

1. GHD () provided an overview of the investigation:
 - SAQP has been reviewed by all agencies, with comments received and responded to, including ongoing dialog regarding proposed ecological assessment.
 - Discussions with WBACC are ongoing regarding permit for off site land investigations, which is a key component of the HHERA including access to National park leased land.
 - The on site sampling program has been largely completed, with recent work completed on the sampling and evaluation of the HMAS Creswell and JBRF sewer system.
 - Sampling of Creswell and JBRF sewer system was conducted with 13 samples collected to target contaminated groundwater and surface water infiltration after the recent rain event. The latest results have confirmed that groundwater is infiltrating the sewer network from the shallow groundwater at JBRF and transporting PFAS contaminated water into the Sewerage Treatment Plant (STP) located at Creswell, which is treated and used for irrigation throughout HMAS Creswell grounds.
 - Recent sampling at the RAN School of Survivability & Ship Safety (RANSSSS) has triggered a targeted human health risk assessment in response to elevated PFAS concentrations in the water in the training facilities. There is some evidence of groundwater ingress into one of the closed loop training water systems. The risk assessment, which considers the risks to trainees and staff has just been issued to the site auditor for review.
 - The next key element of works includes the offsite collection of ground and surface water, sediment and biota samples to support the HHERA. Permission from the Wreck Bay Aboriginal Community Council (WBACC) to access the land is still pending.
2. GHD () confirmed a factual memorandum will be provided this week, with a formal report in the new year to document additional findings and recommendations.
3. () provided an explanation of the function of RANSSSS located at Jervis Bay range, which provides training facilities for fire fighting training and ships damage control leak repair training to RAN personnel. This facility historically used AFFF for training in the past; however currently use PFAS free training foam for training activities in the form of Solberg DoD 3155 training foam concentrate.
4. Comments, queries or concerns:
 - Regarding sewer system and joint management between JBTA and Defence, RK queried whether GHD engaged with plumbing contractors Jirgens. () advised that Jirgens have been consulted and have supported the investigation throughout by providing advice, CCTV inspection reports and access to sample Wreck Bay sewer pump stations.
 - () queried who WBACC engaged. GHD advised that WBACC have engaged the University of Newcastle, Global Centre for Environmental Remediation (GCER) for independent review of documentation. () advised that GCER have reviewed the SAQP and provided comments

SAQP and Conceptual Site Model

5. () GHD – *Note: topic was not addressed during meeting. SAQP Rev 2.1 issued October 17 to all stakeholders with comments received and recorded.*

Future Stages - Human Health and Ecological Risk Assessment (HHERA)

6. GHD [REDACTED], Provided an overview of the HHERA and Groundwater modelling Plans.
- The HHERA and Groundwater modelling plans have been developed to provide an outline of how the data collected, as detailed in the SAQP, will be used to develop the HHERA.
 - The HHERA plan is site specific and is based on knowledge of how local people use water (surface water or groundwater) and what activities they undertake, such as growing vegetables, fruit or consuming aquatic life. The HHERA will consider the specific activities in each area, such as the Wreck Bay community consumption of aquatic life from adjacent waterways and the recreational fishing conducted in Jervis Bay.
 - The risk assessment process considers the generic values identified in the national environment management plan for PFAS (Draft). Where these values are exceeded a site specific or activity specific risk assessment is developed. The site specific activity input parameters (such as water intake or frequency of swimming) are compared against those of the guidance values to develop the risk assessment for various receptors.
 - The Groundwater modelling plan will assist to characterise the site ground and surface water connections, flows and directions. The groundwater model will assist to develop site management options by identifying PFAS concentration areas and the movement of these chemicals off site.
 - GHD have finalised and issued the HHERA and Groundwater flow modelling plan to the PCG and WBACC. Feedback received will be considered and incorporated when work commences in these areas
 - These plans have been developed, with input and review by the auditor and issued to agencies and WBACC for comment.
7. [REDACTED] briefed that GHD have also prepared a draft interim Human Health Risk Assessment (HHRA) for the closed loop water systems at RANSSSS. The Interim HHRA considered the potential exposure to trainees, staff and maintenance workers at the school and the potential for accumulated PFAS intake over time. To summarise the HHRA, a worst case approach was taken and assumed that staff consumed 20ml per day for 96 days a year from the highest contamination source. Realistically, staff are exposed to water with much lower levels of contamination (approximately one-tenth) and would rarely consume 20ml of water. Even at worst case levels, the HHRA concludes that the staff who are in contact with closed loop water training systems with PFAS present are subject to levels well below the tolerable daily intake. The staff are at the highest risk compared to trainees because they work on site continually. One risk that requires further investigation is maintenance worker contact with water filter system or similar (potentially concentrated levels of PFAS).
8. GHD advised that the RANSSSS closed loop water system HHRA will form a subset of the final HHERA when completed.
9. Comments, queries or concerns:
- Nil

Site Auditor Update

10. [REDACTED] has reviewed the Draft HHRA for closed loop systems and has just provided Defence and GHD comments. Other activities have been limited noting permission for off site access is delayed and the SAQP and HHERA plan have been developed.
11. Comments queries or concerns:
- Nil

Stakeholder Engagement		
12.	GHD [REDACTED] have been attempting to arrange an extraordinary WBACC board meeting to discuss and obtain permits to access WBACC and national parks lands. This has been delayed at request by WBACC to late January 2018 at the earliest.	
13.	There have been ongoing communications and interaction with WBACC through the provision of the SAQP, HHERA and Groundwater Modelling Plans.	
14.	Draft advertisements have also been provided for recruiting Wreck Bay community members to investigation support positions .	
15.	A letter is currently being drafted to formally request access to the '403 land' surrounding Wreck Bay Village.	
16.	Comments requested: <ul style="list-style-type: none"> • Nil 	
Community Enquiries		
17.	No activity or calls to the Community Hotline or email inbox.	
Risks and Issues		
18.	Key risks and issues raised by PCG members: <ul style="list-style-type: none"> • [REDACTED] A meeting between Jervis Bay Territory Administration and WBACC reported that 12 women have been diagnosed with breast cancer in Wreck Bay village in the past 18 months. [REDACTED] is working with ACT/NSW health to confirm. Land grant to WBACC is almost finalised with an initial grant of blocks 151 and 152 expected in the near future. • GHD key risks are unchanged with land access issues and program. 	
PFAS investigation results		
19.	All investigation results have been provided to PCG via factual memorandums to date. Factual memorandum 11 and 12 will be provided in near future for RANSSSS closed loop water systems and sewer systems.	
Other Business		
	PCG meeting for January 2019 cancelled due to reduced activity over the holiday period, with next meeting scheduled 2pm on 20 th February 2019.	
	Meeting Close - 14:35 PM	
Actions		
Item	Owner	Due date

Stedman, Andrew (Health)

From: Kelly, Paul (Health)
Sent: Friday, 22 December 2017 10:54 AM
To: [REDACTED]; [REDACTED]; [REDACTED]
Cc: [REDACTED]; Phung, Hai (Health); Harper, Emily (Health); McNeill, Laura (Health); Barr, Conrad (Health)
Subject: Jervis Bay cancer incidence [DLM=Sensitive]

Hi again [REDACTED]

I had a brief discussion with [REDACTED] last week about cancer incidence in the Jervis Bay Territory (JBT). I am still getting to the bottom of where this has come from, but it seems that there has been an enquiry from a member of the Wreck Bay Aboriginal community (or Council) via the local Commonwealth-run authority, through our central agency (P&C equivalent) to my Epidemiology Branch suggesting that there is community concern about a cancer cluster. It is unclear at this stage whether this is related to any community concern about PFAS levels in Mary Creek which is adjacent to the community and currently closed on public health grounds due to marginally high PFAS levels, pending more detailed Defence testing and/or human health impact assessments. On the latter, this has been very quiet of late.

