

Water treatment plant and raw water (3 x samples)

Kullindi Homestead bore (1 sample)

Bay of Plenty Lodges bore (1 sample)

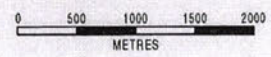
HMS CRESWELL Potential PFOS & PFOA source (not sampled)

**LEGEND**

- BOODEREE NATIONAL PARK - ABORIGINAL LAND
- WRECK BAY - ABORIGINAL LAND
- BOODEREE BOTANIC GARDENS - ABORIGINAL LAND
- DEPARTMENT OF DEFENCE (NAVY) LAND
- TERRITORY LAND
- LEASES

**JERVIS BAY TERRITORY LAND TENURE**

Produced by LANDINFO, a division of Sinclair Knight Merz Pty Ltd, Canberra ACT October 1999



**White, Sarah-Jane (Health)**

---

**From:** Krsteski, Radomir (Health)  
**Sent:** Friday, 16 December 2016 6:26 PM  
**To:** [REDACTED]@infrastructure.gov.au  
**Subject:** RESULTS & EDD for ALS Workorder : CA1606699 | Your Reference: Jervis Bay [SEC=UNCLASSIFIED]  
**Attachments:** CA1606699\_0\_XTAB\_WRGLEG.xls; CA1606699\_0\_AU\_COA\_2\_A4\_ENV\_NATA.pdf; CA1606699\_COC.pdf

Hi [REDACTED],

Attached are the latest PFAS results for Jervis Bay samples we took on the 29/11/2016. This time around we did find some PFAS in the following sites:

- Raw Water pre-treatment JBT at 2.99µg/L
- Kullindi Homestead BBQ tap potable water at 0.04µg/L.

To provide you with information about Kullindi homestead, the water is bore sourced, to supply the heritage listed homestead providing accommodation for holiday goers. PFAS was detected in Kullindi homestead BBQ tap drinking water at 0.04µg/L (sampled 29/11/2016). The bore water has a small treatment setup with the following setup: first filter of 10microns; second Filter 0.5 microns; UV radiation; and then to taps. The water services a total five separate units within the main building, set around a common courtyard that includes two all weather gas fired BBQs, for a maximum of 20 guests at one time not including the owner/manager. The sample was from a tap at one of the BBQs. The results is well below enHealth interim PFAS health reference values of 0.5ug. The nature of the site being bore water may influence the potential for fluctuations that may coincide with weather patterns as PFAS may intermittently migrates to the bore reservoir or as you suggested an initial plume. This may explain why previous (May 2016) results found nothing. We will organise sampling of all bore water sites and increase our sampling rate to determine whether it is an emerging or receding plume.

Just some additional information to this, while we found no PFAS from Lake Windemere surface water we did find it in the Lake's raw water extraction point (at 2.99ug/L) which varies and is generally a lot lower than the surface. Lake Windemere it is rain fed, but in saying that it would still get some ground water through aquifers at its lower depths and stratification would reduce mixing. The Lake's water treatment process of: pre Ozone generator and flocculation; sand filtration; ozone treatment & ozone contact tank; carbon filtration (removes ozone); chlorination at 1.5mg/L and; fluoridation, did successfully remove the PFAS from the water as evidenced by end point testing of the treated water sample taken from the plant. Lake Windemere it is rain fed, but in saying that it would still get some ground water through aquifers at its lower depths. The previous results (May 2016) found no PFAS in the Lake's raw water extraction sample, which could potentially reinforce the assumption that weather and namely large rainfall can influence PFAS levels in this area.

Let me know if you need any more information,

Cheers  
 Rad

Job : CA1606699

Job Description: Jervis Bay

Received Date:

Email: Andrew.Stedman@act.gov.au

Lab Ref No. Desc. Sample Pt. Sampled Date Sampled Time

EP231A EP231A EP231A EP231A EP231A EP231A  
 EP231A: P EP231A: P EP231A: P EP231A: P EP231A: P EP231A: P

Lab Ref No.	Desc.	Sample Pt.	Sampled Date	Sampled Time	Perfluorob	Perfluorod	Perfluoroh	Perfluoroh	Perfluoroo	Perfluorop
					utane sulfonic acid (PFBS)	ecane sulfonic acid (PFDS)	eptane sulfonic acid (PFHpS)	exane sulfonic acid (PFHxS)	ctane sulfonic acid (PFOS)	entane sulfonic acid (PFPeS)
					µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
CA1606699001	Bay of Plenty	1	28-Nov-2016	13:30:00	<0.02	<0.02	<0.02	<0.02	<0.01	<0.02
CA1606699002	Kullindi BBQ	2	28-Nov-2016	14:00:00	<0.02	<0.02	<0.02	<0.02	0.04	<0.02
CA1606699003	Raw Water JBT	3	28-Nov-2016	14:10:00	0.08	<0.02	0.03	2.12	0.59	0.09
CA1606699004	Processed Water JBT	4	28-Nov-2016	14:20:00	<0.02	<0.02	<0.02	<0.02	<0.01	<0.02
CA1606699005	Lake Windermere	5	28-Nov-2016	14:30:00	<0.02	<0.02	<0.02	<0.02	<0.01	<0.02

EP231B	EP231B	EP231B	EP231B	EP231B	EP231B	EP231B	EP231B	EP231B	EP231B	EP231B	EP231B	EP231C	EP231C
EP231B:	FEP231B:	FEP231B:	FEP231B:	FEP231B:	FEP231B:	FEP231B:	FEP231B:	FEP231B:	FEP231B:	FEP231B:	FEP231B:	FEP231C:	P EP231C:
Perfluorobutanoic acid (PFBA)	Perfluorodecanoic acid (PFDA)	Perfluorododecanoic acid (PFDoDA)	Perfluorohexanoic acid (PFHpA)	Perfluorohexanoic acid (PFHxA)	Perfluorononanoic acid (PFNA)	Perfluorooctanoic acid (PFOA)	Perfluoropentanoic acid (PFPeA)	Perfluorotetradecanoic acid (PFTeDA)	Perfluorotridecanoic acid (PFTrDA)	Perfluoroundecanoic acid (PFUnDA)	N-Ethylperfluorooctane sulfonamide (EtFOSA)	N-Ethylperfluorooctane sulfonamide doacetic acid (EtFOSAA)	
µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
<0.1	<0.02	<0.05	<0.02	<0.02	<0.02	<0.01	<0.02	<0.50	<0.05	<0.05	<0.05	<0.05	<0.02
<0.1	<0.02	<0.05	<0.02	<0.02	<0.02	<0.01	<0.02	<0.50	<0.05	<0.05	<0.05	<0.05	<0.02
<0.1	<0.02	<0.05	<0.02	0.07	<0.02	0.01	<0.02	<0.50	<0.05	<0.05	<0.05	<0.05	<0.02
<0.1	<0.02	<0.05	<0.02	<0.02	<0.02	<0.01	<0.02	<0.50	<0.05	<0.05	<0.05	<0.05	<0.02
<0.1	<0.02	<0.05	<0.02	<0.02	<0.02	<0.01	<0.02	<0.50	<0.05	<0.05	<0.05	<0.05	<0.02

EP231C	EP231C	EP231C	EP231C	EP231C	EP231D	EP231D	EP231D	EP231D	EP231P	EP231P
EP231C: P	EP231C: P	EP231C: P	EP231C: P	EP231C: P	EP231D: (	EP231D: (	EP231D: (	EP231D: (	EP231P: P	EP231P: PFAS Sums
N-Ethyl perfluoroo ctane sulfonami doethanol (EtFOSE)	N-Methyl perfluoroo ctane sulfonami doethanol (MeFOSA)	N-Methyl perfluoroo ctane sulfonami doacetic acid (MeFOSA A)	N-Methyl perfluoroo ctane sulfonami doethanol (MeFOSE)	Perfluoroo ctane sulfonami doethanol (FOSA)	10:2 Fluorotelo mer sulfonic acid (10:2 FTS)	4:2 Fluorotelo mer sulfonic acid (4:2 FTS)	6:2 Fluorotelo mer sulfonic acid (6:2 FTS)	8:2 Fluorotelo mer sulfonic acid (8:2 FTS)	Sum of PFAS	Sum of PFAS (Swedish Water Quality Guideline plus 8:2- FTS)
µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
<0.50	<0.50	<0.02	<0.50	<0.02	<0.05	<0.05	<0.10	<0.10	<0.01	<0.01
<0.50	<0.50	<0.02	<0.50	<0.02	<0.05	<0.05	<0.10	<0.10	0.04	0.04
<0.50	<0.50	<0.02	<0.50	<0.02	<0.05	<0.05	<0.10	<0.10	2.99	2.87
<0.50	<0.50	<0.02	<0.50	<0.02	<0.05	<0.05	<0.10	<0.10	<0.01	<0.01
<0.50	<0.50	<0.02	<0.50	<0.02	<0.05	<0.05	<0.10	<0.10	<0.01	<0.01



**CERTIFICATE OF ANALYSIS**

**Work Order** : CA1606699  
**Client** : ACT Health  
**Contact** : Mr Andrew Stedman  
**Address** : 25 Mulley Street Holder  
           ACT 2611  
**Telephone** : (02) 6205 1700  
**Project** : Jervis Bay  
**Order number** : ---  
**C-O-C number** : ---  
**Sampler** : Andrew Stedman  
**Site** : ---  
**Quote number** : ---  
**No. of samples received** : 5  
**No. of samples analysed** : 5

**Page** : 1 of 4  
**Laboratory** : ALS Water Resources Group  
**Contact** : Client Services  
**Address** : 16B Lithgow Street Fyshwick ACT Australia 2609  
**Telephone** : +61 2 6202 5404  
**Date Samples Received** : 29-Nov-2016 12:25  
**Date Analysis Commenced** : 05-Dec-2016  
**Issue Date** : 05-Dec-2016 10:21



Accreditation No. 992  
 Accredited for compliance with  
 ISO/IEC 17025 - Testing

This report supersedes any previous report(s) with this reference. Results apply to the sample(s) as submitted. This document shall not be reproduced, except in full.

This Certificate of Analysis contains the following information:

- General Comments
- Analytical Results

**Additional information pertinent to this report will be found in the following separate attachments: Quality Control Report, QA/QC Compliance Assessment to assist with Quality Review and Sample Receipt Notification.**

*Signatories*

This document has been electronically signed by the authorized signatories below. Electronic signing is carried out in compliance with procedures specified in 21 CFR Part 11.

<i>Signatories</i>	<i>Position</i>	<i>Accreditation Category</i>
Damien Wilkie	Sample Admission Officer	ALS Environmental, Fyshwick, ACT



Page : 2 of 4  
Work Order : CA1606699  
Client : ACT Health  
Project : Jervis Bay

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### General Comments

The analytical procedures used by the Environmental Division have been developed from established internationally recognized procedures such as those published by the USEPA, APHA, AS and NEPM. In house developed procedures are employed in the absence of documented standards or by client request.

