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## 1. Executive Summary

This City & Southwest Construction Compliance Report 01 documents TfNSW's and its contractors' compliance as required by the project's planning approvals granted by the NSW Department of Planning & Environment (DP&E). This report covers the period from the date of approval of the Chatswood to Sydenham Environmental Impact Statement, 9 January 2017, to 30 September 2017. Subsequent reports will cover each six (6) month period following the 30 September 2017 (i.e. October to March, April to September, etc.).

During the reporting period, the project was primarily focused on start-up activities. This included Construction Environmental Management Plan (CEMP) and sub-plan development, site mobilisation and establishment and other minor works activities. Three (3) contractors received DP&E approval of their CEMP and sub-plans and subsequently commenced construction activities. This included structural demolition at all of the project sites and construction of the Sydney Yard Access Bridge.

Environmental performance was generally well managed across the project. No significant (Class 1 or Class 2) environmental incidents occurred. Seventeen (17) minor (Class 3) incidents occurred during the reporting period. These minor incidents mostly related to Noise & Vibration and Soil & Water issues.

Environmental compliance has been high, with four (4) non-compliances raised during the reporting period. This represents a project non-compliance rate of 0.4 at the end of the reporting period (i.e. there were 0.4 non-compliances for every 100 planning approval compliance requirements allocated to TfNSW or the contractor on the project). Three (3) of the four (4) non-compliances related to unauthorised works.

The majority of complaints received during the reporting period have been generated by the demolition contractors (81%). These complaints have mostly related to Noise & Vibration, Property & Business Impacts, Air Quality and Traffic, Transport and Access issues.

Construction Package	Ongoing Requirements* (non-compliances raised)	Major Incidents (minor incidents)	Environmental Representative Inspections (issues raised)	Complaints
<b>Demolition A</b> (Delta)	<b>170</b> (1)	<b>0</b> (3)	<b>6</b> (11)	<b>6</b>
<b>Demolition B</b> (Metropolitan)	<b>170</b> (0)	<b>0</b> (0)	<b>1</b> (0)	<b>0</b>
<b>Sydney Yard Access Bridge</b> (Laing O'Rourke)	<b>202</b> (0)	<b>0</b> (6)	<b>9</b> (25)	<b>7</b>
<b>Tunnels and Station Excavations</b> (CPB John Holland Ghella)	<b>580</b> (2)	<b>0</b> (6)	<b>12</b> (38)	<b>46</b>
<b>TfNSW</b>	<b>156</b> (1)	<b>0</b> (2 – including investigation works)	<b>0</b> (0)	<b>5</b> (including investigation works)
<b>Total</b>	<b>938</b> <b>(4)</b>	<b>0</b> <b>(17)</b>	<b>28</b> <b>(74)</b>	<b>64</b>

\* Ongoing Requirements represent planning approval conditions and Revised Environmental Mitigation Measures that require further action to be undertaken to achieve compliance, as may be retained by TfNSW or allocated by TfNSW to one or more contractors.

## 2. Introduction

### 2.1. Purpose of this Report

The purpose of this Construction Compliance Report is to document Transport for NSW (TfNSW) and its delivery partners' compliance with the requirements of the Sydney Metro City & Southwest project planning approvals granted by the NSW Department of Planning and Environment (DP&E). Refer to Section 2.5 for further details on the project's planning approval(s). Construction compliance reporting on the Sydney Metro Northwest project will be provided in a separate report to DP&E. All Sydney Metro Construction Compliance Reports are available on the Sydney Metro website (<https://www.sydneymetro.info/>).

This report will be submitted to DP&E for information every six (6) months. The scope of the reports will cover all activities that were subject to the City & Southwest project's planning approvals as granted by DP&E during each reporting period. This will include both the Chatswood to Sydenham and Sydenham to Bankstown portions of the project.

Table 1 cross-references sections in this report that address each applicable planning approval requirement relating to Construction Compliance Reports. Only the Chatswood to Sydenham (C2S) planning approval was applicable during this reporting period.

**Table 1: Construction Compliance Report Planning Approval Conditions Cross-References**

Planning Approval Condition	Condition Requirement(s)	Construction Compliance Report Section
C2S A34	<b>Construction Compliance Reports must be prepared and submitted to the Secretary for information every six (6) months from the date of the commencement of construction or within another timeframe agreed with the Secretary, for the duration of construction. The Construction Compliance Reports must include:</b>	This report and Sections 2.1 and 2.2
C2S A34(a)	<b>A results summary and analysis of environmental monitoring;</b>	Section 5.6
C2S A34(b)	<b>The number of any complaints received, including a summary of main areas of complaint, action taken, response given and proposed strategies for reducing the recurrence of such complaints;</b>	Section 5.7 and Appendix 1
C2S A34(c)	<b>Details of any review of, and minor amendments made to, the CEMP as a result of construction carried out during the reporting period;</b>	Section 3.2
C2S A34(d)	<b>A register of any consistency assessments undertaken and their status;</b>	Section 2.5.5
C2S A34(e)	<b>Results of any independent environmental audits and details of any actions taken in response to the recommendations of an audit;</b>	Section 5.5
C2S A34(f)	<b>A summary of all incidents notified in accordance with Condition A41 and Condition A44 of this approval; and</b>	Section 5.3
C2S A34(g)	<b>Any other matter relating to compliance with the terms of this approval or as requested by the Secretary.</b>	This report

### 2.2. Reporting Period

This report covers the reporting period for all works undertaken on the City & Southwest project from the Chatswood to Sydenham EIS approval date of 9 January 2017 until 30 September 2017. Subsequent reports will cover the following six (6) month periods (i.e. October to March, April to September, etc.).

Construction activities commenced on the project on 17 June 2017.

## 2.3. Definitions

All terminology in this report is taken to mean the generally accepted or dictionary definition. Relevant acronyms and abbreviations used throughout this report are explained in Table 2.

**Table 2: Acronym and Abbreviation Explanations**

	Definitions
<b>AA</b>	(Independent) Acoustics Advisor
<b>CEMF</b>	Construction Environmental Management Framework
<b>CEMP</b>	Construction Environmental Management Plan
<b>CSM</b>	Central Station Main
<b>CTP</b>	Compliance Tracking Program
<b>C2S</b>	Chatswood to Sydenham
<b>Delta</b>	Delta Group
<b>PD&amp;E</b>	Department of Planning and Environment (NSW)
<b>EIS</b>	Environmental Impact Statement
<b>EPA</b>	Environment Protection Authority (of NSW)
<b>EPL</b>	Environment Protection Licence
<b>EP&amp;A Act</b>	<i>Environmental Planning and Assessment Act 1979</i> (NSW)
<b>ER</b>	(Independent) Environmental Representative
<b>EW</b>	Enabling Works
<b>IEA</b>	Independent Environmental Auditor
<b>JHCPBG</b>	John Holland CPB Ghella (Joint Venture)
<b>JHLOR</b>	John Holland Laing O'Rourke (Joint Venture)
<b>LOR</b>	Laing O'Rourke
<b>LWC</b>	Line-Wide Contracts
<b>Metropolitan</b>	Metropolitan Demolitions
<b>NCW</b>	Northern Corridor Works
<b>OOH</b>	Out of Hour
<b>POEO Act</b>	<i>Protection of the Environment Operations Act 1997</i> (NSW)
<b>REF</b>	Review of Environmental Factors
<b>REMM</b>	Revised Environmental Mitigation Measure (from a Preferred Infrastructure Report)
<b>SMDO</b>	Sydney Metro Delivery Office (of TfNSW)
<b>SMTF</b>	Sydney Metro Trains Facility
<b>SSC</b>	Southwest Station and Corridor
<b>SSJ</b>	Sydenham Station Junction
<b>STME</b>	Stations, Mechanical and Electrical
<b>SYAB</b>	Sydney Yard Access Bridge
<b>S2B</b>	Sydenham to Bankstown
<b>TfNSW</b>	Transport for New South Wales
<b>TSE</b>	Tunnels and Station Excavation
<b>TSOM</b>	Trains, Systems, Operations and Maintenance

## 2.4. City & Southwest Project Overview

The Sydney Metro program will deliver a new high frequency driverless single deck train system in Sydney. The Northwest project is from Rouse Hill to Chatswood, and the City & Southwest project extends this alignment underground through the Sydney CBD area and along the existing Sydney Trains corridor from Sydenham to Bankstown. The City & Southwest project is due to open in 2024 with the ultimate capacity to run a metro train every two minutes.