As we had only a couple of cases of cancer with a JBT postcode on our register, we suggested that further enquiry be made through the NSW cancer registry due to potential overlap with Nowra and I understand that this is how [REDACTED] became involved. On further enquiry, as is often the case with JBT, it appears that they "fall between the cracks", being classified as "other territories" in the NSW Cancer Registry and therefore not analysed by NSW nor released to ACT. In limbo, I guess. Given the majority of the JBT population, and no doubt the majority of cancer patients are Indigenous, there is a strong equity issue here, let alone an inability for either of us to provide any opinion one way or the other on the question posed.

My view of the JBT Act is that ACT law (including my powers and responsibilities under the ACT Public Health Act) applies in the JBT, and the ACT Government's contract with the Commonwealth in relation to provision of services to the JBT works on the basis that whatever standard applies in the ACT should be applied to the JBT. Not reporting on cancer statistics seems to me to be in breach of those principles.

In the New Year, I would like to look at what we can do to progress this and in particular work through any legal impediments to ACT receiving and documenting JBT cancer statistics.

Meanwhile, Merry Christmas and Happy New Year!

Regards,


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

 Paul Kelly - ACT CHO (@PKelly_ACTCHO) on Twitter

<http://www.health.act.gov.au/healthy-living/population-health>



Stedman, Andrew (Health)

From: [REDACTED]
Sent: Sunday, 18 February 2018 8:55 PM
To: [REDACTED]; Clapham, David; Chester, Heath; [REDACTED]; Stedman, Andrew (Health); [REDACTED]; Lyndell (Health); [REDACTED]
Cc: [REDACTED]
Subject: JBRF SAQP rev 2.1 Revision update

Dear JBRF PCG,

The JBRF Sampling Analysis Quality Plan Rev 2.1 provided for on 4/10/2017 has been updated to Revision 3 - Final.

The update is an administrative update only with no change to the content.

JBRF SAQP, Revision 3, dated February 2018, is available for your records on request.

Please contact me should you require a copy and I will arrange a large file transfer.

Kind Regards,

[REDACTED]

GHD

[REDACTED]
 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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[REDACTED]	[REDACTED]
[REDACTED]	[REDACTED]
[REDACTED]	[REDACTED]
[REDACTED]	[REDACTED]
[REDACTED]	[REDACTED]
[REDACTED]	[REDACTED]
[REDACTED]	[REDACTED]
[REDACTED]	[REDACTED]
[REDACTED]	[REDACTED]
[REDACTED]	[REDACTED]
[REDACTED]	[REDACTED]
[REDACTED]	[REDACTED]
[REDACTED]	[REDACTED]
[REDACTED]	[REDACTED]

Agenda

Introductions	
Investigation Progress (DSI scope and schedule)	<ul style="list-style-type: none"> - Detailed Site Investigation (DSI) - SAQP & Conceptual Site Model (CSM) - Factual memorandums
Future Stages (schedule)	<ul style="list-style-type: none"> - Human Health and Ecological Risk Assessment (HHERA) - Numerical Groundwater Model
Site Auditor	<ul style="list-style-type: none"> - Update from site auditor
Stakeholder Engagement	<ul style="list-style-type: none"> - Meetings and briefs - Community enquiries
Risks and Issues	
Other Business	
Close	



Australian Government
Department of Defence
Estate and Infrastructure Group

PFAS Investigation and Management
Monthly Report- Jervis Bay Range Facility

15 02 2018

BP3-02-B091

26 Brindabella Circuit
 Brindabella Business Park
 PO Box 7925 Canberra BC 2610

Re: Jervis Bay Range Facility Environmental Investigation – Progress Report December 2017

1.0 Introduction

The following progress report has been prepared by GHD Pty Ltd to provide a summary of activities for the Comprehensive Investigation of PFAS Site Conditions at Jervis Bay Range Facility, HMAS Creswell and surrounds for the period between 30 November 2017 and 30 December 2017.

2.0 Critical items

2.1 New items

- GHD Issue HHERA Plan to WBACC (04/12/17).
- GHD Issue response to WBACC advisers (University of Newcastle) comments to SAQP Rev 2.1 (04/12/17).
- Draft RANSSSS interim HHRA Rev 0.1 issued to Defence for comment (05/12/18).
- Sewer sampling event 3 conducted 04:00 on 7/12/17.
- NSW EPA provide Defence/GHD advise requesting at least 5 individuals per sample (7/12/17).
- NSW EPA issue comments to HHERA Plan. (08/12/17).
- GHD provide WBACC with two hardcopies of the HHERA Plan and groundwater Model plan. (11/12/17)
- Draft RANSSSS interim HHRA Rev 0.2 issued to Defence for comment (05/12/18).
- NSW EPA (Crown Lands and Water Division) issue comments to GWM Plan (13/12/2017).
- Updated WBACC engagement infographic issued to Defence 13/12/17
- GHD advise Defence staff Creswell of a newly installed unidentified manhole which has developed a 50mm hole allowing PFAS contaminated groundwater to enter the sewer system. (13/12/2017).
- ACT Health advise no comments to HHERA Plan Rev 1.1 on (15/12/17).

- GHD issue updated PFAS concentration contour maps to Defence (18/12/17).
- GHD issue draft interim stakeholder report summarizing 2017 activity (18/12/17).
- Draft RANSSSS interim HHRA Rev 0.3 issued to Defence for comment (18/12/18).
- GHD issue sewer system PFAS concentration maps to Defence (19/12/17).
- Draft RANSSSS interim HHRA re- issued to Defence with comments received from Auditor 19/12/17.
- Draft PFAS concentration within sewer system maps issued to Defence for review 19/12/17.
- Draft WBACC land access letter issued to Defence for review 20/12/17.
- GHD issue factual letter 12 – sewer event 3 to Defence (21/12/17)

2.2 Previously raised items to be addressed

- The Board of Wreck Bay Aboriginal Community Council (WBACC) was briefed on 11 Apr 2017 to seek agreement to access aboriginal lands for the PFAS investigation. The Board stated that no access to aboriginal lands will be granted, prior to appointment of independent expert to advise WBACC and interpret the sampling plan (SAQP Rev 2.1). This directly impacts the DSI works for the '403 land' and the Booderee National Park.
- As a result of the delay associated with accessing aboriginal land the Detailed Site Investigation (DSI) has at this time been undertaken at Defence land, Potable water sources and Block 151 only. The DSI for non-Defence land will commence when approval from WBACC is provided.
- WBACC have engaged the University of Newcastle (UON), Global Centre for Environmental Remediation (GCER) to support reviews of the project documents and provide advice on the investigation.

3.0 Project progress

- The following items have been completed this reporting period:
 - Sewerage network infrastructure investigation sampling event 3 conducted, with results reported.
 - Development of contour concentration maps Update including Block 151 and closed loop.
 - Development and issue of Factual Letter 12 – Sewer infrastructure.
 - Development of and review RANSSSS interim HHRA for closed loop water systems.
 - Development of draft interim stakeholder report summarizing 2017 stakeholder activity.
 - Development of updated WBACC engagement infographic.
 - Receipt of agency review comments for HHERA and Groundwater modelling plans.