Where moisture determination has been performed, results are reported on a dry weight basis.

Where a reported less than (<) result is higher than the LOR, this may be due to primary sample extract/digestate dilution and/or insufficient sample for analysis.

Where the LOR of a reported result differs from standard LOR, this may be due to high moisture content, insufficient sample (reduced weight employed) or matrix interference.

When sampling time information is not provided by the client, sampling dates are shown without a time component. In these instances, the time component has been assumed by the laboratory for processing purposes.

Where a result is required to meet compliance limits the associated uncertainty must be considered. Refer to the ALS Contact for details.

Key : CAS Number = CAS registry number from database maintained by Chemical Abstracts Services. The Chemical Abstracts Service is a division of the American Chemical Society.  
LOR = Limit of reporting  
^ = This result is computed from individual analyte detections at or above the level of reporting  
∅ = ALS is not NATA accredited for these tests.  
~ = Indicates an estimated value.

- For samples collected by ALS WRG, sampling was carried out in accordance with Procedure EN67
  - EP231-X Performed at ALS Sydney
-







Page : 4 of 4  
 Work Order : CA1606699  
 Client : ACT Health  
 Project : Jervis Bay

### Analytical Results

Sub-Matrix: WATER (Matrix: WATER)				Client sample ID	1	2	3	4	5
					Bay of Plenty	Kullindi BBQ	Raw Water JBT	Processed Water JBT	Lake Windermere
Client sampling date / time					28-Nov-2016 13:30	28-Nov-2016 14:00	28-Nov-2016 14:10	28-Nov-2016 14:20	28-Nov-2016 14:30
Compound	CAS Number	LOR	Unit		CA1606699-001	CA1606699-002	CA1606699-003	CA1606699-004	CA1606699-005
					Result	Result	Result	Result	Result
<b>EP231C: Perfluoroalkyl Sulfonamides - Continued</b>									
N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	2448-09-7	0.5	µg/L		<0.50	<0.50	<0.50	<0.50	<0.50
N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.5	µg/L		<0.50	<0.50	<0.50	<0.50	<0.50
N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
<b>EP231D: (n:2) Fluorotelomer Sulfonic Acids</b>									
4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.1	µg/L		<0.10	<0.10	<0.10	<0.10	<0.10
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.1	µg/L		<0.10	<0.10	<0.10	<0.10	<0.10
10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
<b>EP231P: PFAS Sums</b>									
Sum of PFAS	---	0.01	µg/L		<0.01	0.04	2.99	<0.01	<0.01
Sum of PFAS (Swedish Water Quality Guideline plus 8:2-FTS)	---	0.01	µg/L		<0.01	0.04	2.87	<0.01	<0.01



# CHAIN OF CUSTODY Water Resources Group

ABN: 94 105 060 320

Page.....of.....

Melbourne Office  
22 Dalmore Drive  
Scoresby VIC 3179  
Phone: 03 8756 8000  
Fax: 03 9763 1862

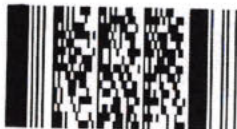
Canberra Office:  
16B Lithgow St  
Fyshwick ACT 2609  
Phone: 02 6202 5431  
Fax: 02 6202 5452

Bendigo Office:  
Gate 6 Sharon St  
La Trobe University,  
Bendigo VIC 3550  
Phone: 03 5441 0700  
Fax: 03 5444 5208

Geelong Office:  
49 Carr St  
Geelong VIC 3220  
Phone: 03 5228 9249  
Fax: 03 5229 0242

Wangaratta Office:  
42 Faithful St  
Wangaratta VIC 3676  
Phone: 03 5722 2688  
Fax: 03 5722 4727  
Mobile: 0419 007 749

Traralgon Office: 293  
4/55 Hazelwood Rd  
PO Box 1469  
Traralgon VIC 3844  
Phone: 03 5176 4170  
Fax: 03 5176 4473

<b>Client:</b> ACT Health						<b>Lab Work Order No:</b>			
<b>Contact:</b> Andrew Stedman						<b>Project Name:</b>			
<b>Address:</b> 25 Miley Street, Holder									
<b>Phone:</b> 62051700		<b>Fax:</b>		<b>Mob:</b> [REDACTED]		<b>TESTS REQUIRED</b>			
<b>Email:</b> Results: andrew.stedman@act.gov.au Rudomtr.kreskoki@act.gov.au				<b>Invoice:</b>		ALS Water Resources Group Canberra Work Order Reference <b>CA1606699</b>   Telephone: +61 2 6202 5404			
<b>P/O No.:</b>		<b>Quote No.:</b>							
<b>T/A Time:</b>		<b>Sampler:</b> Andrew Stedman							
<b>Job/Proj Ref:</b>		Jervis Bay							
Sample Point ID	Sample Description	No of Containers	Date Sampled	Time sampled	Matrix/Type	EP231 (PROS, PMS, PMS)			
1	Bay of Plenty	1	28/11/16	13:30	water	/			
2	Kullindi BDA	1	28/11/16	14:00	water	/			
3	Raw water JBT	1	28/11/16	14:10	water	/			
4	Processed water JBT	1	28/11/16	14:20	water	/			
5	Lake Windermere	1	28/11/16	14:50	water	/			
<b>Special Instructions:</b>									
<b>Relinquished By:</b>		<b>Company:</b>		<b>Date:</b>		<b>Time:</b>		<b>Received By:</b>	
Andrew Stedman		ACT Health		28/11/16		12:25pm		Damien	
								ALS	
								29.11.16	
								12:25	

This form is for recording of sample data after prior consultation with an analyst regarding sampling procedures and does not over-ride pricing agreements, OHS requirements and our terms and conditions.  As an Occupational Health and Safety consideration, it is a requirement of ALS Water Resources Group that all samples received be undamaged and prior advice given in writing of any potential health risks.	<b>LAB USE ONLY</b>	<b>Sample conditions:</b>	
	<b>TEMPERATURE:</b> 14.3°C	Samples received undamaged <input checked="" type="checkbox"/> Yes/No Samples adequately preserved <input checked="" type="checkbox"/> Yes/No Samples within recommended holding times: <input checked="" type="checkbox"/> Yes/No Samples transported at appropriate temperature <input checked="" type="checkbox"/> Yes/No	

**White, Sarah-Jane (Health)**

---

**From:** Krsteski, Radomir (Health)  
**Sent:** Tuesday, 3 January 2017 10:22 AM  
**To:** [REDACTED]  
**Cc:** Clapham, David; [REDACTED]  
**Subject:** RE: REQUEST TO CONTACT CTH DEPARTMENT OF INFRASTRUCTURE AND REGIONAL DEVELOPMENT [SEC=UNCLASSIFIED]

Hi [REDACTED],  
 More than happy to discuss, I am free for most of the day except between 2pm to 2:30pm.  
 Cheers  
 Rad

---

**From:** [REDACTED] <[REDACTED]@infrastructure.gov.au>  
**Sent:** Tuesday, 3 January 2017 8:48 AM  
**To:** Krsteski, Radomir (Health)  
**Cc:** Clapham, David; [REDACTED]  
**Subject:** REQUEST TO CONTACT CTH DEPARTMENT OF INFRASTRUCTURE AND REGIONAL DEVELOPMENT [SEC=UNCLASSIFIED]

Hi Radomir  
 I would be grateful if you could call as soon as possible re your email detailed below.  
 Many thanks

[REDACTED]  
 [REDACTED] Jervis Bay Territory Administration  
 Local Government, Mainland Territories & Regional Development Australia Branch | Local Government and Territories Division  
 Department of Infrastructure and Regional Development  
 GPO Box 594, Canberra ACT 2601  
 t 02 6274 7795  
 e [REDACTED]@infrastructure.gov.au | w [www.infrastructure.gov.au](http://www.infrastructure.gov.au)

---

**From:** Krsteski, Radomir (Health) [<mailto:Radomir.Krsteski@act.gov.au>]  
**Sent:** Friday, 16 December 2016 6:26 PM  
**To:** [REDACTED] <[REDACTED]@infrastructure.gov.au>  
**Subject:** RESULTS & EDD for ALS Workorder : CA1606699 | Your Reference: Jervis Bay [SEC=UNCLASSIFIED]

Hi [REDACTED]  
 Attached are the latest PFAS results for Jervis Bay samples we took on the 29/11/2016. This time around we did find some PFAS in the following sites:

- Raw Water pre-treatment JBT at 2.99µg/L
- Kullindi Homestead BBQ tap potable water at 0.04µg/L.

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Windemere it is rain fed, but in saying that it would still get some ground water through aquifers at its lower depths and stratification would reduce mixing. The Lake's water treatment process of: pre Ozone generator and flocculation; sand filtration; ozone treatment & ozone contact tank; carbon filtration (removes ozone); chlorination at 1.5mg/L and; fluoridation, did successfully remove the PFAS from the water as evidenced by end point testing of the treated water sample taken from the plant. Lake Windemere it is rain fed, but in saying that it would still get some ground water through aquifers at its lower depths. The previous results (May 2016) found no PFAS in the Lake's raw water extraction sample, which could potentially reinforce the assumption that weather and namely large rainfall can influence PFAS levels in this area.

Let me know if you need any more information,

Cheers

Rad

-----  
This email, and any attachments, may be confidential and also privileged. If you are not the intended recipient, please notify the sender and delete all copies of this transmission along with any attachments immediately. You should not copy or use it for any purpose, nor disclose its contents to any other person.  
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**White, Sarah-Jane (Health)**

---

**From:** Krsteski, Radomir (Health)  
**Sent:** Tuesday, 10 January 2017 3:51 PM  
**To:** Stedman, Andrew (Health); Rogers, Keith (Health); Ruthenberg, Jennifer (Health)  
**Subject:** FW: MEETING REQUEST: JERVIS BAY TERRITORY HEALTH DIRECTORATE TESTING [SEC=UNCLASSIFIED]

FYI- any PFAS matters or queries regarding Jervis Bay please forward them to Conrad,

Cheers  
 Rad

**Radomir Krsteski**

**A/g Manager** | Environmental Health  
 Health Protection Service | Population Health | ACT Health  
 25 Mulley Street Holder ACT | Locked Bag 5005 Weston Creek ACT 2611  
 T 02 62050956 | M Mobile 0408 663 116 | E [radomir.krsteski@act.gov.au](mailto:radomir.krsteski@act.gov.au) | Website |

---

**From:** Krsteski, Radomir (Health)  
**Sent:** Tuesday, 10 January 2017 3:36 PM  
**To:** Kelly, Paul (Health)  
**Subject:** RE: MEETING REQUEST: JERVIS BAY TERRITORY HEALTH DIRECTORATE TESTING [SEC=UNCLASSIFIED]

Thanks Paul,

More than happy with that outcome, I will direct any further enquiries around any issues related to PFAS to Conrad.