The 30 kilometre City & Southwest project is comprised of twin railway tunnels beneath Sydney Harbour between Chatswood and Sydenham Stations, and the upgrade of the existing Sydney Trains T3 Bankstown Line between Sydenham and Bankstown Stations. The project will deliver seven (7) new metro stations and upgrade eleven (11) existing stations.

Figure 1 provides a map of the Sydney Metro alignment, including both the Northwest and City & Southwest projects.

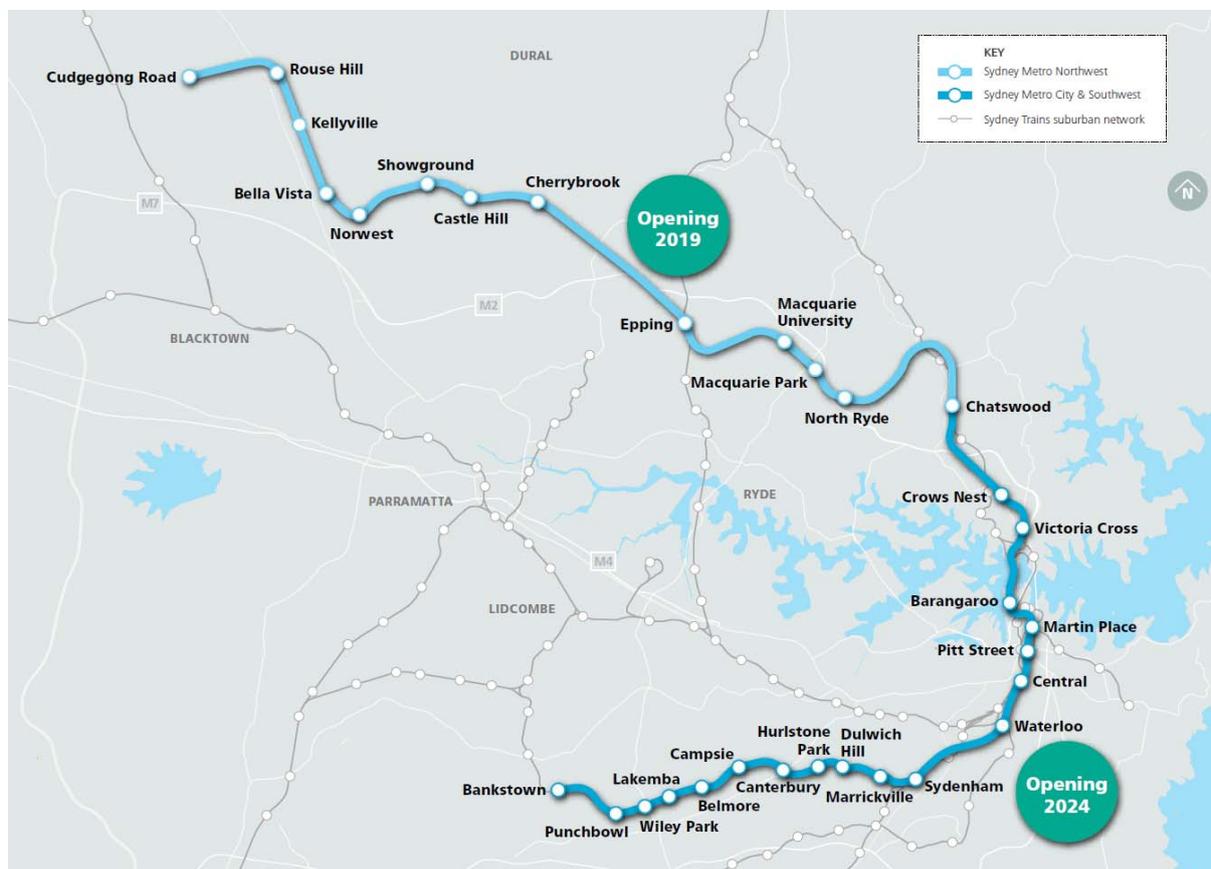


Figure 1: Sydney Metro Northwest and City & Southwest Project Alignments

## 2.5. Project Planning Approvals

The Sydney Metro City & Southwest project is classified as State Significant Infrastructure and is predominantly subject to two (2) planning approvals under Part 5.1 of the NSW *Environmental Planning and Assessment Act 1979* (EP&A Act).

### 2.5.1. Chatswood to Sydenham Environmental Impact Statement

The Chatswood to Sydenham Environmental Impact Statement (EIS) covers the construction and operation of the rail line between Chatswood and Sydenham Stations. This section of the rail line almost entirely comprises of twin underground rail tunnels, and includes new stations at Crows Nest, Victoria Cross (North Sydney), Barangaroo, Martin Place, Pitt Street, Central Station (new underground platforms) and Waterloo.

The EIS was on public exhibition from 11 May 2016 to 27 June 2016. DP&E approved the EIS on 9 January 2017.



Figure 2: Artist Impression of the Barangaroo Station Precinct (subject to change)

Since the EIS approval, four (4) modifications (MOD) have been submitted to DP&E.

#### 2.5.1.1. MOD1 – Victoria Cross Station and Artarmon Substation

MOD1 covers the relocation of the:

- Victoria Cross Services Building and a new Victoria Cross Station entrance to 50 McLaren Street, North Sydney, and
- Artarmon Substation to 98-104 Reserve Road, Artarmon (within the Artarmon industrial area).

MOD1 was on public exhibition from 7 June 2017 to 5 July 2017 and was approved by DP&E on 18 October 2017.

#### 2.5.1.2. MOD2 – Central Walk

MOD2 covers a new east concourse connecting the future metro platforms at Central Station with a new eastern entry on Chalmers Street, Surry Hills, as well as connections to the aboveground suburban platforms and associated platform works.

MOD2 was on public exhibition from 21 June 2017 to 2 August 2017. DP&E determination is expected to be received by the end of 2017.



Figure 3: Artist Impression Cross-Section of Central Walk (subject to change)

#### 2.5.1.3. MOD3 – Martin Place Metro Station

MOD3 covers the modification of the Martin Place Metro Station to provide for:

- A larger, reconfigured station layout, including the addition of land at 9-19 Elizabeth Street, Sydney and alterations to the street level layout of the station entries,
- A new concourse link between the northern and southern station entries, extending beneath 50 Martin Place, Sydney, and
- Retaining the existing MLC pedestrian link and works to connect the link to the Sydney Metro Martin Place Station.

MOD3 was submitted to DP&E to facilitate an Unsolicited Proposal by Macquarie Group to develop the Martin Place station and area above. Macquarie Group has prepared a separate State Significant Development application for the over station development. In the event that the State Significant Development application is refused or the NSW Government does not accept the final Unsolicited Proposal by Macquarie Group, this modification (if approved) would be surrendered and the original approved project as per the Chatswood to Sydenham EIS would proceed.

MOD3 was on public exhibition from 28 June 2017 to 26 July 2017. DP&E determination is expected to be received by the end of 2017.

#### 2.5.1.4. MOD4 – Sydenham Station and Metro Facility South

MOD4 covers the delivery of:

- The Sydenham Station and precinct works,
- The Sydney Metro Trains Facility South,

- Track and rail system facilities,
- Adjustments to the Sydenham Pit and Drainage Pumping Station, and
- Ancillary infrastructure and works.

MOD4 was on public exhibition from 28 June 2017 to 9 August 2017. DP&E determination is expected to be received by the end of 2017.

### 2.5.2. Sydenham to Bankstown Environmental Impact Statement

The Sydenham to Bankstown EIS covers the upgrade and conversion of the existing Sydney Trains T3 Bankstown Line between Sydenham and Bankstown Stations, including the upgrade of eleven (11) stations.

The EIS is on public exhibition from 13 September 2017 to 8 November 2017. DP&E determination of the EIS is expected in the first half of 2018.

