been to focus on affected landowners/residents first; to manage any potential impact on human health; to operate on an All-of-Government basis; and to act responsibly, while not unduly or unnecessarily raising public concern or causing alarm.
3. Testing across 64 properties in both areas occurred in December 2017. Results from this sampling identified five properties at Ohakea and two at Woodbourne where water used for domestic water supply was above the interim guidance levels for drinking water.
4. A second stage of testing at the original 64 properties commenced on 12th February 2018. A minimum of three samples at each affected property are proposed to account for varying climatic and seasonal conditions.
5. The first stage of communications and engagement focused on those landowners/residents whose properties were being sampled. Information was provided directly, via phone call, in person and by letter. Since then, concerns have been raised by the general community and Councils that more information for the wider community is needed across the areas affected. The second stage of testing will include communications and engagement activities targeted at the wider community. It will also maximise existing council community networks.
6. Testing of an extended area at both Ohakea and Woodbourne commenced on 13th February, based upon expert assessment of the first test results. The extended test areas were proposed through collaboration with consultants, regional councils and MPI experts. Some additional sites were agreed after a community meeting in the Manawatū on 12 February.
7. Potentially affected landowners and residents in the extended area are currently being identified and contacted regarding testing. The focus throughout the first stage of the testing program is on those potentially affected residents and ensuring that their interests are given primary consideration. This has been

managed in part by ensuring information is provided to potentially affected people first.

Background

8. The issue concerns the use of specialised fire fighting foam manufactured with Perfluorooctane sulphonic acid (PFOS), and Perfluorooctanoic acid (PFOA), collectively part of a family of compounds known as perfluoroalkyl substances (PFAS). These specialised foams have historically been used to fight fires involving liquid fuels, particularly at airports, Defence airfields, fuel storage and industrial facilities.
9. The two substances PFOS and PFOA have also been used in the manufacture of many household products ranging from stain-resistant coatings on furniture, to fast-food wrappers. These two compounds are now considered to be 'emerging contaminants' and have been phased out of use. NZ Defence Force (NZDF) has been advised by its supplier that fire fighting foam supplied to them has not contained these chemicals as active ingredients since 2002. Use of PFOS and PFOA was subsequently restricted under New Zealand law in 2006 and PFOS was completely banned from all use in 2011.
10. Defence Forces worldwide, including Australia, have found PFOS and PFOA contamination in soils and groundwater associated with liquid fuel fire practice areas. NZDF has looked at its own sites, particularly Ohakea and Woodbourne Air Bases, due to the presence of active training facilities and proximity to groundwater bores and wells in the nearby area.
11. The December 2017 testing at both Ohakea and Woodbourne was based on groundwater modelling by NZDF consultants. Following tests on 64 properties in December 2017, five properties at Ohakea and two at Woodbourne were identified, where water used domestically tested above the interim guidance levels for drinking-water for PFOS and PFOA compounds.
12. During this first round of testing the All-of-Government communications and engagement activity initially focused on potentially affected households first. This was followed by a sequential release to key stakeholders such as Councils, wider industry groups and local MPs prior to a public announcement.
13. When testing began, residents were immediately offered bottled water to provide safe drinking water. Once testing revealed contamination in domestic water, affected residents were offered water tanks to provide a medium-term source of drinking water.
14. General written advice was given to all landowners and residents whose water was tested. Further general advice has been provided on the Ministry for the Environment (MfE), Ministry of Health (MoH), and NZDF websites. An 0800 number has been made available for general enquiries, currently managed by NZDF at both Ohakea and Woodbourne. The Ministry for Primary Industries (MPI) has provided tailored advice to residents, specific to individual circumstances and water uses, where this has been required.
15. Communication of these messages was undertaken through letter drops with fact sheets on PFAS and by phone calls followed by face to face visits. NZDF has had teams on the ground visiting landowners and families. They have been supported by MoH and MPI specialists. NZDF has also operated a drop in centre at each location.