3.1 Project impacts

- WBACC independent adviser University of Newcastle reviews of SAQP, HHERA plan and GWM plan.
- WBACC permit to conduct investigation on aboriginal lands.

3.2 Project meetings

Project meetings held this reporting period are presented in Table 1.

Table 1: Summary of meetings held during the December reporting period

Meeting date	Meeting title	Participants	Minutes
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			circulated
19 December 2017	PCG No 10	PCG members	Yes
Recurring Wednesday's	Weekly meetings	JBRF project team – Defence, GHD & Site auditor	Yes

3.3 Project deliverables submitted this period

Project deliverables submitted during this reporting period are presented in Table 2.

Table 2: Project deliverables submitted during the December reporting period

Document status	Title	Date submitted
Draft	RANSSSS interim HHRA	4/12/17
Draft	RANSSSS interim HHRA Rev 0.1	5/12/17
Draft	RANSSSS interim HHRA Rev 0.2	5/12/17
Final	WBACC engagement infographic	13/12/17
Draft	RANSSSS interim HHRA Rev 0.3	18/12/17
Final	November report	15/12/17
Draft	Interim stakeholder activities report	18/12/17
Final	Updated PFAS Concentration contour maps	19/12/17
Draft	PFAS concentration sewer system map	19/12/17
Final	PCG minutes 9	20/12/17
Final	Factual letter 12 – Sewer system	21/12/17

3.4 Project Milestones

The following project milestones were achieved in the December reporting period:

- Sewerage network infrastructure investigation Sampling Event 3 completed.
- Review by agencies and stakeholders of HHERA, Groundwater modelling plans with comments and responses by GHD provided.
- Positive interaction with WBACC and independent adviser, with exchange of comments to investigation plans.

4.0 Project Forecast

The project schedule is presented in the enclosed project schedule, dated 11 December 2017.

4.1 Schedule tracking forecast

- SAQP (Rev 2.1) finalised and issued to Agency and WBACC for review, with comments received and addressed.
- HHERA plan Rev 1.1, finalised and issued to Agency and WBACC for review with comments received and addressed.
- Numerical Groundwater Modelling plan Rev 1.1 finalised and issued to Agency and WBACC for review, with comments received and addressed.
- The project schedule is impacted by the inability to access the Wreck Bay community land. Ongoing negotiations with WBACC are positive, with access to conduct sampling and investigation expected on post permit condition negotiations.

4.2 Project deliverables expected next period

- Issue of final Interim HHRA advice for RANSSSS closed loop water systems.

4.3 Technical Advisor forecast

The Technical Advisor's achievements and planned activities are presented in Table 3.

Table 3: Technical Advisor achievements and key activities during the December reporting period

Scope item	Achieved to date	Planned for next month
Monitor Project progress and provide comment	Yes	ongoing
Attend project and PCG meetings	Yes	ongoing
Review and comment on project documents and communications	Yes	Yes

5.0 Community enquiries

In this reporting period:

- No community independent enquiries were received via the Community Hotline (1800 987 618) and email (Jervisbay@ghd.com.au)
- There are 0 outstanding stakeholder enquires

6.0 Interaction with Government

Meetings and communications with Government stakeholders are summarised in Table 4.

Table 4: Summary of interactions with Government during the December reporting period

Meeting date	Meeting title	Participants	Minutes circulated
19 December 2017	PCG No 10	NSW & ACT Agencies	Yes

7.0 Defence Legal Support

The Office of Defence Special Council is assisting with the following items:

- Nil

9.0 Requests for information from Defence

- All relevant reports and information associated with JBRF environmental assessments and contamination investigations have been provided to GHD by Defence.

10.0 Other Matters

- Nil

Yours sincerely

[Redacted Signature]

CC:

Enclosures: Project Milestone Schedule - Dated 11/12/2017

Project milestone schedule, dated 11 December 2017

Item	Start	Finish	
SAQP	30/03/2017	15/09/2017	
WBACC, ACT & NSW Agencies review of Draft SAQP Rev 2	04/10/2017	14/11/2017	WBACC & Agencies
Finalise SAQP	TBC		GHD
Off Site Access	20/11/2017	01/03/2018	WBACC/Booderee/GHD/Defence
WBACC board meeting – sampling of 403 land	18/12/17	18/12/17	Defence/GHD/WBACC
Approval to conduct Off-Site Groundwater Bore Installation, Soil, Sediment, surface water & Biota sampling	19/02/18	19/02/18	WBACC
DSI	5/04/2017	28/08/2017	GHD
On-Site Groundwater Bore Installation, Soil, Sediment and surface water sampling (Round 1).	5/04/2017	09/05/2017	GHD
On-Site Groundwater Bore Installation, Soil, Sediment and surface water sampling (Round 2).	TBA	TBA	GHD (rain event required)
Off-Site Groundwater Bore Installation, Soil, Sediment and surface water sampling (Round 1)	19/02/18	10/05/2018	GHD
Off-Site Groundwater Bore Installation, Soil, Sediment and surface water sampling (Round 2)	15/03/2018	10/05/2018	GHD
Biota sampling	15/03/2018	10/05/2018	GHD
DSI Reporting	25/05/2018	02/10/2018	GHD/Defence/Agency/WBACC
DSI Report preparation	21/06/2018	06/08/2018	GHD
Defence and Auditor review of Draft DSI Report	11/07/2018	24/07/2018	Defence/Auditor
Update of Draft DSI Report	21/08/2018	28/08/2018	GHD
ACT & NSW State Agency review of DSI Report	02/08/2018	15/08/2018	Agency
WBACC Review of DSI report (If required)?	12/09/2018	02/10/2018	WBACC
Finalise DSI Report	12/09/2018	02/10/2018	GHD/Defence/Auditor
Human Health and ecological risk assessment	24/08/2017	30/09/2018	GHD/Defence/Agency/WBACC
HHERA Recommendation	18/07/2017	21/07/2017	GHD
HHERA Plan draft	24/08/2017	01/09/2017	GHD
Defence and Auditor review of Draft HHERA Plan	01/09/2017	15/10/2017	Defence/Auditor
ACT & NSW State Agency review of HHERA Plan	20/11/2017	01/12/2017	Agency

HHERA Implementation and Draft report	21/06/2018	02/08/2018	GHD
Defence and Auditor review of Draft HHERA report	03/08/2018	16/08/2018	Defence/Auditor
Update of Draft HHERA report	13/09/2018	20/09/2018	GHD
ACT & NSW State Agency review of HHERA	27/08/2018	07/09/2018	Agency
WBACC Review of HHERA report (If required)?	TBC	TBC	WBACC
Finalise HHERA Report	10/09/2018	21/09/2018	GHD/Defence/Auditor
Strategic Management Plan	18/07/2018	12/11/2018	GHD/Defence/Auditor
SMP Template Workshop	18/07/2018	18/07/2018	GHD/Defence/Auditor
SMP Draft Report	20/08/2018	28/09/2018	GHD
Defence and Auditor review of Draft SMP report	01/10/2018	12/10/2018	GHD/Defence/Auditor
SMP report workshop	29/10/2018	29/10/2018	GHD/Defence/Auditor
Finalise SMP Report	30/10/2018	12/11/2018	GHD/Defence
Community Information Sessions	21/03/2017	25/05/2018	
Community Information Session 1	21/03/2017	21/03/2017	GHD/Defence/Agency/Community
Community Information Session 2	06/11/2017	06/11/2017	GHD/Defence/Agency/Community
Community Information Session 3	TBC	TBC	GHD/Defence/Agency/Community
Community Information Session 4 (Post DSI/HHERA report finalisation)	14/11/2018	14/11/2018	GHD/Defence/Agency/Community
Stakeholder engagement reporting	19/10/2018	31/12/2018	GHD/Defence
Finalise stakeholder engagement reports	13/12/2018	31/12/2018	GHD/Defence
Meetings with Agencies	13/11/2018	14/11/2018	GHD/Defence/Agency
Project Close out	20/12/2018	16/01/2019	GHD/Defence