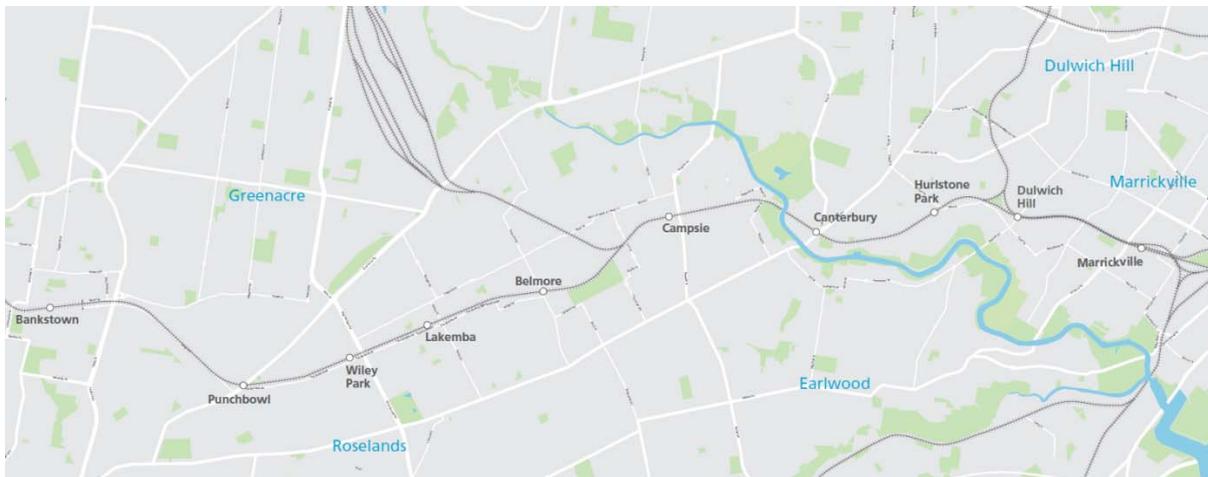


Figure 4: Map of the Existing Rail Line to be Converted between Sydenham and Bankstown Station

### 2.5.3. Environmental Planning and Assessment Act 1979 – Part 5 Approvals

The City & Southwest project is also subject to planning approvals under Part 5 of the NSW *Environmental Planning and Assessment Act 1979* (EP&A Act). There are currently two (2) Reviews of Environmental Factors (REFs) under development for the project:

- The Clyde Barging Facility REF, and
- The Epping Rail Turnback REF.

### 2.5.4. Planning Approval Register

Table 3 provides a register of planning approvals that the City & Southwest project will be subject to.

**Table 3: Planning Approval Register**

Planning Approval	Type	Determining Authority	Date Approved
<b>Sydney Metro Trains Facility (formerly known as the Rapid Transit Rail Facility) EIS (SSI-5931)</b>	EP&A Part 5.1	NSW Minister for Planning	15 January 2014
<b>Chatswood to Sydenham (C2S) EIS (SSI-15_7400)</b>	EP&A Part 5.1	NSW Minister for Planning	9 January 2017
<b>C2S MOD1 – Victoria Cross Station and Artarmon Substation</b>	EP&A Part 5.1	NSW Minister for Planning	18 October 2017
<b>C2S MOD2 – Central Walk</b>	EP&A Part 5.1	NSW Minister for Planning	Pending
<b>C2S MOD3 – Martin Place Metro Station</b>	EP&A Part 5.1	NSW Minister for Planning	Pending
<b>C2S MOD4 – Sydenham Station and Metro Facility South</b>	EP&A Part 5.1	NSW Minister for Planning	Pending
<b>Sydenham to Bankstown (S2B) EIS (SSI-17_8256)</b>	EP&A Part 5.1	NSW Minister for Planning	Pending
<b>Clyde Barging Facility REF</b>	EP&A Part 5	TfNSW	Pending
<b>Epping Rail Turnback REF</b>	EP&A Part 5	TfNSW	Pending

## 2.5.5. Consistency Assessments

A total of ten (10) Consistency Assessments have been approved by TfNSW against the project planning approvals during the reporting period. All of these relate to the C2S EIS. A register of Consistency Assessments is provided in Table 4.

**Table 4: Consistency Assessments Register**

Title	Planning Approval	Status
<b>Multiple Site Haul Road Changes</b>	C2S EIS	Approved 2 May 2017
<b>Martin Place Site Haul Road Change</b>	C2S EIS	Approved 5 May 2017
<b>Waterloo Tunnel Realignment</b>	C2S EIS	Approved 9 May 2017
<b>Barangaroo Substation &amp; Construction Footprint</b>	C2S EIS	Approved 9 May 2017
<b>Multiple Site Haul Road Changes (Addendum)</b>	C2S EIS	Approved 28 June 2017
<b>Protection of Adjacent Heritage Items</b>	C2S EIS	Approved 18 July 2017
<b>Waterloo Congregational Church Amenities</b>	C2S EIS	Approved 9 August 2017
<b>Pitt Street Haul Route Change</b>	C2S EIS	Approved 16 August 2017
<b>Protection of High Street Cutting (Barangaroo)</b>	C2S EIS	Approved 6 September 2017
<b>Sydney Yard Access Bridge Additional Land and Access Changes</b>	C2S EIS	Approved 15 September 2017

### 3. Construction Packages

Figure 5 and Figure 6 provide schematics of the City & Southwest project delivery strategy. This strategy is regularly reviewed and subject to change and refinement. Any changes to this strategy will be outlined in subsequent Construction Compliance Reports.

Refer to Section 3.1 and the City & Southwest *Chatswood to Sydenham Staging Report* for further information on the Chatswood to Sydenham construction packages.

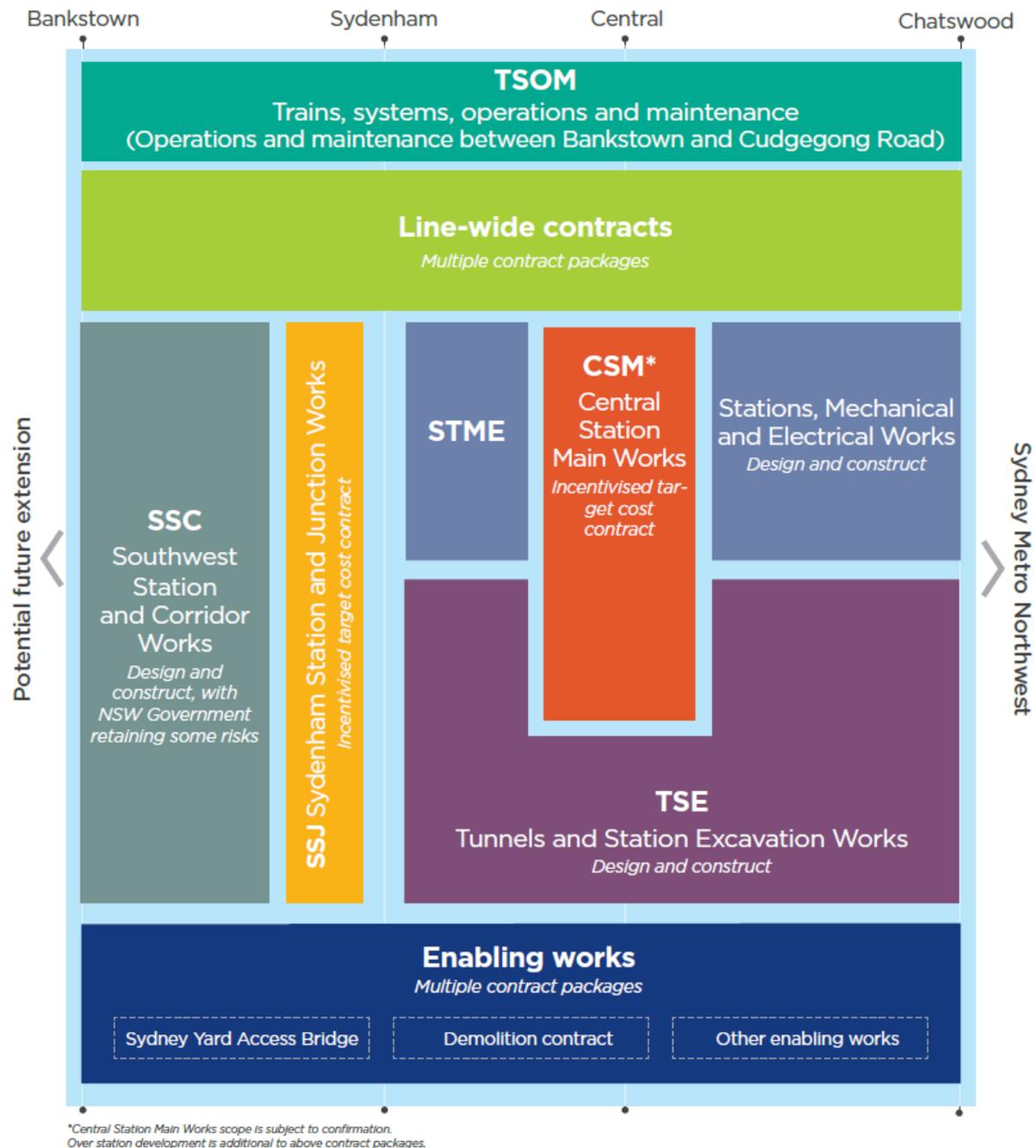


Figure 5: City & Southwest Project Indicative Delivery Strategy Schematic (September 2017)

