



Airservices Australia

Sunshine Coast Airport

Preliminary Site Investigation

March 2019

Executive summary

Airservices Australia (Airservices) engaged GHD Pty Ltd to conduct a Preliminary Site Investigation (PSI) at the Sunshine Coast Airport (SCA) with particular regard to the potential for contamination from per- and poly-fluorinated alkyl substances (PFAS).

Based on the review of available site history information, site inspection and site interviews, the following potential sources of PFAS have been identified:

- Areas in which Aviation Rescue Fire Fighting ARFF operate or have historically operated including:
 - The Former Fire Station and surrounding area
 - Fire station wash down areas and runoff
 - Former performance testing areas in grassed sites
- Incidents that may have included the discharge of foam including:
 - An Ansulite spill at the current fire station resulting in foam discharge into the main surface water drain
 - A small plane incident resulting in an operational release to the north west of the runway
- Other possible sources:
 - Irrigation of vegetated areas of the site with the fire trucks
 - Existing and former surface water drainage channels
 - Sediment routinely removed from airport drains and relocated on the site
 - Soil and sediment removed on the site when the drains were relined

The desktop review identified the following potential sensitive receptors:

- Site workers
- Nearby residents using spear pumps
- Consumers of potentially impacted seafood from the down gradient surface water receiving environment of the surrounding marine ecosystem and Wallum Heath
- Recreational users of the surrounding potentially impacted marine systems (e.g. canals) and Wallum Heath
- Flora and fauna in the potentially impacted hydraulically down-gradient marine surface water receiving environment of the marine ecosystems and Wallum Heath
- Terrestrial fauna consuming potentially impacted plant material

Based on the data obtained in the preliminary and targeted soil, surface water and groundwater sampling, the following summary is made:

- The primary source (use of AFFF containing PFAS) no longer exists. Secondary sources include residual soil and groundwater contamination, notably at the former fire station and the current fire station.
- Soil results reported PFAS concentrations were either below the laboratory LOR or adopted human health and ecological guidelines, indicating that in the areas sampled, soils do not present an unacceptable risk to human health and ecological receptors.

- One groundwater sample GW06 (near old fire station) has reported PFOS & PFHxS (sum) greater than the adopted drinking water criteria. As the site is located in an urbanised setting where council water supply is available, it is unlikely that groundwater onsite is extracted for potable purposes. Therefore, the likelihood of human health exposure via drinking water is considered low.
- Surface water samples reported concentrations of PFASs below the ecological and recreational guidelines. However, it is noted that the HISL for consumption of fish is lower than the laboratory limit of reporting.

This report should be read in accordance with the limitations set out in Section 10.

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1. Introduction

Airservices Australia (Airservices) engaged GHD Pty Ltd (GHD) to conduct a Preliminary Site Investigation (PSI) at the Sunshine Coast Airport (SCA) with particular regard to the potential for contamination from per- and poly-fluorinated alkyl substances (PFAS).

1.1 Background

Aqueous film-forming foam (AFFF) has been used for fire-fighting purposes around Australia for decades. On airports, AFFF has been used at fuel depots, hangars and for operational and fire training purposes at aviation rescue fire-fighting (ARFF) areas.

AFFF has not been used for aviation rescue and fire-fighting by Airservices since 2010 but continues to be used around fuel depots, hangars and similar, at many airports, including the SCA. AFFF products historically used on airport sites contained PFAS. Depending on the type of AFFF used, the principal PFAS constituents could have included perfluorooctane sulfonate (PFOS), perfluorooctanoic acid (PFOA) and fluorotelomers such as 6:2 fluorotelomer sulfonate (6:2FtS) and 8:2 fluorotelomer sulfonate (8:2FtS).

1.2 Objectives

The objective of this PSI is to identify where there is potential for PFAS contamination to be present at the SCA as a result of previous activities by ARFF and other AFFF users. The report also seeks to identify potential sensitive receptors and stakeholders that may be impacted by possible PFAS contamination originating from the SCA.

1.3 Scope

The scope of work for the PSI included:

- Review of historical aerial photographs to gain an understanding of site development over time and identify potential areas where AFFF may have been used.
- Review of current certificates of title and key lessees to identify site activities that may have included the use of AFFF.
- Review of published data on geology, hydrology and hydrogeology to gain an understanding of site conditions and identify sensitive receptors.
- Search of the groundwater bore database to understand beneficial uses for groundwater in the area.
- Review of historical reports provided by Airservices to provide some background to previous investigations and site conditions.
- A detailed site inspection to gain an understanding of site condition and inspect areas where there is potential for AFFF to have been used.
- Interviews with personnel who have an understanding of current and historical site activities to identify areas where AFFF may have been used.
- Preliminary, targeted soil, surface water and groundwater sample collection.
- Development of a Conceptual Site Model (CSM) and potential source, pathway, receptor linkages.
- Conclusions

2. Data quality objectives

The Data Quality Objective (DQO) process was applied to the PSI as described below, to ensure that data collection activities were appropriate and achieved the stated objectives. The DQO steps defined above have been addressed as follows.

Table 1 Data quality objectives

Step	
Step 1: State the problem.	<p>Where was AFFF historically used on the Airport site?</p> <p>Do possible source, pathway, receptor linkages presents an unacceptable risk?</p>
Step 2: Identify the decision.	<p>To address the problem set out in Step 1, the following decisions are required to achieve the task objective and to identify data gaps and additional information that may be required:</p> <ul style="list-style-type: none"> • What activities have occurred at the site which may have involved the use of AFFF? • What types of AFFF have been used? • Where was AFFF stored on site? • What is the nature of the contaminant migration pathways, particularly leading off the site? • What sensitive receptors are present at and surrounding the site?
Step 3: Identify inputs to the decision.	<p>To inform the decisions and identify key data gaps and needs, the following information is considered necessary:</p> <ul style="list-style-type: none"> • Review of site conditions • Review of available history information • Interviews with site personnel • Detailed site inspection • Development of a Conceptual Site Model
Step 4: Define the study boundaries.	The SCA property boundaries.
Step 5: Develop a decision rule.	<p>The key decision rules are:</p> <p>Are there areas of the site, outside the current fire station, former fire station, where PFAS may be present and does this present 1) a potential unacceptable risk, or 2) a risk that contamination may be migrating off-site?</p> <ul style="list-style-type: none"> • If NO – further investigations can be targeted in these known (source) areas. • If YES – more extensive investigations may be required to target broader areas of the site and understand the potential for off-site contamination.

Step	
<p>Step 6: Specify limits on decision errors</p>	<p>There is potential for anecdotal information to not always be accurate or to be limited in nature, and it is also difficult to assess site activities from historical aerial photographs based on poor resolution. Where possible, any potential sources of PFAS contamination will be cross checked through multiple lines of evidence.</p> <p>The two decision errors that exist include:</p> <ul style="list-style-type: none"> • False positive – an area identified as potentially containing PFAS does not. • False negative – Areas containing PFAS are not identified. <p>These can be managed through the implementation of a sampling program to confirm the PSI findings.</p>
<p>Step 7: Optimise the design for obtaining data.</p>	<p>The CSM design will be optimised through:</p> <ul style="list-style-type: none"> • Identification of potential PFAS sources from existing information and investigations conducted by others. • A preliminary and high level review of the likely hydraulic characteristics of the upper aquifer to estimate the groundwater flow direction and seepage velocities at various locations of the site. • A review of the surface water pathways (hydrology) across and leaving the site.

3. Site information

3.1 Site location

The SCA is located near the Maroolia Beach at Sunshine Coast Queensland (QLD). Formerly referred to as the Maroochy Airport, the SCA has been located on this site since 1958, starting as a light aviation grass facility. There have been numerous runway upgrades since the first sealed runway was created in 1961. The facility was renamed the Sunshine Coast Airport (SCA) in 2010 and currently services Sydney, Melbourne and Adelaide with daily flights. The airport supports 737-800 and Airbus A320 aircraft and also hosts twice-weekly flights to Auckland.

The airport has one main runway and a smaller secondary runway (for general aviation). According to site interview information, the SCA hosts one of the largest helicopter training facilities in Queensland.

The site location is outlined in Figure 1 in Appendix A and location details are provided in Table 2.

Table 2 Site identification

Street Address	Friendship Avenue, Maroolia, QLD
Site Area	Approximately 131 Hectares (Ha)
Title Identifiers	Lot 699 SP261024
Current Land Use	Airport and associated commercial enterprises

3.2 Lease information review

The current and historical lessee within SCA are summarised in Table 3, and current certificates of title/lease are provided in Appendix B. The lessees identified are those that are considered to have a major presence on site and/or the potential to undertake activities that could cause contamination. Others are also included on the certificate of title which are not identified here based on their lesser relevance to this investigation. There was no information provided regarding the leased areas of these leases.

Table 3 Certificate of title lessee summary

Owner	Lot/ Plan	Lessee / Date
Sunshine Coast Regional Council	Lot 699 SP 261024	Runway Pty Limited. Term: 1 July 1988 – 30 June 2007
		Coeur De Lion Investments Pty Limited. Term: 26 Feb 1990 – 25 Feb 2010
		Kabaskel Pty Ltd. Term: 26 Feb 1990 – 25 Feb 2010
		Durelio Pty Ltd. Term: 1 July 1991 – 30 June 2011
		Navair International Flying College Pty Ltd. Term: 1 Jan 1994 – 31 Dec 2023
		Maroochy Airport Terminal Services Pty Ltd. Term: 1 Nov 1994 – 31 Oct 2024
		Shell Aviation Australia Pty Ltd
		Aeromech Pty Ltd. Term: 1 July 1994 – 30 June 2024
		(sub lease) Aeromil (Australia) Pty Ltd. Term: 1 Nov 1995 – 29 June 2024
		Bradberg Pty Ltd. Term: 1 July 1995 – 31 Oct 2024
		Tofto Pty Ltd

Owner	Lot/ Plan	Lessee / Date
		NX-01 Pty Ltd
		De Scribe Solutions Pty Ltd
		Sunshine Coast Helicopter Rescue Service Ltd
		Suncoast Flying Services Pty Ltd
		Aero Dynamic Flight Academy Pty Ltd
		Advanced Flight Theory Pty Ltd. Term: 1 Feb 1997 – 31 Jan 2027
		Sunshine Coast Helicopter Rescue Service Ltd. Term: 1 July 2004 – 30 June 2024
		W.T.H. Pty Ltd. Term 1 Jan 2006 – 31 Dec 2020
		Airservices Australia. Term: 1 Jan 2009 – 31 Dec 2033
		CLA Trading Pty Ltd. Term 1 Dec 2008 – 30 Nov 2013
		W T H Pty Ltd. Term: 1 Dec 2008 – 30 Nov 2013
		Budget Rent A Car Australia Pty Ltd. Term: 1 Dec 2008 – 30 Nov 2013
		Hertz Australia Pty Ltd. Term 1 Dec 2008 – 30 Nov 2013
		Kingmill Pty Ltd. Term: 1 Dec 2008 – 30 Nov 2013
	Lot 699 SP214349	Airservices Australia Term: 1 Jan 2009 – 31 Dec 2033

3.3 Site description

A site inspection was completed by GHD (accompanied by Airservices) on 20 July 2016. A summary of the findings is provided below. Site photographs taken during the inspection are included in Appendix C.

Key site features are shown on Figure 1 and Figure 2 in Appendix A. They include:

- Runway and small secondary runway
- Helicopter training areas
- Terminal
- Aircraft and helicopter hangars
- Former fire station (FFS)
- ARFF station
- Surface water drainage channels

The areas surrounding the major infrastructure are characterised by grass and a series of surface water drainage channels. Large portions of remnant native vegetation are located within the internal vegetated area, located in the western and northern portions of the site. The runways and terminals are located on fill platforms surrounded by marshy vegetation.

3.3.1 Runway

The SCA includes one major runway, that runs in a northeast to southwest direction, and a minor runway (for smaller craft) which runs in a northwest to southeast direction. A series of

taxiways to the western side of the major runway links to the runway apron adjacent to the terminal building in the southwestern portion of the site.

3.3.2 Helicopter training areas

The SCA has a large helicopter training facility and has training contracts with many international companies. There is a large helicopter lay down area south of the minor runway and to the west of the main taxiways, apron and terminal building.

3.3.3 Terminal

The terminal is located on the southwestern portion of the site and includes both domestic and international terminals. Short term parking is located to the west of the terminal, with long term parking and car hire south of it. There is also some additional car hire services to the northwest of the terminal, on the eastern side of Eastern Avenue. The terminal and car parking areas are characterised by hardstands with some garden beds on the perimeter of the car park, near the site entrance.

A number of freight facilities are located directly to the west of the terminal.

3.3.4 Aircraft hangars

A series of aircraft hangars are located in the western portion of the site, to the south of the smaller runway. The hangars are leased by light aircraft and helicopter operators. Although a detailed inspection of this area was not undertaken, it is understood that the hangars do not contain stormwater collection. Firefighting infrastructure within the hangars is understood to be limited to handheld fire extinguishers.

The hangars and associated aprons have sealed surfaces with small garden beds and grassed footpaths.

The former fire station (FFS) was previously located within the footprint of these hangars and is marked on Figure 2.

3.3.5 Former fire station (FFS)

As discussed above, the FFS was located within the hanger area in the western portion of the site, south of the small runway. The FFS previously had grassed surrounds to the west of the hanger, where occasionally fire extinguisher training would take place. Trucks and equipment would be washed down to the north east of the hanger on the hardstand, with runoff progressing to the grassy beds between the taxiways.

The FFS site has however been renovated since ARFF relocated to the current ARFF station site. The renovation extended the hanger to the west and covered the western grassed surrounds, but the northwestern areas have not changed.

The SCA has no current or former fire training area associated with ARFF activities.

3.3.6 ARFF Station

The current ARFF station is located to the east of the main runway directly adjacent to residential housing on the eastern side of the boundary fence. The ARFF station consists of a double story building, fire truck garage, AST and bund and crib area.

The fire truck garage is surrounded by hard stand which drains to a surface water collection system. The system includes a collection pit and raised filtration trap. All water from the hardstand that passes through the treatment system is discharged to sewer. The hose drying rack is located on a portion of the hardstand separate from the vehicle wash down. Water from

the hose drying rack discharges to the collection point. There is also a collection trap inside the garage.

The garage hardstand edge is not bunded and runoff could flow to the open drain to the west of the station.

There is a diesel bowser located near the centre of the hardstand area which is fed by a diesel above ground fuel tank located to the west of the fire station. This area is sealed, but not bunded. The AST sealed area is also host to a foam tank and a number of 1,000 litre intermediate bulk containers (IBCs) containing RF6 foam concentrate (which were located on pallet bunds).

Open surface water drainage channels are present directly to the west of the fire station.

There is no fire training ground at the SCA. All training is undertaken off site at Brisbane Airport.

3.3.7 Surface water drainage channels

Surface water drainage channels transect the site, with the major channels running parallel to and either side of the two runways. The main channel lies to the east of the main runway and runs between it and the ARFF station (i.e. to the west of the station). An additional drain runs from north to south (to the small runway) and from east to west (stopping prior to the main runway)

There is also a series of minor open surface water drainage channels through the airport, redirecting surface and groundwater to the surrounding Wallum Heath conservation area surrounding the airport.

3.4 Surrounding land uses

Land uses immediately surrounding the airport are summarised as follows and are shown in Figure 1 in Appendix A:

- **North** – David Low Way, Mt Coolum National Park and medium density residential properties
- **South** – David Low Way, Northshore multi-sports complex, medium density residential with some commercial development and Maroochy River Conservation Park
- **East** – Medium density residential and commercial development along Marcoola beach then Pacific Ocean
- **West** – Sunshine Motorway, a mixture of vacant and conservation land, then Paynter River and Maroochy Wetlands Conservation

3.5 Key stakeholders

The following key stakeholders have been identified at the site:

- Site lessees
- Nearby residents
- Commercial and recreational fisherman operating in Paynter River and other marine areas

4. Site conditions

4.1 Topography

The SCA is located on a coastal plain with generally flat topography and low elevation (less than 5 metres above Australian Height Datum - mAHD). The majority of the use zones on site have been built up compared to the natural ground level to establish a relatively consistent, flat working area.

The vegetated areas to the west of the main runway and north and west of the smaller runway are presented as marshy wetland. These areas were observed to be inundated at the time of the site visit.

4.2 Geology

4.2.1 Regional geology

The Queensland Government Mines online map (<https://minesonlinemaps.business.qld.gov.au/>, assessed on 13 July 2016) indicated that the surface geology of the site is characterised as Quaternary aged unconsolidated sediments, comprised of quartz sand with poor to moderately well-developed soils, underlain by the late Triassic to early Jurassic Bundamba Group formation, which include sandstone, siltstone, shale and conglomerate rocks.