16. Recent contact with the Horizons Regional Council and Manawatū and Rangitikei District Councils flagged concerns about the lack of general information and communication with the wider community outside the testing area. Feedback was that this was causing uncertainty and misunderstanding.
17. I spoke with Mayor Worboys from Manawatū District on these matters and there was a subsequent meeting involving central and local government officials, attended by Minister Lees-Galloway, on 2 February. This meeting was positively received, discussing the current situation, community feedback, agency roles and responsibilities, future operational connections including future water quality testing and a joint approach to communications and engagement.
18. Councils have recommended a single helpline, rather than the different helplines for each agency, as a single point of contact. This is currently being investigated. A more local response in the shape of an incident and recovery management model is also being set up in the Manawatū. This is to ensure both the immediately affected residents and wider community feel engaged in the process.
19. In Marlborough, a Technical Advisory Group of central and local government officials has already been established.
20. Senior government officials met with the Mayor and Chief Executive of Marlborough District Council on Thursday 8 February to ensure the support being provided to the affected residents, council and community is sufficient and to discuss the second stage of testing. There was positive feedback from the Marlborough Council that the local response to date is working well.

Testing and investigations

21. The results of the first round of testing allowed the expert consultants to review the groundwater model and likely extent of contamination, enabling revision of the testing areas. These new testing boundaries have been considered by consultants, in collaboration with Regional Councils and experts from MPI.
22. Following community meetings in the Manawatū in February some additional sites, including local streams identified by Horizons Regional Council, have been added to the extended test area for Ohakea. In addition, some reassurance water testing will also be undertaken, including of the Bulls and Sanson public water supply.
23. At both Ohakea and Woodbourne, each testing locality in the second round of testing will undergo a minimum of three tests to ensure an accurate and robust picture of contamination is collected. Multiple tests are required to account for differing weather, groundwater levels and rainfall patterns. This second round of testing began on 13 February 2018.
24. As noted previously, the process for contacting landowners and residents in the extended areas has begun. Letters were delivered from Monday 12 February seeking their permission to allow testing. The letter suggests a liaison meeting at the landowners/residents convenience so that the testing regime can be explained.
25. The letter drop included a fact sheet about PFAS, the advice from Ministry of Health and Ministry of Primary Industries, the existing NZDF 0800 number for further questions and a link to the MfE website.

26. As was offered in the first round of testing, everyone is being offered a supply of bottled water (10 litre packs) if they wish it, while their test process is being carried out.

Food safety

27. MPI milk testing has not identified food safety risks from food sold into the general food supply. As milk is a useful signpost for PFAS uptake into food this conclusion applies to other crops grown, or animals raised, in the affected areas.

28. Consumption of food or water containing PFAS represents a risk to health over an extended period. However, food entering the general supply from the affected area will represent a very small percent of the food available for an individual to purchase. As such it is highly unlikely than any member of the general public would get a regular exposure to PFAS; a one off or limited exposure is not considered to present a food safety risk.

29. Therefore, for the general population, including people living in Ohakea and Woodbourne whose properties are not affected, consuming food, such as vegetables, meat, milk, eggs and wine from the local area is safe. This is because the amount of any PFAS consumed would be so low it would not likely pose any health risks.

30. MPI does not therefore currently recommend further food safety testing of commercial produce and livestock. Any testing of food for commercial assurance from the affected areas risks overemphasising a potential food safety concern and may increase the likelihood of food businesses choosing to refuse to purchase food from affected farms.

31. MPI has provided advice to affected properties, and as part of general media messaging, that continuing to sell food is acceptable as there is not a food safety risk to the national food supply. However, third party standards may still be invoked by businesses which are beyond MPI control. Where requested, MPI experts will contact food businesses to advise on the current MPI position and relay the risks of highlighting commodities from the affected area when we believe they are safe.

32. For producers selling their goods at local farmers markets these goods do not pose a health risk as long as they meet all other relevant food safety standards.

33. For people in the affected areas who are consuming a large amount of food produced from their own properties, individual tailored advice has been provided as follows:

- Three affected landowners/residents were provided specific advice to moderate consumption of predominantly homekill livestock. Testing for PFAS levels in products will be undertaken on any properties where it is considered the residents are at risk from their consumption of that product on their property.
- Twelve residents were advised that at this stage, based on their water results and consumption patterns, they could continue to consume home produced food as they have done.