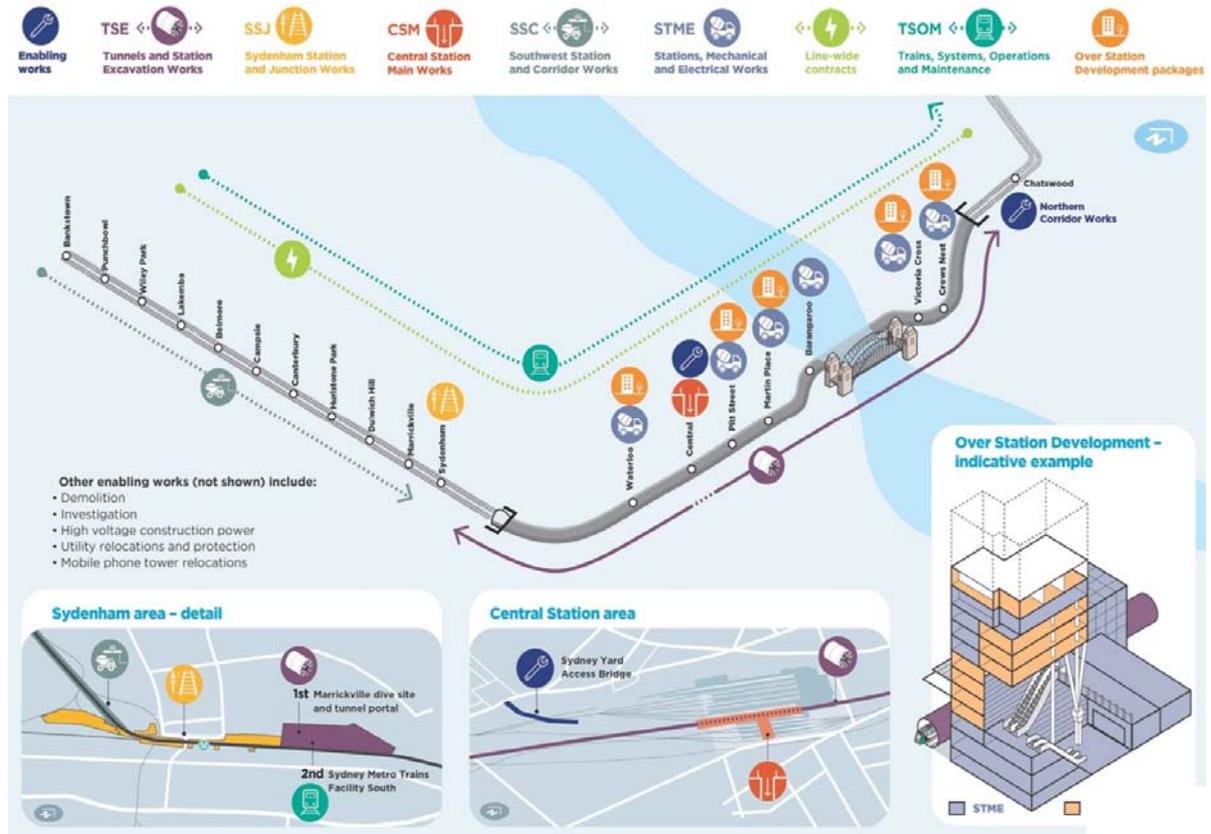


Figure 6: City & Southwest Geographical Construction Package Interrelationships (September 2017)

### 3.1. Construction Package Status Updates

Table 5 lists the status of City & Southwest construction packages as of September 2017.

Table 5: Status of Construction Packages (Sep 2017)

Construction Package	Contractor	Contract Award Date	Status
<b>Enabling Works – Demolition A</b>	Delta Group (Delta)	16 January 2017	Construction* commenced 24 June 2017 and remains ongoing
<b>Enabling Works – Demolition B</b>	Metropolitan Demolitions (Metropolitan)	16 January 2017	Construction* commenced 14 July 2017 and remains ongoing
<b>Enabling Works – Sydney Yard Access Bridge</b>	Laing O'Rourke (LOR)	20 January 2017	Construction* commenced 17 June 2017 and remains ongoing
<b>Enabling Works – Northern Corridor Works (Portion 7a)</b>	Laing O'Rourke (LOR)	1 September 2017	Minor works commenced, yet to commence construction*
<b>Enabling Works – Northern Corridor Works (Portion 7b)</b>	Yet to be awarded		
<b>Tunnels and Station Excavation</b>	John Holland CPB Ghella (JHCPBG) Joint Venture	22 June 2017	Minor works commenced, yet to commence construction*
<b>Sydenham Station Junction</b>	John Holland Laing O'Rourke (JHLOR) Joint Venture	20 September 2017	No works commenced
<b>Central Station Main</b>	Yet to be awarded		
<b>Southwest Station and Corridor</b>	Yet to be awarded and subject to delivery strategy changes and refinements		
<b>Stations, Mechanical and Electrical</b>	Yet to be awarded and subject to delivery strategy changes and refinements		
<b>Line-Wide Contracts</b>	Yet to be awarded and subject to delivery strategy changes and refinements		
<b>Trains, Systems, Operations and Maintenance</b>	Yet to be awarded and subject to delivery strategy changes and refinements		

\* Minor works are undertaken prior to the commencement of 'construction' for each construction package. 'Construction' is defined in accordance with the planning approval conditions as granted by DP&E.

### 3.1.1. Demolition A (Delta)

The Demolition A construction package forms part of the Enabling Works (EW) stage and was awarded to Delta on 16 January 2017. The package covers the demolition to ground floor slab of all buildings required to construct the project between Chatswood and Sydenham, excluding buildings at the Martin Place Northern Shaft and Central Station.

During the reporting period, the contractor:

- Commenced minor works activities at all sites, including site establishment, site security, fencing, scaffolding and hoarding, hazardous material surveys and removal, utility works, soft-strip activities and the removal of Dennison Street Bridge at Victoria Cross,
- Received DP&E approval of the Construction Environment Management Plan (CEMP) and applicable sub-plans, and
- Commenced construction on 24 June 2017 (i.e. structural demolition activities). As of the end of September 2017:
  - Demolition has commenced on all sites,
  - Buildings located on the Chatswood Site have been fully demolished, and
  - Buildings located on the Marrickville Site have been fully demolished (with the exception of those linked to live Ausgrid assets).

The Demolition A construction package was novated to the Tunnels and Station Excavation construction package on 22 June 2017 (refer to Section 3.1.5).



Figure 7: Structural Demolition on the top floor at the Victoria Cross Station Site



Figure 8: Structural Demolition at Tower Square (Victoria Cross Station Site)

### 3.1.2. Demolition B (Metropolitan)

The Demolition B construction package forms part of the Enabling Works (EW) stage and was awarded to Metropolitan on 16 January 2017. The package covers the demolition to ground floor slab of all buildings at the Martin Place Northern Shaft site.