Cheers  
 Rad

**Radomir Krsteski**

**A/g Manager** | Environmental Health  
 Health Protection Service | Population Health | ACT Health  
 25 Mulley Street Holder ACT | Locked Bag 5005 Weston Creek ACT 2611  
 T 02 62050956 | M Mobile | E [radomir.krsteski@act.gov.au](mailto:radomir.krsteski@act.gov.au) | Website |

---

**From:** Kelly, Paul (Health)  
**Sent:** Tuesday, 10 January 2017 3:28 PM  
**To:** Krsteski, Radomir (Health); Barr, Conrad (Health)  
**Cc:** McNeill, Laura (Health)  
**Subject:** RE: MEETING REQUEST: JERVIS BAY TERRITORY HEALTH DIRECTORATE TESTING [SEC=UNCLASSIFIED]

Hi Rad,

Just spoke quickly with Conrad about this, he will fill you in on the plan. Bottom line is, **please don't talk directly with JBT or DIRD on PFAS matters**. Definitely no meeting or T/C tomorrow, we go with the pre-arranged meeting for 19<sup>th</sup>.

Paul

**Dr Paul Kelly**

**ACT Chief Health Officer & Deputy Director-General** |  
 Population Health | ACT Health Directorate  
 PH 02 6205 2108 | E [paul.kelly@act.gov.au](mailto:paul.kelly@act.gov.au)

Paul Kelly - ACT CHO (@PKelly\_ACTCHO) on Twitter  
<http://www.health.act.gov.au/healthy-living/population-health>




---

**From:** Krsteski, Radomir (Health)  
**Sent:** Tuesday, 10 January 2017 3:11 PM  
**To:** Barr, Conrad (Health); Kelly, Paul (Health)  
**Cc:** McNeill, Laura (Health)  
**Subject:** FW: MEETING REQUEST: JERVIS BAY TERRITORY HEALTH DIRECTORATE TESTING [SEC=UNCLASSIFIED]

Hi All,

See below, I will keep you updated with their response and could you also let me know if you are available for a teleconference conference or are you happy for me to discuss any of the following issues raised:

- test results – I am happy to discuss this
- ownership of the results and availability to landholders and the Director of National Parks – obviously we own the results but to whom can they be distributed too?
- the proposed ACT testing programme and the strategy to ensure testing is linked up with the Department of Defence led PFAS management program for the JBT – I am happy to discuss but linkages to other programs should be discussed at the face to face meeting

Cheers  
 Rad



**Radomir Krsteski**

A/g Manager | Environmental Health  
 Health Protection Service | Population Health | ACT Health  
 25 Mulley Street Holder ACT | Locked Bag 5005 Weston Creek ACT 2611  
 T 02 62050956 | M Mobile [REDACTED] | E [radomir.krsteski@act.gov.au](mailto:radomir.krsteski@act.gov.au) | Website |

---

**From:** Krsteski, Radomir (Health)  
**Sent:** Tuesday, 10 January 2017 2:13 PM  
**To:** [REDACTED]  
**Cc:** [REDACTED]  
**Subject:** RE: MEETING REQUEST: JERVIS BAY TERRITORY HEALTH DIRECTORATE TESTING [SEC=UNCLASSIFIED]

Hi [REDACTED],

I can confirm that the recent sites for testing were determined by ACT Health as per the current the current potable water sites that use bore water. The cost for the recent testing of these sites for PFAS will be covered by ACT Health.

It seems that the proposed teleconference will be exploring some of the issues that are going to be discussed at the scheduled face to face meeting for Thursday 19/1/17 at 3pm Nara House. Could all of the issue raised below be explored at the scheduled face to face meeting in lieu of the teleconference?

I can be available for the 10:30-11:30 Thursday 12 January 2017 teleconference, but I will have to get back to confirm potential availability of other ACT Health stakeholders, namely the Chief Health Officer and the Executive Director of the Health Protection Service.

Kind regards

Rad



**Radomir Krsteski**

A/g Manager | Environmental Health  
 Health Protection Service | Population Health | ACT Health  
 25 Mulley Street Holder ACT | Locked Bag 5005 Weston Creek ACT 2611  
 T 02 62050956 | M Mobile [REDACTED] | E [radomir.krsteski@act.gov.au](mailto:radomir.krsteski@act.gov.au) | Website |

**From:** [REDACTED]@infrastructure.gov.au]

**Sent:** Tuesday, 10 January 2017 10:44 AM

**To:** Krsteski, Radomir (Health)

**Cc:** [REDACTED]

**Subject:** MEETING REQUEST: JERVIS BAY TERRITORY HEALTH DIRECTORATE TESTING [SEC=UNCLASSIFIED]

**Importance:** High

Rad

I refer to our telecom. of 3 January 2017 regarding the test results detailed below.

From our discussion:

- ACT Health advised that the authority for follow-up Health Directorate JBT PFAS testing (detailed below) is ACT legislation;
- ACT Health advised that the scope of PFAS testing and the testing sites are determined by ACT Health;
- The Department of Infrastructure and Regional Development advised it has no funding arrangement in place for the proposed ACT Health PFAS testing; in the absence of such arrangements cost will be borne by the ACT Government.

[REDACTED], General Manager, Local Government, Mainland Territories and Regional Development Australia has requested a teleconference with ACT Health this week to discuss the test results, ownership of the results, the proposed ACT testing programme and the strategy to ensure testing is linked up with the Department of Defence led PFAS management program for the JBT and results are available to landholders and the Director of National Parks.

I would be grateful if you could advise the availability of ACT Health Directorate officials this week for the teleconference and a preferred date/ time to meet:

- 10:30-11:30 Thursday 12 January 2017; or
- 09:30-11:00 Friday 13 January 2017.

Regards

[REDACTED]  
 [REDACTED] Jervis Bay Territory Administration  
 Local Government, Mainland Territories & Regional Development Australia Branch | Local Government and Territories Division  
 Department of Infrastructure and Regional Development  
 GPO Box 594, Canberra ACT 2601

t 02 6274 7795

e [REDACTED]@infrastructure.gov.au | w [www.infrastructure.gov.au](http://www.infrastructure.gov.au)

---

**From:** Krsteski, Radomir (Health) [<mailto:Radomir.Krsteski@act.gov.au>]

**Sent:** Friday, 16 December 2016 6:26 PM

**To:** [REDACTED]; [REDACTED]; [REDACTED]@infrastructure.gov.au>

**Subject:** RESULTS & EDD for ALS Workorder : CA1606699 | Your Reference: Jervis Bay [SEC=UNCLASSIFIED]

Hi [REDACTED],

Attached are the latest PFAS results for Jervis Bay samples we took on the 29/11/2016. This time around we did find some PFAS in the following sites:

- Raw Water pre-treatment JBT at 2.99µg/L
- Kullindi Homestead BBQ tap potable water at 0.04µg/L.

To provide you with information about Kullindi homestead, the water is bore sourced, to supply the heritage listed homestead providing accommodation for holiday goers. PFAS was detected in Kullindi homestead BBQ tap drinking water at 0.04µg/L (sampled 29/11/2016). The bore water has a small treatment setup with the following setup: first filter of 10microns; second Filter 0.5 microns; UV radiation; and then to taps. The water services a total five separate units within the main building, set around a common courtyard that includes two all weather gas fired BBQs, for a maximum of 20 guests at one time not including the owner/manager. The sample was from a tap at one of the BBQs. The results is well below enHealth interim PFAS health reference values of 0.5ug. The nature of the site being bore water may influence the potential for fluctuations that may coincide with weather patterns as PFAS may intermittently migrates to the bore reservoir or as you suggested an initial plume. This may explain why previous (May 2016) results found nothing. We will organise sampling of all bore water sites and increase our sampling rate to determine whether it is an emerging or receding plume.

Just some additional information to this, while we found no PFAS from Lake Windemere surface water we did find it in the Lake's raw water extraction point (at 2.99ug/L) which varies and is generally a lot lower than the surface. Lake Windemere it is rain fed, but in saying that it would still get some ground water through aquifers at its lower depths and stratification would reduce mixing. The Lake's water treatment process of: pre Ozone generator and flocculation; sand filtration; ozone treatment & ozone contact tank; carbon filtration (removes ozone); chlorination at 1.5mg/L and; fluoridation, did successfully remove the PFAS from the water as evidenced by end point testing of the treated water sample taken from the plant. Lake Windemere it is rain fed, but in saying that it would still get some ground water through aquifers at its lower depths. The previous results (May 2016) found no PFAS in the Lake's raw water extraction sample, which could potentially reinforce the assumption that weather and namely large rainfall can influence PFAS levels in this area.

Let me know if you need any more information,

Cheers

Rad



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**From:** Krsteski, Radomir (Health)  
**Sent:** Tuesday, 10 January 2017 2:13 PM  
**To:** [REDACTED]  
**Cc:** [REDACTED]  
**Subject:** RE: MEETING REQUEST: JERVIS BAY TERRITORY HEALTH DIRECTORATE TESTING [SEC=UNCLASSIFIED]

Hi [REDACTED],

I can confirm that the recent sites for testing were determined by ACT Health as per the current the current potable water sites that use bore water. The cost for the recent testing of these sites for PFAS will be covered by ACT Health.

It seems that the proposed teleconference will be exploring some of the issues that are going to be discussed at the scheduled face to face meeting for Thursday 19/1/17 at 3pm Nara House. Could all of the issue raised below be explored at the scheduled face to face meeting in lieu of the teleconference?

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Kind regards

Rad



**Radomir Krsteski**

A/g Manager | Environmental Health  
 Health Protection Service | Population Health | ACT Health  
 25 Mulley Street Holder ACT | Locked Bag 5005 Weston Creek ACT 2611  
 T 02 62050956 | M Mobile [REDACTED] | E [radomir.krsteski@act.gov.au](mailto:radomir.krsteski@act.gov.au) | Website |

**From:** [REDACTED]@infrastructure.gov.au]  
**Sent:** Tuesday, 10 January 2017 10:44 AM  
**To:** Krsteski, Radomir (Health)  
**Cc:** [REDACTED]  
**Subject:** MEETING REQUEST: JERVIS BAY TERRITORY HEALTH DIRECTORATE TESTING [SEC=UNCLASSIFIED]  
**Importance:** High

Rad

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- 10:30-11:30 Thursday 12 January 2017; or
- 09:30-11:00 Friday 13 January 2017.