Australian Government
Department of Defence
Estate and Infrastructure Group

PFAS Investigation and Management
Monthly Report- Jervis Bay Range Facility

15 12 2017

BP3-02-B091

26 Brindabella Circuit
 Brindabella Business Park
 PO Box 7925 Canberra BC 2610

Re: Jervis Bay Range Facility Environmental Investigation – Progress Report November 2017

1.0 Introduction

The following progress report has been prepared by GHD Pty Ltd to provide a summary of activities for the Comprehensive Investigation of PFAS Site Conditions at Jervis Bay Range Facility, HMAS Creswell and surrounds for the period between 31 October 2017 and 30 November 2017.

2.0 Critical items

2.1 New items

- GHD issue sample results for HMAS Creswell fire trucks and Ansulite drum stock. 02/11/17.
- GHD issue factual memorandum 9 – Block 151 sample results. 03/11/17.
- Issue to Defence and Auditor, GHD response to NSW EPA comments to SAQP Rev 2.1. 03/11/17.
- GHD and Defence develop advertisements, presentations, maps and factsheets for Community walk in session 2 (CWIS 2).
- GHD and Defence team host CWIS 2 on 06/11/17 with three independent sessions:
 - Base Briefing attended by 55 Defence and 9 Defence civilians, with few questions addressed.
 - Jervis Bay School attended by 0 community.
 - WBACC hall attended by 11 community members, with teams member providing individual interaction with each community member, to provide project detail.
- WBACC Meeting (Mal Hansen & Rueben Ardler) attended by Defence and GHD on 07/11/17 to discuss SAQP and permit conditions. The meeting identified:
 - Permission to conduct investigation is likely to be delayed until February 2018
 - Requirement for extraordinary board meeting to discuss PFAS investigation.
 - Independent associates of WBACC are reviewing the SAQP v2 at present.
 - WBACC Board recess period is mid Dec 17 to end of Jan 18.

- GHD issue factual memorandum 10 – Sewer system sample results. 07/11/17.
- Local Media (South Coast register) print articles on EPA precautionary dietary advice for fish species caught in Shoalhaven river, found to have elevated levels of PFAS. NSW Fire and Rescue say neither organisations use PFAS containing chemicals in their operations
- WBACC provide comments to SAQP Rev 2.1, compiled by independent advisers from University of Newcastle (UON), Global Centre for Environmental Remediation (GCER). - 14/11/2017.
- GHD incorporate auditor feedback to Rev 0.1 and issue final HHERA Plan Rev 1.1 to Defence 16/11/17 and PCG, 23/11/17.
- GHD incorporate auditor feedback to Rev 0.1 and issue final GWM Plan Rev 1.1 to Defence 16/11/17 and PCG, 23/11/17.
- GHD issue response to UON SAQP Rev 2.1 comment to Defence 17/11/17 and WBACC 29/11/17.
- GHD issue Draft and Final CWIS 2 report to Defence 21/11/17.
- GHD Issue of factual Memorandum 11 – RANSSSS closed loop water systems 28/11/17.
- DPI approval for offsite sampling received.
- GHD undertaking development of interim HHRA advice for RANSSSS closed loop water systems.
- GHD undertake sampling of Manhole 81 Branch and effluent sprinkler system.
- GHD provide WBACC electronic copies of HHEAR plan Rev 1.1 and GWM Plan Rev 1.1 - 29/11/2017.

2.2 Previously raised items to be addressed

- The Board of Wreck Bay Aboriginal Community Council (WBACC) was briefed on 11 Apr 2017 to seek agreement to access aboriginal lands for the PFAS investigation. The Board stated that no access to aboriginal lands will be granted, prior to appointment of independent expert to advise WBACC and interpret the sampling plan (SAQP Rev 2.1). This directly impacts the DSI works for the '403 land' and the Booderee National Park.
- As a result of the delay associated with accessing aboriginal land (expected to be 3 months or greater) the Detailed Site Investigation (DSI) has at this time been undertaken at Defence land, Potable water sources and Block 151 only. The DSI for non-Defence land will commence when approval from WBACC is provided.
- WBACC have engaged The University of Newcastle (UON), Global Centre for Environmental Remediation (GCER) to support reviews of the project documents and provide advice on the investigation.

3.0 Project progress

- The following items have been completed this reporting period:
 - Development and finalisation of community information presentations.
 - Conduct Community walk in session 2 at HMAS Creswell, JBS Hall and WBACC Hall.
 - Development and issue of HHERA Plan Rev 1.1 to Defence, auditor and stakeholders.
 - Development and issue of Groundwater Modelling Plan Rev 1.1 to Defence, auditor and stakeholders.
 - Reporting of sampling results via factual memorandums 9, 10 and 11
 - Sampling to support RANSSSS reclaim pit S426 oily waste separator.

3.1 Project impacts

- WBACC independent adviser University of Newcastle reviews of SAQP, HHERA plan and GWM plan.
- WBACC extra ordinary board meeting to discuss permit conditions.

- WBACC permit to conduct investigation on aboriginal lands.

3.2 Project meetings

Project meetings held this reporting period are presented in Table 1.

Table 1: Summary of meetings held during the November reporting period

Meeting date	Meeting title	Participants	Minutes circulated
06 November 2017	CWIS 2 – Community walk in session.	GHD, Defence	Yes
07 November	WBACC board discussion	[REDACTED]	No
19 November 2017	PCG No 9	PCG members	Yes
Recurring Wednesday's	Weekly meetings	JBRF project team – Defence, GHD & Site auditor	Yes

3.3 Project deliverables submitted this period

Project deliverables submitted during this reporting period are presented in Table 2.

Table 2: Project deliverables submitted during the November reporting period

Document status	Title	Date submitted
Final	Memorandum – response to NSW EPA SAQP Rev 2.1 comments	03/11/2017
Final	Factual letter 9 – Block 151	3/11/2017
Final	Factual letter 10 – Sewer	7/11/2017
Final	Factual letter 11 – RANSSSS closed loop water systems	28/11/2017
Draft	HHERA Plan Rev 1	16/11/2017
Final	HHERA Plan Rev 1.1	23/11/2017
Final	Groundwater Modelling Plan Rev 1.1	16/11/2017
Final	October Report	09/11/2017
Final	PCG minutes 8	09/11/2017
Final	Presentation, Maps, fact sheets and Infographic for community engagement activities	02/11/2017
Final	CWIS 2 Debrief Report	14/11/2017
Final	Response to UON comment for SAQP rev 2.1	29/11/2017

3.4 Project Milestones

The following project milestones were achieved in the November reporting period:

- Development and issue of HHERA Rev 1.1 (Final) to Agencies and WBACC.
- Development and issue of Ground Water Modelling plan Rev 1.1 (Final) to Agencies and WBACC.
- Ongoing Sewerage treatment system investigation.
- Responses to comment received on SAQP Rev 2.1 and finalisation

4.0 Project Forecast

The project schedule is presented in the enclosed project schedule, dated 11 December 2017.