4.2.2 Soil profile

No in-situ soil profile information from previous investigations was available for the site, however, based on the stratigraphy information obtained through the hydrogeological review (Section 4.4), the soil profiles appeared consistent with the regional geology information.

4.3 Hydrology

The nearest surface water bodies adjacent to the site include the following (refer to Figure 2):

- Marcoola Beach/Pacific Ocean (located approximately 0.5 km east from the site)
- Paynter River/Maroochy River (located approximately 2.2 km west from the site)
- Twin Waters (located approximately 2.2 km south from the site)

There are several surface drains on site, surrounding the site boundaries of the airport, and running between the apron and runway. Based on the site topography, all captured stormwater in the surface drains discharges south into the Twin Waters and Maroochy River and ultimately to the ocean.

Groundwater 'daylights' (rises above the surface) at most vegetated areas of the site and these areas present as marshy wetlands. Groundwater is observed through most times of the year, not just at times of high rainfall.

4.4 Hydrogeology

A search of the Department of Natural Resources and Mines 2015, *Groundwater Database Bore Reports*, Queensland State Government, Brisbane, identified three bores (RN164077, RN156610 and RN156609) within 1 km of the site.

According to the Groundwater Database Bore Reports, standing water levels range from 10.7 m (164077), 2 m (156609) and 0.4 m (156610). There was limited information regarding water quality on the Groundwater database. Bore RN164077 had a field measured electrical conductivity of 1720 $\mu\text{S}/\text{cm}$. Water from bore RN156610 was noted as being brackish.

Information regarding lithology and stratigraphic descriptions was recorded for the three bores. The information provided indicated the top 0 m to 6.1 m (mbgl) of RN 164077 strata consists of dark sandy soil and underlain by weathered bedrock and sandstone/silty sand. For the other two bores, RN156610 strata consisted of a silty sand from 0 m to 5 m (mbgl) and RN156609 consisted of alternate levels of sand and silty sand from 0 m to 0.8 m (mbgl). This supports the regional geology description. No aquifer information was provided for any of these wells. It is important to note that unregistered and private bores may also exist. The extent of any saltwater intrusion and tidal influence in this area is unknown.

Groundwater bore data and search results are provided in Appendix D, groundwater bore locations and bore IDs are included in Appendix A, Figure 2.

4.5 Surrounding environment

The vegetated areas surrounding the SCA, adjacent to the west of the airport boundary is the Wallum Heath Conservation Area. This area is listed as a Protected Area and a Nationally Important Wetland under the *Environment Protection and Biodiversity Conservation Act 1999* (EPBC). A search of the SCA location was undertaken using the EPBC Protected Matters Search Tool.

Vegetation characteristic of the Wallum Heath conservation area extends into the airport, however the area within the SCA boundary does not carry this protected area listing.

5. Site history

5.1 Aerial photographs

A review of historical aerial photographs taken between 1958 and 2015 was completed. A summary of the key findings is outlined in Table 4. Copies of the photographs are provided in Appendix E.

Table 4 Historical aerial photograph summary

Date	Description
1958	<p>The image shows little to no indications of development on the site and in the surrounding areas.</p> <p>The coastline is visible running north-south to the east of the site.</p>
1967	<p>The airstrips appear to be under construction and are visible as long strips of exposed soil. The area of the current terminal buildings and carpark (southwest of the site), appears to have been cleared of vegetation for construction and some small buildings were noted.</p> <p>Residential developments are visible to the north, east, southeast and southwest of the site. A number of roads are now apparent in the surrounding area.</p> <p>Land to the west of the site appears to be used for agriculture.</p>
1977	<p>The main airstrip appears to have been sealed, while the smaller one (running north west to south east) remains evident only as a cleared area. The southwestern portion of the site have further developed where more buildings and infrastructures noted.</p> <p>More residential developments were noted along the eastern side of the airport, where further subdivision of the land were evident compared to the 1967 aerial image.</p>
1988	<p>The runway appears to have been extended to the north. The buildings at the south west of the site appeared clearer in the 1988 aerial imagery, and is likely associated with the former temporary terminal and apron.</p> <p>Development along the eastern boundary of the site appears to have continued with a number of houses and streets visible.</p>
1999	<p>A large building is visible at the south west of the site with a number of smaller buildings to the north west and south. A large car park is visible to the west of the larger building.</p> <p>The smaller airstrip appears to have been sealed.</p> <p>The number of houses to the east of the site appears to have increased.</p> <p>An industrial area is visible to the west of the site.</p>
2008	<p>No apparent changes are visible on site.</p> <p>Construction of the Sunshine Motorway is visible to the west of the site.</p> <p>An area of exposed soil is visible to the south east of the site.</p>
2015	<p>The ARFF area is visible as a large sealed area.</p> <p>An area at the south west of the site appears to have been cleared of vegetation, which is likely associated with the extension of the apron area.</p>

5.2 Previous reports

The following previous contamination assessment reports were provided by Airservices to GHD for review and consideration as part of the PSI. The scope and key outcomes of these are summarised below.

5.2.1 Preliminary Site Investigation, 2009

Preliminary Site Investigation, ARFF Area, Sunshine Coast Airport, Maroochydore, Qld, Sinclair Knight Mertz, 6 March 2009

- Assessment was undertaken to determine the potential for contamination issues in the area of a proposed ARFF Fire Station Complex as a result of historical or current activities
- The site has undergone little development in the past sixty years
- Potential sources or causes of contamination identified include:
 - Fill material within the site
 - Use of pesticides for maintenance of the site
 - Potential Acid Sulphate Soils (ASS)
 - Residual contaminants from roadworks activities
- No other chemicals of significant quantity are likely to have been used within the subject site
- The risk of potential acid sulphate soils (ASS) occurring on the proposed ARFF Fire Station Complex was considered to be medium to high

5.2.2 Limited Site Contamination Assessment, 2009

Limited Site Contamination Assessment Letter Report, ARFF Pre-Lease Area, Sunshine Coast Airport, Maroochydore, Queensland, Sinclair Knight Mertz, 3 June 2009

- Investigation conducted to establish baseline soil contamination data for pre-lease due diligence.
- Collection of 13 surface soil samples from 12 locations across the site and analysis for a broad range of contaminants including metals and petroleum hydrocarbons. PFAS was not included in the analytical suite.
- None of the laboratory results exceeded the adopted site assessment criteria.

5.3 ARFF Operational Response System

Airservices provided GHD with a copy of the ARFF operational response system (ORS) outputs for Sunshine Coast Airport. The ORS is used to document incidents and includes details of materials used, vehicles involved and actions taken. The recorded incidents and summary of the ORS outputs is provided in Table 5.

Table 5 ORS output summary

Incident date	Incident location and description	Materials used	Actions taken
1 November 2005 (Incident No. 38)	Aircraft (Hawker Hunter) crash on Runway 36	800 L water 50 L foam	A Hawker Hunter aircraft crash landed on Runway 36 and skidded along the runway and off the end into the overshoot area, coming to rest approximately 60 m from the end of runway. No fire observed at the crash site, however a precautionary foam blanket was applied underneath the aircraft during the rescue.
6 May 2006 (Incident No. 57)	Aircraft (Moonie M20F) crash on the opposite of Taxiway Bravo 1, on the grass flight strip just off the bitumen runway (20 m north of the end of runway 30)	300 L water 60 L foam	No fire observed at the crash site, however a precautionary foam blanket was applied underneath the aircraft during the rescue.

5.4 Interviews

GHD and Airservices conducted site interviews on the 20 July 2016 with the following personnel:

- [REDACTED] - General Manager – Sunshine Coast Airport
- [REDACTED] – Fire Station Manager – Airservices Australia
- [REDACTED] – Airservices Australia
- [REDACTED] – Airservices Australia
- [REDACTED] – Airservices Australia

Mr [REDACTED] has been at the SCA for a period of 12 months.

All Airservices personnel listed above have been at the SCA since 2004.

A summary of the key findings from interviews is provided in Sections 4.3.1 and 5.4.2. A transcript of the interviews is provided in Appendix F.

5.4.1 Sunshine Coast Airport General Manager

[REDACTED] is not aware of any historical PFAS reports of groundwater investigation on the site. He has been at the SCA for a period of 12 months, but has not heard of any investigations.

[REDACTED] is not aware of major cases of bulk earthworks, however stated that the open drains on site are routinely cleaned of sediment and this material was relocated to another area on the SCA. Historically the drains were excavated and sealed with concrete. He knew of the works to seal the drains but was unaware if this material had been relocated on site, or had been removed off site. The drain sealing was undertaken in approximately 2012-2013.

[REDACTED] discussed that the SCA was soon to be undergoing renovation, with an additional runway running northwest to south east with the footprint extending to the northwest, reclaiming vegetation areas outside of the current airport boundary. There are no new fire stations proposed with the additional runway as the required emergency response times can be maintained.

5.4.2 Airservices Australia Fire Station Manager and team

Airservices has operated at the SCA since approximately 2004, and was originally located at the FFS near the other aircraft hangers. The FFS has since been converted into the McDermott Aviation hanger. Prior to 2004, Queensland Fire and Rescue attended the site in emergency scenarios. Airservices had made occasional visits to the SCA prior to 2004, in times of large events. One event that [REDACTED] mentioned was during the Commonwealth Heads of Government Meeting (CHOGM) in 2002.

Airservices moved from the FFS to the current station in May 2010. A discussion on incidents and details of PFAS discharge are discussed in the points below:

Incidents

Apart from the ORS output information (Section 5.3) that documents the use of foams on site, there was one incidental release of foam in late 2010. [REDACTED] indicated that this incident was advised to him after he took over the station manager role, but it is not documented in any of the provided documents.

- The discharge of foam (6%) at the new fire station occurred in approximately late 2010. The discharge was overflow from the concrete pad to the west of the garage. The product flowed overland to the west and into the open drain, north to the driveway bridge. This flowed south with drain flow and eventually off site to the south. Airservices has estimated the volume of spill was approximately 1500-2000 L (approximately 90-120 L of concentrated foam).
- However, as this incident was not recorded in the Airservices incident log, it is unclear if the foam was Ansulite or Solberg RF6, as the transition from Ansulite to Solberg RF6 occurred in October 2010. [REDACTED] indicated the incident seem to have happened when the staff were being advised of a change in practice concerning the position of the foam switch, which might be associated with the transition in foam use.
- [REDACTED] was asked about 'dribbles' of foam from the truck foam tank during truck movement. Site history from other airports indicated that the Mk5 trucks could spill small quantities of foam from the hose connection. [REDACTED] commented that he knew that this could happen, however he did not notice that this happened very often. He had noticed small drops occasionally, however not often. The perimeter roads at the SCA are in poor condition and a lot of off road areas are flooded by surface/groundwater and therefore most driving occurs on the sealed taxiways and runway (at low speed). Due to the smooth driving conditions and low speed, limited dribble release may have occurred.

Former Fire Station

- At the FFS, Airservices used a 5,000 litre diesel-type AST (provided by SCA) to store Ansulite. The tank was self bunded and the inner skin disintegrated after approximately two years, however no external leaks were noted.
- Historically, there has not been any fire training at the SCA. All training is undertaken at the Brisbane Fire Training Ground. While some fire extinguisher training has occurred in the grassy area surrounding the FFS, this was understood to have been with CO₂ and dry chemical powder extinguishers rather than with foam extinguishers. There had been a number of times where spent fuel drums were cut and set alight at the FFS for the purposes of fire extinguisher training. However, no AFFF was used at FFS.

- Trucks were occasionally tested (performance testing) in the vegetated areas near Gate 16, into the Wallum Heath vegetation and also outside of the FFS. The performance testing was undertaken monthly; however, it was not known how often it was done near Gate 16. [REDACTED] commented that he was present during one event, however he commented that it was likely that this would have happened more than the one time that he was present.
- Wash down of trucks was undertaken on the concrete outside (and to the north) of the FFS. All wash down solution would run over the concrete and onto the grass area near the taxi way. There was no interceptor or collection point at the FFS. Additional to the wash down, the contents of hoses would run onto the area north of the FFS as the hoses did not vacuum back residual foam like the modern hoses.
- Product was disposed of (cleaning trucks or washing equipment) as per the wash down location above. There was no other site at the SCA for Airservices to undertake this activity.

Current Fire Station

- There was an incidental discharge of foam¹ at the new fire station which was discussed previously (at the beginning of this section). There have been no other spills that the Airservices team could remember.
- There is an 8,000 litre foam tank at the new station. This tank has never contained Ansulite or other PFAS-containing foams. Ansulite was brought to the new fire station from the FFS in IBCs and stored in these. All IBCs were removed from site (some still contained product) within the first couple of years of the new station operation. Approximately 10-12 IBCs were removed from the site. The bulk foam tank is currently, and has only ever been, used to contain Solberg RF6.
- Large portions of the open drain outside of the current fire station were excavated and sealed with concrete. Airservices was unsure where this material was taken or whether it remained on site. The drain sealing was undertaken in approximately 2012-2013, following the foam spill at the new fire station.
- [REDACTED] also commented that he has seen the drains being cleared of sediment and this material is generally then placed in an area on the north west of the site beyond the runway.

5.5 Summary of site history

The site historical review indicates that the airport commenced operation in approximately 1959, with the runway constructed in 1961. There have been continual runway upgrades since this time.

Prior to 1959 the area is expected to have comprised marshy Wallum Heath vegetation consisting of small creeks and marsh lands. Protected vegetation of a similar nature still surrounds the airport to the west and south. Parts of the airport (particularly the runways and the terminal/hanger areas) are likely to have been subject to filling to raise surface levels and create pads for the current infrastructure.

¹ Results of sampling indicated that foam release was Ansulite not Solberg RF6.

Aviation firefighting services have been located at the SCA since 2004, and were provided by Queensland Emergency Services (from off-site) prior to this time (as only small aircraft flew in and out of the SCA). The fire station was originally located on the south western portion of the site adjacent to the aircraft and helicopter hangers. The current fire station was constructed in 2010 and the former fire station was then extended, renovated and converted into a helicopter hanger.

Fire training has not been undertaken at the current or former fire stations, with all fire training conducted at the Brisbane Airport fire training ground. As discussed above, some minor hand held extinguisher training has been conducted at the FFS, however was predominately using CO₂ extinguishers.

The current and former fire stations and release or sediment deposition areas (sediment is cleared from the drains and relocated on site, the sediment relocation area is shown on Figure 3) are all considered potential sources of PFAS contamination due to the activities that have occurred here and the likely storage of AFFF.

There have been a number of incidents/activities at the site which may have also resulted in discharge of foam to the environment including:

- Emergency response actions associated with two light aircraft crashes that occurred in 2005 and 2006 in a grassed area at the north of the main runway 36 and the grass strip of the northern end of runway 30
- An accidental release of foam (6%) in 2010, which flowed over the grass and into the drain to the immediate west of the fire station
- Routine performance testing near the FFS and Gate 16
- Vehicle wash down and routine hose draining near the FFS
- Former storage of Ansulite IBCs at the new fire station on a sealed but unbunded pad

The following other possible sources of PFAS contamination have also been identified at the site and in the immediate surrounding area:

- Relocation of drain soil/sediment within the airport (locations not known)
- Relocation of sediment from routine drain cleaning within the airport (location as shown on Figure 3)

These locations are shown in Figure 3 in Appendix A.

6. Preliminary and targeted sampling

6.1 Scope of work

Based on the outcomes of the PSI, a Sample Analysis and Quality Plan (SAQP) was developed for the investigation (GHD, 2016).

The SAQP was prepared so that the field investigations and analyses were undertaken in a way that enabled the collection and reporting of reliable data on which to base any further soil, groundwater and surface water monitoring programs for specific areas of the site.

The GHD SAQP described drilling methods, sampling equipment, well development strategy, sample collection protocols, sample processing, field and laboratory sample analysis, equipment decontamination and quality-assurance and quality-control (QA / QC) procedures.

The scope of work undertaken, methodology adopted and results of the sampling program are provided in a Preliminary Sampling report (GHD, 2017).

6.2 Results summary

The reported PFAS soil results were either less than laboratory LOR or at low detectable levels. The highest PFAS concentrations were reported at the former fire station area (surface soil SS3 and groundwater well GW06). All soil concentrations were below the adopted screening criteria.

The PFAS concentrations in the surface water samples were below the LOR, excluding SW03 which is located downstream from the current fire station. All the reported surface water concentrations were below the adopted screening criteria, though it is noted that the HISL for consumption of fish is lower than the laboratory limit of reporting.

One groundwater sample (GW06) contained a PFOS & PFHxS (sum) result (0.11 µg/L) which exceeded the adopted FSANZ drinking water criteria (0.07 µg/L).

7. Conceptual site model

Based on our understanding of the contamination issues and site setting a conceptual site model (CSM) has been generated to identify the potential contamination *sources, pathways and receptors*, and the potential linkages (or pollutant linkages) between these.