Regards

[REDACTED]  
 [REDACTED] Jervis Bay Territory Administration  
 Local Government, Mainland Territories & Regional Development Australia Branch | Local Government and  
 Territories Division  
 Department of Infrastructure and Regional Development  
 GPO Box 594, Canberra ACT 2601  
 t 02 6274 7795  
 e [REDACTED]@infrastructure.gov.au | w www.infrastructure.gov.au

---

**From:** Krsteski, Radomir (Health) [mailto:Radomir.Krsteski@act.gov.au]  
**Sent:** Friday, 16 December 2016 6:26 PM  
**To:** [REDACTED], [REDACTED]@infrastructure.gov.au  
**Subject:** RESULTS & EDD for ALS Workorder : CA1606699 | Your Reference: Jervis Bay [SEC=UNCLASSIFIED]

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Let me know if you need any more information,

Cheers  
Rad

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**Stedman, Andrew (Health)**

---

**From:** [REDACTED] [REDACTED]@doh.health.nsw.gov.au>  
**Sent:** Monday, 23 January 2017 2:50 PM  
**To:** McNeill, Laura (Health)  
**Subject:** Re: Dr Paul Kelly

Hi Laura,

The day will commence with a quick overview of some of the basic science and recent developments followed by an emphasis on a strategic discussion of the management of PFAS sites, from a health perspective, for the year to come.

Hope that helps you decide.

Regards

[REDACTED]

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---

**From:** [REDACTED] [REDACTED]@doh.health.nsw.gov.au>  
**Sent:** Friday, January 20, 2017 1:59 pm  
**Subject:** Dr Paul Kelly  
**To:** [REDACTED] [REDACTED]@doh.health.nsw.gov.au>

---

**From:** McNeill, Laura (Health) [<mailto:Laura.McNeill@act.gov.au>]  
**Sent:** Friday, 20 January 2017 1:59 PM  
**To:** [REDACTED]  
**Cc:** LeLievre, Maddie (Health); McNeill, Laura (Health)  
**Subject:** RE: Hold for Pfas Min Summit - exact time to be confirmed [SEC=UNCLASSIFIED]

[REDACTED]  
 Dr Paul Kelly is no longer able to attend this session due to a conflict with needing to attend something with our own Minister. He would like to send someone along in his place, but was wondering what the nature of the summit was, i.e. do you need someone with public health content knowledge, or more someone with a regulatory responsibility role.

If you could let me know would be great, and I will provide an alternate representative.

Kind regards,

**Laura McNeill**

Executive Officer | Executive Support Office | Population Health Protection & Prevention | ACT Health  
 Ph: (02) 6207 1781 | Mob: 0478 309 813 | Fax: (02) 6205 1884 | [laura.mcneill@act.gov.au](mailto:laura.mcneill@act.gov.au)



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-----Original Appointment-----

**From:** [REDACTED] [REDACTED] [REDACTED]@doh.health.nsw.gov.au]

**Sent:** Tuesday, 17 January 2017 11:37 AM

**To:** [REDACTED], [REDACTED], [REDACTED], [REDACTED], [REDACTED], [REDACTED],  
Rebecca (Health); LeLievre, Maddie (Health); Barr, Conrad (Health); Kelly, Paul (Health);  
[REDACTED]@sesiahs.health.nsw.gov.au'; [REDACTED]@health.nsw.gov.au'; [REDACTED];  
[REDACTED]@hnehealth.nsw.gov.au'

**Subject:** Hold for Pfas Min Summit - exact time to be confirmed

**When:** Friday, 10 February 2017 10:30 AM-3:00 PM (UTC+10:00) Canberra, Melbourne, Sydney.

**Where:** L4 73 Miller Steet North Sydney or Teleconf

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Email Security System.

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Health's Electronic Messaging Policy.

**White, Sarah-Jane (Health)**

---

**From:** Cockfield, Kristie  
**Sent:** Friday, 3 March 2017 3:31 PM  
**To:** Rutledge, Geoffrey; Kelly, Paul (Health); Krsteski, Radomir (Health); Barr, Conrad (Health); Jones, Greg; Chester, Heath; Clapham, David; Heckenberg, Mark; [REDACTED]@infrastructure.gov.au; [REDACTED]; [REDACTED]  
**Subject:** PFAS Meeting Minutes 2017 02 09 [SEC=UNCLASSIFIED]  
**Attachments:** 2017 02 09 PFAS Update Meeting Minutes - Final Copy.docx

Dear Colleagues,

Attached for your information are the minutes from the 9 February 2017 PFAS meeting.

Kind regards,

Kristie Cockfield.

**Kristie Cockfield** | Graduate Administrative Assistant - Intergovernmental Relations | **Policy & Cabinet Division**  
☎ 02 6205 0113 | **Chief Minister, Treasury & Economic Development Directorate** | ACT Government  
Level 4, Canberra Nara Centre | GPO Box 158 Canberra ACT 2601 | [www.act.gov.au](http://www.act.gov.au)



## PFAS Update

Thursday 9 February 2017 - 3:00pm

Nara House

### Proposed Agenda & Minutes

#### 1. Welcome and introductions

- [REDACTED] Infrastructure - LGMTRDA
- [REDACTED] Infrastructure - JBTA
- Geoffrey Rutledge ACT CMTEDD
- Paul Kelly ACT CHO
- Radomir Krsteski ACT Health
- Conrad Barr ACT Health
- Greg Jones ACT Access Canberra
- Mark Heckenberg ACT EPA
- Heath Chester ACT EPA
- David Clapham ACT CMTEDD
- Kristie Cockfield ACT CMTEDD

#### 2. Update

##### (a) Infrastructure

- Infrastructure are engaging with Defence on PFAS matters in the JBT: Luke McLeod is Branch Head of PFAS Investigation and Management Branch.
- Defence is taking the lead in PFAS management, supported by Infrastructure as required.
- Defence has advised that procurement for a lead contractor is nearly complete. It will take a few weeks to mobilise and commence PFAS testing and detailed investigations.
- Defence is pursuing a strategy consistent with that used in Williamtown and Oakey regarding stakeholder consultation.
- Infrastructure has advised Defence of ACT testing and investigations in the JBT, and there is a need for on-going direct communications.
- Defence are working primarily on a Human-Health pathway to confirm the most appropriate response.
- Infrastructure has not had any contamination concerns raised by the JBT Community.
- The JBT Community is more concerned with active discussions around the WBACC land claim and will be meeting with the Minister for Indigenous Affairs in March.
- Defence has received permission to conduct PFAS testing within the Booderee National Park. WBACC is also actively supporting the Defence lead PFAS investigation.
- Warning signs are still displayed at Mary Creek, community reports no-one has gone there.



- Prime Minister and Cabinet PFAS taskforce are working on long term Whole of Government plans for the PFAS response.

(b) ACT

- ACT mentioned that the Defence aspect of PFAS is only one element – it is starting to become a broader issue discussed anywhere fire-fighting has been done. ACT requested details on what Defence program actually involves, re: testing regime and locations, will testing involve both drinking water and environmental effects on food system?
- ACT and Infrastructure agreed it was important for technical Defence and ACT contacts to be connected directly.
- ACT raised the need for clear understanding of roles and responsibilities between Infrastructure, Defence & the ACT going forward on PFAS in JBT. ACT requires line of sight to Defence process to gain assurance.
- Given the statutory responsibility vested in the role, the ACT Chief Health Officer reserved the right to conduct tests wherever it is deemed necessary. Infrastructure acknowledged and confirmed this role, noting the importance of Defence being informed of the testing before it occurred and the sharing of results.
- Infrastructure to facilitate Defence briefing to this group to gain understanding, including technical details, of Defence process.

### 3. ACT Health sampling and testing in Jervis Bay Territory

(a) Discussion on results of ACT Health PFAS testing in JBT (Nov 2016).

- ACT has tested all potable water supplies in the ACT (Googong, Cotter etc). Recreational water also tested. On that basis, ACT also tested bores etc in JBT.
- Health will not seek payment for this testing or any future self generated testing. Health is confident that PFAS is not present in the JBT potable water supply.
- Moving forward, ACT will advise Infrastructure and Defence of any decisions to test using the ACT Chief Health Officer's authority.

(b) Future activities - Confirmation of roles and responsibilities.

- Infrastructure is not proposing to request future testing from the ACT, at this time, as Defence has the lead for the PFAS investigation and there should be one primary source of test results.
- ACT will continue to test water until the full scope of Defence response/testing activities in JBT is understood.
- It was agreed that ACT would share any further testing results directly with Defence and Infrastructure.
- Defence is undertaking additional and detailed water testing in the JBT; it is understood to have a health and environment focus.

### 4. Interaction with Defence and other relevant agencies

(a) Information sharing

- Infrastructure and ACT agree on the need for a common and coordinated approach working with Defence.
- Infrastructure preference is that ACT works directly with Defence, whilst updating Infrastructure on any matters of concern.
- Main points of contact with Defence are [REDACTED] and [REDACTED].
- Defence has met with the Wreck Bay Aboriginal Community Council, who have confirmed their support for the Defence Process in writing.
- All agreed that ACT & Defence should establish clear lines of communication, particularly between technical experts, (supported by Infrastructure) to share information and understand processes, roles and responsibilities.
- The ACT (David Clapham) and Infrastructure ([REDACTED] [REDACTED]) will liaise to identify the appropriate ACT technical officers and regulators to be connected with Defence.
- The forthcoming announcements by Food Standards AUSNZ regarding new PFAS guidelines may impact messaging to date, and will need to be considered as a matter of priority, once available.

**5. Agreed Actions**

1. Infrastructure to facilitate a Defence briefing to this group to gain understanding, including technical details, of the PFAS investigation process.
2. The ACT (David Clapham) and Infrastructure ([REDACTED] [REDACTED]) will liaise to identify the appropriate ACT technical officers and regulators to be connected with Defence.

**Stedman, Andrew (Health)**

**From:** Krsteski, Radomir (Health)  
**Sent:** Tuesday, 7 March 2017 12:24 PM  
**To:** PFASIM Jervis Bay; Clapham, David; Chester, Heath; Stedman, Andrew (Health)  
**Cc:** [REDACTED]  
**Subject:** RE: Jervis Bay Territory - Defence Environmental Investigation into PFAS - ACT Government Reps [SEC=UNCLASSIFIED]

Hi [REDACTED],

Thanks for the update, I am sorry and do apologise as I will not be able to attend, I will be in Melbourne attending a meetings on Thursday and Friday. Andrew Stedman, will be attending as my proxy. He has been briefed and his also been included in this email so you that you have his contact details.

Kind regards  
 Rad

**Radomir Krsteski**

**A/g Manager** | Environmental Health  
 Health Protection Service | Population Health | ACT Health  
 25 Mulley Street Holder ACT | Locked Bag 5005 Weston Creek ACT 2611  
 T 02 62050956 | M Mobile [REDACTED] | E radomir.krsteski@act.gov.au | Website |

**From:** [REDACTED] [REDACTED]@defence.gov.au] **On Behalf Of** PFASIM Jervis Bay  
**Sent:** Tuesday, 7 March 2017 11:28 AM  
**To:** Clapham, David; PFASIM Jervis Bay; Krsteski, Radomir (Health); Chester, Heath  
**Cc:** [REDACTED]  
**Subject:** RE: Jervis Bay Territory - Defence Environmental Investigation into PFAS - ACT Government Reps [SEC=UNCLASSIFIED]

UNCLASSIFIED

Hi David,

Thank you for the advice and sorry we won't see you there. We look forward to meeting Rad and Heath on Thursday.