- Two further properties have yet to be assessed and may require site specific advice. Arrangements are currently being made to meet with these residents.
34. The general advice to people living near these bases is to source their food from a range of places to limit the overall amount of PFAS consumed and reduce any long-term health risk.
 35. At Ohakea, local concerns have been expressed about collection, consumption and sale of watercress taken from surface waters in the sampling area. MPI advises there is no known data on safe levels for watercress consumption but is following up with those harvesting to ensure that any food safety risks are addressed. NZDF has agreed to sampling of water cress.
 36. In Marlborough, MPI is aware of the difficulties some contract grape growers have had in securing buyers for potentially affected grapes. MPI has advised that there is unlikely to be a food safety risk with grapes for wine production. Uptake in the grapes would have to far exceed levels reported in any other food type; a situation not seen in the Australian reporting. Also, consumption of wine would have to be at a level where adverse health effects from the alcohol intake would be a more significant risk. Grape growers in Marlborough have approached NZDF and asked for grapes to be tested for quality purposes to allay buyer concerns. MPI has provided input on the sampling plan but has restated that no food safety concerns are likely.
 37. MPI has been informed that the European Food Safety Authority is planning to release an updated scientific opinion at the end of February on the risks from PFAS in the food supply. This review has two focuses, firstly to consider the latest toxicology and epidemiology data on PFOS and PFOA, and secondly to look at the wider range of PFAS chemicals and identify the potential hazards these present.
 38. Both aspects of the review may bring to light new considerations on the human health risks of PFAS chemicals. MPI plans to review the outcomes of the scientific opinion once published and identify what, if any, of the findings may impact the New Zealand PFAS investigations. There is the potential that the scientific opinion could cause the European Commission to consider risk management measures, such as setting regulatory standards.

Health risks

39. Residents in affected areas whose drinking-water has tested above the interim guidance levels are able to make an appointment with the local Medical Officer of Health. The Medical Officer of Health may then provide people with a voucher for a free consultation with their GP and a general medical examination.
40. To date, the on-the-ground teams have completed 16 public health visits and are planning a minimum of three further visits. As a result, two appointments with the Medical Officer of Health have been held (with five attendees) and vouchers for GP wellness checks have been offered to all five residents. The GP appointments have not yet taken place.
41. There is no conclusive evidence that PFOS and PFOA exposure will result in future health problems. However, if a GP considers a blood test is necessary, for

the patient's peace of mind, this will be offered. The Ministry of Health has made arrangements for free blood testing to be done if required.

42. Blood tests are not recommended as a standard response because the results only indicate if someone has been exposed to PFOS and PFOA. However every New Zealander will have had some exposure. A blood test cannot determine whether residents will develop health effects because of their exposure. The test will show how much PFAS was in a person's blood at the time the test was taken. It cannot accurately determine a person's past exposure. A person who has had a high level of exposure in the past may have a serum PFAS test which shows low or minimal levels of PFAS now. The amount of PFAS in a person's body slowly decreases over years, if the person ceases to be exposed to significant amounts of PFAS.
43. In 2010, MoH commissioned a biomonitoring study to quantify the concentrations of selected persistent organic pollutants (POPs) in the blood serum of adult New Zealanders. The study was completed in 2013 and the results showed that all those people sampled had some PFAS levels in their blood. The concentrations of PFOA in New Zealanders' adult serum are generally similar to, or lower than, those in the USA, Canada, Germany, and Australia, while the concentrations of PFOS are considerably lower than those in USA, Canada, Germany, and Australia.
44. The Australian Government established an Expert Health Panel in late 2017 to advise on the potential health impacts associated with PFAS exposure and identify priority areas for further research. It will also consider the views of the public and other stakeholders from reviewing written submissions. It is expected that the Expert Health Panel will provide its advice to Hon Greg Hunt MP (Minister for Health) by 28 February 2018. Australian Department of Health officials have advised that the findings will be publicly available in mid to late March 2018. Officials are liaising with their Australian counterparts to ensure this informs the New Zealand response.

Provision of drinking water to affected properties

45. As noted above these landowners/residents are being offered, and are considering rainwater or storage tanks to provide an uncontaminated drinking water supply in the medium term. To date, two tanks have been installed at Woodbourne and a small number of other residents are considering this option.
46. Residents and landowners in the affected areas are interested in the options for long term water supply. The nature of any long term water supply solutions will require assessment of the area to be covered, subject to the outcome of further testing. In addition to drinking water, residents have asked central and local government to factor in issues around stock and irrigation water.

Communications and media

A broader approach to communications and engagement

47. The initial phase of communication specifically focussed on engagement with potentially affected households first.
48. Once testing revealed contamination in drinking water, priority was given to those needing an alternative source of drinking water.