A CSM is a critical element of any PSI and forms the basis for the assessment of contamination risk and prioritisation of any further investigations. As it is based only on limited information at the PSI stage, it is regarded as being preliminary only at this point and as the foundation for the development of a more detailed CSM as site investigations progress.

Different land use scenarios have different contamination risk profiles depending on the sensitivity of receptors and the nature and likelihood of potential exposure mechanisms. This CSM assumes a *commercial industrial* land use scenario consistent with the site's current and anticipated future use as an airport.

7.1 Sources

As the key contaminant of concern, the focus of the PSI is on the potential sources of PFAS at the SCA, which have been identified as the following:

- Areas in which Aviation Rescue Fire Fighting ARFF operate or have historically operated including:
 - The Former Fire Station and surrounding area
 - Fire station wash down areas and runoff
 - Former performance testing areas in grassed sites
- Incidents that may have included the discharge of foam including:
 - An Ansulite spill at the current fire station resulting in foam discharge into the main surface water drain
 - A small plane incident resulting in an operational release to the north west of the runway
- Other possible sources:
 - Irrigation of vegetated areas of the site with the fire trucks
 - Existing and former surface water drainage channels
 - Sediment routinely removed from airport drains and relocated on the site
 - Soil and sediment removed on the site when the drains were relined

7.2 Pathways

7.2.1 Contaminant transport mechanisms

The key mechanisms for contaminant transport at the site have been identified as:

- *Surface water overland flow* – lateral overland flow and migration of contaminants via stormwater during rain events, causing re-deposition of contaminants on other areas of the SCA or off-site. There is the potential for migration of contaminated surface water / storm water from the source in open drainage channels.
- *Groundwater advection/dispersion* - horizontal and vertical migration of contaminants from the SCA soils into the underlying aquifer and through groundwater to the point of surface water discharge or via uptake in spear pumps on nearby residential properties.

- *Relocation of contaminated soils within the footprint of the site* – There is potential that soils impacted with PFAS may have been relocated on the SCA as part of bulk earth works.

The sandy geology and shallow water table are conducive of conditions that would be expected to promote surface water and groundwater interactions. This has the potential to increase the contaminant flux both within and off the site. In addition, having generally less clay and organic matter, unconsolidated sandy environments (aquifer materials) are less conducive of attenuation of PFAS. These factors place the SCA within a higher risk category in terms of the potential for contaminant migration via surface water and groundwater flow.

7.2.2 Potential exposure mechanisms

Based on the identified receptors and the release and fate and transport characteristics of the contaminants of potential concern, contaminant uptake pathways through which receptors may become exposed to contamination include ingestion and dermal absorption.

- *Ingestion exposure pathway* - Ingestion of contaminants by site workers could occur during site works involving excavation and handling of site soils, stormwater, or groundwater. This is not considered to be of a concern for indoor site workers. Ingestion could also occur for nearby residents via direct contact or use of water for food production (e.g. home grown produce or poultry) in the event that groundwater is being abstracted for these purposes.

Terrestrial and aquatic fauna may ingest contaminants potentially migrating off-site and discharging to the down gradient surface water receiving environment including surrounding marine systems and Wallum Heath.

- *Dermal exposure pathway* - Exposure of PFAS may occur via sorption through biological membranes such as skin, based on animal studies. While this has not been confirmed for humans and despite PFOS having a low skin permeability constant, the exposure pathway may be complete as illustrated on the CSM.
- *Inhalation exposure pathway* – PFAS are not considered to be volatile so inhalation is not considered to be a relevant exposure mechanism.

7.3 Receptors

The site is located in a commercial/industrial site setting, however is surrounded to the west by the Wallum Heath Conservation Area. The following are the key potential human health and ecological contamination receptors considered to be relevant in the context of the site's setting:

- Site workers whose activities may result in exposure to impacted site soils, surface water and groundwater.
- Nearby residents (to the east) using potential spear pumps.
- Consumers of potentially impacted seafood from the down gradient surface water receiving environment of the surrounding marine ecosystems including residential canals (Twin Waters) and Wallum Heath, who may ingest contaminants.
- Recreational users of the adjacent potentially impacted marine environment that may ingest contaminants or have dermal exposure to contaminants.
- Flora and fauna in the potentially impacted hydraulically down-gradient marine surface water receiving environment (i.e. Marcoola Beach), residential canals and Wallum Heath.
- Terrestrial flora and fauna consuming potentially impacted plant material e.g. grasses. This in turn may impact their predators.

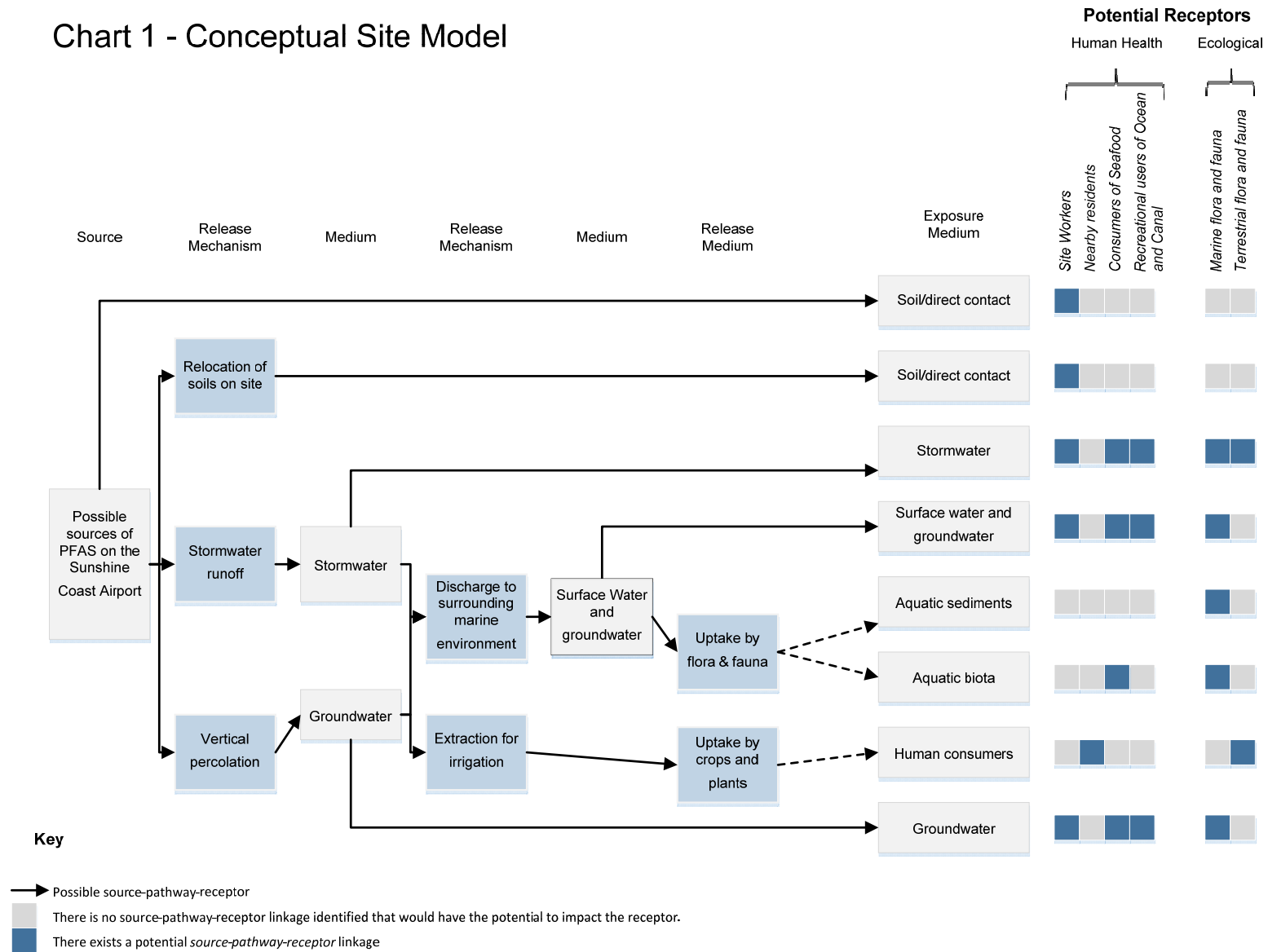
7.4 Potential source-pathway receptor linkages

The CSM has identified a number of potential source-pathway-receptor pollutant linkages which are highlighted in Table 6 and in Chart 1. These are discussed below in the context of the site setting. A pictorial / cross sectional conceptual site model is presented in Appendix A, Figure 4 and pathways are shown on Figure 5.

Table 6 PFAS contamination – potential pollutant linkages

Potential pollutant linkages	Key exposure routes and risks
Potential human health risks	
<i>Health risks to site workers who may come into contact with contaminated site media</i>	Day to day activities are not likely to expose site personnel to these media. However, it remains a possibility where workers are involved with excavation and handling of contaminated soil, surface water or groundwater. It is expected that this can be managed through good hygiene practices and task-specific management plans.
<i>Health risks to nearby residents who are exposed to potentially contaminated groundwater through spear pumps.</i>	The main risk to human health is considered to be through consumption of extracted water and consumption of food produce irrigated by the extracted water. Consumption of impacted drinking water as well as vegetables, fruit or poultry irrigated with water contaminated by PFAS from a spear pump may lead to bioaccumulation of PFAS in humans. Dermal exposure has not been identified as a dominant exposure pathway for PFAS.
<i>Health risks to consumers of potentially contaminated seafood arising from migration of contaminants through surface water and groundwater to the adjacent marine environment and canals and bioaccumulation of contaminants in biota.</i>	As PFAS are highly persistent and have a high propensity to bioaccumulate through the food-chain, there is a risk of human exposure to PFAS from consumption of potentially contaminated seafood.
<i>Migration of contaminants through surface water and groundwater to the surrounding marine ecosystems including residential canals resulting in human health impacts to recreational users of the adjacent marine environment and residential canals.</i>	The main risk is through incidental ingestion of impacted water. Dermal exposure has not been identified as a dominant exposure pathway for PFAS.
Potential ecological risks	
<i>Impacts to the off-site marine ecosystem (flora and fauna) of the adjacent marine environment, residential canals and the Wallum Heath from migration of contaminants through surface water and groundwater</i>	There is the potential for PFAS contaminated surface water and groundwater to discharge to the adjacent marine ecosystem where marine biota (invertebrates and macrofauna) may be exposed. Predation of species can lead to a wider distribution of PFAS in the marine environment due to bioaccumulation.
<i>Terrestrial ecology – take up of PFAS in plants and subsequent consumption by fauna plus impact to invertebrates via impacted soil and relocated contaminated sediments (e.g. through drain clearing)</i>	There is potential for prey species to ingest impacted flora or soil and then be predated by larger animals e.g. eagles, snakes, foxes.

Chart 1 - Conceptual Site Model



8. Conclusions

8.1 Conclusions

Based on the review of available site history information, site inspection and site interviews, the following potential sources of PFAS have been identified:

- Areas in which Aviation Rescue Fire Fighting ARFF operate or have historically operated including:
 - The Former Fire Station and surrounding area
 - Fire station wash down areas and runoff
 - Former performance testing areas in grassed sites
- Incidents that may have included the discharge of foam including:
 - An Ansulite spill at the current fire station resulting in foam discharge into the main surface water drain
 - A small plane incident resulting in an operational release to the north west of the runway
- Other possible sources:
 - Irrigation of vegetated areas of the site with the fire trucks
 - Existing and former surface water drainage channels
 - Sediment routinely removed from airport drains and relocated on the site
 - Soil and sediment removed on the site when the drains were relined

The sandy geology and shallow water table are conducive of conditions that would be expected to promote surface water and groundwater interactions, and the unconsolidated sandy environment is expected to be less conducive of attenuation of PFAS. These factors place the SCA within a higher risk category in terms of the potential for contaminant migration via surface water and groundwater flow.

The following potential sensitive receptors and contamination exposure mechanism have been identified:

- Off-site users of groundwater such as adjacent residents that may abstract potentially impacted groundwater for domestic or irrigation purposes.
- Workers on-site whose activities may result in exposure to contaminated site soils, surface water and groundwater.
- Human consumers of potentially impacted seafood from the down gradient surface water receiving environment of the adjacent marine environment, residential canals and the Wallum Heath, who may ingest contaminants, as well as recreational users of the surrounding marine systems. canals and the Wallum Heath that may ingest contaminants or have dermal exposure to contaminants.
- Ecological receptors including (a) flora and fauna in the potentially impacted hydraulically down-gradient marine surface water receiving environment of the adjacent marine environment and residential canals, and (b) terrestrial fauna consuming impacted plant material e.g. grasses. This in turn may impact upon their predators.

8.2 Summary of preliminary sampling program

Based on the data reviewed in this study, the following summary is made:

- The primary source (use of AFFF containing PFAS) no longer exists. Secondary sources include residual soil and groundwater contamination, notably at the former fire station and the current fire station.
- The reported PFAS concentrations in the analysed soil samples were either below the laboratory LOR or adopted human health and ecological guidelines, indicating that in the areas sampled, soils do not present an unacceptable risk to human health and ecological receptors.
- Groundwater results reported a PFOS & PFHxS (sum) concentration which exceeded the drinking water criteria in the sample from GW06 near the old fire station. However, there is no known groundwater abstraction for potable use on the airport or in the general vicinity.
- Surface water samples reported PFAS concentrations below the ecological and recreational guidelines. However, it is noted that the HISL for consumption of fish is lower than the laboratory limit of reporting.

9. References

Airports Act 1996

Airports (Environment Protection) Regulations 1997

Australian Standard AS 4482.1:2005: Guide to the Investigation and Sampling of Sites with Potentially Contaminated Soil

AS/NZS ISO 31000:2009: Risk management - Principles and guidelines

Australian Commonwealth Work Health and Safety Act 2011

Commonwealth Work Health and Safety Regulations 2011

Department of Environment and Energy, Protected Matters Search

Department of Infrastructure and Regional Development (DoIRD, 2015): GEM 002 - PFC Management Actions Advice

Environment Protection Act 1970

GHD, 2015, Airservices Interim Contamination Management Strategy and Decision Framework for PFC contamination, June 2015 (the 'Interim Framework')

GHD, 2016: Airservices Australia – Gold Coast Airport Sampling and Analysis Quality Plan

GHD, 2017: Airservices Australia – Sunshine Coast Airport Preliminary Sampling Report

NEPC, 2013: National Environment Protection (Assessment of Site Contamination) Measure 1999 as amended 2013 (the ASC NEPM)

Sinclair Knight Mertz, *Preliminary Site Investigation, ARFF Area, Sunshine Coast Airport, Maroochydore, Qld*, 6 March 2009

Sinclair Knight Mertz, Limited Site Contamination Assessment Letter Report, *ARFF Pre-Lease Area, Sunshine Coast Airport, Maroochydore, Queensland*, 3 June 2009

10. Limitations

This report has been prepared by GHD for Airservices Australia (Airservices) and may only be used and relied on by Airservices for the purpose agreed between GHD and Airservices.

GHD otherwise disclaims responsibility to any person other than Airservices arising in connection with this report. GHD also excludes implied warranties and conditions, to the extent legally permissible.

The services undertaken by GHD in connection with preparing this report were limited to those specifically detailed in the report and are subject to the scope limitations set out in the report.

The opinions, conclusions and any recommendations in this report are based on conditions encountered and information reviewed at the date of preparation of the report. GHD has no responsibility or obligation to update this report to account for events or changes occurring subsequent to the date that the report was prepared.

The opinions, conclusions and any recommendations in this report are based on assumptions made by GHD described in this report. GHD disclaims liability arising from any of the assumptions being incorrect.