Regards,

[REDACTED]  
 (Contractor to Defence)  
 Defence Project Manager - Environmental Investigations  
 PFAS Investigation and Management Branch  
 Department of Defence

T: [REDACTED]  
 E: [REDACTED]@defence.gov.au  
 A: BP8-1, 8 Brindabella Circuit, Brindabella Business Park  
 PO Box 7925, Canberra BC 2610

**IMPORTANT:** This email remains the property of the Department of Defence and is subject to the jurisdiction of section 70 of the Crimes Act 1914. If you have received this email in error, you are requested to contact the sender and delete the email.

**From:** [REDACTED] [REDACTED]@act.gov.au]  
**Sent:** Tuesday, 7 March 2017 10:19 AM  
**To:** PFASIM Jervis Bay; Krsteski, Radomir (Health); Chester, Heath  
**Cc:** [REDACTED]  
**Subject:** RE: Jervis Bay Territory - Defence Environmental Investigation into PFAS - ACT Government Reps  
 [SEC=UNCLASSIFIED]

Morning all

Sorry for the late notice – I am an apology for the meeting on the 9<sup>th</sup>. Rad and Heath are the essential officers in any case, so I will touch base after the meeting.

Best

David

**David Clapham** | Senior Policy Officer - Intergovernmental Relations | **Policy & Cabinet Division**  
 ☎ 02 6205 7261 | **Chief Minister, Treasury & Economic Development Directorate** | ACT Government  
 Level 4, Canberra Nara Centre | GPO Box 158 Canberra ACT 2601 | [www.act.gov.au](http://www.act.gov.au)



**From:** [REDACTED] [REDACTED] [REDACTED]@defence.gov.au] **On Behalf Of** PFASIM Jervis Bay  
**Sent:** Tuesday, 28 February 2017 4:23 PM  
**To:** Krsteski, Radomir (Health); Chester, Heath  
**Cc:** PFASIM Jervis Bay; [REDACTED]; Clapham, David; [REDACTED]  
**Subject:** FW: Jervis Bay Territory - Defence Environmental Investigation into PFAS - ACT Government Reps  
 [SEC=UNCLASSIFIED]

UNCLASSIFIED

Hi Heath and Rad,

Thank you for your time on the phone today. As discussed, we intend to hold the first monthly PCG (Project Control Group) meeting on 09MAR17. [REDACTED], from our lead consultant GHD conducting the Jervis Bay investigation with be in contact soon with further details on the meeting.

Early heads up also, we will be holding a Community Information session at Jervis bay on 21MAR17. More detail to follow.

Dave, please see contact details for Heath, Rad and David Clapham below.

Regards,

[REDACTED]

[REDACTED]  
 (Contractor to Defence)  
 Defence Project Manager - Environmental Investigations  
 PFAS Investigation and Management Branch  
 Department of Defence

T [REDACTED]

E: [REDACTED]@defence.gov.au  
 A: BP8-1, 8 Brindabella Circuit, Brindabella Business Park  
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**From:** Clapham, David [mailto:David.Clapham@act.gov.au] **On Behalf Of** ACT IGR  
**Sent:** Tuesday, 28 February 2017 3:37 PM  
**To:** PFASIM Jervis Bay  
**Cc:** Rutledge, Geoffrey; ACT IGR  
**Subject:** RE: Jervis Bay Territory - Defence Environmental Investigation into Per- and Poly-fluoro Alkyl Substances (PFAS) [SEC=UNCLASSIFIED]

Good Afternoon [REDACTED]

I have the details for our two representatives on the PCG:

**Radomir Krsteski**  
 A/g Manager | Environmental Health  
 Health Protection Service | Population Health | ACT Health  
 Phone: +61 2 6205 0956 | [radomir.krsteski@act.gov.au](mailto:radomir.krsteski@act.gov.au)

**Heath Chester**  
 Environmental Water  
 Construction, Environment and Workplace Protection | Access Canberra | ACT Government  
 Phone: +61 2 6207 5728 | [heath.chester@act.gov.au](mailto:heath.chester@act.gov.au)

If you have no objections, I will attend at least the first meeting, but will leave ongoing representation to the subject matter experts.

Many thanks

David

**David Clapham** | Senior Policy Officer - Intergovernmental Relations | **Policy & Cabinet Division**  
 ☎ 02 6205 7261 | **Chief Minister, Treasury & Economic Development Directorate** | ACT Government  
 Level 4, Canberra Nara Centre | GPO Box 158 Canberra ACT 2601 | [www.act.gov.au](http://www.act.gov.au)




---

**From:** [REDACTED] [mailto:[REDACTED]@defence.gov.au] **On Behalf Of** PFASIM Jervis Bay  
**Sent:** Friday, 24 February 2017 4:00 PM  
**To:** [REDACTED]; Clapham, David; [REDACTED]@environment.gov.au; [REDACTED]  
**Cc:** [REDACTED]  
**Subject:** Jervis Bay Territory - Defence Environmental Investigation into Per- and Poly-fluoro Alkyl Substances (PFAS) [SEC=UNCLASSIFIED]

UNCLASSIFIED

Good Afternoon Ladies and Gentlemen,

Defence has commenced an environmental investigation into the presence and impact of PFAS on the Jervis Bay Range Facility and HMAS Creswell and the surrounding areas. This is conducted as part of its national program of investigating and managing PFAS across the Defence Estate from the use of legacy aqueous film-forming foam (AFFF). For those that I have yet to introduce myself, I am Defence's Project Director for the investigation and am part of Defence's PFAS Investigation and Management Branch.

Defence is committed to being open and transparent about the investigations, and as such, will establish a Project Control Group (PCG) to appraise key Territory, State, Commonwealth Agencies on the progress, risks, issues, and findings of the investigation. The PCG will provide an opportunity for stakeholder input and foster a collegiate approach to the communication and management of the PFAS investigation.

It is intended to hold PCG meetings monthly for about an hour or so. Monthly reports will be provided to the PCG prior to the meetings and the meetings will be a telephone conference in order to allow maximum attendance. Minutes will be taken and disseminated prior to the next meeting.

I am endeavouring to conduct the first meeting on Thu 9 Mar. For Departments of Infrastructure and Environment, and the ACT Government, I seek your support for the PCG and request who may be the nominated representative(s) from your respective organisations to regularly attend the PCG. Invites will be sent separately.

Respectfully,

[REDACTED]

[REDACTED]  
 (Contractor to Defence)  
 Defence Project Director - Environmental Investigations  
 PFAS Investigation and Management Branch  
 Department of Defence  
 [REDACTED] [REDACTED]

---

BP8-1  
 8 Brindabella Circuit  
 Brindabella Business Park  
 PO Box 7925 Canberra BC 2610

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 -----

**Stedman, Andrew (Health)**

---

**From:** [REDACTED] [REDACTED] [REDACTED] [REDACTED]@defence.gov.au> on behalf of PFASIM Jervis Bay <pfasim.jervisbay@defence.gov.au>  
**Sent:** Tuesday, 7 March 2017 3:30 PM  
**To:** Krsteski, Radomir (Health); PFASIM Jervis Bay; Clapham, David; Chester, Heath; Stedman, Andrew (Health)  
**Cc:** [REDACTED] [REDACTED] [REDACTED] [REDACTED]  
**Subject:** RE: Jervis Bay Territory - Defence Environmental Investigation into PFAS - ACT Government Reps [SEC=UNCLASSIFIED]

UNCLASSIFIED

Hi Rad,

Thank you for the advice.

Andrew, please contact Mr [REDACTED] [REDACTED]@ghd.com should there be any issues.

Regards,

[REDACTED] [REDACTED]  
 (Contractor to Defence)  
 Defence Project Manager - Environmental Investigations  
 PFAS Investigation and Management Branch  
 Department of Defence

T: [REDACTED]  
 E: [REDACTED]@defence.gov.au  
 A: BP8-1, 8 Brindabella Circuit, Brindabella Business Park  
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**From:** Krsteski, Radomir (Health) [mailto:Radomir.Krsteski@act.gov.au]  
**Sent:** Tuesday, 7 March 2017 12:24 PM  
**To:** PFASIM Jervis Bay; Clapham, David; Chester, Heath; Stedman, Andrew (Health)  
**Cc:** [REDACTED] [REDACTED] [REDACTED] [REDACTED] [REDACTED]  
**Subject:** RE: Jervis Bay Territory - Defence Environmental Investigation into PFAS - ACT Government Reps [SEC=UNCLASSIFIED]

Hi [REDACTED],

Thanks for the update, I am sorry and do apologise as I will not be able to attend, I will be in Melbourne attending a meetings on Thursday and Friday. Andrew Stedman, will be attending as my proxy. He has been briefed and his also been included in this email so you that you have his contact details.

Kind regards  
 Rad



**Radomir Krsteski**

A/g Manager | Environmental Health

Health Protection Service | Population Health | ACT Health

25 Mulley Street Holder ACT | Locked Bag 5005 Weston Creek ACT 2611

T 02 62050956 | M Mobile [REDACTED] | E radomir.krsteski@act.gov.au | Website | [REDACTED]

**From:** [REDACTED] [REDACTED] [REDACTED]@defence.gov.au] **On Behalf Of** PFASIM Jervis Bay  
**Sent:** Tuesday, 7 March 2017 11:28 AM  
**To:** Clapham, David; PFASIM Jervis Bay; Krsteski, Radomir (Health); Chester, Heath  
**Cc:** [REDACTED] [REDACTED] [REDACTED] [REDACTED] [REDACTED] [REDACTED]  
**Subject:** RE: Jervis Bay Territory - Defence Environmental Investigation into PFAS - ACT Government Reps  
 [SEC=UNCLASSIFIED]

UNCLASSIFIED

Hi David,

Thank you for the advice and sorry we won't see you there. We look forward to meeting Rad and Heath on Thursday.

Regards,

[REDACTED]  
 (Contractor to Defence)  
 Defence Project Manager - Environmental Investigations  
 PFAS Investigation and Management Branch  
 Department of Defence

T: [REDACTED]  
 E: [REDACTED]@defence.gov.au  
 A: BP8-1, 8 Brindabella Circuit, Brindabella Business Park  
 PO Box 7925, Canberra BC 2610

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**From:** Clapham, David [<mailto:David.Clapham@act.gov.au>]  
**Sent:** Tuesday, 7 March 2017 10:19 AM  
**To:** PFASIM Jervis Bay; Krsteski, Radomir (Health); Chester, Heath  
**Cc:** [REDACTED]  
**Subject:** RE: Jervis Bay Territory - Defence Environmental Investigation into PFAS - ACT Government Reps  
 [SEC=UNCLASSIFIED]

Morning all

Sorry for the late notice – I am an apology for the meeting on the 9<sup>th</sup>. Rad and Heath are the essential officers in any case, so I will touch base after the meeting.