During the reporting period, the contractor:

- Commenced minor works activities, including site establishment, site security, fencing, scaffolding and hoarding, heritage removal, hazardous material surveys and removal, utility works, soft-strip activities and awning removals,
- Received DP&E approval of the Construction Environment Management Plan (CEMP) and applicable sub-plans,
- Commenced construction on 14 July 2017 (i.e. structural demolition activities). As of the end of September 2017, 55 Hunter Street has been demolished down to Level 19.

The Demolition B construction package was novated to the Tunnels and Station Excavation construction package on 22 June 2017 (refer to Section 3.1.5).

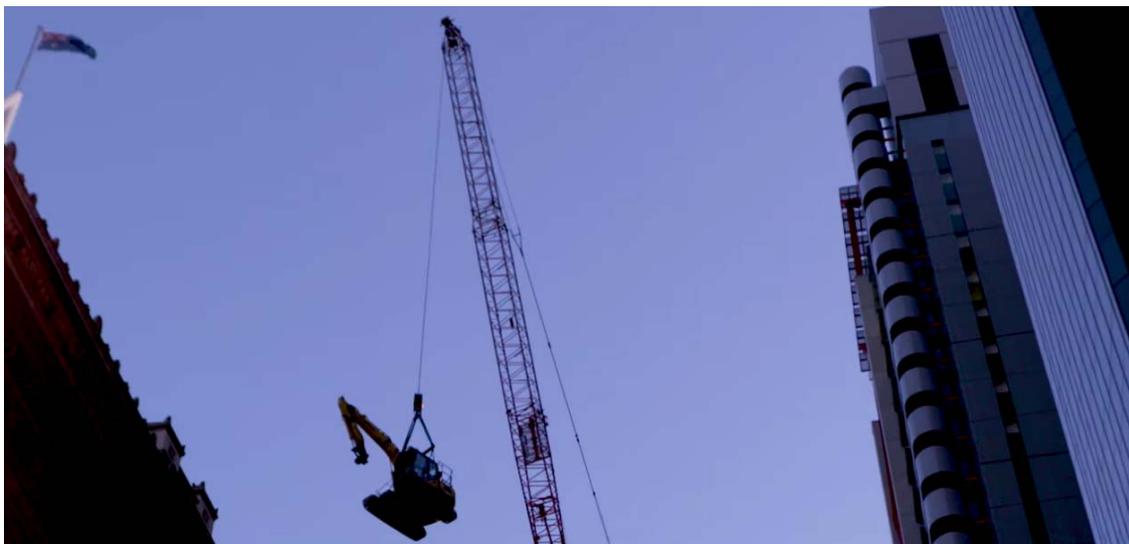


Figure 9: An Excavator being Craned onto a High-Rise Rooftop at the Martin Place Station Site



Figure 10: Structural Demolition at the Martin Place Station Site

### 3.1.3. Sydney Yard Access Bridge

The Sydney Yard Access Bridge (SYAB) construction package forms part of the Enabling Works (EW) stage and was awarded to LOR on 20 January 2017. The package covers the construction of a bridge from Regent Street, Chippendale into the Central Station Yard to provide construction and maintenance access for both Sydney Trains and Sydney Metro.

During the reporting period, the contractor:

- First presented the design of the bridge to the independent Design Review Panel in February 2017. Comments on the design were provided to the contractor, which were then addressed over subsequent presentations to the panel.
- Commenced minor works activities, including site establishment, site security, fencing, scaffolding and hoarding around the Regent Street properties, soft-strip of Regent Street properties, geotechnical investigations, establishment of access ramps and removal of overhead wiring,
- Received DP&E approval of the Construction Environment Management Plan (CEMP) and applicable sub-plans,
- Commenced construction on 17 June 2017 (i.e. structural demolition activities), including full demolition of the Regent Street properties, completion of all piling activities and completion of Piers 1 and 2.



Figure 11: Construction of the Sydney Yard Access Bridge

### 3.1.4. Northern Corridor Works

The Northern Corridor Works (NCW) construction package forms part of the Enabling Works (EW) stage and has been split into two (2) sub-packages:

- Portion 7a, comprising of:
  - Design of track slews and associated civil works, combined services routes, signalling and overhead wiring works, Mowbray Road Bridge collision protection, Hopetown Avenue access ramp removal, Drake Street hi-rail installation, Nelson Street Bridge demolition works and retaining and noise wall installations, and
  - Design and construction of overhead wiring footings and structures, and all drainage works to support the Chatswood Dive Site (including a stormwater attenuation basin and network connection).
- Portion 7b, comprising of construction of the remaining scope of works.

### 3.1.4.1. Portion 7a

Portion 7a was awarded to LOR on 1 September 2017.

During the reporting period, the contractor commenced minor works in the form of survey and investigation works from 18 September 2017 to 21 September 2017.

### 3.1.4.2. Portion 7b

Portion 7b is planned to be award in 2018.

## 3.1.5. Tunnels and Station Excavation

The Tunnels and Station Excavation (TSE) construction package was awarded to John Holland CPB Ghella (JHCPBG) joint venture on 22 June 2017. This date also represented the novation of both Demolition contract packages to JHCPBG.

The scope of the TSE construction package (excluding the scope of the Demolition packages) includes the boring and lining of the twin tunnels, cavern mining and lining, excavation of station shafts and construction of the station structure at the Barangaroo Station Site.

During the reporting period, the contractor:

- Commenced minor works activities, including site establishment, topographic surveys, design investigations, geotechnical boreholes and utility works,
- Developed its Construction Environmental Management Plan and sub-plans in consultation with government agencies as required by the planning approvals,
- Procured the services for the Water Treatment Plants, Tunnel Boring Machines, conveyor and crane works, and
- Relocated precast segment moulds and carousel equipment from the former Northwest precast facility at Kellyville to the Marrickville precast facility site.



Figure 12: Concrete Precast Segment Moulds

### 3.1.6. Sydenham Station Junction

The Sydenham Station Junction (SSJ) construction package was awarded to John Holland Laing O'Rourke (JHLOR) joint venture on 20 September 2017.

The SSJ construction package comprises of various works in and around Sydenham Station, including services adjustments and relocations, signalling works, construction of track and other rail infrastructure, services building and facilities, and station works.

No works have commenced on the SSJ construction package.

### 3.1.7. Construction Packages yet to be Awarded

The following construction packages are yet to be awarded and thus have not undertaken any works.

#### 3.1.7.1. Central Station Main

The Central Station Main (CSM) construction package comprises of various works in and around the Central Station area, including services relocations, temporary decommissioning of platforms and reinstatement, metro station box excavation, station structure and fitout (including mechanical and electrical works), and construction of Central Walk.

#### 3.1.7.2. Southwest Station and Corridor

The Southwest Station and Corridor (SSC) construction package provides for the conversion of the existing Sydney Trains rail line to a Sydney Metro rail line between Sydenham and Bankstown Station. The package includes bridge and non-station civil works, station works (including demolition and upgrades), services buildings and facilities, low-voltage electrical works, cable and services routing, and construction of track and other infrastructure.



Figure 13: Artist Impression of Bankstown Station (subject to change)

### 3.1.7.3. Stations, Mechanical and Electrical

The Stations, Mechanical and Electrical (STME) construction package comprises of stations development works at the Crows Nest, Victoria Cross, Barangaroo, Martin Place, Pitt Street and Waterloo Station Sites. These works include excavation of remaining station shafts (to the extent not undertaken by the TSE contractor), station structure up to podium level (excluding Barangaroo Station) and station fitout (including mechanical and electrical works for all underground stations excluding Central Station).

### 3.1.7.4. Line-Wide Contracts

The Line-Wide Contracts (LWC) construction package is comprised of multiple discipline-specific contract packages covering the extent of the rail line between Chatswood Station and Bankstown Station. The scope comprises of station control systems, lifts and escalators, tunnel ventilation, track, tunnel services (including drainage, lighting, fire systems and low-voltage supply), stabling and combined services, high-voltage power supply, overhead line and traction supply, radio communications and platform screen doors, edge barriers, mechanical gap fillers.

LWC also includes additional scope at the Sydney Metro Trains Facility located at Rouse Hill. This scope comprises of civil works, minor earthworks and formation (including drainage), new test track installations, expansion of the existing maintenance depot and associated roadworks. This scope is covered under the Sydney Metro Trains Facility (SMTF) EIS (formerly known as the Rapid Transit Rail Facility EIS) approved by DP&E on 15 January 2014 for the Sydney Metro Northwest project.