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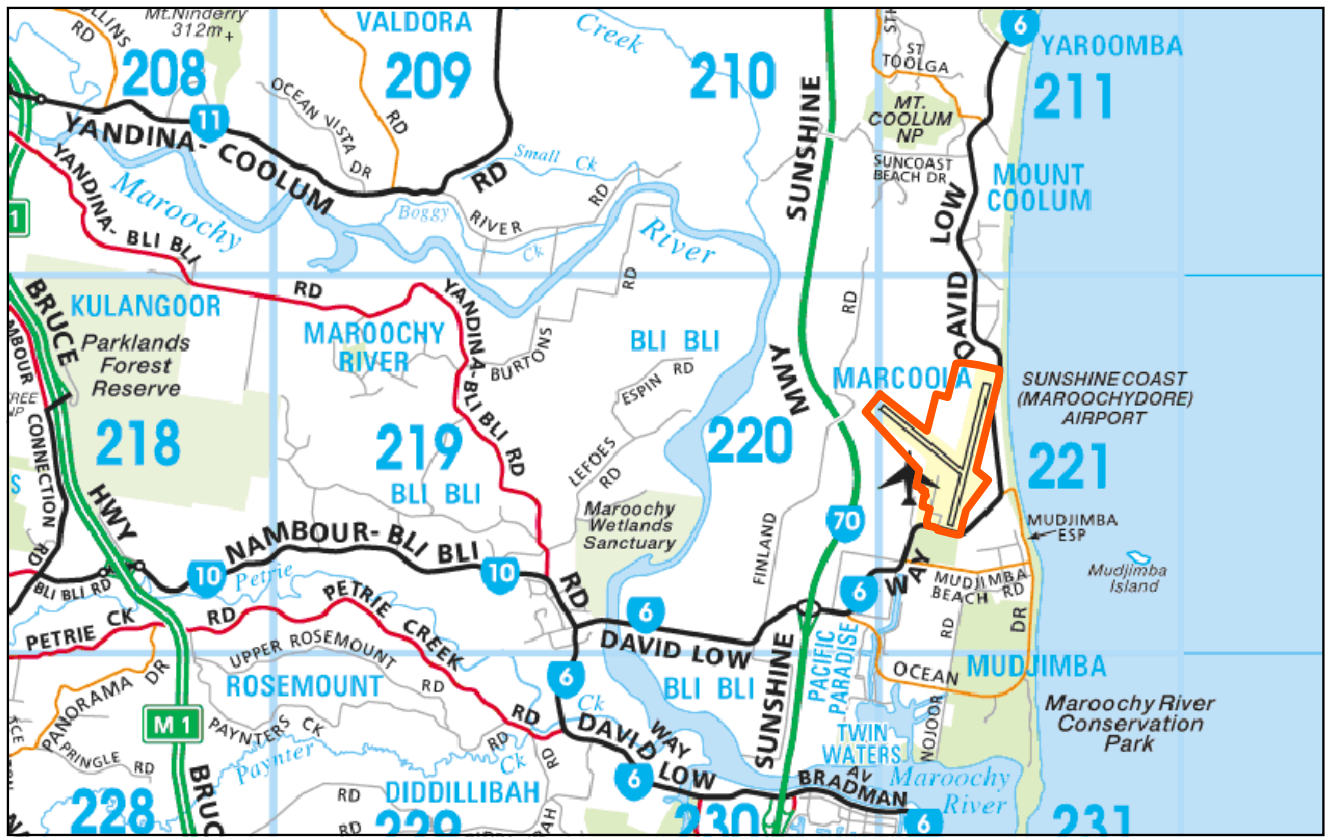
The opinions, conclusions and any recommendations in this report are based on information obtained from, and testing undertaken at or in connection with, specific sample points. Site conditions at other parts of the site may be different from the site conditions found at the specific sample points.

Investigations undertaken in respect of this report are constrained by the particular site conditions, such as the location of buildings, services and vegetation. As a result, not all relevant site features and conditions may have been identified in this report.

Site conditions (including the presence of hazardous substances and/or site contamination) may change after the date of this Report. GHD does not accept responsibility arising from, or in connection with, any change to the site conditions. GHD is also not responsible for updating this report if the site conditions change.

Appendices

Appendix A – Figures



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Metres
Map Projection: Universal Transverse Mercator
Horizontal Datum: GDA 1994
Grid: GDA 1994 MGA Zone 56

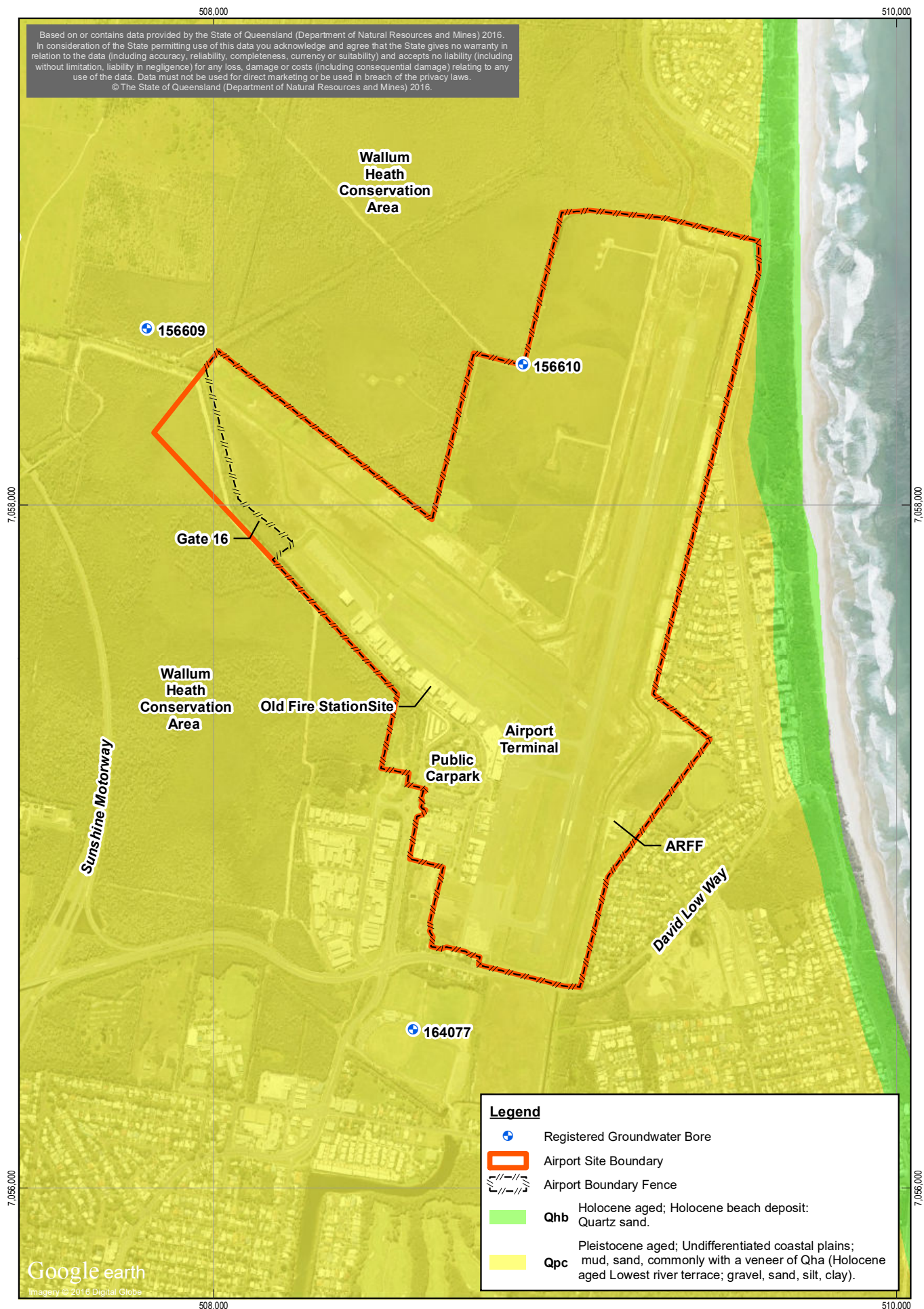


Airservices Australia
Sunshine Coast Airport
Preliminary Site Investigation

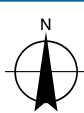
Job Number 31-34249
Revision A
Date 05 Aug 2016

Site Locality

Figure 1



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Metres
Map Projection: Universal Transverse Mercator
Horizontal Datum: GDA 1994
Grid: GDA 1994 MGA Zone 56



Airservices Australia
Sunshine Coast Airport
Preliminary Site Investigation

Job Number 31-34249
Revision A
Date 05 Aug 2016

Geology and Hydrogeology

Figure 2

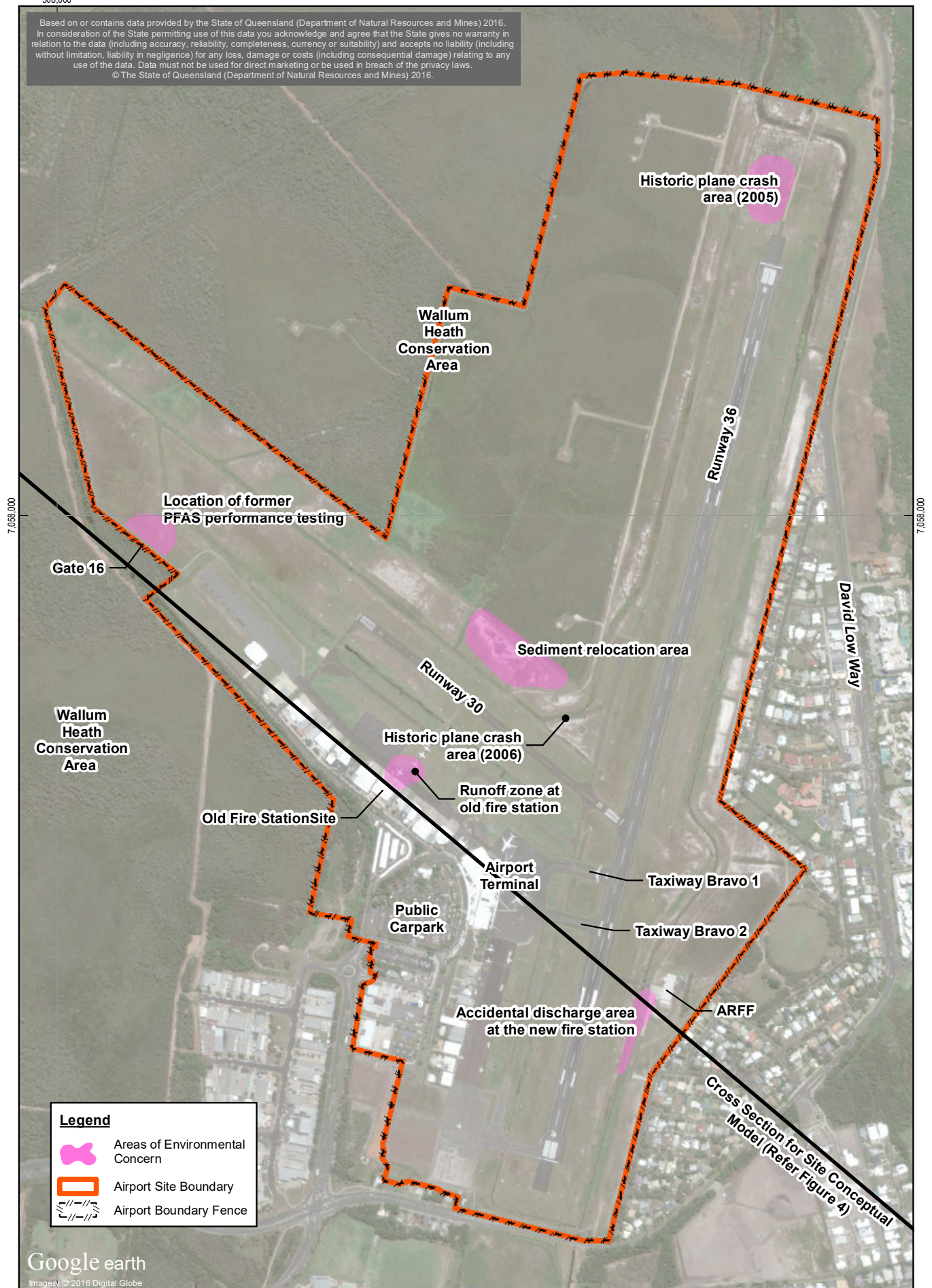
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145 Ann Street Brisbane QLD 4000 T 61 7 3316 3000 F 61 7 3316 3333 E bnemail@ghd.com.au W www.ghd.com

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Data Source: DMRM: cadastre (2016); Google Earth: imagery (May 2015, extracted Jul 2016). Created : jvc

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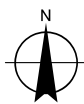
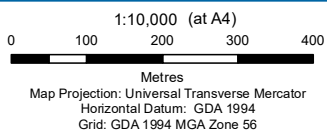
Legend

- Areas of Environmental Concern
- Airport Site Boundary
- Airport Boundary Fence

Google earth

Imagery © 2016 Digital Globe

508,000



Airservices Australia
Sunshine Coast Airport
Preliminary Site Investigation

Job Number 31-34249
Revision A
Date 12 Sep 2016

Site Features

Figure 3

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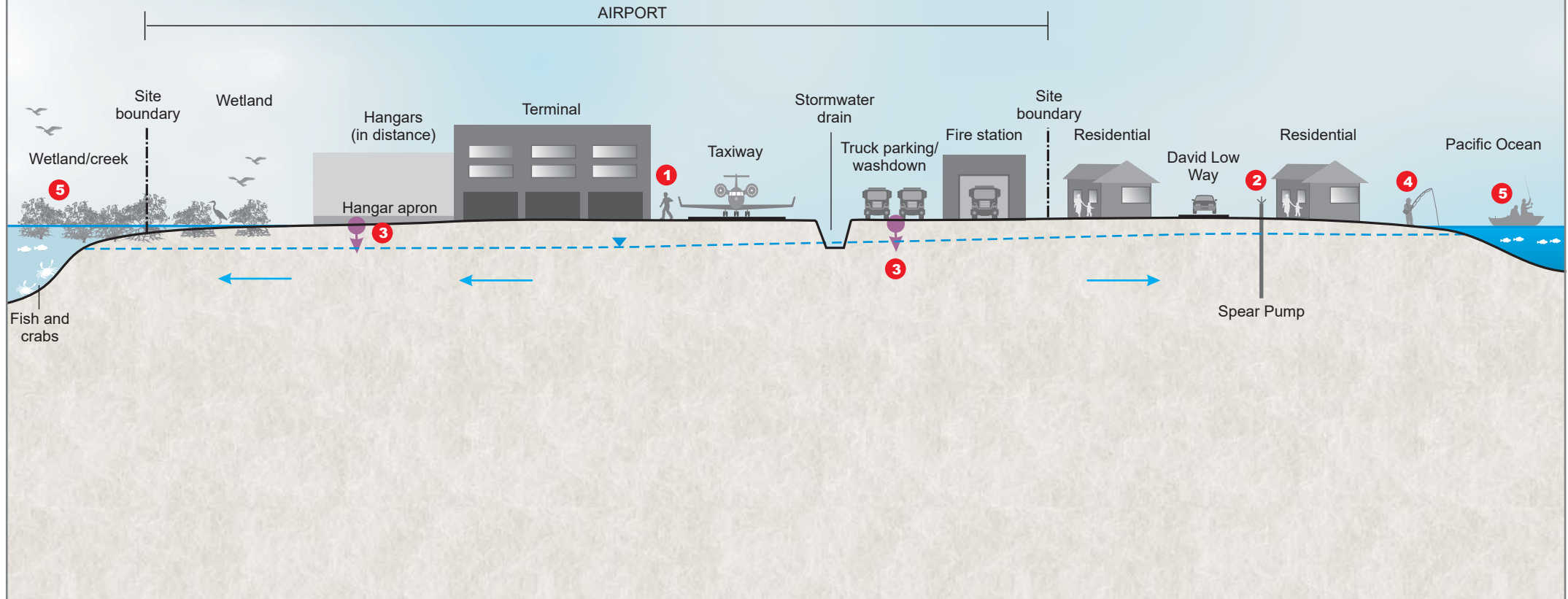
145 Ann Street Brisbane QLD 4000 T 61 7 3316 3000 F 61 7 3316 3333 E bne@mail@ghd.com.au W www.ghd.com

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PATHWAYS

- 1 Site workers exposure to impacted soils, surface water and groundwater
- 2 Residents exposure to possible impacted groundwater via spear pumps
- 3 Migration of contaminants to groundwater and surface water
- 4 Dermal exposure to recreational users of Pacific Ocean and Wallum Heath
- 5 Bioaccumulation in fauna and ingestion by people



LEGEND

- Sands
- Possible sources of PFAS
- Groundwater flow direction
- Migration of contaminants
- Groundwater table