Best

David

**David Clapham** | Senior Policy Officer - Intergovernmental Relations | **Policy & Cabinet Division**  
 ☎ 02 6205 7261 | **Chief Minister, Treasury & Economic Development Directorate** | ACT Government  
 Level 4, Canberra Nara Centre | GPO Box 158 Canberra ACT 2601 | [www.act.gov.au](http://www.act.gov.au)



---

**From:** [REDACTED] [REDACTED]@defence.gov.au] **On Behalf Of** PFASIM Jervis Bay  
**Sent:** Tuesday, 28 February 2017 4:23 PM  
**To:** Krsteski, Radomir (Health); Chester, Heath  
**Cc:** PFASIM Jervis Bay; [REDACTED] Clapham, David; [REDACTED]  
**Subject:** FW: Jervis Bay Territory - Defence Environmental Investigation into PFAS - ACT Government Reps  
 [SEC=UNCLASSIFIED]

UNCLASSIFIED

Hi Heath and Rad,

Thank you for your time on the phone today. As discussed, we intend to hold the first monthly PCG (Project Control Group) meeting on 09MAR17. [REDACTED], from our lead consultant GHD conducting the Jervis Bay investigation with be in contact soon with further details on the meeting.

Early heads up also, we will be holding a Community Information session at Jervis bay on 21MAR17. More detail to follow.

Dave, please see contact details for Heath, Rad and David Clapham below.

Regards,

[REDACTED]

[REDACTED]  
 (Contractor to Defence)  
 Defence Project Manager - Environmental Investigations  
 PFAS Investigation and Management Branch  
 Department of Defence

T: [REDACTED]  
 E: [REDACTED]@defence.gov.au  
 A: BP8-1, 8 Brindabella Circuit, Brindabella Business Park  
 PO Box 7925, Canberra BC 2610

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**From:** Clapham, David [mailto:David.Clapham@act.gov.au] **On Behalf Of** ACT IGR  
**Sent:** Tuesday, 28 February 2017 3:37 PM  
**To:** PFASIM Jervis Bay  
**Cc:** Rutledge, Geoffrey; ACT IGR  
**Subject:** RE: Jervis Bay Territory - Defence Environmental Investigation into Per- and Poly-fluoro Alkyl Substances (PFAS) [SEC=UNCLASSIFIED]

Good Afternoon [REDACTED]

I have the details for our two representatives on the PCG:

**Radomir Krsteski**

A/g Manager | Environmental Health  
 Health Protection Service | Population Health | ACT Health  
 Phone: +61 2 6205 0956 | [radomir.krsteski@act.gov.au](mailto:radomir.krsteski@act.gov.au)

**Heath Chester**

Environmental Water  
 Construction, Environment and Workplace Protection | Access Canberra | ACT Government  
 Phone: +61 2 6207 5728 | [heath.chester@act.gov.au](mailto:heath.chester@act.gov.au)

If you have no objections, I will attend at least the first meeting, but will leave ongoing representation to the subject matter experts.

Many thanks

David

**David Clapham** | Senior Policy Officer - Intergovernmental Relations | **Policy & Cabinet Division**  
 ☎ 02 6205 7261 | **Chief Minister, Treasury & Economic Development Directorate** | ACT Government  
 Level 4, Canberra Nara Centre | GPO Box 158 Canberra ACT 2601 | [www.act.gov.au](http://www.act.gov.au)




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**Sent:** Friday, 24 February 2017 4:00 PM  
**To:** [REDACTED]; Clapham, David; [REDACTED]@environment.gov.au'; [REDACTED]  
**Cc:** [REDACTED]  
**Subject:** Jervis Bay Territory - Defence Environmental Investigation into Per- and Poly-fluoro Alkyl Substances (PFAS) [SEC=UNCLASSIFIED]

UNCLASSIFIED

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Respectfully,

[REDACTED]

[REDACTED]

(Contractor to Defence)  
Defence Project Director - Environmental Investigations  
PFAS Investigation and Management Branch  
Department of Defence

[REDACTED]

---

78-1  
8 Brindabella Circuit  
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PO Box 7925 Canberra BC 2610

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**Stedman, Andrew (Health)**

---

**From:** [REDACTED]@ghd.com>  
**Sent:** Wednesday, 8 March 2017 5:00 PM  
**To:** [REDACTED]

David; Chester, Heath; Krsteski, Radomir (Health); [REDACTED]@epa.nsw.gov.au;  
 [REDACTED]@health.nsw.gov.au; [REDACTED]@environment.gov.au; Frappell,  
 Josh; Matthew James; Lauren Bourke; Stedman, Andrew (Health)

**Cc:** PFASIM Jervis Bay; [REDACTED]  
**Subject:** PFAS Investigation JBRF Meeting Agenda and presentation  
**Attachments:** PFAS Investigation JBRF PCG agenda Meeting 1.docx; PCG Briefing No1.pptx

**Follow Up Flag:** Follow up  
**Flag Status:** Flagged

Good Afternoon,

Please see attached the Jervis Bay Range Facility (JBRF) Project Control Group (PCG), PFAS Investigation, Meeting No.1 Agenda and the meeting presentation for attendees that may dial in to the meeting. Please take the lift from the foyer to Level 7 GHD reception, where you will be guided to the Meeting room or Dial In.

**Dial-in Details**

Toll [REDACTED]  
 Toll-free ---- [REDACTED]  
 Participant PIN: [REDACTED]


On behalf of the Project team, thank you for your time.

Regards,

**GHD**

T: [REDACTED] M: [REDACTED] | F 61 2 4424 4999 | E: [REDACTED]@ghd.com  
 Level 2, 57 Graham Street (PO Box 621) Nowra NSW 2541 Australia | <http://www.ghd.com/>  
[Water](#) | [Energy & Resources](#) | [Environment](#) | [Property & Buildings](#) | [Transportation](#)

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 <b>Australian Government</b> <b>Department of Defence</b> Estate and Infrastructure Group	<b>PFAS Investigation and Management  Program  Jervis Bay Range Facility  Project Control Group Meeting #1  Agenda</b>
--	--


ADMINISTRATIVE ARRANGEMENTS	
<b>Date</b>	Thursday 9 March 2017
<b>Time</b>	11:00 am
<b>Venue</b>	GHD Office, Level 7, 16 Marcus Clarke Street, Canberra ACT, 2601
<b>Dial-in Details</b>	Toll ----- [REDACTED] Toll-free ----- [REDACTED] Participant PIN: [REDACTED]
<b>Chair</b>	[REDACTED] Defence Project Director
<b>Minutes</b>	GHD
ATTENDEES	
<b>Defence</b>	
[REDACTED] (Defence)	Director, Environmental Investigations-East and Remediation Programs
[REDACTED] (Defence)	Project Manager
[REDACTED] (Defence)	Alternate Project Manager
[REDACTED] (RAN)	Executive Officer
[REDACTED] (Defence)	Base Support Manager, Shoalhaven
[REDACTED] (Defence)	Base Support Operations Manager, HMAS Creswell
[REDACTED]	Assistant Director PFAS Environmental Management
[REDACTED]	Regional Environmental and Sustainability Officer
[REDACTED]	Regional Public Affairs Manager
Stedman, Andrew (Health)	
<b>Lead Contractor (LC), GHD</b>	
[REDACTED] (GHD)	Service Line Leader - Contamination Assessment & Remediation
[REDACTED] (GHD)	Principal Environmental Consultant
[REDACTED] (GHD)	Service Line Leader - Stakeholder Engagement
[REDACTED] (GHD)	Project Manager
Ms [REDACTED]	Principal - Stakeholder Engagement
Mr [REDACTED]	Service Line Leader- Contamination Assessment & Remediation
<b>Site Auditor (SA), AECOM</b>	
[REDACTED] (AECOM)	Technical Director-Environment Defence appointed peer review

██████████ (AECOM)	Technical Director-Environment Defence appointed peer review
<b>(Agencies)</b>	
██████████@infrastructure.gov.au	Assistant Director - Jervis Bay Administration
██████████@infrastructure.gov.au	Operations Manager Jervis Bay Territory Administration
Heath Chester	ACT Construction, Environment and Workplace Protection
Radomir Krsteski	A/g Manager, Environmental Health, ACT Health
██████████ (EPA)	
██████████	NSW Health
██████████ (ENV)	Park Administrator – Booderee CFO - Business Manager Parks Australia
██████████@infrastructure.gov.au	Assistant Director - Jervis Bay Administration
██████████	Shoalhaven Operations Manager
██████████	Shoalhaven Operations Manager
██████████	Shoalhaven Operations Manager
Matthew James (ACT Gov)	
Lauren Bourke (ACT Gov)	
<b>AGENDA</b>	
Welcome and Conduct of PCG Meetings	Chair
Introductions	Chair
Program and Project Overview	Chair
Investigation Progress	
- Conceptual Site Model	██████████
- Detailed Site Investigation	██████████
Future Stages	
- Human Health and Ecological Risk Assessment (HHERA)	██████████
Site Auditor Update	██████████
Stakeholder Engagement	Chair
- Meetings and Briefs	Chair
- Fact sheet	Chair
- Community Information Sessions	Chair
- Community Enquiries	██████████
Risks and Issues	Chair
Other Business	All
Meeting Close	Chair

Jervis Bay Range Facility

## PFAS Investigation & Management Community Information Session

Jervis Bay Range Facility, NSW



MARCH 2017

Rear Admiral [REDACTED]

Jervis Bay Range Facility

### Acknowledgment of Country

I'd like to begin by acknowledging the Traditional Owners of the land on which we meet today. I would also like to pay my respects to Elders past and present.

We would also like to pay our respects to the Indigenous men and women who have contributed to the defence of Australia in times of peace and war.

Jervis Bay Range Facility

### Welcome


Session outline:

- Background
- PFAS and AFFF history
- Jervis Bay Range Facility – PFAS Investigation outline
- Next steps

Jervis Bay Range Facility

### What are PFAS

- Per- and poly-fluorinated alkyl substances (PFAS) are a group of man-made compounds
- Include PFOS (perfluorinated sulfonate), PFHxS (perfluorohexane sulfonate) and PFOA (perfluorooctanoic acid)
- PFAS have been widely used around the world since the 1950s to make products that resist heat, stains, grease and water
- Most people in developed countries are likely to have levels of PFOS, PFHxS and PFOA in their blood
- Emerging contaminants



Jervis Bay Range Facility

### PFAS and AFFF


Aqueous Film Forming Foam (AFFF) is a fire fighting foam used to extinguish liquid fuel fires.