Figure 14: The Sydney Metro Trains Facility at Rouse Hill

### 3.1.7.5. Trains, Systems, Operations and Maintenance

The Trains, Systems, Operations and Maintenance (TSOM) construction package comprises of rolling stock, signalling system, central control, communications, Depot (stabling) and Operations Control Centre, systems integration, testing and commissioning, and operations and maintenance works. This scope applies to the full extent of the rail line between the SMTF in Rouse Hill to Bankstown Station.

### 3.2. Construction Environmental Management Plan Reviews / Amendments

Table 6 provides details of any Construction Environment Management Plan (CEMP) reviews and amendments as a result of construction carried out during the reporting period.

**Table 6: CEMP Reviews and Amendments as a result of Construction during the Reporting Period**

Construction Package	DP&E CEMP Approval Date	Review / Amendment Comments
<b>Demolition A (Delta)</b>	5 June 2017 (excl. Victoria Cross Site) 24 June 2017 (incl. Victoria Cross Site)	CEMP was amended to address DP&E conditions of approval and endorsed by the Environmental Representative on 15 August 2017.
<b>Demolition B (Metropolitan)</b>	12 July 2017	CEMP was amended to address DP&E conditions of approval and endorsed by the Environmental Representative on 15 September 2017.
<b>SYAB</b>	9 June 2017	CEMP was adequately amended to address DP&E comments relating to references and sub-plan updates as confirmed by the Environmental Representative on 17 July 2017.
<b>NCW (Portion 7a)</b>		CEMP yet to be submitted to DP&E
<b>NCW (Portion 7b)</b>		Yet to be awarded
<b>TSE</b>		CEMP yet to be approved by DP&E
<b>SSJ</b>		CEMP yet to be submitted to DP&E
<b>CSM</b>		Yet to be awarded
<b>SSC</b>		Yet to be awarded and subject to delivery strategy changes and refinements
<b>STME</b>		Yet to be awarded and subject to delivery strategy changes and refinements
<b>LWC</b>		Yet to be awarded and subject to delivery strategy changes and refinements
<b>TSOM</b>		Yet to be awarded and subject to delivery strategy changes and refinements

### 3.3. Planning Approval and Construction Package Relationships

Table 7 outlines the relationships between the planning approvals and construction packages.

**Table 7: Allocation of Planning Approvals to Construction Packages**

Planning Approval	TfNSW	EW	TSE	SSJ	CSM	SSC	STME	LWC	TSOM
<b>Sydney Metro Trains Facility</b> (formerly known as the Rapid Transit Rail Facility) EIS (SSI-5931)	✓							✓	✓
<b>Chatswood to Sydenham (C2S) EIS</b> (SSI-15_7400)	✓	✓	✓	✓	✓		✓	✓	✓
<b>C2S MOD1 – Victoria Cross Station and Artarmon Substation</b> (Scope Changes)	✓		✓				✓	✓	✓
<b>C2S MOD1 – Victoria Cross Station and Artarmon Substation</b> (Administrative Modification)	✓	✓	✓	✓	✓		✓	✓	✓
<b>C2S MOD2 – Central Walk</b>	✓				✓			✓	✓
<b>C2S MOD3 – Martin Place Metro Station</b>	✓		✓				✓	✓	✓
<b>C2S MOD4 – Sydenham Station and Metro Facility South</b>	✓		✓	✓				✓	✓
<b>Sydenham to Bankstown EIS</b> (SSI-17_8256)	✓					✓		✓	✓
<b>Clyde Barging Facility</b>	✓		✓						
<b>Epping Rail Turnback</b> (procurement strategy TBD)	✓								✓

### 3.4. Environment Protection Licences

The Sydney Metro Delivery Office (SMDO) of TfNSW requires its contractors to hold Environment Protection Licences (EPLs) for works as required under the NSW *Protection of the Environment Operations Act 1997* (POEO Act). Table 8 lists the EPLs that have been active during the reporting period.

**Table 8: Status of Environment Protection Licences**

Licencee	Construction Package	Activity Type	EPL #	Status
<b>John Holland Pty Ltd</b> (JHCPBG)	TSE	Concrete works, railway systems activities	20971	Issued 28 September 2017 and currently active
<b>Sydney Trains</b>	All works within the Sydney Trains corridor	Railway systems activities	12208	Sydney Trains Collaboration Agreement

This report does not document compliance against EPLs. This is being undertaken by the relevant licensee holders.

SMDO and Sydney Trains have entered into a Collaboration Agreement to define compliance responsibilities for all SMDO works undertaken in the Sydney Trains rail corridor.

## 4. Environment and Compliance Management

### 4.1. Compliance Management

TfNSW is accountable for ensuring compliance with all of the City & Southwest project's requirements relating to environmental and compliance management.

#### 4.1.1. Tracking

Once a planning approval requirement has been generated, it is assigned an **Active** status.

The responsibility to comply with these Active requirements may be wholly or partially allocated by TfNSW to one or more of its contractors through contractual mechanisms. As a result of this and the staged nature of the project's delivery (refer to the *City & Southwest Chatswood to Sydenham Staging Report*), these requirements will be complied with by different parties at different points along the project's construction and operation phases

Once these requirements have been allocated to a contractor, the requirement is referred to as an **Environmental Requirement**. Within each contract, Environmental Requirements progress through two phases:

- **Ongoing** – whereby further action is required to achieve compliance, and
- **Complete** – whereby no further evidence or activity is required to maintain compliance. This is verified in an adequacy review conducted by the Environmental Representative and TfNSW prior to the Environmental Requirement being completed.

During the period of time an Environmental Requirement is Ongoing, it is subject to regular assessment through compliance monitoring and review activities. These assessments determine whether the Environmental Requirement is:

- **Compliant** (i.e. sufficient evidence is available to demonstrate that the Environmental Requirement is being complied with), or
- **Non-Compliant** (i.e. there is a lack of evidence to demonstrate that the Environmental Requirement is being complied with or there is a clear breach of the Environmental Requirement).

Once the same Environmental Requirement is Complete across each of its contract allocations, the legislative requirement is assigned an **Inactive** status.

Figure 15 provides a schematic diagram of how requirements are tracked on the project.