NOTE

Conceptual diagram only - not to scale



Airservices Australia,
Sunshine Coast Airport
Preliminary Site Investigation

Job Number 31-34071
Revision A
Date 24 AUG 2016

Conceptual Site Model Cross Section A

Figure 4



Paper Size A4



Airservices Australia
Sunshine Coast Airport
Preliminary Site Investigation

Job Number 31-34249
Revision A
Date 30 Aug 2016

Conceptual Site Model Pathways

Figure: 5

Appendix B – Certificates of Title

CURRENT TITLE SEARCH

DEPT OF NATURAL RESOURCES AND MINES, QUEENSLAND

Request No: 23812336

Search Date: 13/07/2016 12:57

Title Reference: 50957069

Date Created: 28/07/2014

Previous Title: 40068595

REGISTERED OWNER

Dealing No: 715917131 28/07/2014

SUNSHINE COAST REGIONAL COUNCIL

ESTATE AND LAND

Estate in Fee Simple

LOT 699 SURVEY PLAN 261024
Local Government: SUNSHINE COAST

EASEMENTS, ENCUMBRANCES AND INTERESTS

1. Rights and interests reserved to the Crown by
Deed of Grant No. 40068595 (Lot 699 on SP 261024)
2. LEASE No 602825645 (L865854Y) 29/03/1994
OF PART OF THE LAND
TO NAVAIR INTERNATIONAL FLYING COLLEGE PTY LTD
TERM: COMMENCING 01/01/1994
TERMINATING 31/12/2023
3. LEASE No 700610540 19/04/1995 at 11:52
OF PART OF THE LAND
TO MAROOCHYDORE AIRPORT TERMINAL SERVICES PTY LTD
TERM: COMMENCING 01/11/1994
TERMINATING 31/10/2024
4. AMENDMENT No 708295193 15/12/2004 at 11:16
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5. TRANSFER No 717028094 22/01/2016 at 14:28
LEASE: 700610540
SHELL AVIATION AUSTRALIA PTY LTD A.C.N. 167 761 453
6. LEASE No 700637493 08/05/1995 at 13:50
OF PART OF THE LAND
TO AEROMECH PTY LTD
TERM: COMMENCING 01/07/1994
TERMINATING 30/06/2024
7. MORTGAGE No 702603127 06/04/1998 at 09:35
COMMONWEALTH BANK OF AUSTRALIA A.C.N. 123 123 124
over
LEASE: 700637493

CURRENT TITLE SEARCH

DEPT OF NATURAL RESOURCES AND MINES, QUEENSLAND

Request No: 23812336

Search Date: 13/07/2016 12:57

Title Reference: 50957069

Date Created: 28/07/2014

EASEMENTS, ENCUMBRANCES AND INTERESTS

8. CHANGE OF NAME No 717217107 28/04/2016 at 13:46
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9. LEASE No 700886542 03/10/1995 at 09:17
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TO BRADBERG PTY.LTD.
TERM: COMMENCING 01/07/1995
TERMINATING 31/10/2024
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TOFTO PTY LTD A.C.N. 006 087 510
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11. LEASE No 702441218 09/01/1998 at 10:49
to
BRADLEY GEORGE WELCH
OVER PART OF THE LAND
12. TRANSFER No 707622808 06/04/2004 at 12:33
TRUSTEE LEASE: 702441218
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JAN MAREE BECKER JOINT TENANTS
13. MORTGAGE No 712222479 16/02/2009 at 11:30
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OF PART OF THE LAND AS SHOWN IN SKETCH
16. TRANSFER No 712222477 16/02/2009 at 11:29
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17. MORTGAGE No 712222478 16/02/2009 at 11:30
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over
TRUSTEE LEASE: 703115230

CURRENT TITLE SEARCH

DEPT OF NATURAL RESOURCES AND MINES, QUEENSLAND

Request No: 23812336

Search Date: 13/07/2016 12:57

Title Reference: 50957069

Date Created: 28/07/2014

EASEMENTS, ENCUMBRANCES AND INTERESTS

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TERM: 01/09/1996 TO 31/08/2026 OPTION NIL
19. LEASE No 703610507 04/10/1999 at 14:24
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OF PART OF THE LAND
20. LEASE No 703610537 04/10/1999 at 14:30
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OF PART OF THE LAND AS SHOWN IN SKETCH
21. TRANSFER No 717246574 13/05/2016 at 11:27
LEASE: 703610537
PADPHEN PTY LTD A.C.N. 118 063 746
22. TRUSTEE LEASE No 707659861 21/04/2004 at 14:10
SUNCOAST FLYING SERVICES PTY LTD A.C.N. 052 206 112
OVER PART OF THE LAND
23. AMENDMENT No 708945397 02/09/2005 at 10:17
TRUSTEE LEASE: 707659861
24. LEASE No 714938535 15/02/2013 at 13:36
STABILO PTY LTD A.C.N. 072 452 307
OF LEASE J ON SP253851
TERM: 01/08/2012 TO 31/07/2022 OPTION NIL
25. TRANSFER No 716937441 08/12/2015 at 08:18
TRUSTEE LEASE: 714938535
PADPHEN PTY LTD A.C.N. 118 063 746
26. TRANSFER No 717028091 22/01/2016 at 14:27
TRUSTEE LEASE: 707659861
SHELL AVIATION AUSTRALIA PTY LTD A.C.N. 167 761 453
27. LEASE No 707659871 21/04/2004 at 14:11
AERO DYNAMIC FLIGHT ACADEMY PTY LTD A.C.N. 100 800 913
OVER PART OF THE LAND
28. TRANSFER No 707783998 07/06/2004 at 14:34
TRUSTEE LEASE: 707659871
CHARBAY PTY LTD A.C.N. 106 060 217 TRUSTEE
UNDER INSTRUMENT 707783998

CURRENT TITLE SEARCH

DEPT OF NATURAL RESOURCES AND MINES, QUEENSLAND

Request No: 23812336

Search Date: 13/07/2016 12:57

Title Reference: 50957069

Date Created: 28/07/2014

EASEMENTS, ENCUMBRANCES AND INTERESTS

29. LEASE No 709932180 13/09/2006 at 11:03
ADVANCED FLIGHT THEORY PTY LTD A.C.N. 061 870 166
OVER LEASES AB AND AC ON SP169827
TERM: 01/02/1997 TO 31/01/2027 OPTION NIL
30. PAR/SURRENDER No 712270627 11/03/2009 at 09:34
TRUSTEE LEASE: 709932180
SO FAR AS RELATES TO LEASE AC ON SP169827
EXCLUSIVE OF LEASE AN ON SP217358
31. LEASE No 709999546 09/10/2006 at 10:00
SUNSHINE COAST HELICOPTER RESCUE SERVICE LTD A.C.N. 010 104 560
OVER PART OF THE LAND
TERM: 01/07/2004 TO 30/06/2024 OPTION NIL
32. TRANSFER No 711653455 16/05/2008 at 14:05
TRUSTEE LEASE: 709999546
AEROMIL (AUSTRALIA) PTY LTD A.C.N. 001 774 045
33. AMENDMENT OF LEASE No 711653462 16/05/2008 at 14:06
TRUSTEE LEASE: 709999546
TERM: 01/07/2004 TO 30/06/2024 OPTION NIL
34. LEASE No 710464317 30/03/2007 at 10:53
KENNEY AIKIN AIRCRAFT INSURANCE BROKERS PTY LTD A.C.N. 088 946 641
OF LEASE P ON SP176252
TERM: 01/12/2004 TO 30/11/2019 OPTION NIL
35. CHANGE OF NAME No 714659503 05/09/2012 at 15:25
TRUSTEE LEASE: 710464317
KENNEY AIKIN MANAGEMENT SERVICES PTY LTD A.C.N. 088 946 641
36. AMENDMENT OF LEASE No 714678637 17/09/2012 at 13:12
TRUSTEE LEASE: 710464317
TERM: 01/12/2004 TO 30/11/2019 OPTION NIL
37. SUB LEASE No 714721828 11/10/2012 at 13:55
TRUSTEE LEASE: 710464317
INTERNATIONAL HELICOPTER THEORY PTY LTD A.C.N. 102 341 328
OF LEASE P ON SP176252
TERM: 16/05/2012 TO 16/05/2019 OPTION NIL
38. LEASE No 710464323 30/03/2007 at 10:53
W.T.H. PTY LTD A.C.N. 000 165 855
OF LEASES R AND Y ON SP176252
TERM: 01/01/2006 TO 31/12/2020 OPTION NIL

CURRENT TITLE SEARCH

DEPT OF NATURAL RESOURCES AND MINES, QUEENSLAND

Request No: 23812336

Search Date: 13/07/2016 12:57

Title Reference: 50957069

Date Created: 28/07/2014

EASEMENTS, ENCUMBRANCES AND INTERESTS

- 39. LEASE No 710522544 23/04/2007 at 10:27
WHEELTON INVESTMENTS PTY LTD A.C.N. 006 549 177
LEASE V ON SP176252
TERM: 01/03/2006 TO 28/02/2021 OPTION NIL

- 40. LEASE No 711600800 23/04/2008 at 14:43
CLA TRADING PTY LTD A.C.N. 082 220 399
OF LEASE W ON SP176252
TERM: 01/07/2006 TO 30/06/2016 OPTION NIL

- 41. LEASE No 712302147 25/03/2009 at 14:42
AIRSERVICES AUSTRALIA
OF LEASE DA ON SP217356
TERM: 01/01/2009 TO 31/12/2033 OPTION NIL

- 42. LEASE No 712906073 02/12/2009 at 14:58
SKYDIVING SERVICES PTY LTD A.C.N. 120 336 209
OF LEASE UB ON SP217358
TERM: 01/07/2007 TO 30/06/2035 OPTION NIL

- 43. MORTGAGE No 714841539 14/12/2012 at 10:40
WESTPAC BANKING CORPORATION A.B.N. 33 007 457 141
over
TRUSTEE LEASE: 712906073

- 44. LEASE No 713016661 25/01/2010 at 14:58
MADINITALY PTY LTD A.C.N. 102 257 803
OF PART OF THE GROUND FLOOR (LEASE TB)
TERM: 15/04/2009 TO 14/04/2016 OPTION NIL

- 45. LEASE No 713405273 12/08/2010 at 15:57
LOADED ACES PTY LTD A.C.N. 124 534 461
OF PART OF THE GROUND FLOOR (LEASE TQ)
TERM: 01/12/2009 TO 30/11/2014 OPTION NIL

- 46. LEASE No 713405296 12/08/2010 at 15:59
RC AIRPORTS PTY LTD A.C.N. 127 077 025
OF PART OF THE GROUND FLOOR (LEASE TR & LEASE TS)
TERM: 01/11/2009 TO 30/10/2016 OPTION NIL

- 47. LEASE No 713827235 28/04/2011 at 13:27
MACHJET PTY LTD A.C.N. 122 815 025 TRUSTEE
UNDER INSTRUMENT 713827235
OF LEASES CF AND GF ON SP232760
TERM: 01/09/2010 TO 31/08/2030 OPTION NIL

CURRENT TITLE SEARCH

DEPT OF NATURAL RESOURCES AND MINES, QUEENSLAND

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Search Date: 13/07/2016 12:57

Title Reference: 50957069

Date Created: 28/07/2014

EASEMENTS, ENCUMBRANCES AND INTERESTS

48. LEASE No 714002397 09/08/2011 at 15:25
AUSTRALIAN WAY PTY LTD A.C.N. 006 704 570
OF PART OF THE GROUND FLOOR (LEASE TN)
TERM: 01/10/2009 TO 31/07/2016 OPTION NIL
49. LEASE No 714122139 20/10/2011 at 15:00
LEAMANS PTY LTD A.C.N. 108 135 879 TRUSTEE
UNDER INSTRUMENT 714122139
OF PART OF THE GROUND FLOOR (LEASES TU, TV, TW AND TX)
TERM: 01/04/2009 TO 31/03/2016 OPTION NIL
50. LEASE No 714195220 02/12/2011 at 14:29
SUNSHINE COAST AERO CLUB LTD A.C.N. 009 928 581
OF LEASE CE AND GE ON SP217358
TERM: 01/07/2010 TO 30/06/2015 OPTION NIL
51. LEASE No 714713638 08/10/2012 at 14:01
SPOTLESS FACILITY SERVICES PTY LTD A.C.N. 072 293 880
OF PART OF THE GROUND FLOOR (LEASES TA AND TO)
TERM: 01/04/2009 TO 30/09/2016 OPTION NIL
52. LEASE No 714713641 08/10/2012 at 14:02
SPOTLESS FACILITY SERVICES PTY LTD A.C.N. 072 293 880
OF PART OF THE GROUND FLOOR (LEASE TP)
TERM: 01/10/2009 TO 30/09/2016 OPTION NIL
53. LEASE No 715028624 11/04/2013 at 13:57
VALDOCK PTY LTD A.C.N. 010 323 332
OF PART OF THE GROUND FLOOR (LEASE TH)
TERM: 01/11/2012 TO 31/10/2015 OPTION NIL
54. LEASE No 715115139 31/05/2013 at 10:14
SUNSHINE COAST DESTINATION LIMITED A.C.N. 144 749 717
OF PART OF THE GROUND FLOOR (LEASE SA)
TERM: 18/02/2013 TO 17/02/2017 OPTION NIL
55. LEASE No 715120070 04/06/2013 at 10:06
DURELLO PTY LTD A.C.N. 051 324 040
OF LEASE BF & FF ON SP232773
TERM: 01/03/2013 TO 30/06/2027 OPTION NIL
56. LEASE No 715737084 29/04/2014 at 13:13
MH5 PTY LTD A.C.N. 154 649 055
OF LEASE T AND UA ON SP267235
TERM: 01/12/2013 TO 30/11/2023 OPTION NIL

CURRENT TITLE SEARCH

DEPT OF NATURAL RESOURCES AND MINES, QUEENSLAND

Request No: 23812336

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EASEMENTS, ENCUMBRANCES AND INTERESTS

57. LEASE No 715795912 27/05/2014 at 13:15
ADAGOLD AVIATION PTY LTD A.C.N. 102 146 725
OF PART OF THE GROUND FLOOR (LEASE TZ)
TERM: 01/08/2013 TO 31/07/2016 OPTION NIL
58. LEASE No 715890064 11/07/2014 at 14:16
CROWN CASTLE AUSTRALIA PTY LTD A.C.N. 090 873 019
LEASE AM ON SP267251
TERM: 01/01/2014 TO 31/12/2033 OPTION NIL
59. EASEMENT IN GROSS No 716473536 05/05/2015 at 13:48
burdening the land
ENERGEX LIMITED A.C.N. 078 849 055
over
EASEMENT ZZ ON SP269575
60. LEASE No 716609998 06/07/2015 at 13:56
CLA TRADING PTY LTD A.C.N. 082 220 399
OF PART OF THE GROUND FLOOR (LEASE TC)
TERM: 01/12/2013 TO 30/11/2018 OPTION NIL
61. LEASE No 716685928 12/08/2015 at 14:17
SUNSHINE COAST AERO CLUB LTD A.C.N. 009 928 581
OF LEASE CE & GE ON SP217358
TERM: 01/07/2015 TO 30/06/2020 OPTION NIL
62. LEASE No 716808742 09/10/2015 at 14:11
MACHJET PTY LTD A.C.N. 122 815 025
OF LEASES ASA AND ASB ON SP273408
TERM: 01/12/2013 TO 30/11/2043 OPTION NIL
63. LEASE No 717042614 01/02/2016 at 14:41
W T H PTY LTD A.C.N. 000 165 855
OF PART OF THE GROUND FLOOR (LEASE TG)
TERM: 01/12/2013 TO 30/11/2018 OPTION NIL
64. LEASE No 717081143 19/02/2016 at 13:39
WATERLOO CAR CENTRE PTY LIMITED A.C.N. 003 616 420
OF PART OF THE GROUND FLOOR (LEASE TJ)
TERM: 01/12/2013 TO 30/11/2018 OPTION NIL
65. TRANSFER No 717304421 09/06/2016 at 11:50
LEASE: 717081143
WCC QLD PTY LTD A.B.N. 64 603 065 729

CURRENT TITLE SEARCH

DEPT OF NATURAL RESOURCES AND MINES, QUEENSLAND

Request No: 23812336

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Date Created: 28/07/2014

EASEMENTS, ENCUMBRANCES AND INTERESTS

66. SUB LEASE No 717285534 01/06/2016 at 11:13
LEASE: 703610519
INTERNATIONAL HELICOPTER THEORY PTY LTD A.C.N. 102 341 328
OF PART OF THE GROUND FLOOR (LEASE BBC)
TERM: 21/03/2016 TO 20/09/2016 OPTION NIL
67. SUB LEASE No 717285573 01/06/2016 at 11:13
LEASE: 703610519
PETER SHADFORTH
OF PART OF THE GROUND FLOOR (LEASE BBB)
TERM: 01/11/2015 TO 31/10/2017 OPTION 1 YEAR
68. SUB LEASE No 717285603 01/06/2016 at 11:14
LEASE: 703610519
AUSMAR HOMES PTY LTD A.C.N. 087 236 208
OF PART OF THE GROUND FLOOR (LEASE BBA)
TERM: 01/11/2015 TO 31/10/2017 OPTION 1 YEAR
69. LEASE No 717349809 28/06/2016 at 14:33
CXN TRANSPORT PTY LTD A.C.N. 157 948 304
OF PART OF THE GROUND FLOOR (LEASE TI)
TERM: 01/11/2015 TO 31/10/2018 OPTION NIL

ADMINISTRATIVE ADVICES

Dealing	Type	Lodgement Date	Status
714792345	LAND NOTICE	20/11/2012 14:21	CURRENT
	SEC 48 (2) LAND ACT 1994		