49. This next communication phase, in conjunction with stage 2 testing, will expand to include broad-based community engagement. It will address wider community concerns about the implications of the contamination and issues beyond human health, e.g. impact on stock and crops. It will seek to provide assurance to communities and respond to their concerns.
50. The next phase of communication will be undertaken in partnership with local and regional councils. This involves working with the newly established community reference group in the Manawatū.
51. Key elements of the communication approach now include:
 - Continued direct contact with those inside the known area
 - Broader community engagement including, but not limited to:
 - 51..1. Attendance at community meetings
 - 51..2. Public notices in local newspapers
 - 51..3. Greater use of local council channels (eg Facebook pages) and community networks
 - More proactive local media engagement.

Media

52. Media interest in the issue is currently mainly with Radio NZ and Fairfax, (Stuff and the two local papers).
53. As the issue has evolved so has media coverage, now focussing on subsequent areas like potential compensation, the time it took to act, and information going onto Land Information Memoranda.

Investigation at other sites

Other Defence sites

54. Preliminary investigations have been carried out on other NZDF bases where fire fighting training has taken place. The focus to date has been on bases where drinking water supplies could potentially be affected through ground and surface water (Ohakea and Woodbourne).
55. Where drinking water at a base and surrounding neighbourhood comes from a town water supply and there is no issue of contamination of the drinking water supply at the base or at surrounding properties, these locations will be investigated further after Ohakea and Woodbourne.

Other sites at which PFAS may have been historically used

56. With the operational aspects of the initial focus at Ohakea and Woodbourne under way, the focus of the All-of-Government response is moving to consider other sites at which PFAS may have been historically used and which have the potential for contamination. The team will work with Regional Councils to identify a prioritised list for investigation.
57. As part of its statutory role, the Environmental Protection Authority (EPA) is conducting a separate investigation that also involves looking at storage and use of unapproved firefighting foams or firefighting foams that contain PFOS or PFOA

for the purpose of ensuring compliance with the Hazardous Substances and New Organisms Act. The initial priority of the investigation has been to identify the types of foams held, whether they have been used or not, and how and where they are stored. Discussions have been initiated with some airports to understand scope. The EPA will also be investigating other locations where the relevant firefighting foams are stored or used.

Official Information Act Requests

58. Official Information Act requests are being processed from media and from the Australian law firm that was responsible for class action lawsuits in Australia, and who is promoting the potential for a similar class action in New Zealand. These relate to a Cabinet paper, briefing papers and situation updates in December and are expected to be released over the next few weeks. NZDF is currently assessing its ability to refuse release or heavily redact any reports to private landowners as part of their undertaking to protect their privacy.

Resourcing and Governance of the Project

59. I have instructed officials to prepare further advice on any governance and resourcing implications of this All-of-Government response which I will share in due course.

Managing this issue on an ongoing basis

Recovery Manager

60. Following the request for the local response in Manawatū to be set-up more like an incident management recovery model, MfE has negotiated with Auckland Council to deploy their Recovery Manager to assist with the next phase of the response. This person is based for 4-6 weeks, from 7 February, to establish and lead the next stage, local recovery model, working with on-the-ground staff and Wellington-based support staff. This will include working with the communications team to ensure information and engagement is consistent. It also provides the community with a single point of contact to coordinate the response and support from central and local government.

61. Specifically, this will involve consolidating the current helplines into one support line, with local drop-in support. Weekly situation reports will be delivered to ensure a to-be-established governance group are provided with consistent and clear information on progress and next steps in the response. MfE will manage the transition to the person who will take the lead role for the ongoing recovery, to ensure there is consistency at these or any other similar sites.

Consultation

62. This paper has been prepared in consultation with:

- NZ Defence Force
- Ministry for Primary Industries
- Ministry of Health
- Department of Prime Minister and Cabinet.

63. The EPA have been advised.

Financial implications

64. The immediate response is being funded by NZDF and by each agency from their respective baselines. The financial implications of the medium term response, and as MfE takes on a greater leadership role, are being developed.

Recommendations

I recommend that the Committee:

1. **notes** that a wider group of people are in the process of being identified and contacted with further testing beginning from 12 February
2. **notes** the planned next stage of communication and engagement
3. **notes** investigations will be carried out to determine other potential contamination sites
4. **recommends** that this paper is proactively released after consideration by Cabinet.

Authorised for lodgement.

Hon David Parker
Minister for the Environment