4.1 Schedule tracking forecast

- SAQP (Rev 2.1) finalised and issued to Agency and WBACC for review, with comments received and addressed.
- HHERA plan Rev 1.1, finalised and issued to Agency and WBACC for review with comments received and addressed.
- Numerical Groundwater Modelling plan Rev 1.1 finalised and issued to Agency and WBACC for review, with comments received and addressed.
- The project schedule is impacted by the inability to access the Wreck Bay community land. Ongoing negotiations with WBACC are positive, with access to conduct sampling and investigation expected on post permit condition negotiations.

4.2 Project deliverables expected next period

- Issue of Interim HHRA advice for RANSSSS closed loop water systems
- Issue of Draft Sewerage system Investigation Report

4.3 Technical Advisor forecast

The Technical Advisor's achievements and planned activities are presented in Table 3.

Table 3: Technical Advisor achievements and key activities during the November reporting period

Scope item	Achieved to date	Planned for next month
Monitor Project progress and provide comment	Yes	ongoing
Attend project and PCG meetings	Yes	ongoing
Review HHERA plan Rev 1 and 1.1 and provide comment	Yes	complete
Review Groundwater model plan Rev 1 and 1.1 and provide comment	Yes	complete
Review GHD responses to comments received from EPA and UON for SAQP Rev 2.1	Yes	complete

5.0 Community enquiries

In this reporting period:

- No community independent enquiries were received via the Community Hotline (1800 987 618) and email (Jervisbay@ghd.com.au)
- Responses to communications with WBACC CEO received.
- There are 0 outstanding stakeholder enquires

6.0 Interaction with Government

Meetings and communications with Government stakeholders are summarised in Table 4.

Table 4: Summary of interactions with Government during the November reporting period

Meeting date	Meeting title	Participants	Minutes circulated
19 November 2017	PCG No 7	NSW & ACT Agencies	Yes

7.0 Defence Legal Support

The Office of Defence Special Council is assisting with the following items:

- Nil

9.0 Requests for information from Defence

- All relevant reports and information associated with JBRF environmental assessments and contamination investigations have been provided to GHD by Defence.

10.0 Other Matters

- Nil

Yours sincerely

[Redacted Signature]

CC:

Enclosures: Project Schedule - Dated 11/12/2017

Project schedule, dated 11 December 2017

Item	Start	Finish	
SAQP	30/03/2017	15/09/2017	
WBACC, ACT & NSW Agencies review of Draft SAQP Rev 2	04/10/2017	14/11/2017	WBACC & Agencies
Finalise SAQP	TBC		GHD
Off Site Access	20/11/2017	01/03/2018	WBACC/Booderee/GHD/Defence
WBACC board meeting – sampling of 403 land	18/12/17	18/12/17	Defence/GHD/WBACC
Approval to conduct Off-Site Groundwater Bore Installation, Soil, Sediment, surface water & Biota sampling	19/02/18	19/02/18	WBACC
DSI	5/04/2017	28/08/2017	GHD
On-Site Groundwater Bore Installation, Soil, Sediment and surface water sampling (Round 1).	5/04/2017	09/05/2017	GHD
On-Site Groundwater Bore Installation, Soil, Sediment and surface water sampling (Round 2).	TBA	TBA	GHD (rain event required)
Off-Site Groundwater Bore Installation, Soil, Sediment and surface water sampling (Round 1)	19/02/18	10/05/2018	GHD
Off-Site Groundwater Bore Installation, Soil, Sediment and surface water sampling (Round 2)	15/03/2018	10/05/2018	GHD
Biota sampling	15/03/2018	10/05/2018	GHD
DSI Reporting	25/05/2018	02/10/2018	GHD/Defence/Agency/WBACC
DSI Report preparation	21/06/2018	06/08/2018	GHD
Defence and Auditor review of Draft DSI Report	11/07/2018	24/07/2018	Defence/Auditor
Update of Draft DSI Report	21/08/2018	28/08/2018	GHD
ACT & NSW State Agency review of DSI Report	02/08/2018	15/08/2018	Agency
WBACC Review of DSI report (If required)?	12/09/2018	02/10/2018	WBACC
Finalise DSI Report	12/09/2018	02/10/2018	GHD/Defence/Auditor
Human Health and ecological risk assessment	24/08/2017	30/09/2018	GHD/Defence/Agency/WBACC
HHERA Recommendation	18/07/2017	21/07/2017	GHD
HHERA Plan draft	24/08/2017	01/09/2017	GHD
Defence and Auditor review of Draft HHERA Plan	01/09/2017	15/10/2017	Defence/Auditor
ACT & NSW State Agency review of HHERA Plan	20/11/2017	01/12/2017	Agency

HHERA Implementation and Draft report	21/06/2018	02/08/2018	GHD
Defence and Auditor review of Draft HHERA report	03/08/2018	16/08/2018	Defence/Auditor
Update of Draft HHERA report	13/09/2018	20/09/2018	GHD
ACT & NSW State Agency review of HHERA	27/08/2018	07/09/2018	Agency
WBACC Review of HHERA report (If required)?	TBC	TBC	WBACC
Finalise HHERA Report	10/09/2018	21/09/2018	GHD/Defence/Auditor
Strategic Management Plan	18/07/2018	12/11/2018	GHD/Defence/Auditor
SMP Template Workshop	18/07/2018	18/07/2018	GHD/Defence/Auditor
SMP Draft Report	20/08/2018	28/09/2018	GHD
Defence and Auditor review of Draft SMP report	01/10/2018	12/10/2018	GHD/Defence/Auditor
SMP report workshop	29/10/2018	29/10/2018	GHD/Defence/Auditor
Finalise SMP Report	30/10/2018	12/11/2018	GHD/Defence
Community Information Sessions	21/03/2017	25/05/2018	
Community Information Session 1	21/03/2017	21/03/2017	GHD/Defence/Agency/Community
Community Information Session 2	06/11/2017	06/11/2017	GHD/Defence/Agency/Community
Community Information Session 3	TBC	TBC	GHD/Defence/Agency/Community
Community Information Session 4 (Post DSI/HHERA report finalisation)	14/11/2018	14/11/2018	GHD/Defence/Agency/Community
Stakeholder engagement reporting	19/10/2018	31/12/2018	GHD/Defence
Finalise stakeholder engagement reports	13/12/2018	31/12/2018	GHD/Defence
Meetings with Agencies	13/11/2018	14/11/2018	GHD/Defence/Agency
Project Close out	20/12/2018	16/01/2019	GHD/Defence



Australian Government
Department of Defence
Estate and Infrastructure Group

PFAS Investigation and Management
Monthly Report- Jervis Bay Range Facility

13 02 2018

BP3-02-B091

26 Brindabella Circuit
 Brindabella Business Park
 PO Box 7925 Canberra BC 2610

Re: Jervis Bay Range Facility Environmental Investigation – Progress Report January 2018

1.0 Introduction

The following progress report has been prepared by GHD Pty Ltd to provide a summary of activities for the Comprehensive Investigation of PFAS Site Conditions at Jervis Bay Range Facility, HMAS Creswell and surrounds for the period between 31 December 2017 and 30 January 2018.