UNREGISTERED DEALINGS

Dealing	Type	Lodgement Date	Status
717354269	TFR OF DLNG 700637493	29/06/2016 14:31	UNREGISTERED

CERTIFICATE OF TITLE ISSUED - No

Corrections have occurred - Refer to Historical Search

Caution - Charges do not necessarily appear in order of priority

** End of Current Title Search **

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Requested By: D-ENQ CITEC CONFIRM

CURRENT RESERVE SEARCH

ENVIRONMENT AND RESOURCE MANAGEMENT, QUEENSLAND

Request No: 8609443

Search Date: 17/02/2010 10:39

Title Reference: 49022968

Date GAZETTED: 09/04/1960

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Opening Ref: SG 60-12360

Purpose: LANDING GROUND FOR AIRCRAFT

Sub-Purpose:

Local Name: MAROOCHYDORE AIRPORT

Address: SUNCOAST BLVD MAROOCHYDORE

County (R) No: R801 CANNING

File Ref: RES 10544

TRUSTEES

SUNSHINE COAST REGIONAL COUNCIL GAZETTED ON 09/04/1960

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LAND DESCRIPTION

LOT 699 SURVEY PLAN 214349

County of CANNING

Parish of MAROOCHY

Local Government: SUNSHINE COAST

Area: 135.500000 Ha. (SURVEYED)

EASEMENTS AND ENCUMBRANCES

1. LEASE No 602825646 (1628) 05/10/1989
OF PART OF THE LAND
TO RUMWAY PTY LIMITED
TERM: COMMENCING 01/07/1988
TERMINATING 30/06/2007
RELEASE OF MORTGAGE NO. 220624 VIDE DEALING 700060209
TRANSFER OF LR 1628 TO GLOBAL AVIATION CENTRE PTY LTD AS
TRUSTEE FOR GLOBAL AVIATION CENTRE
UNIT TRUST, VIDE DEALING 700060271
2. TRANSFER No 706730675 24/06/2003 at 16:12
LEASE: 602825646 (1628)
JOHN ANDREW MCDERMOTT
LINDA PATRICIA MCDERMOTT TRUSTEE
UNDER DOCUMENT 706730675
3. LEASE No 602825638 (K444324N) 01/11/1990
OF PART OF THE LAND
TO COEUR DE LION INVESTMENTS PTY LIMITED
TERM: COMMENCING 26/02/1990
TERMINATING 25/02/2010
4. LEASE No 602825640 (K807699W) 22/10/1991
OF PART OF THE LAND
TO KABASKEL PTY LTD
TERM: COMMENCING 26/02/1990
TERMINATING 25/02/2010

CURRENT RESERVE SEARCH

ENVIRONMENT AND RESOURCE MANAGEMENT, QUEENSLAND

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EASEMENTS AND ENCUMBRANCES

5. TRANSFER No 707148311 31/10/2003 at 14:56
LEASE: 602825640 (K807699W)
LEND LEASE TWIN WATERS RESORT PTY LTD A.C.N. 106 054 611
6. LEASE No 602825642 (L386778M) 04/03/1993
OF PART OF THE LAND
TO DURELLO PTY LTD
TERM: COMMENCING 01/07/1991
TERMINATING 30/06/2011
7. LEASE No 602825645 (L865854Y) 29/03/1994
OF PART OF THE LAND
TO NAVAIR INTERNATIONAL FLYING COLLEGE PTY LTD
TERM: COMMENCING 01/01/1994
TERMINATING 31/12/2023
8. LEASE No 700610540 19/04/1995 at 11:52
OF PART OF THE LAND
TO MAROOCHYDORE AIRPORT TERMINAL SERVICES PTY LTD
TERM: COMMENCING 01/11/1994
TERMINATING 31/10/2024
9. TRANSFER No 708295188 15/12/2004 at 11:16
LEASE: 700610540
THE SHELL COMPANY OF AUSTRALIA LIMITED A.C.N. 004 610 459
10. AMENDMENT No 708295193 15/12/2004 at 11:16
LEASE: 700610540
11. LEASE No 700637493 08/05/1995 at 13:50
OF PART OF THE LAND
TO AEROMECH PTY LTD
TERM: COMMENCING 01/07/1994
TERMINATING 30/06/2024
12. SUB LEASE No 701451558 22/07/1996 at 10:29
of
LEASE: 700637493
to
AEROMIL (AUSTRALIA) PTY LTD A.C.N. 001 774 045
Original term commencing
01/11/1995
Terminating
29/06/2024
so far as relates to
PART, BEING LEASE A ON PLAN 96051-1
13. MORTGAGE No 706007693 04/10/2002 at 11:06
CAPITAL FINANCE AUSTRALIA LIMITED A.C.N. 069 663 136
over
SUB LEASE: 701451558

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ENVIRONMENT AND RESOURCE MANAGEMENT, QUEENSLAND

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EASEMENTS AND ENCUMBRANCES

14. MORTGAGE No 702603127 06/04/1998 at 09:35
COMMONWEALTH BANK OF AUSTRALIA A.C.N. 123 123 124
over
LEASE: 700637493
15. MORTGAGE No 706007687 04/10/2002 at 11:05
CAPITAL FINANCE AUSTRALIA LIMITED A.C.N. 069 663 136
over
LEASE: 700637493
16. LEASE No 700886542 03/10/1995 at 09:17
OF PART OF THE LAND
TO BRADBERG PTY.LTD.
TERM: COMMENCING 01/07/1995
TERMINATING 31/10/2024
17. TRUSTEE LEASE No 702027470 11/06/1997 at 16:04
TOFTO PTY LTD A.C.N. 006 087 510
OVER PART OF THE LAND
18. TRUSTEE LEASE No 702441218 09/01/1998 at 10:49
to
BRADLEY GEORGE WELCH
OVER PART OF THE LAND
19. TRANSFER No 707622808 06/04/2004 at 12:33
TRUSTEE LEASE: 702441218
MICHAEL D'OTT BECKER
JAN MAREE BECKER JOINT TENANTS
20. MORTGAGE No 712222479 16/02/2009 at 11:30
WESTPAC BANKING CORPORATION A.B.N. 33 007 457 141
over
TRUSTEE LEASE: 702441218
21. TRUSTEE LEASE No 702553628 11/03/1998 at 12:02
AAQ INVESTMENTS PTY LTD A.C.N. 070 955 261 TRUSTEE
UNDER DOCUMENT 702553628
OF PART OF THE LAND AS SHOWN IN SKETCH
22. TRUSTEE LEASE No 703115230 14/01/1999 at 15:41
PETER JOSEPH EARL FOGARTY
OF PART OF THE LAND AS SHOWN IN SKETCH
23. TRANSFER No 712222477 16/02/2009 at 11:29
TRUSTEE LEASE: 703115230
NX-01 PTY LTD A.C.N. 010 457 952 TRUSTEE
UNDER INSTRUMENT 712222477

CURRENT RESERVE SEARCH

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EASEMENTS AND ENCUMBRANCES

24. MORTGAGE No 712222478 16/02/2009 at 11:30
WESTPAC BANKING CORPORATION A.B.N. 33 007 457 141
over
TRUSTEE LEASE: 703115230
25. AMENDMENT OF LEASE No 712255924 04/03/2009 at 11:00
TRUSTEE LEASE: 703115230
TERM: 01/09/1996 TO 31/08/2026 OPTION NIL
26. TRUSTEE LEASE No 703241673 23/03/1999 at 12:41
HEATH FIELDING AUSTRALIA PTY LTD A.C.N. 000 951 146
OF PART OF THE LAND AS SHOWN IN SKETCH
27. TRANSFER No 707273749 08/12/2003 at 12:30
TRUSTEE LEASE: 703241673
DE SCRIBE SOLUTIONS PTY LTD A.C.N. 077 640 307 TRUSTEE
UNDER DOCUMENT 707273749
28. AMENDMENT No 707273756 08/12/2003 at 12:32
TRUSTEE LEASE: 703241673
29. TRUSTEE LEASE No 703251778 29/03/1999 at 11:40
VODAFONE PTY LTD A.C.N. 056 161 043
OF PART OF THE LAND AS SHOWN IN SKETCH
30. TRANSFER No 705460214 08/03/2002 at 16:48
TRUSTEE LEASE: 703251778
VODAFONE NETWORK PTY LTD A.C.N. 081 918 461
31. TRANSFER No 706986675 15/09/2003 at 11:29
TRUSTEE LEASE: 703251778
CROWN CASTLE AUSTRALIA PTY LTD A.B.N. 34 090 873 019
32. TRUSTEE LEASE No 703610507 04/10/1999 at 14:24
KATHLEEN MARY CURRIE
OF PART OF THE LAND
33. TRUSTEE LEASE No 703610519 04/10/1999 at 14:27
TREVOR THOMAS STEEL
OF PART OF THE LAND
34. TRUSTEE LEASE No 703610537 04/10/1999 at 14:30
STABILO PTY LTD A.C.N. 072 452 307
OF PART OF THE LAND AS SHOWN IN SKETCH
35. MORTGAGE No 703795121 05/01/2000 at 11:47
WESTPAC BANKING CORPORATION A.R.B.N. 007 457 141
over
TRUSTEE LEASE: 703610537

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ENVIRONMENT AND RESOURCE MANAGEMENT, QUEENSLAND

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EASEMENTS AND ENCUMBRANCES

36. TRUSTEE LEASE No 704373071 18/10/2000 at 13:10
SUNSHINE COAST HELICOPTER RESCUE SERVICE LTD A.C.N. 010 104
560
OF PART OF THE LAND AS SHOWN IN SKETCH
37. MORTGAGE No 711764327 30/06/2008 at 16:14
WESTPAC BANKING CORPORATION A.B.N. 33 007 457 141
over
TRUSTEE LEASE: 704373071
38. TRUSTEE LEASE No 706392516 27/02/2003 at 09:48
OPTUS MOBILE PTY LIMITED A.C.N. 054 365 696
OF PART OF THE LAND AS SHOWN IN SKETCH
39. TRUSTEE LEASE No 706578794 07/05/2003 at 10:55
STABILO PTY LTD A.C.N. 072 452 307
OF PART OF THE LAND (LEASE J)
40. TRUSTEE LEASE No 707424979 29/01/2004 at 10:50
HERITAGE CATERING SERVICES PTY LTD A.C.N. 052 525 649
TENANT IN COMMON 1/2
OUTLOOK INVESTMENTS PTY LTD A.C.N. 070 981 609
TENANT IN COMMON 1/2
OF PART OF THE BUILDING
41. TRUSTEE LEASE No 707659861 21/04/2004 at 14:10
SUNCOAST FLYING SERVICES PTY LTD A.C.N. 052 206 112
OVER PART OF THE LAND
42. TRANSFER No 708945392 02/09/2005 at 10:16
TRUSTEE LEASE: 707659861
THE SHELL COMPANY OF AUSTRALIA LIMITED A.C.N. 004 610 459
43. AMENDMENT No 708945397 02/09/2005 at 10:17
TRUSTEE LEASE: 707659861
44. TRUSTEE LEASE No 707659871 21/04/2004 at 14:11
AERO DYNAMIC FLIGHT ACADEMY PTY LTD A.C.N. 100 800 913
OVER PART OF THE LAND
45. TRANSFER No 707783998 07/06/2004 at 14:34
TRUSTEE LEASE: 707659871
CHARBAY PTY LTD A.C.N. 106 060 217 TRUSTEE
UNDER INSTRUMENT 707783998
46. TRUSTEE LEASE No 707659875 21/04/2004 at 14:12
TOFTO PTY LTD A.C.N. 006 087 510
OVER PART OF THE BUILDING

CURRENT RESERVE SEARCH

ENVIRONMENT AND RESOURCE MANAGEMENT, QUEENSLAND

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EASEMENTS AND ENCUMBRANCES

47. TRUSTEE LEASE No 707659907 21/04/2004 at 14:17
BAYNES PROPERTIES PTY LTD A.C.N. 001 815 658
OVER PART OF THE BUILDING
48. TRUSTEE LEASE No 707704919 10/05/2004 at 13:18
VALDOCK PTY LTD A.C.N. 010 323 332
OVER PART OF THE BUILDING
49. TRUSTEE LEASE No 708075488 22/09/2004 at 13:34
SUNCOAST CABS LIMITED A.C.N. 010 183 892
OVER PART OF THE BUILDING
50. TRUSTEE LEASE No 709580599 10/05/2006 at 11:42
CONOLAN ART PTY LTD A.C.N. 099 946 399
PART OF THE BUILDING
TERM: 06/02/2004 TO 05/01/2009 OPTION NIL
51. TRANSFER No 710890286 10/08/2007 at 10:26
TRUSTEE LEASE: 709580599
JOHN DANIEL COOPER TENANT IN COMMON 9/20
ETA SHIFRA BRAND TENANT IN COMMON 1/20
SUNTEK PTY LTD A.C.N. 085 560 514 TRUSTEE 1/2
UNDER INSTRUMENT 710890286
52. AMENDMENT OF LEASE No 710890303 10/08/2007 at 10:28
TRUSTEE LEASE: 709580599
TERM: 06/01/2004 TO 05/01/2009 OPTION NIL
53. TRUSTEE LEASE No 709932180 13/09/2006 at 11:03
ADVANCED FLIGHT THEORY PTY LTD A.C.N. 061 870 166
OVER LEASES AB AND AC ON SP169827
TERM: 01/02/1997 TO 31/01/2027 OPTION NIL
54. PAR/SURRENDER No 712270627 11/03/2009 at 09:34
TRUSTEE LEASE: 709932180
SO FAR AS RELATES TO LEASE AC ON SP169827
EXCLUSIVE OF LEASE AN ON SP217358
55. TRUSTEE LEASE No 709999546 09/10/2006 at 10:00
SUNSHINE COAST HELICOPTER RESCUE SERVICE LTD A.C.N. 010 104 560
OVER PART OF THE LAND
TERM: 01/07/2004 TO 30/06/2024 OPTION NIL
56. TRANSFER No 711653455 16/05/2008 at 14:05
TRUSTEE LEASE: 709999546
AEROMIL (AUSTRALIA) PTY LTD A.C.N. 001 774 045
57. AMENDMENT OF LEASE No 711653462 16/05/2008 at 14:06
TRUSTEE LEASE: 709999546
TERM: 01/07/2004 TO 30/06/2024 OPTION NIL

CURRENT RESERVE SEARCH

ENVIRONMENT AND RESOURCE MANAGEMENT, QUEENSLAND

Request No: 8609443

Search Date: 17/02/2010 10:39

Title Reference: 49022968

Date GAZETTED: 09/04/1960

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EASEMENTS AND ENCUMBRANCES

58. TRUSTEE LEASE No 710464317 30/03/2007 at 10:53
KENNEY AIKIN AIRCRAFT INSURANCE BROKERS PTY LTD A.C.N. 088
946 641
OF LEASE P ON SP176252
TERM: 01/12/2004 TO 30/11/2019 OPTION NIL
59. TRUSTEE LEASE No 710464323 30/03/2007 at 10:53
W.T.H. PTY LTD A.C.N. 000 165 855
OF LEASES R AND Y ON SP176252
TERM: 01/01/2006 TO 31/12/2020 OPTION NIL
60. TRUSTEE LEASE No 710464328 30/03/2007 at 10:54
LAWRENCE THEOBALD
OF LEASE S ON SP176252
TERM: 01/05/2005 TO 30/04/2035 OPTION NIL
61. MORTGAGE No 710909436 17/08/2007 at 10:57
WESTPAC BANKING CORPORATION A.B.N. 33 007 457 141
over
TRUSTEE LEASE: 710464328
62. TRUSTEE LEASE No 710522544 23/04/2007 at 10:27
WHEELTON INVESTMENTS PTY LTD A.C.N. 006 549 177
LEASE V ON SP176252
TERM: 01/03/2006 TO 28/02/2021 OPTION NIL
63. TRUSTEE LEASE No 710633881 30/05/2007 at 15:13
KELLCOTE PTY LTD A.C.N. 010 788 495
LEASES CA AND CB ON SP169827
TERM: 25/09/2006 TO 24/09/2026 OPTION NIL
64. TRUSTEE LEASE No 710948272 29/08/2007 at 16:00
ADSPACE PTY LTD A.C.N. 095 671 702
PARTS OF THE BUILDING AS DEFINED ON THE SKECTH AND FIRST
SCHEDULE
TERM: 01/08/2005 TO 31/07/2010 OPTION NIL
65. TRANSFER No 712071864 26/11/2008 at 15:46
TRUSTEE LEASE: 710948272
ADSHL STREET FURNITURE PTY LTD A.C.N. 000 081 702
66. TRUSTEE LEASE No 711600800 23/04/2008 at 14:43
CLA TRADING PTY LTD A.C.N. 082 220 399
OF LEASE W ON SP176252
TERM: 01/07/2006 TO 30/06/2016 OPTION NIL
67. TRUSTEE LEASE No 711615332 30/04/2008 at 15:59
TOURISM SUNSHINE COAST LTD A.B.N. 24 009 976 292
OF PART OF THE BUILDING
TERM: 01/07/2007 TO 30/06/2010 OPTION NIL