AFFF has been used extensively worldwide, including Australia, since the 1970's by both civilian and military authorities. Legacy formulations contained some PFAS of concern as active ingredients, including:

- PFOS (perfluorooctane sulfonate)
- PFOA (perfluorooctanoic acid)
- PFHxS (perfluorohexane sulfonate)

Jervis Bay Range Facility

### History of AFFF use in Defence

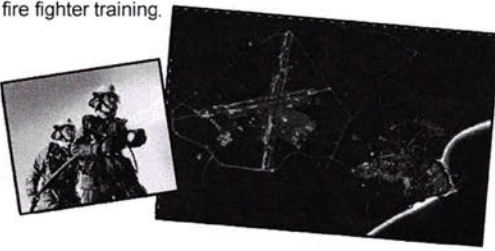


<b>From 1970s</b>	Defence commenced use of AFFF containing PFOS/PFOA.
<b>In 2003</b>	Defence and other users became aware that PFOS/PFOA was an emerging persistent organic pollutant.
<b>From 2004</b>	Defence introduced a new foam and commenced phasing out use of the old foams for both training, and emergencies.
<b>Currently</b>	For emergencies, Defence uses a foam that does not contain PFOS and PFOA as active ingredients. Defence uses a training foam which does not contain PFOS and PFOA. Foam is captured and disposed of in accordance with current regulations.

Jervis Bay Range Facility

### About the Base

The base has a history of using legacy Aqueous Film Forming Foam (AFFF) for use in emergency fire fighting situations and for fire fighter training.



Jervis Bay Range Facility

### About the Defence Program

Defence National PFAS Investigation and Management Program was established in late 2015.

Defence is currently conducting detailed environmental investigations at:

- Army Aviation Centre Oakey, QLD
- HMAS Albatross, NSW
- RAAF Base East Sale, VIC
- RAAF Base Edinburgh, SA
- RAAF Base Pearce, WA
- RAAF Base Williamtown, NSW

Defence is commencing detailed environmental investigations at a number of additional sites during the first half of 2017.

- RAAF Base Townsville, QLD
- RAAF Base Darwin, NT
- RAAF Base Tindal, NT
- RAAF Base Richmond, NSW
- Holsworthy Barracks, NSW
- RAAF Base Wagga, NSW
- RAAF Base Amberley, QLD
- Albury Wodonga Military Area, VIC
- Jervis Bay Range Facility, ACT
- Robertson Barracks, NT
- HMAS Stirling, WA
- HMAS Cerberus, VIC

Defence is working closely with Commonwealth agencies and State and local Governments, and other relevant agencies.

Jervis Bay Range Facility

### Health

The Environmental Health Standing Committee (enHealth) has issued Guidance Statements on PFAS. Defence relies on the enHealth Guidance Statements.

EnHealth guidance statement on per- and poly-fluoroalkyl substances (PFAS) reiterated that:

"there is currently no consistent evidence that exposure to PFOS and PFOA causes adverse human health effects. Because these chemicals persist in humans and the environment, enHealth recommends that human exposure to these chemicals is minimised as a precaution".

The enHealth interim guideline values for tolerable daily intake, drinking water and recreational water are available online at the Department of Health website.

These values will be in place until Food Standards Australia New Zealand (FSANZ) develops advice on final health values for Australia.

Defence will apply any new health values in the conduct of its investigations.

Jervis Bay Range Facility

### Drinking Water

Defence has adopted a precautionary approach and is providing alternative sources of drinking water to eligible residents who:

- are located in close proximity to the base; and
- do not have a town water connection; and
- rely on the use of a bore for drinking water; and/or
- source drinking water from a rainwater tank that contains, or has in the past contained, bore water.


Defence may also provide drinking water to residents in other exceptional circumstances.

Residents wishing to request an alternative drinking water supply can contact the national hotline by phone or email. Provision of water will be assessed on a case-by-case basis and reviewed as required.

Jervis Bay Range Facility

### What has already been done?

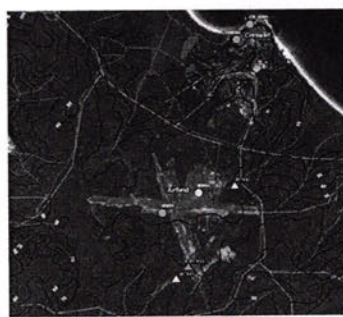
- Defence has been proactive in initiating an environmental program to investigate the nature and extent of PFAS, on and in the vicinity of selected Defence properties around Australia.
- A Preliminary Sampling Program was conducted at JBRF between April and May 2016.
- A total of 7 samples were collected on-base locations at JBRF and HMAS Creswell – 4 groundwater and 3 surface water samples.
- The Preliminary Sampling Program report was released November 2016.



Jervis Bay Range Facility

### Preliminary Sampling Program Results

- 4 groundwater samples
  - 3 nil detects
  - 1 detection below drinking water criteria
- 3 surface water samples
  - △ 2 detects below recreational use criteria
  - △ 1 detection above recreational use criteria





Jervis Bay Range Facility

### About this Investigation

This environmental investigation is undertaken consistent with the National Environment Protection (Assessment of Site Contamination) Measure 1999 (NEPM)

- Preliminary Site Investigation (PSI)
- Detailed Site Investigation (DSI)
- Human Health and Ecological Risk Assessment (HHERA) – if required

Defence has engaged GHD as the lead environmental consultant to undertake the investigation at JBRF.

A separate consultant, AECOM has been engaged to conduct a peer-review/auditing function on the environmental investigation.

Jervis Bay Range Facility

### Preliminary Site Investigation

- Site history assessment
  - site interviews, stakeholder information and inspecting site
- Start development of Conceptual Site Model to identify contamination
  - Sources (where and when AFFF was used)
  - Pathways (how PFAS move in the environment)
  - Receptors that may be exposed to the contamination

*AIM = Understand Source-Pathway-Receptor linkages and priority of works for Detailed Site Investigation.*

Jervis Bay Range Facility

### Detailed Site Investigation

Work with stakeholders to confirm further works, likely to comprise:

- Soil Investigation
  - On-site soil samples
- Surface Water & Sediment Investigation
  - On-site - Sample surface water and sediment/soil within drainage areas
  - Off-site - Sample downstream at drainage areas, lagoons and lakes. Background further 'up-stream' of Base.
- Groundwater Investigation
  - Install additional shallow and multi level monitoring bores
  - Gauge all bores, sample and assess all new locations
- Biota Sampling
- Reporting on the works
  - Report consistent with the NEPM

Jervis Bay Range Facility

### Human Health and Ecological Risk Assessment (HHERA) - if required

Throughout the investigation, results will be compared to relevant screening criteria to assess the need for the HHERA

- Consultation and input from agencies, experts and community,
- Prepare HHERA methodology using NEPM and enHealth guidance, and
- Complete the HHERA, to evaluate risks to the human health and ecology, and inform future action to mitigate risks.

Jervis Bay Range Facility

### What will the works look like?

### Assessment Works Timing

**Sampling and analysis plan**

- Interviews on site and verification of existing groundwater wells – in progress
- Reporting – March 2017

**Detailed Investigation Works**

- Work Scoping and Planning – In progress
- Field Works – From April to August 2017
- Reporting of Results – August 2017 - January 2018

**Human Health and Ecological Risk Assessment**


- Ongoing assessment of risk and requirement to commence HHERA throughout program (if required)

Ongoing community consultation

Jervis Bay Range Facility

### Next Steps

- Detailed environmental investigation will be undertaken in accordance with National Environmental Protection (Assessment of Site Contamination) Measure or NEPM (ASC),
- Investigation has commenced
- Investigation expected to take approximately 12 months.




Jervis Bay Range Facility

### Stakeholder and Community Engagement

Regular stakeholder interactions to provide timely and accurate advice to guide decision-making:

- Public enquiry lines operate throughout project,
- Fact sheets, relevant information and results of sampling will be published on the project website,
- Individual correspondence on private property results,
- Community information sessions at key milestones, and
- Will be done with appropriate privacy consideration.

Water use survey to be conducted, to understand groundwater and rainwater tank use in the area.




Jervis Bay Range Facility

### Need more information?

Defence will keep you informed

- National Hotline Number: 1800 987 618
- Email: [JervisBay@ghd.com](mailto:JervisBay@ghd.com)

General information about the national Defence PFAS program, fact sheets relevant to the base can be found at: [www.defence.gov.au/ID/PFOSPFOA/](http://www.defence.gov.au/ID/PFOSPFOA/)



Jervis Bay Range Facility

### In Summary

Defence has engaged GHD to commence a NEPM compliant detailed environmental investigation at JBRF.


The Environmental Health Standing Committee (enHealth) advises that there is currently no consistent evidence that exposure to PFOS and PFOA causes adverse human health effects.

As a precautionary measure Defence will provide alternative drinking water supplies to eligible residents.

Defence will keep you informed and will continue to consult with all relevant Federal, State and local government agencies.

Jervis Bay Range Facility

### Questions?



Jervis Bay Range Facility

### Thank you for your attendance

**Stedman, Andrew (Health)**

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**From:** [REDACTED] [REDACTED]@defence.gov.au> on behalf of PFASIM Jervis Bay  
<pfasim.jervisbay@defence.gov.au>  
**Sent:** Thursday, 9 March 2017 2:15 PM  
**To:** [REDACTED] Chester, Heath; Stedman, Andrew (Health)  
**Cc:** Krsteski, Radomir (Health); PFASIM Jervis Bay; [REDACTED]; [REDACTED]; [REDACTED]  
**Subject:** RFI - Defence PFAS JBT - sampling information for GHD [SEC=UNCLASSIFIED]  
**Follow Up Flag:** Follow up  
**Flag Status:** Flagged  
**Categories:** Red Category

**UNCLASSIFIED**

Good Afternoon Folks,

Thank you for your attendance today at the initial PCG for the Defence PFAS investigation of Jervis Bay Range Facility, HMAS Creswell and off facility sites.

As discussed, in order for GHD (lead consultant for the investigation) to carry out the most effective Sampling Analysis and Quality Plan (SAQP) we wish to obtain as much supporting reporting as possible.

It became apparent that JBTA, ACT Health and ACT EPA 'may' hold sampling reporting for JBT that could assist GHD's investigation.

As such, please receive this request for this information for this reporting. Reports can be emailed to:

[pfasim.jervisbay@defence.gov.au](mailto:pfasim.jervisbay@defence.gov.au)

[REDACTED]@ghd.com

[REDACTED]@ghd.com

If files are large and thus unable to be emailed, then please email [REDACTED]@ghd.com and [REDACTED] will arrange FTP.

Noting the SAQP is due at the end of next week, we appreciate anything that can be done to expedite this request.