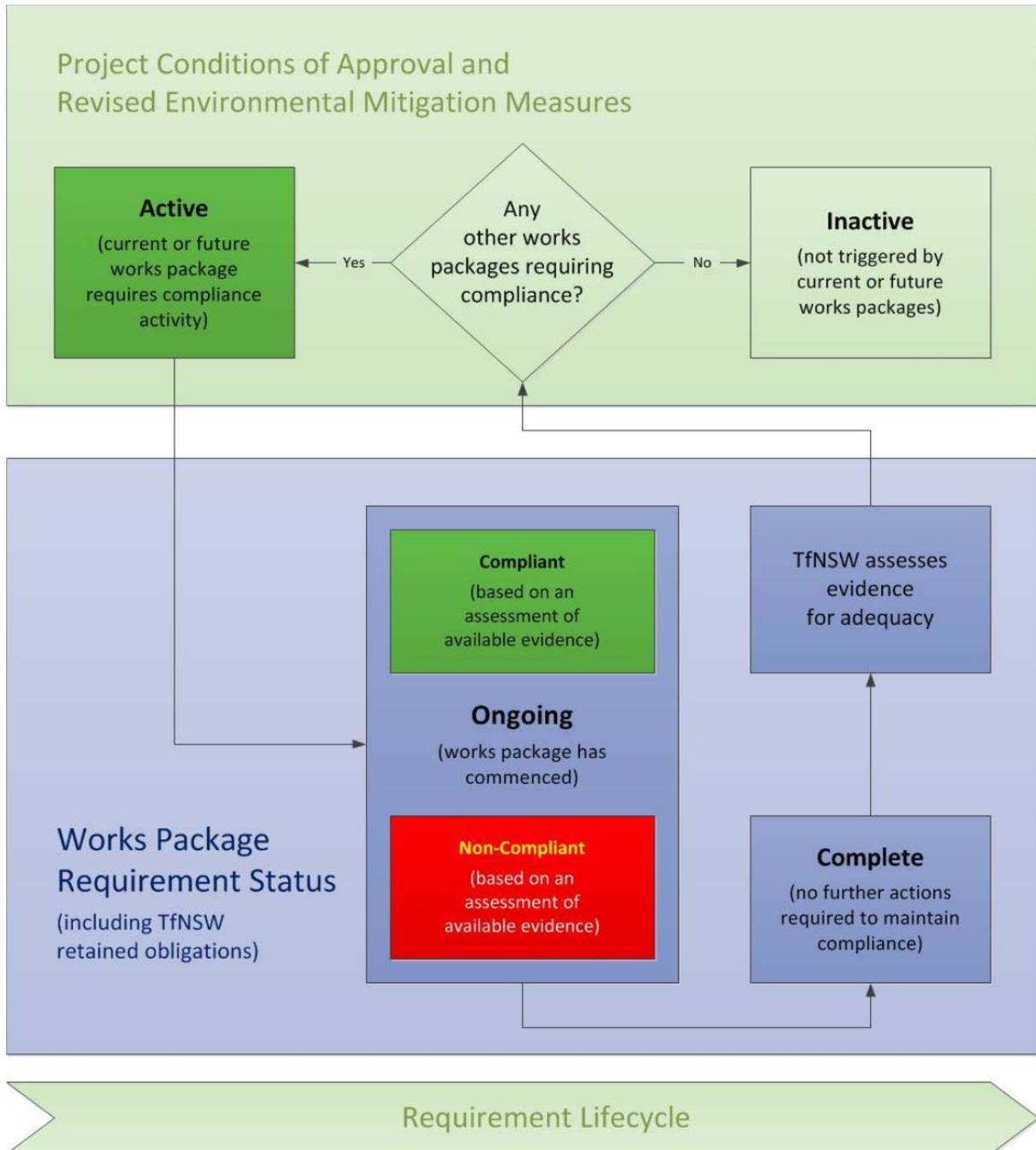


Figure 15: Tracking of Environmental Requirements

#### 4.1.2. Review Activities

The City & Southwest project undertakes a variety of review activities to ensure compliance is managed effectively. Commitments are drawn from not only the CEMF and the CTP, but also from the Sydney Metro Integrated Management System and the contractors' Construction Environmental Management Plans (CEMPs) and sub-plans.

A list of compliance monitoring and review activities is provided in Table 9. Refer to the CTP Report for further detail.

Table 9: Compliance Monitoring and Review Activities

Activity	Responsibility	Frequency
Ongoing environmental site surveillance	Contractors	Daily (work days)
Environmental inspections	Environmental Representative in conjunction with TfNSW and contractors	Between weekly and monthly dependent on risk profile
Review of environmental actions and controls	Contractors and TfNSW	Between weekly and monthly dependent on risk profile
Environmental performance and compliance reporting	Contractors and TfNSW	Monthly
Environmental risk assessment review	Contractors	Quarterly
Formal compliance review of planning approval requirements	Contractors and TfNSW, in conjunction with the Environmental Representative	Quarterly for contractors and six-monthly for TfNSW
Environmental auditing	Contractors, TfNSW, independent third-party auditor and the Environmental Representative (as requested)	Six-monthly (generally)
Environmental management reviews	Contractors	Annually

### 4.1.3. Non-Compliances

All Non-Compliances will be documented in a Non-Compliance Report. Non-Compliances can be raised at any time, but are most likely to be raised following the compliance monitoring and review activities listed in Table 9.

Contractors are required to develop and implement preventative and corrective actions relating to any Non-Compliances. Actions that are raised must be assigned to individuals and due dates set with the objective of undertaking the actions without delay. In the event that similar Non-Compliances are repeatedly raised (as determined by the ER), the suitability of actions in relation to the repeated Non-Compliances will be analysed by the ER in consultation with the contractor to determine more appropriate actions.

TfNSW will maintain a register of all Non-Compliances raised against the City & Southwest project.

## 4.2. Environmental Auditing

TfNSW's commitment to environmental auditing on the project is outlined in the *City & Southwest Chatswood to Sydenham CTP Report*. In summary, there are three (3) levels of auditing that will be undertaken on the project:

- Internal auditing (undertaken by the contractors),
- Second-party auditing by TfNSW, and
- Independent environmental auditing

### 4.2.1. Internal

Internal environmental audits will be led and coordinated by the contractors in accordance with the Construction Environmental Management Framework (CEMF). These audits will cover compliance against planning approval requirements, EPLs and other permits, CEMP

and sub-plan requirements, complaint management requirements and environmental record-keeping.

#### 4.2.2. Second-Party (i.e. TfNSW)

Second-party environmental audits will be led and coordinated by the TfNSW Audit & Assurance team. This team will coordinate a range of audits across the project based on the risk profile of Sydney Metro operations and other external requirements (e.g. planning approval requirements). The team may also undertake reviews of the contractors' internal audit program, process and reports (refer to Section 4.2.1).

#### 4.2.3. Independent

Independent environmental audits will be undertaken in accordance with Conditions A37 to A40 of the Chatswood to Sydenham planning approval. The audits will be led and coordinated by an Independent Environmental Auditor (IEA) engaged by TfNSW. Following each audit, a report will be prepared and submitted to DP&E within six (6) weeks of completing the audit.

### 4.3. Incident Management

Emergency and incident response procedures will be developed by each contractor. These procedures are outlined in the CTP Report and must be consistent with the *Sydney Metro Environmental Incident Classification and Reporting Procedure*.

Contractors that are working under an EPL are also required to develop and implement a Pollution Incident Response Management Plan in accordance with the requirements of the POEO Act and consistent with the *Sydney Metro Environmental Incident Classification and Reporting Procedure*.

Environmental incidents are assigned one of three classifications (1, 2 and 3) in accordance with the *Sydney Metro Environmental Incident Classification and Reporting Procedure* (refer to Table 10).

**Table 10: Environmental Incident Classes**

Classification	Sub Classification	Description
Class 3	C6	No appreciable changes to the environment and/or highly localised event.
	C5	Change from normal conditions within environmental regulatory limits and environmental effects are within site boundaries.
	C4	Short-term and/or well-contained environmental effects. Minor remedial actions probably required.
Class 2	C3	Impacts external ecosystem and considerable remediation is required.
	C2	Long-term environmental impairment in neighbouring or valued ecosystems. Extensive remediation required.
Class 1	C1	Irreversible large-scale environmental impact with loss of valued ecosystems.

## 4.4. Complaint Management

Complaints are managed through the Sydney Metro City & Southwest Complaints Management System. This system outlines procedures for managing complaints on the project, including receipt of complaints, classification of complaints, responding to complaints, escalation, and mediation, recording complaints and reporting.

## 4.5. Independent Environmental Representatives and Acoustics Advisors

TfNSW has engaged independent Environmental Representative (ER) and Acoustic Advisor (AA) services as third-party advisers to TfNSW and its contractors on the City & Southwest project. The engagement of these services is a requirement of the Chatswood to Sydenham planning approval conditions.

The ER and AA act as representatives and contact points for DP&E. The ER's role covers compliance monitoring activities for all environmental matters on the project. The AA's role covers noise and vibration compliance monitoring activities on the project. Refer to Conditions A22 to A27 of the Chatswood to Sydenham planning approval for further information on ER and AA compliance activities.

## 4.6. Design Obligation Compliance and Tracking

TfNSW has contracted the Metron consortium to undertake the Stage 1 design of the City & Southwest Chatswood and Marrickville dive structures and underground stations. Metron comprises of the joint venture of Arcadis and Mott MacDonald, leading Foster and Partners, Architectus and Robert Bird Group.

TfNSW retains responsibility for complying with the design obligations generated by the planning approval conditions and the REMMs during the reporting period.

The tracking of compliance against the project's design obligations is undertaken as part of the formal compliance review of planning approval requirements in accordance with Table 2 of the *City & Southwest Chatswood to Sydenham Compliance Tracking Program* report. This table indicates that the formal compliance review of TfNSW-held compliance requirements (including that of design requirements being undertaken by Metron) will be undertaken in consultation with the ER at a minimum frequency of six months.