2.0 Critical items

2.1 New items

- Receipt of WBACC (University of Newcastle) comments to GWMP, with WBACC advising the board is in principal in a position to approve the investigation sampling. (15/01/18)
- GHD issue Defence - Draft Access letter 16/01/18.
- Defence issue land access letter request to WBACC 18/01/18.
- Issue of GHD response to WBACC (UON) comments to GWMP 19/01/2018.
- GHD planning to accompany Defence feral animal control contractors to take opportunity rabbit, & fox samples.
- GHD conducting planning meetings and activities for onsite biota sampling scheduled for 19/02/18.
- GHD issue Defence Investigation area boundary map updated to include marine areas (17/01/2018).
- Defence issue updated PFAS Management Area Plan - PMAP (new naming convention for the Site Management Plan) template and guidance.
- Defence issue Jervis Bay Range Facility - Ansulite Application mapping files from 24 September 2017 event. (21/01/18).
- GHD advise Defence [REDACTED] to be replaced by [REDACTED] to cover maternity absence (24/01/18).

2.2 Previously raised items to be addressed

- The Board of Wreck Bay Aboriginal Community Council (WBACC) was briefed on 11 Apr 2017 to seek agreement to access aboriginal lands for the PFAS investigation. The Board stated that no access to aboriginal lands will be granted, prior to appointment of independent expert to advise WBACC and interpret the sampling plan (SAQP Rev 2.1). This has directly impacted the schedule for DSI works within the '403 land' and the Booderee National Park.
- As a result of the delay associated with accessing aboriginal land the Detailed Site Investigation (DSI) has at this time been undertaken at Defence land, Potable water sources and Block 151 only. The DSI for non-Defence land will commence when approval from WBACC is provided.
- WBACC have engaged The University of Newcastle (UON), Global Centre for Environmental Remediation (GCER) to support reviews of the project documents and provide advice on the investigation. WBACC have advised that support for the issue of a permit will be provided in February 2018.

3.0 Project progress

- The following items have been completed this reporting period:
 - Planning for marine and onsite biota sampling.
 - WBACC advise GHD the board is in principal in a position to approve the investigation on 403 land.
 - Investigation area boundary map created incorporating marine sampling areas.

3.1 Project impacts

- Timing of WBACC permit to conduct investigation on aboriginal lands and associated permit fee.

3.2 Project meetings

Project meetings held this reporting period are presented in Table 1.

Table 1: Summary of meetings held during the January reporting period

Meeting date	Meeting title	Participants	Minutes circulated
Recurring Wednesday's	Weekly meetings	JBRF project team – Defence, GHD & Site auditor	Yes

3.3 Project deliverables submitted this period

Project deliverables submitted during this reporting period are presented in Table 2.

Table 2: Project deliverables submitted during the January reporting period

Document status	Title	Date submitted
Final	Investigation area boundary map	17/01/18

3.4 Project Milestones

The following project milestones were achieved in the January reporting period:

- Ongoing engagement with WBACC with advise received that access to conduct the investigation is approved in principal.

4.0 Project Forecast

The project schedule is presented in the enclosed project schedule, dated 11 December 2017.

4.1 Schedule tracking forecast

- SAQP (Rev 2.1) finalised and issued to Agency and WBACC for review, with comments received and addressed.
- HHERA plan Rev 1.1, finalised and issued to Agency and WBACC for review with comments received and addressed.
- Numerical Groundwater Modelling plan Rev 1.1 finalised and issued to Agency and WBACC for review, with comments received and addressed.
- The project schedule is impacted by the inability to access the Wreck Bay community land. Ongoing negotiations with WBACC are positive, with access to conduct sampling and investigation expected February 2108.

4.2 Project deliverables expected next period

- Recruitment process finalised with WBACC.
- Permit process finalised with WBACC
- Preliminary On site biota sampling.
- Finalise interim HHRA.

4.3 Technical Advisor forecast

The Technical Advisor's achievements and planned activities are presented in Table 3.

Table 3: Technical Advisor achievements and key activities during the January reporting period

Scope item	Achieved to date	Planned for next month
Monitor Project progress and provide comment	Yes	ongoing

5.0 Community enquiries

In this reporting period:

- No community independent enquiries were received via the Community Hotline (1800 987 618) and email (Jervisbay@ghd.com.au)
- There are 0 outstanding stakeholder enquires

6.0 Interaction with Government

Meetings and communications with Government stakeholders are summarised in Table 4.

Table 4: Summary of interactions with Government during the January reporting period

Meeting date	Meeting title	Participants	Minutes circulated
No PCG Meeting this month	N/A	N/A	N/A

7.0 Defence Legal Support

The Office of Defence Special Council is assisting with the following items:

- Nil

9.0 Requests for information from Defence

- All relevant reports and information associated with JBRF environmental assessments and contamination investigations have been provided to GHD by Defence.

10.0 Other Matters

- Nil

Yours sincerely

A large black rectangular redaction box covering the signature area.

CC:

Enclosures: Project Milestone Schedule - Dated 11/12/2017

Project Milestone schedule, dated 11 December 2017

Item	Start	Finish	
SAQP	30/03/2017	15/09/2017	
WBACC, ACT & NSW Agencies review of Draft SAQP Rev 2	04/10/2017	14/11/2017	WBACC & Agencies
Finalise SAQP	TBC		GHD
Off Site Access	20/11/2017	01/03/2018	WBACC/Booderee/GHD/Defence
WBACC board meeting – sampling of 403 land	18/12/17	18/12/17	Defence/GHD/WBACC
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Biota sampling	15/03/2018	10/05/2018	GHD
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WBACC Review of DSI report (If required)?	12/09/2018	02/10/2018	WBACC
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HHERA Plan draft	24/08/2017	01/09/2017	GHD
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WBACC Review of HHERA report (If required)?	TBC	TBC	WBACC
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Stakeholder engagement reporting	19/10/2018	31/12/2018	GHD/Defence
Finalise stakeholder engagement reports	13/12/2018	31/12/2018	GHD/Defence
Meetings with Agencies	13/11/2018	14/11/2018	GHD/Defence/Agency
Project Close out	20/12/2018	16/01/2019	GHD/Defence



Australian Government
Department of Defence
Estate and Infrastructure Group

PFAS Environmental Investigation – Jervis Bay Range Facility
PROJECT CONTROL GROUP MEETING #11

Administrative Details	
Date	Tuesday 20 February 2018
Time	14:00 – 14:20
Venue	Teleconference
Dial-in Details	Toll ----- [REDACTED] Toll-free ----- [REDACTED] Participant PIN: [REDACTED]
Chair	[REDACTED], Defence Project Manager
Minutes	Taken by [REDACTED]

ATTENDEES	
Defence	
[REDACTED]	Project Manager PFAS Branch
[REDACTED]	Project Manager PFAS Branch
[REDACTED]	Commanding Officer HMAS Creswell
[REDACTED]	Project Manager PFAS Branch
Lead Contractor (LC), GHD	
[REDACTED]	Project Director Contamination
[REDACTED]	Principal Environmental Consultant
[REDACTED]	Stakeholder Engagement
[REDACTED]	Project Manager
[REDACTED]	Contamination Project Manager
Site Auditor (SA), AECOM	
[REDACTED]	Environment Defence appointed peer review
[REDACTED]	Environment Defence appointed peer review
Agencies	
[REDACTED]	Senior Environmental Officer NSW EPA PFAS unit
Welcome and Conduct of PCG Meetings	
[REDACTED] Defence PFAS -Welcomed attendees to the JBRF PFAS Investigation meeting.	
[REDACTED] (GHD) notes formal apologies received from Peter Curtis, Glendon Lee, David Clapham	
Investigation Progress Detailed Site Investigation	

1. [REDACTED] provided the following update: as reported previously at this forum, onsite-sampling program largely complete with works commencing this week in the biota sampling areas outside the National Parks area. GHD have embarked on a portion of the biota sampling program in both terrestrial and aquatic environments which will involve collection of over 500 samples including vegetation, macrophytes, vertebrates and invertebrates as detailed in the DSI SAQP.
2. Recent success regarding negotiating access to the Wreck Bay land with WBACC.
3. [REDACTED] noted, permit from Booderee National Parks received, currently waiting on final permit to transport biota out off National Parks (expected within the week), all permits are on track with no issues expected.
4. GHD intend to extend the current mobilisation to include Wreck Bay area and the National Park area from late March 2018 to complete the sampling stages investigation.
5. [REDACTED] Invited comments, queries or concerns:

- Nil

SAQP and Conceptual Site Model

6. [REDACTED] – *Note: topic was not addressed during meeting. Email sent to PCG advising SAQP Rev 2.1 has been updated to Revision 3 Dated February 2018, as final, with no changes to content other than dates.*
7. PCG are invited to request copy of Revision 3.