CURRENT RESERVE SEARCH

ENVIRONMENT AND RESOURCE MANAGEMENT, QUEENSLAND

Request No: 8609443

Search Date: 17/02/2010 10:39

Title Reference: 49022968

Date GAZETTED: 09/04/1960

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EASEMENTS AND ENCUMBRANCES

68. TRUSTEE LEASE No 712071537 26/11/2008 at 15:14
MAROOCHY AERO CLUB INC A.C.N. 009 928 581
LEASES CE AND GE ON SP217358
TERM: 01/07/2005 TO 30/06/2010 OPTION NIL
69. TRUSTEE LEASE No 712071619 26/11/2008 at 15:20
ETERNITIE PTY LTD A.C.N. 115 639 113
LOT BA ON SP169827
TERM: 01/07/2006 TO 30/06/2036 OPTION NIL
70. TRANSFER No 712703806 03/09/2009 at 10:25
TRUSTEE LEASE: 712071619
AUSTRALIAN AVIATION CAREER SERVICES PTY LTD A.C.N. 092 351 418
71. AMENDMENT OF LEASE No 712703807 03/09/2009 at 10:25
TRUSTEE LEASE: 712071619
TERM: 01/07/2006 TO 30/06/2036 OPTION NIL
72. TRUSTEE LEASE No 712302147 25/03/2009 at 14:42
AIRSERVICES AUSTRALIA
OF LEASE DA ON SP217356
TERM: 01/01/2009 TO 31/12/2033 OPTION NIL
73. TRUSTEE LEASE No 712670256 18/08/2009 at 15:48
CLA TRADING PTY LTD A.C.N. 082 220 399
OF PART OF THE GROUND FLOOR (LEASE TC)
TERM: 01/12/2008 TO 30/11/2013 OPTION NIL
74. TRUSTEE LEASE No 712670271 18/08/2009 at 15:50
W T H PTY LTD A.C.N. 000 165 855
OF PART OF THE GROUND FLOOR (LEASE TG)
TERM: 01/12/2008 TO 30/11/2013 OPTION NIL
75. TRUSTEE LEASE No 712795624 15/10/2009 at 10:12
BUDGET RENT A CAR AUSTRALIA PTY LTD A.C.N. 007 348 021
OF PART OF THE GROUND FLOOR (LEASE TD)
TERM: 01/12/2008 TO 30/11/2013 OPTION NIL
76. TRUSTEE LEASE No 712906073 02/12/2009 at 14:58
SKYDIVING SERVICES PTY LTD A.C.N. 120 336 209
OF LEASE UB ON SP217358
TERM: 01/07/2007 TO 30/06/2035 OPTION NIL
77. TRUSTEE LEASE No 712930900 11/12/2009 at 15:36
HERTZ AUSTRALIA PTY LTD A.C.N. 004 407 087
OF PART OF THE GROUND FLOOR (LEASE TF)
TERM: 01/12/2008 TO 30/11/2013 OPTION NIL

CURRENT RESERVE SEARCH

ENVIRONMENT AND RESOURCE MANAGEMENT, QUEENSLAND

Request No: 8609443
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EASEMENTS AND ENCUMBRANCES

78. TRUSTEE LEASE No 712960760 24/12/2009 at 09:12
CROWN CASTLE AUSTRALIA PTY LTD A.C.N. 090 873 019
OF LEASE AM ON SP217358
TERM: 01/04/2005 TO 31/12/2013 OPTION NIL
79. TRUSTEE LEASE No 713016661 25/01/2010 at 14:58
MADINITALY PTY LTD A.C.N. 102 257 803
OF PART OF THE GROUND FLOOR (LEASE TB)
TERM: 15/04/2009 TO 14/04/2016 OPTION NIL
80. TRUSTEE LEASE No 713016667 25/01/2010 at 14:59
KINGMILL PTY LTD A.C.N. 003 966 649
OF PART OF THE GROUND FLOOR (LEASE TE)
TERM: 01/12/2008 TO 30/11/2013 OPTION NIL

ADMINISTRATIVE ADVICES - NIL

UNREGISTERED DEALINGS

Dealing	Type		Lodgement Date	Status
713008084	SUB LEASE	703610519	21/01/2010 09:45	UNVERIFIED

CERTIFICATE OF TITLE ISSUED - No

Caution - Charges do not necessarily appear in order of priority

** End of Current Reserve Search **

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Requested By: External Supervisor

Appendix C – Site photographs





Photograph 1	Photograph
<p>Bowser point and wash down are to the western side of the new fire station. Interceptor point can be seen in the foreground. Area was sealed and in good condition</p>	
Photograph 2	Photo
<p>Fuel storage area and sealed area. The area is sealed but not bunded. The foam tank can be seen in the right of the photograph</p>	





Photograph 3	Photo
<p>The black foam tank in the foreground with RF6 IBCs in the background. The IBC stand on bunded pallets</p>	
Photograph 4	Photo
<p>Water runoff from the sealed section of the fire station where truck washing takes place. This was the location of the historic spill with Ansulite running over the concrete, then grass and into the drain.</p>	



Photograph 5	Photo
<p>View facing north east into the airport from Gate 16 where performance testing took place into the grassy areas</p>	
Photograph 6	Photo
<p>View facing east from north of the runway (from the boundary road). Groundwater can be seen daylighting. This is apparent throughout the site, in most of the grassed areas</p>	



Photograph 7	Photo
<p>Former fire station (FSS). The hanger has been extended and additional grassed areas sealed since use as a fire station. The (newly sealed) concrete on the right of the photo (near the forklift)</p>	
Photograph 8	Photo
<p>Taxiway to the north of the FFS.</p>	



Photograph 9	Photo
<p>View facing south from the Airservices runway bridge. The open surface water drain runs from north to south along the runway. The fire station is located out of the picture (the foam tank pad can be seen) on the left. This grassed area is the location of the Ansulite spill</p>	A photograph showing a wide, flat, grassed area in the foreground. A narrow, straight water drain runs from the foreground towards the background, filled with dark water. In the distance, a paved runway or taxiway is visible, with some airport infrastructure and trees on the horizon. The sky is blue with scattered white clouds. A concrete curb and a white post are visible in the immediate foreground on the left.

Appendix D – Groundwater data search results

BORE REPORT

REG NUMBER 156609

REGISTRATION DETAILS

OFFICE Bundaberg	BASIN 1410	LATITUDE 26-35-39	MAP-SCALE
DATE LOG RECD 23-FEB-13	SUB-AREA	LONGITUDE 153-04-42	MAP-SERIES
D/O FILE NO.	SHIRE 6720-SUNSHINE COAST	EASTING 507607	MAP-NO
R/O FILE NO.	LOT 857	NORTHING 7058376	MAP NAME
H/O FILE NO.	PLAN CG4403	ZONE 56	PROG SECTION
	ORIGINAL DESCRIPTION	ACCURACY UNKN	PRES EQUIPMENT
		GPS ACC	
GIS LAT -26.59409248	PARISH NAME 3080-MAROOCHY		ORIGINAL BORE NO
GIS LNG 153.078391	COUNTY CANNING		BORE LINE -
CHECKED Y			
			POLYGON
			RN OF BORE REPLACED
			DATA OWNER
FACILITY TYPE Sub-Artesian Facility	DATE DRILLED 02/10/2012		
STATUS Existing	DRILLERS NAME PARTLETON, STEPHEN		
ROLES	DRILL COMPANY GEODRILL PTY LTD		
	METHOD OF CONST. ROTARY MUD AND AUGER		

CASING DETAILS

PIPE	DATE	RECORD NUMBER	MATERIAL DESCRIPTION	MAT SIZE (mm)	SIZE DESC	OUTSIDE DIAM (mm)	TOP (m)	BOTTOM (m)
A	02/10/2012	1	Steel Casing	5.000	WT	115	0.00	2.50
A	02/10/2012	2	Polyvinyl Chloride	5.000	WT	50	0.00	8.20
A	02/10/2012	3	Perforated or Slotted Casing	1.000	AP	50	5.20	8.20
X	02/10/2012	4	Bentonite Seal				8.20	8.50
X	02/10/2012	5	Gravel Pack				4.40	8.20
X	02/10/2012	6	Grout				0.00	4.40

STRATA LOG DETAILS

RECORD NUMBER	STRATA TOP (m)	STRATA BOT (m)	STRATA DESCRIPTION
1	0.00	0.80	SAND
2	0.80	4.30	SILTY SAND
3	4.30	8.00	SAND

BORE REPORT

REG NUMBER 156609

RECORD NUMBER	STRATA TOP (m)	STRATA BOT (m)	STRATA DESCRIPTION
4	8.00	8.50	SILTY SAND

STRATIGRAPHY DETAILS

**** NO RECORDS FOUND ****

AQUIFER DETAILS

REC	TOP BED(M)	BOTTOM BED(M)	BED LITHOLOGY	DATE	SWL (m)	FLOW	QUALITY	YIELD CTR (l/s)	CONDIT	FORMATION NAME
1	2.10		SAND	02/10/2012	-2.00	N				UC

PUMP TEST DETAILS PART 1

PIPE	DATE	REC RN OF NO. PUMP-BORE	TOP (m)	BOTTOM (m)	DIST METH (m)	TEST TYPES	PUMP TYPE	SUCTION SET (m)	Q PRIOR TO TEST (l/s)	DUR OF Q PR (min)	PRES ON ARRIV (m)	Q ON ARRIV (l/s)
A	02/10/2012	1 156609	2.10				AIR					

PUMP TEST DETAILS PART 2

PIPE	DATE	REC	TEST DUR (mins)	SWL (m)	RECOV. TIME (mins)	RESID. DD (m)	MAX DD or P RED (m)	Q at MAX DD (l/s)	TIME TO MAX DD (mins)	Max Q (l/s)	CALC STAT HD (m)	DESIGN YIELD (l/s)	DESIGN BP (m)	SUCT. SET (m)	TMSY (m2/DAY)	STOR
A	02/10/2012	1		-2.00												

BORE CONDITION

**** NO RECORDS FOUND ****

ELEVATION DETAILS

**** NO RECORDS FOUND ****

WATER ANALYSIS PART1

**** NO RECORDS FOUND ****

WATER ANALYSIS PART 2

**** NO RECORDS FOUND ****

BORE REPORT

REG NUMBER 156609

WATER LEVEL DETAILS

**** NO RECORDS FOUND ****

WIRE LINE LOG DETAILS

**** NO RECORDS FOUND ****

FIELD MEASUREMENTS

**** NO RECORDS FOUND ****

SPECIAL WATER ANALYSIS

**** NO RECORDS FOUND ****

BORE REPORT

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BORE REPORT

REG NUMBER 156610

REGISTRATION DETAILS

OFFICE Bundaberg	BASIN 1410	LATITUDE 26-35-42	MAP-SCALE
DATE LOG RECD 23-FEB-13	SUB-AREA	LONGITUDE 153-05-22	MAP-SERIES
D/O FILE NO.	SHIRE 6720-SUNSHINE COAST	EASTING 508906	MAP-NO
R/O FILE NO.	LOT 154	NORTHING 7058414	MAP NAME
H/O FILE NO.	PLAN NPW867	ZONE 56	PROG SECTION
	ORIGINAL DESCRIPTION	ACCURACY UNKN	PRES EQUIPMENT
		GPS ACC	
GIS LAT -26.59503463	PARISH NAME 3080-MAROOCHY		ORIGINAL BORE NO
GIS LNG 153.0894463	COUNTY CANNING		BORE LINE -
CHECKED Y			
			POLYGON
			RN OF BORE REPLACED
			DATA OWNER
FACILITY TYPE Sub-Artesian Facility	DATE DRILLED 27/09/2012		
STATUS Existing	DRILLERS NAME PARTLETON, STEPHEN		
ROLES	DRILL COMPANY GEODRILL PTY LTD		
	METHOD OF CONST. ROTARY MUD AND AUGER		

CASING DETAILS

PIPE	DATE	RECORD NUMBER	MATERIAL DESCRIPTION	MAT SIZE (mm)	SIZE DESC	OUTSIDE DIAM (mm)	TOP (m)	BOTTOM (m)
A	27/09/2012	1	Steel Casing	5.000	WT	115	0.00	2.50
A	27/09/2012	2	Polyvinyl Chloride	5.000	WT	50	0.00	7.50
A	27/09/2012	3	Perforated or Slotted Casing	1.000	AP	50	3.80	6.80
X	27/09/2012	4	Gravel Pack			115	3.50	7.20
X	27/09/2012	5	Bentonite Seal			115	7.20	7.50
X	27/09/2012	6	Grout			115	0.00	3.50

STRATA LOG DETAILS

RECORD NUMBER	STRATA TOP (m)	STRATA BOT (m)	STRATA DESCRIPTION
1	0.00	0.40	SILTY SAND
2	0.40	1.30	SAND
3	1.30	2.90	CEMENTED SAND

BORE REPORT

REG NUMBER 156610

RECORD NUMBER	STRATA TOP (m)	STRATA BOT (m)	STRATA DESCRIPTION
4	2.90	4.00	SAND
5	4.00	5.00	SAND (BECOMING DARK BROWN)
6	5.00	7.50	SAND (BECOMING BROWN)

STRATIGRAPHY DETAILS

**** NO RECORDS FOUND ****

AQUIFER DETAILS

**** NO RECORDS FOUND ****

PUMP TEST DETAILS PART 1

PIPE	DATE	REC RN OF NO. PUMP-BORE	TOP (m)	BOTTOM (m)	DIST METH (m)	TEST TYPES	PUMP TYPE	SUCTION SET (m)	Q PRIOR TO TEST (l/s)	DUR OF Q PR (min)	PRES ON ARRIV (m)	Q ON ARRIV (l/s)
A	27/09/2012	1 156610				PUM						

PUMP TEST DETAILS PART 2

PIPE	DATE	REC	TEST DUR (mins)	SWL (m)	RECOV. TIME (mins)	RESID. DD (m)	MAX DD or P RED (m)	Q at MAX DD (l/s)	TIME TO MAX DD (mins)	Max Q (l/s)	CALC STAT HD (m)	DESIGN YIELD (l/s)	DESIGN BP (m)	SUCT. SET (m)	TMSY (m2/DAY)	STOR
A	27/09/2012	1		-0.40												

BORE CONDITION

**** NO RECORDS FOUND ****

ELEVATION DETAILS

**** NO RECORDS FOUND ****

WATER ANALYSIS PART1

**** NO RECORDS FOUND ****

WATER ANALYSIS PART 2

**** NO RECORDS FOUND ****

BORE REPORT

REG NUMBER 156610

WATER LEVEL DETAILS

**** NO RECORDS FOUND ****

WIRE LINE LOG DETAILS

**** NO RECORDS FOUND ****

FIELD MEASUREMENTS

**** NO RECORDS FOUND ****

SPECIAL WATER ANALYSIS

**** NO RECORDS FOUND ****

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BORE REPORT

REG NUMBER 164077

REGISTRATION DETAILS

OFFICE Bundaberg	BASIN 1410	LATITUDE 26-36-46	MAP-SCALE
DATE LOG RECD 01-MAY-14	SUB-AREA	LONGITUDE 153-05-10	MAP-SERIES
D/O FILE NO.	SHIRE 6720-SUNSHINE COAST	EASTING 508584	MAP-NO
R/O FILE NO.	LOT 2	NORTHING 7056464	MAP NAME
H/O FILE NO.	PLAN SP264851	ZONE 56	PROG SECTION
	ORIGINAL DESCRIPTION	ACCURACY UNKN	PRES EQUIPMENT
		GPS ACC	
GIS LAT -26.61264181	PARISH NAME 3080-MAROOCHY		ORIGINAL BORE NO
GIS LNG 153.0862279	COUNTY CANNING		BORE LINE -
CHECKED Y			
			POLYGON
			RN OF BORE REPLACED
FACILITY TYPE Sub-Artesian Facility	DATE DRILLED 28/04/2014		DATA OWNER
STATUS Abandoned and Destroyed	DRILLERS NAME STOLZENBERG, KEVIN DUDLEY		
ROLES	DRILL COMPANY STOLZENBERG DRILLING		
	METHOD OF CONST. ROTARY AIR		

CASING DETAILS

PIPE	DATE	RECORD NUMBER	MATERIAL DESCRIPTION	MAT SIZE (mm)	SIZE DESC	OUTSIDE DIAM (mm)	TOP (m)	BOTTOM (m)
X	24/04/2014	1	Cuttings or other fill between casing and hc			254	5.80	91.40
X	24/04/2014	2	Grout			264	5.50	5.80