Kind Regards,

[REDACTED]

[REDACTED] [REDACTED]  
(Contractor to Defence)

Defence Project Manager - Environmental Investigations

PFAS Investigation and Management Branch

Department of Defence

T: [REDACTED]  
[REDACTED]@defence.gov.au

A: BP8-1, 8 Brindabella Circuit, Brindabella Business Park  
PO Box 7925, Canberra BC 2610

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**Stedman, Andrew (Health)**

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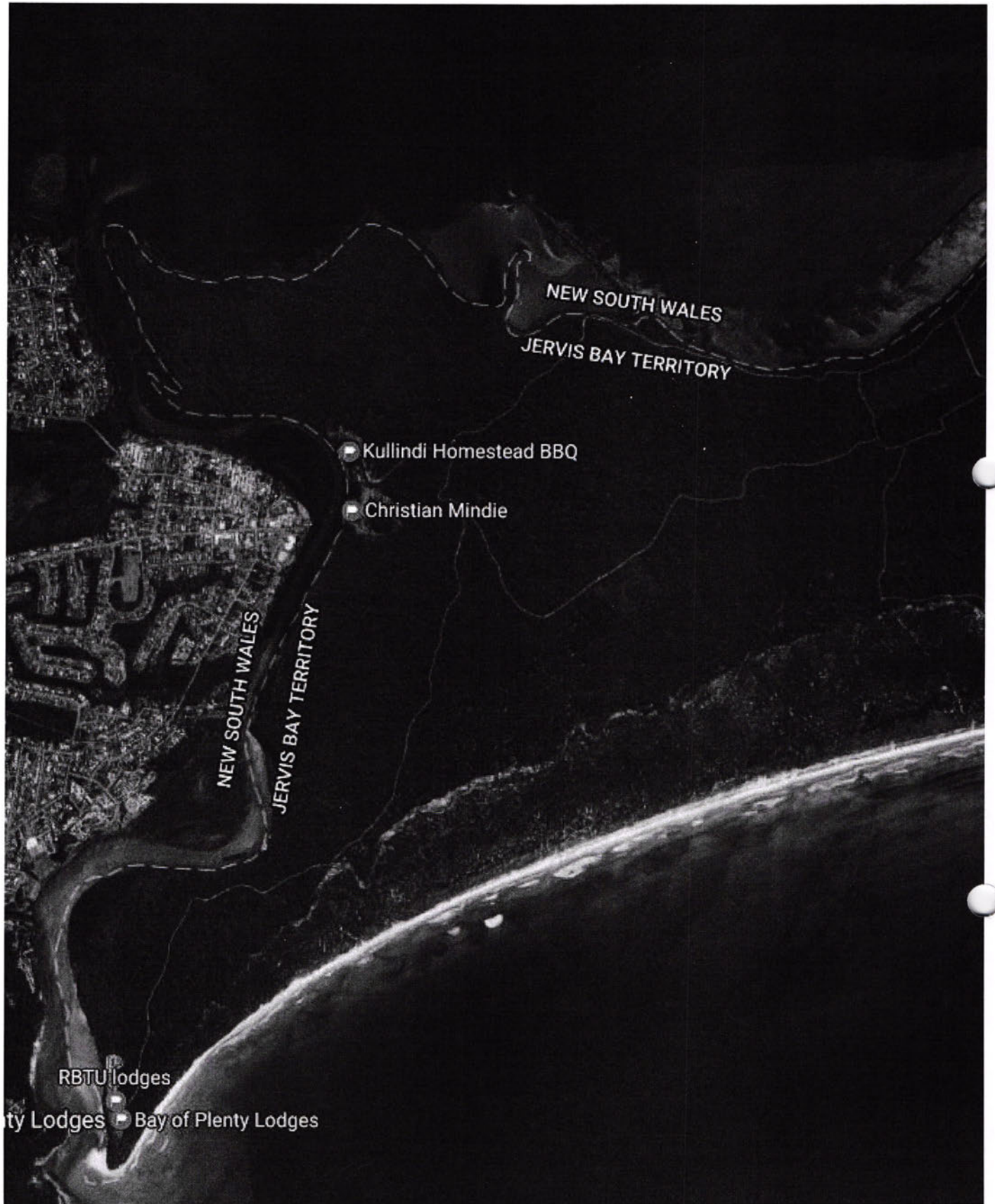
**From:** Stedman, Andrew (Health)  
**Sent:** Thursday, 9 March 2017 4:55 PM  
**To:** PFASIM Jervis Bay; [REDACTED]@ghd.com'; [REDACTED]@ghd.com'  
**Cc:** Krsteski, Radomir (Health); [REDACTED]@infrastructure.gov.au'  
**Subject:** RE: RFI - Defence PFAS JBT - sampling information for GHD -ACT Health results  
 [SEC=UNCLASSIFIED]

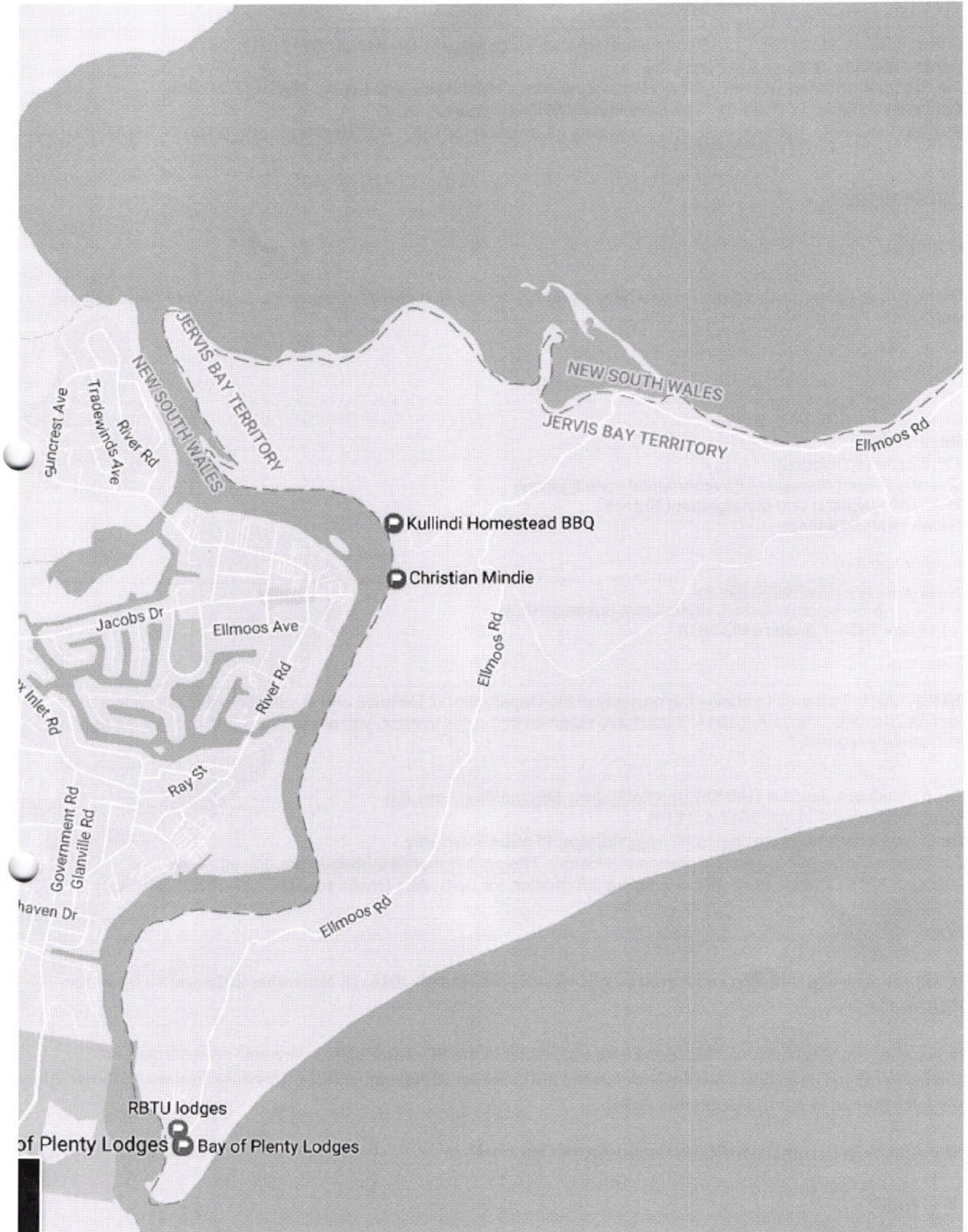
Hi [REDACTED],

Please see the locations of sampling GPS coordinates of sample sites put onto google maps. Please note on the map grabs the red pin is on the location of the JBT water treatment plant.

Kind Regards

Location	Water sampled	GPS coordinates
Kullindi BBQ	Bore water	-35.153589, 150.606301
Bay of Plenty Lodges	Bore water	-35.181367, 150.594771
Rail Tram and Bus Union Camp	Bore mixed with rain water	-35.179548, 150.594398
Lake Windermere	Raw water	-35.139211, 150.678804
JBT Water Treatment Plant	Raw water & water post treatment (potable)	-35.139211, 150.678804





Andrew Stedman | Environment Team Leader  
Health Protection Service | [health.act.gov.au](http://health.act.gov.au)  
Phone (02) 6205 4404 | Mobile [REDACTED]

**From:** [REDACTED] [REDACTED] [REDACTED]@defence.gov.au] **On Behalf Of** PFASIM Jervis Bay  
**Sent:** Thursday, 9 March 2017 4:15 PM  
**To:** Stedman, Andrew (Health); [REDACTED]@ghd.com'; [REDACTED]@ghd.com'; PFASIM Jervis Bay  
**Cc:** Krsteski, Radomir (Health); [REDACTED].[REDACTED]@infrastructure.gov.au'  
**Subject:** RE: RFI - Defence PFAS JBT - sampling information for GHD -ACT Health results [SEC=UNCLASSIFIED]

UNCLASSIFIED

Hi Andrew,

Thank you so much for this data. Do you have a graphic or map that show's the physical location of these sample sites?

Regards,  
Tatts

[REDACTED]  
 (Contractor to Defence)  
 Defence Project Manager - Environmental Investigations  
 PFAS Investigation and Management Branch  
 Department of Defence

T: [REDACTED]  
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**From:** Stedman, Andrew (Health) [mailto:Andrew.Stedman@act.gov.au]  
**Sent:** Thursday, 9 March 2017 4:04 PM  
**To:** [REDACTED]@ghd.com; [REDACTED]@ghd.com; PFASIM Jervis Bay  
**Cc:** [REDACTED].[REDACTED] Krsteski, Radomir (Health); [REDACTED]@infrastructure.gov.au  
**Subject:** RFI - Defence PFAS JBT - sampling information for GHD -ACT Health results [SEC=UNCLASSIFIED]

Hello,

Please see attached sampling conducted by ACT Health on 22 March 2016, 28 November 2016 and 19 December 2016 for PFAS.

Please note the detections of PFAS in the Raw water inlet in the JBT water plan (raw water drawn from Lake Windermere) and detection in Kullindi homestead BBQ area on 28 November 2016 (this detection was not repeated in a follow up sample on 19 December 2016).

Please feel free to contact me if you require further information.

Kind regards



Andrew Stedman | Environment Team Leader  
 Health Protection Service | [health.act.gov.au](http://health.act.gov.au)  
 Phone (02) 6205 4404 | Mobile [REDACTED]