Future Stages - Human Health and Ecological Risk Assessment (HHERA)

8. [REDACTED] highlighted progress in terms of the Human Health & Ecological Risk Assessment (HHERA) now that the plan is complete has initially focused on the human health risk assessment relating to PFAS that was identified within the four closed loop water systems at the RANSSSS at JBRF. The risk assessment considered users of the facility (trainees, trainers, maintenance contractors, emergency fire fighters), using the water, and considered a whole range of exposures (areoles, dermal and incidental ingestion). The risk assessment concluded that the water used for training activities would not adversely affect the trainees, trainers or others, with no material recommendations to changes in current training practices at these facilities.
9. The risk assessment made recommendations in relation to OHS hygiene practices associated with waste streams.
10. [REDACTED] responding, advised he has recently liaised with RANSSSS Management to discuss the HHRA report they now hold a copy of. RANSSSS management will use this document as a means to continue their training activities unabated. This report also sets the basis for triggering any future PFAS review should routine water samples see elevated levels in PFAS above historical sampling values.
11. [REDACTED] invited Cpt [REDACTED] to respond and asked if there were any questions or comments relating to HHRA. [REDACTED] advised was happy with documentation, confirmed the report had been forwarded and appreciated that Defence PFAS have spoken to individuals concerned personally. [REDACTED] noted individuals were happy with regards to report provided by GHD and that the report will included in the PFAS Management Area Plan for the broader investigation.
12. [REDACTED] Advised what was used to be called the Strategic Management Plan which is the document prepared at the end of the investigation has been renamed to PFAS Management Area Plan (PMAP).
13. [REDACTED] asked GHD for any update of relevance on the numerical ground water model. [REDACTED] commented that this document has been reviewed along with the SAQP and HHERA plans by specialists engaged by WBACC, (University of Newcastle (UON)), who provided comments, these comments have been addressed to the satisfaction of WBACC.
14. [REDACTED] Invited comments, queries or concerns:

- Nil

Site Auditor Update

15. [REDACTED] has reviewed the HHRA for closed loop systems at RANSSSS and provided Defence and GHD comments for incorporation. Other activities have been limited noting permission for off site access is delayed and the SAQP and HHERA plan have been finalised.		
16. [REDACTED] Invited comments, queries or concerns:		
<ul style="list-style-type: none"> • Nil 		
Stakeholder Engagement		
17. [REDACTED] Email/phone contact with Wreck Bay Council ([REDACTED] [REDACTED] [REDACTED] in relation to the access and permitting for access to conduct investigation on Wreck Bay lands and recruitment of Wreck Bay people to assist is moving forward rapidly with significant progress.		
18. [REDACTED] Draft permit conditions have been negotiated and finalised with WBACC expected to issue permit prior to the end of February.		
19. [REDACTED] Review of EPA fact sheet on HMAS Creswell/JBRF completed with inclusion of detail for Jervis Bay Range Facility and correct 1800 PFAS Investigation hotline number. Once endorsed will be provided to NSW EPA for publish on their website.		
20. [REDACTED] Invited comments, queries or concerns:		
<ul style="list-style-type: none"> • Nil 		
Community Enquiries		
21. No activity or calls to the Community Hotline or email inbox.		
Risks and Issues		
22. [REDACTED] requested key risks and issues:		
<ul style="list-style-type: none"> • [REDACTED] Upcoming meeting with WBACC will further define the scope of the permit and recruitment of WBACC assistants, which may impact the project. • [REDACTED] Requirements of the permit and cultural support are to not impede investigation and should have successful outcome. • No further comments 		
PFAS investigation results		
23. All investigation results have been provided to PCG via factual memorandums to date. Factual memorandum 11 and 12 will be provided in near future for RANSSSS closed loop water systems and sewer systems.		
Other Business		
<ul style="list-style-type: none"> • Nil 		
Meeting Close - 14:20 PM		
Actions		
Item	Owner	Due date



Australian Government
Department of Defence
Estate and Infrastructure Group

PFAS Environmental Investigation – Jervis Bay Range Facility
PROJECT CONTROL GROUP MEETING #12

Administrative Details	
Date	Tuesday 20 March 2018
Time	14:00 – 14:20
Venue	Teleconference
Dial-in Details	Toll ----- [REDACTED] Toll-free ----- [REDACTED] Participant PIN: [REDACTED]
Chair	[REDACTED] Defence Project Manager
Minutes	Taken by [REDACTED]

ATTENDEES	
Defence	
[REDACTED]	Project Director PFAS Branch
[REDACTED]	Project Manager PFAS Branch
[REDACTED]	Assistant Director PFAS Branch
[REDACTED]	Regional Public Affairs Manager
Lead Contractor (LC), GHD	
[REDACTED]	Service Line Leader - LC Project Director
[REDACTED]	Principal Environmental Consultant
[REDACTED]	Principal – Stakeholder Engagement
[REDACTED]	Stakeholder Engagement
[REDACTED]	Project Manager
Site Auditor (SA), AECOM	
[REDACTED]	Environment Defence appointed peer review
Agencies	
Mr David Clapham (DC2)	ACT Senior Policy Officer - Intergovernmental Relations
[REDACTED]	NSW Health
[REDACTED]	NSW EPA
[REDACTED]	Shoalhaven Council environmental unit
[REDACTED]	Jervis Bay Territory Administration
[REDACTED]	ACT Construction, Environment and Workplace Protection
Andrew Steadman (AS)	Act Health

Welcome and Conduct of PCG Meetings

() Defence PFAS - Welcomed attendees to the JBRF PFAS Investigation meeting.
 () (GHD) notes apologies received from (), David Clapham

Investigation Progress Detailed Site Investigation

1. () (GHD) Provided an overview of the investigation:
 - GHD have essentially completed the onsite biota sampling both terrestrial and marine, with exception of one marine area.
 - Field teams are now continuing with the six week offsite program for Biota, soil, sediment, surface and groundwater wells.
 - Laboratories are taking longer than expected, with no sample results received at this stage to discuss.
2. () confirmed GHD sampling commenced off the Defence base on 19th March within Booderee National Park (BNP) and 403 lands, continuing for a six week program..
3. () provided an overview of the arrangements in place with WBACC permitting sampling within BNP/403 land:
 - GHD liaised with WBACC to identify requirements to access 403 land and have received a permit which allows the investigation sampling to proceed. Permit conditions included cultural supervision of sampling activities.
 - Two cultural supervisors (male and female). have been engaged to inspect the sampling sites and supervise the investigation activities.
 - In addition other employment opportunities have been provided to the community, including a field hand to assist GHD sampling teams and gain practical experience of sampling techniques. An administration support assistant has also been engaged (in a limited capacity) to assist with community messaging and coordination.
 - An informal community BBQ was held on Sunday 11 March, to inform the community of the upcoming sampling activity, introduce the GHD sampling team and allow the cultural supervisors to interact with other members of the community to gain additional cultural knowledge near sampling sites.
 - An inception meeting was also held on 19 March to introduce and discuss GHD safety policies, cultural awareness and discuss the upcoming sampling program and locations.
4. **Comments Requested**
 - Nil
5. Shane Pickering – Shoalhaven City Council (SCC) environmental health officer, provided an introduction to the PCG.
 - Shoalhaven Council have joined the PCG as observers of the JBRF and Albatross investigations.
 - Jervis Bay Territory is outside of SCC jurisdiction; however has potential to affect the catchment of St Georges Basin and other areas within the Shoalhaven.
 - () role is to observe the investigation process and inform the councillors of any issues or impacts.