STRATA LOG DETAILS

RECORD NUMBER	STRATA TOP (m)	STRATA BOT (m)	STRATA DESCRIPTION
1	0.00	0.90	SOIL DARK SANDY
2	0.90	2.40	BLACK BACKFILL
3	2.40	6.10	BROWN COFFEE ROCK
4	6.10	11.30	BACLK SAND
5	11.30	13.10	GREY SAND COARSE
6	13.10	15.20	WHITE SAND CLAY
7	15.20	18.30	ORANGE SAND CLAY

BORE REPORT

REG NUMBER 164077

RECORD NUMBER	STRATA TOP (m)	STRATA BOT (m)	STRATA DESCRIPTION
8	18.30	23.50	GREY SANDSTONE
9	23.50	36.60	DARK GREY SANDSTONE
10	36.60	61.00	DARK GREY SANDSTONE & COURSE GRAIN
11	61.00	91.40	GREY SAND WITH SOME BLACK BANDS MUDSTONE

STRATIGRAPHY DETAILS

**** NO RECORDS FOUND ****

AQUIFER DETAILS

REC	TOP BED(M)	BOTTOM BED(M)	BED LITHOLOGY	DATE	SWL (m)	FLOW	QUALITY	YIELD (l/s)	CTR	CONDIT	FORMATION NAME
1	6.10		SDST	24/04/2014	-10.70	N	BRACKISH		N	PS	COASTAL DUNE SANDS

PUMP TEST DETAILS PART 1

PIPE	DATE	REC RN OF NO. PUMP-BORE	TOP (m)	BOTTOM (m)	DIST (m)	METH	TEST TYPES	PUMP TYPE	SUCTION SET (m)	Q PRIOR TO TEST (l/s)	DUR OF Q PR (min)	PRES ON ARRIV (m)	Q ON ARRIV (l/s)
X	24/04/2014	1 164077	6.10						91.40				

PUMP TEST DETAILS PART 2

PIPE	DATE	REC	TEST DUR (mins)	SWL (m)	RECOV. TIME (mins)	RESID. DD (m)	MAX DD or P RED (m)	Q at MAX DD (l/s)	TIME TO MAX DD (mins)	Max Q (l/s)	CALC STAT HD (m)	DESIGN YIELD (l/s)	DESIGN BP (m)	SUCT. SET (m)	TMSY (m2/DAY)	STOR
X	24/04/2014	1	120	-10.70								0.68		91.40		

BORE CONDITION

**** NO RECORDS FOUND ****

ELEVATION DETAILS

**** NO RECORDS FOUND ****

WATER ANALYSIS PART1

BORE REPORT

REG NUMBER 164077

**** NO RECORDS FOUND ****

WATER ANALYSIS PART 2

**** NO RECORDS FOUND ****

WATER LEVEL DETAILS

**** NO RECORDS FOUND ****

WIRE LINE LOG DETAILS

**** NO RECORDS FOUND ****

FIELD MEASUREMENTS

PIPE	DATE	DEPTH (m)	COND (uS/cm)	pH	TEMP (C)	NO3 (mg/L)	DO (mg/L)	Eh (mV)	ALK (mEq)	METH	SOURCE
X	24/04/2014	6.10	1720							PU	GB

SPECIAL WATER ANALYSIS**** NO RECORDS FOUND ****

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**** End of Report. Produced: 11/08/2016 02:32:32 PM ****

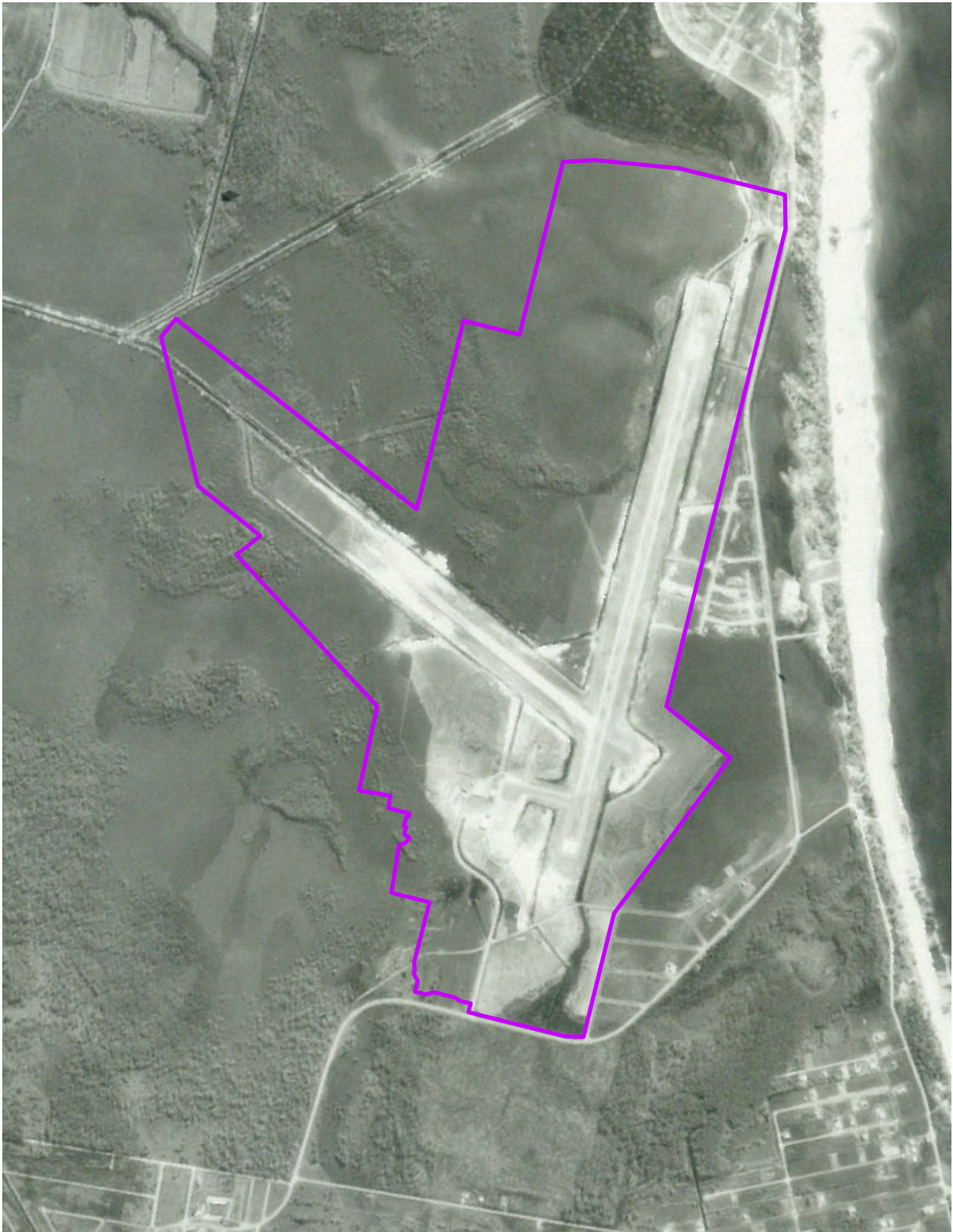
Appendix E – Historical aerial photographs



Document Identification	Run: 3 Film: Q747 Frame: 121 Scale: 1 : 25,000 (Black & White)
Photograph Date	Date: 5 May 1958



Document Identification	Run: 2 Film: Q1749 Frame: 3 Scale: 1 : 48,000 (Black & White)
Photograph Date	Date: 18 July 1967



Document Identification	Run: 2 Film: Q3364 Frame: 9604 Scale: 1 : 40,000 (Black & White)
Photograph Date	Date: 22 July 1977



Document Identification	Run: 3 Film: Q4741 Frame: 30 Scale: 1 : 25,000 (Black & White)
Photograph Date	Date: 11 May 1988



Document Identification	Run: 3 Film: QAP5723 Frame: 3 Scale: 1 : 25,000 (Colour)
Photograph Date	Date: 22 July 1999



Document Identification	Run: 33 Film: DIG7001 Frame: 643 Scale: 1 : 30,000 (Colour)
Photograph Date	Date: 23 October 2008



Document Identification	Google Earth (Colour)
Photograph Date	Date: August 2015



Appendix F – Interview transcripts

	Questions
1	<p>Are you aware of any PFAS investigations and testing that have been undertaken across the wider Airport (i.e. outside of ARFF site)?</p> <p>No – not aware of other investigations or any groundwater infrastructure.</p>
2	<p>Is there an incident log that details where actual fires and fuel spills have been attended that required the use of firefighting foams?</p> <p>There is a daily log, however limited fires. Only one incident (see point below)</p> <p>There was an accidental discharge of Ansulite at the new ASA location in approximately late 2010. This was from the concrete pad to the open drain and was probably approximately 1500-2000L of product.</p> <p>The foam covered the immediate grassed areas in front of ASA to and into the open drain. The foam eventually was washed into the drain and left the site via the site open drain.</p>
3	<p>If there is not an inventory, can you recall any fires or fuel spills at the Airport? Dates?</p> <p>One plane incident when the small plane left the end of the runway. This required an occupational discharge of Ansulite (6%). This was from a handline and therefore discharged approximately a few hundred litres (location shown to GHD).</p>
4	<p>Is there an inventory of AFFF storage within the Airport?</p> <p>Yes</p> <p>In the previous location there was a 5000L diesel type tank given to ASA to store Ansulite. The tank was self bunded and the inner skin disintegrated after about 2 years, however no external leaks were noted.</p> <p>At current location there is an 8000L RF6 tank. This was viewed and is in good condition. Vacuum hoses were observed. Hoses designed to suck back excess product in to the tank so that it does not run on ground. This did not happen to previous hoses and product would be lost during refilling.</p>
5	<p>Are you aware of any AFFF use outside of the Airport but within the general vicinity?</p> <p>No</p>
6	<p>Is there any AFFF still stored within the Airport? If so, where and for what purpose?</p> <p>No Ansulite. This has not been used at the new ASA location in the AFFF storage tanks. Ansulite was moved from the previous ASA hanger location in 1000L IBCs and stored in these. All IBCs (full and empty) were removed from the site from the new location in the first couple of years. Approximately 10-12 IBCs were removed.</p> <p>Only RF6 has been used in the bulk foam tank on the new ASA site.</p>

	Questions
7	<p>Has training involving AFFF (e.g. extinguishers, Airport Emergency Planning (AEP) exercises) ever been undertaken at this airport? If so, where?</p> <p>No Training – all training was and is done at Brisbane. There was some minor fire extinguisher training done at the old hanger (on the grass in between hangers), however they only used the CO2 extinguishers, not the foam ones.</p>
8	<p>What is the age of the current fire station and any other ARFF areas? What was the previous use of these sites?</p> <p>The current station was constructed in 2009 and ASA moved here in May 2010. ASA was previously located in the McDermott Aviation hanger, at the other side of the airport. It has now been renovated and some of the surrounding grassed areas sealed.</p> <p>The current site was previously vacant land and is located on the other side of the main runway from the terminal.</p> <p>ASA came to the SC airport site in approximately 2004, prior to this time the QLD fire and rescue attended any fires. ASA did make occasional visitations to the SC airport prior to this during special occasions (eg CHOGM in 2002).</p>
9	<p>Were any other ARFF sites located within the Airport?</p> <p>No</p>
10	<p>Were trucks and equipment ever tested onsite? If so, where?</p> <p>Yes, some performance testing was done near Gate 16 into the Wallum Heath area and also outside of the old hanger. The performance testing was done monthly, however it is not known how many times it was done in this area. It is likely that this was done more than the one event discussed by Derek Runge.</p>
11	<p>Was wash down of fire fighting equipment restricted to the fire training areas?</p> <p>The wash down was in front of the ASA areas. In the case of the old station this would have been washed over the sealed areas near the apron and onto the grass. In the new location there is a drain and interceptor (designed for hydrocarbons).</p>
12	<p>Where did the wash down water end up? Do any drains discharge off-site and, if so, where?</p> <p>The airport open drains run off site to the south. Overland flow would be directed into the wooded surrounding areas and into the site open drains. The new station has a drain as per above.</p>
13	<p>Has there been any significant bulk earth works (relevant to AFFF use) on the site that resulted in soil being relocated from one area of the airport to another?</p>

	Questions
	<p>Yes, large portions of the open drains have been excavated and sealed. It is unknown where this material was relocated to (SC airport have been asked for records). The drain sealing was done in approximately 2012-2013 (after the foam spill at the new ASA area).</p> <p>The open drains are routinely cleaned of sediment and this is relocated on site in the north west (approximate area shown to GHD by SC Airport)</p>
14	<p>How were spent drums or excess product disposed of?</p> <p>At the old station occasionally old drums would be cut, set alight and then extinguished.</p> <p>Product was cleaned out of trucks via overland flow outside the station and onto the grass.</p>
15	<p>Does groundwater 'daylight' in areas of the site?</p> <p>Yes, the majority of the site is covered in water. The terminal, runways, aprons and eastern area (location of ASA) is filled and built up, however all internal grassed areas are usually underwater (approx. 20-30 cm noted during site visit – viewed from internal road). The internal airport grassed areas cannot be accessed as vehicles would be partially submerged/bogged.</p> <p>During heavy rains, the airport drains through groundwater and large surface water drains.</p>
16	<p>Is stormwater harvested within the Airport and if so, for what purposes and where?</p> <p>No – only rainwater directed to toilets at the station.</p>
17	<p>Is groundwater abstracted within the Airport and if so, for what purposes and where?</p> <p>no</p>

Interview undertaken 20 July 2016 on site at SC Airport. Interviewees were:

- [REDACTED]
- [REDACTED]
- [REDACTED]
- [REDACTED]

All ASA personnel above have been at the SC airport site since 2004.

	Questions
1	<p>Are you aware of any PFAS investigations and testing that have been undertaken across the wider Airport (i.e. outside of ARFF site)?</p> <p>No – not aware of other investigations or any groundwater infrastructure.</p>
2	<p>Is there an incident log that details where actual fires and fuel spills have been attended that required the use of firefighting foams?</p> <p>NA</p>
3	<p>If there is not an inventory, can you recall any fires or fuel spills at the Airport? Dates?</p> <p>Mr Mondello was aware of the aircraft incident at the end of the runway, but did not observe it</p>
4	<p>Is there an inventory of AFFF storage within the Airport?</p> <p>No – ASA only</p>
5	<p>Are you aware of any AFFF use outside of the Airport but within the general vicinity?</p> <p>No</p>
6	<p>Is there any AFFF still stored within the Airport? If so, where and for what purpose?</p> <p>Only at ASA</p>
7	<p>Has training involving AFFF (e.g. extinguishers, Airport Emergency Planning (AEP) exercises) ever been undertaken at this airport? If so, where?</p> <p>No</p>
8	<p>What is the age of the current fire station and any other ARFF areas? What was the previous use of these sites?</p> <p>NA</p>
9	<p>Were any other ARFF sites located within the Airport?</p> <p>No</p>
10	<p>Were trucks and equipment ever tested onsite? If so, where?</p> <p>Not aware</p>
11	<p>Was wash down of fire fighting equipment restricted to the fire training areas?</p> <p>Not aware</p>
12	<p>Where did the wash down water end up? Do any drains discharge off-site and, if so, where?</p> <p>NA</p>

	Questions
13	<p>Has there been any significant bulk earth works (relevant to AFFF use) on the site that resulted in soil being relocated from one area of the airport to another?</p> <p>Yes, large portions of the open drains have been excavated and sealed. It is unknown where this material was relocated to (SC airport have been asked for records). The drain sealing was done in approximately 2012-2013</p> <p>The open drains are routinely cleaned of sediment and this is relocated on site in the north west (approximate area shown to GHD by SC Airport)</p>
14	<p>How were spent drums or excess product disposed of?</p> <p>NA</p>
15	<p>Does groundwater 'daylight' in areas of the site?</p> <p>Yes, the majority of the site is covered in water.</p> <p>During heavy rains, the airport drains through groundwater and large surface water drains.</p>
16	<p>Is stormwater harvested within the Airport and if so, for what purposes and where?</p> <p>No – only rainwater</p>
17	<p>Is groundwater abstracted within the Airport and if so, for what purposes and where?</p> <p>no</p>

Interview undertaken 20 July 2016 on site at SC Airport. Interview was undertaken with [REDACTED], the acting General Manager of the SC airport. [REDACTED] has been at the site for approximately 12 months.

Other items discussed:

- The airport is scheduled for renovation and extension with an additional runway to be constructed on vegetated areas to the north west (outside of the current airport footprint)
- [REDACTED] was aware of the drain resealing and is trying to find the associated report.
- Sediment drains are routinely cleaned out and the material relocated on the site.
- There is no additional fire stations proposed with the airport expansion.

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Document Status

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