SAQP and Conceptual Site Model

6. () – *Note: topic was not addressed during meeting. Email sent to PCG advising SAQP Rev 2.1 has been updated to Revision 3 Dated February 2018, as final, with no changes to content other than dates.*
7. *PCG are invited to request copy of Revision 3.*

Future Stages - Human Health and Ecological Risk Assessment (HHERA)

<p>8. [REDACTED] identified that there has been no progress on the HHERA at this stage as the investigation data required is currently being collected.</p> <p>9. All effort to date has focused on the RANSSSS human health risk assessment, which considered the PFAS levels within the closed loop water system used by trainee's and staff at the firefighting school. This risk assessment is now finalised and concluded the water used for training activities would not adversely affect the health of staff or trainees using the facilities water systems and did not identify any significant recommendations in addition to the current controls in place.</p> <p>10. Comments Requested</p> <ul style="list-style-type: none"> • Nil
Site Auditor Update
<p>11. [REDACTED] Site auditor visited site on 27 & 28 February to observe GHD biota sampling techniques and sample locations. GHD aquatic and terrestrial biota collection was scrutinised, with no issues to report.</p> <p>12. Comments Requested</p> <ul style="list-style-type: none"> • Nil
Stakeholder Engagement
<p>13. [REDACTED] Provided an update of community engagement and employment opportunities.</p> <ul style="list-style-type: none"> • A casual BBQ was held at Wreck Bay on 11 March, attended by twelve community members, GHD staff and Defence base representatives to explain the detail and timing of the investigation activities, to avoid surprising anyone within the community. The BBQ was promoted by WBACC with the aim to further communicate the investigation activities to the wider community. • No formal presentation was provided, rather the investigation plans and detail was identified using maps to show the various activities and locations over the six week investigation program. An informal Q&A session allowed the investigation team to inform the community of sample methods, general PFAS information and receive site knowledge and cultural awareness. • The employment opportunities provided by the investigation include: <ul style="list-style-type: none"> ○ Two cultural supervisors, male and female as a shared role to provide guidance within the male and female cultural areas. Aunty Rhonda is an elder lady living within the community for many years and Russell Brown is an ex federal police officer who has returned to the community after 26 years in the force. ○ One field hand assistant, Kristy Brown to assist the sampling investigation team. ○ One administration assistant, Aunty Maxine who is another elder who assists with administration tasks and community messaging. <p>14. [REDACTED] The inception meeting held 19/03/18 was attended by GHD sampling teams, drill rig operators and service locators and the four local indigenous support staff, discussion points included:</p> <ul style="list-style-type: none"> • A lengthy discussion provided by the cultural supervisors, explained the history, heritage and cultural significance of the land. • GHD safety procedures and policy. • Sampling areas, program, access and supervision requirements. <p>15. [REDACTED] The cultural awareness training provided at the inception meeting to the GHD team was powerful messaging delivered by the cultural supervisors. The delivery of this messaging and the attention it was given is allowing a very good level of trust and cooperation to be developed which was evident towards the end of the meeting. The value of the engagement activities over the last twelve months and recent meetings were acknowledged with the community now displaying a willingness to share information, cooperate and understand the investigation.</p> <p>16. Comments Requested</p> <ul style="list-style-type: none"> • [REDACTED] Did the BBQ raise any concerns on the health impacts of PFAS. [REDACTED] Yes the community are looking for answers as they have had unexplained illnesses within the community • [REDACTED] Satisfied that community engagement is very positive.
Community Enquiries

17. No activity or calls to the Community Hotline or email inbox.		
Risks and Issues		
18. PCG invited to identify Key Risks		
<ul style="list-style-type: none"> • [REDACTED] Fisheries management and communications to the community is a risk of public backlash, how will the results be provided to the community. <ul style="list-style-type: none"> ○ [REDACTED] As results are received they are provided to the PCG and formally provided to the EPA. The EPA is responsible for the issue of any public advice that may arise out of the investigation sampling results. ○ [REDACTED] Confirmed the results, when provided, are assessed by the OEHS science division who develop advisories as required, such as precautionary advice for the fish types that have been sampled. ○ [REDACTED] Defence and EPA work together to position Defence to respond to public enquiries, should any advisories that may be issued. ○ [REDACTED] Identified the importance of SCC being aware of any advisories prior to issue should the Council be approached to respond, if required. • [REDACTED] Questioned the results data sharing protocol with WBACC. <ul style="list-style-type: none"> ○ [REDACTED] Normal practise is for landowners to be provided with a copy of sample results, however noting the volume of samples being analysed from Wreck Bay an alternative method of presentation may be required to be developed to improve the understanding of these results. ○ [REDACTED] A community information session will be scheduled to discuss the DSI results, plus another information session at the end of the investigation to discuss management options. ○ [REDACTED] Identified that other contaminate results, not just PFAS are expected to be reported to the community, as historical hydrocarbon contamination remains a community concern. ○ [REDACTED] Defence issues results letters as soon as practical after analysis is complete, continuing engagement with the WBACC board is required to allow communication to both the board and the community. ○ [REDACTED] Providing results to WBACC board, will not necessarily mean the information is communicated to the entire community. The local Bulletin is an effective means of providing the community with updates and testing results. 		
PFAS investigation results		
19. No new investigation results have been received this period, with all results to date provided to PCG via factual memorandums.		
Other Business		
• Nil		
Meeting Close - 14:45 PM		
Actions		
Item	Owner	Due date



Australian Government
Department of Defence
Estate and Infrastructure Group

PFAS Environmental Management Program
Monthly PCG Meeting (13) – JBRF

Administrative Details	
Date	17 April 2018
Time	14:00hrs (AEDST)
Venue	Teleconference
Dial-in Details	[REDACTED] Australia Toll free Access code: [REDACTED]
Chair	[REDACTED]
Minutes	GHD
Attendees	
[REDACTED]	[REDACTED]
[REDACTED]	[REDACTED]
[REDACTED]	[REDACTED]
[REDACTED]	[REDACTED]
[REDACTED]	[REDACTED]
[REDACTED]	[REDACTED]
[REDACTED]	[REDACTED]
[REDACTED]	[REDACTED]
[REDACTED]	[REDACTED]
[REDACTED]	[REDACTED]
[REDACTED]	[REDACTED]
[REDACTED]	[REDACTED]
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[REDACTED]	[REDACTED]
[REDACTED]	[REDACTED]
[REDACTED]	[REDACTED]
[REDACTED]	[REDACTED]