During the reporting period:

- A formal compliance review of TfNSW-held requirements was undertaken in consultation with the ER at the end of 2017 Quarter 2. This review included all design related obligations being undertaken by Metron. The final compliance report from the ER indicated that all requirements were compliant.
- An informal compliance review of the design requirements being undertaken by Metron, was undertaken in consultation with the ER at the end of 2017 Quarter 3. No non-compliances were raised as part of this review.

Metron continues to develop Stage 1 design to ensure compliance. The development of Metron's designs beyond Stage 1 will become the responsibility of the STME contractor following contract award.

## 5. Environmental and Compliance Performance

The total number of City & Southwest ongoing compliance requirements at the end of the reporting period was 938. There were a total of four (4) non-compliances against these requirements that were raised during the reporting period. These are detailed in Table 12. There were no significant (Class 1 or 2) environmental incidents during the reporting period.

### 5.1. Overview

A summary of the results of the City & Southwest compliance monitoring activities during the reporting period are provided in Table 11. Figure 16 graphs the number of environmental requirements that were applicable for each month over the last year and the non-compliance rate (non-compliances raised during the month plus the number of open non-compliances from previous months).

Table 11: Compliance Summary for the Reporting Period

Construction Package	Ongoing Requirements (non-compliances raised)	Class 1 & 2 Incidents (Class 3 incidents)	ER Inspections (issues raised)	Complaints
<b>Demolition A (Delta)</b> (Prior to TSE novation)	<b>170</b> prior to TSE novation, <b>0</b> post TSE novation (1)	<b>0</b> (3)	<b>6</b> (11)	<b>6</b>
<b>Demolition B (Metropolitan)</b> (Prior to TSE novation)	<b>170</b> prior to TSE novation, <b>0</b> post TSE novation (0)	<b>0</b> (0)	<b>1</b> (0)	<b>0</b>
<b>SYAB (LOR)</b>	<b>202</b> (0)	<b>0</b> (6)	<b>9</b> (25)	<b>7</b>
<b>TSE (CPBJHG)</b> (Post Novation)	<b>580</b> (2)	<b>0</b> (6)	<b>12</b> (38)	<b>46</b>
<b>TfNSW</b>	<b>156</b> (1)	<b>0</b> (2 – including investigation works)	<b>0</b> (0)	<b>5</b> (including investigation works)
<b>Total</b>	<b>938</b> <b>(4)</b>	<b>0</b> <b>(17)</b>	<b>28</b> <b>(74)</b>	<b>64</b>

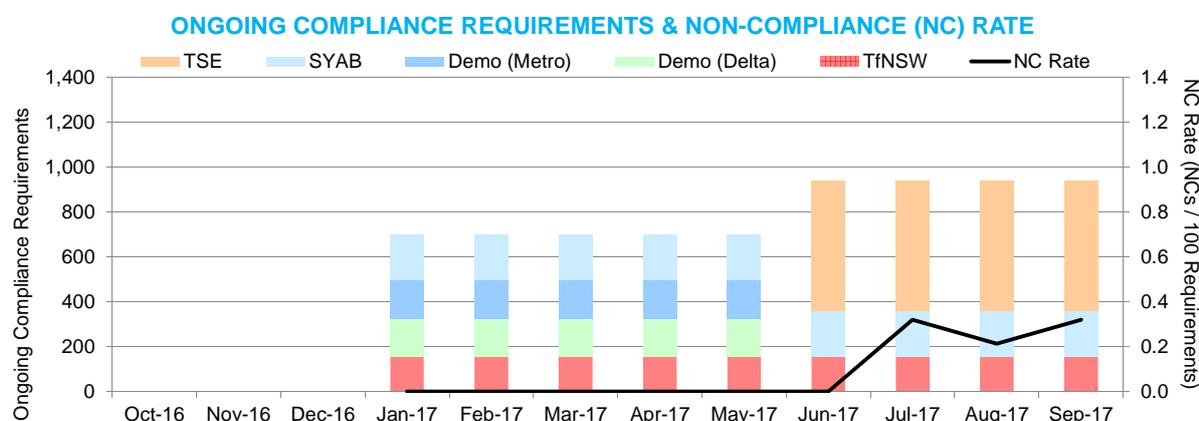


Figure 16: Compliance Load and Non-Compliance Rate

## 5.2. Non-Compliances

There were four (4) non-compliances raised during the reporting period, all of which have since been closed.

Table 12 provides a list of the non-compliances raised during the reporting period and Table 13 provides a breakdown of the following non-compliance information for each construction package:

- *Non-Compliances raised during Reporting Period* – indicating the number of events that generated a non-compliance to be reported during the reporting period.
- *Currently Open Non-Compliances* – indicating the number of Non-Compliances that were raised during the reporting period and are in the process of implementing resultant corrective and/or preventative actions.
- *Compliance Load at the end of the Reporting Period* – indicating the number of environmental requirement allocations (refer to Section 4.1.1).
- *Average Non-Compliance Rate per 100 Requirements* – indicating the number of non-compliances raised per 100 requirements allocated.

**Table 12: Non-Compliances raised during the Reporting Period**

Date Raised	Allocation	CoA / REMM	Type	Description	Status and Actions taken or to be taken
26 Jul 2017	TSE (JHCPBG) – Post Novation	C2S EIS – CoA A24(d) & CoA E33	Noise & Vibration	Jack-hammering generated noise and vibration impacts on 7 Jul 2017, prior to the AA/ER endorsement of the Pitt St Station Site Construction Noise & Vibration Impact Statement (CNVIS).	<b>Closed –</b> 1) Project teams re-inducted on environmental approval and community notification material. 2) All programs to clearly show required permits / notifications complete works.
26 Jul 2017	TfNSW (and other construction packages)	C2S EIS – CoA B15	Management Systems	Documents were not publically available on the TfNSW and other construction package websites prior to the commencement or implementation of any works to which they relate.	<b>Closed –</b> 1) Work with LOR contractor to ensure relevant documents are uploaded to contractor's website. 2) Engage with DP&E to discuss and agree on suite of documents to be uploaded on website. 3) Commence investigating measures that will lead to improved functionality of project website. 4) Implement planning approval obligation training to senior City & Southwest project team managers.

Date Raised	Allocation	CoA / REMM	Type	Description	Status and Actions taken or to be taken
27 Jul 2017	Demolition A (Delta) – Pre-TSE Novation	C2S EIS – CoA A24(d) & CoA E33	Noise & Vibration	Jack-hammering generated noise and vibration impacts on 19 Jun 2017, prior to the AA/ER endorsement of the Pitt St Station Site Construction Noise & Vibration Impact Statement (CNVIS).	<b>Closed –</b> 1) Conduct prestart and toolbox talks on CNVIS endorsement requirements. 2) Non-compliance against CNVIS to be formally raised during weekly project meeting to indicate significance of non-compliance.
4 Sep 2017	TSE (JHCPBG) – Post Novation	C2S EIS – CoA A24(d) & CoA E47	Noise & Vibration	Noise and vibration impacts generated by minor works commenced at the Crows Nest Station site at 7:30am and finished at 2pm on Sat, 2 Sep 2017. This was prior to AA/ER endorsement of the site's Construction Noise & Vibration Impact Statement (CNVIS).	<b>Closed –</b> 1) Toolbox talk undertaken on project manager, site engineer and workforce on CNVIS and Out of Hour Works Procedure requirements.

**Table 13: Non-Compliances, Compliance Loads and Non-Compliance Rates during the Reporting Period**

Construction Package / TfNSW	Non-Compliances raised during Reporting Period	Currently Open Non-Compliances	Compliance Load at end of Reporting Period	Average Non Compliance Rate per 100 Requirements
Investigation Works Contracts	0	0	N/A	0.0
Demolition A (Delta) – Prior to TSE Novation	1	0	170	0.6
Demolition B (Metropolitan) – Prior to TSE Novation	0	0	170	0.0
SYAB (LOR)	0	0	202	0.0
TSE (JHCPBG) – Post Novation	2	0	240	0.8
TfNSW	1	0	156	0.6
<b>Totals / Average</b>	<b>4</b>	<b>0</b>	<b>938</b>	<b>0.4</b>

Three of the four non-compliances relate to unauthorised noise and vibration impacts during demolition activities. TfNSW is closely monitoring the demolition contractors' compliance in this area and will assess the need for implementing rectification actions in the event of continued non-compliance.

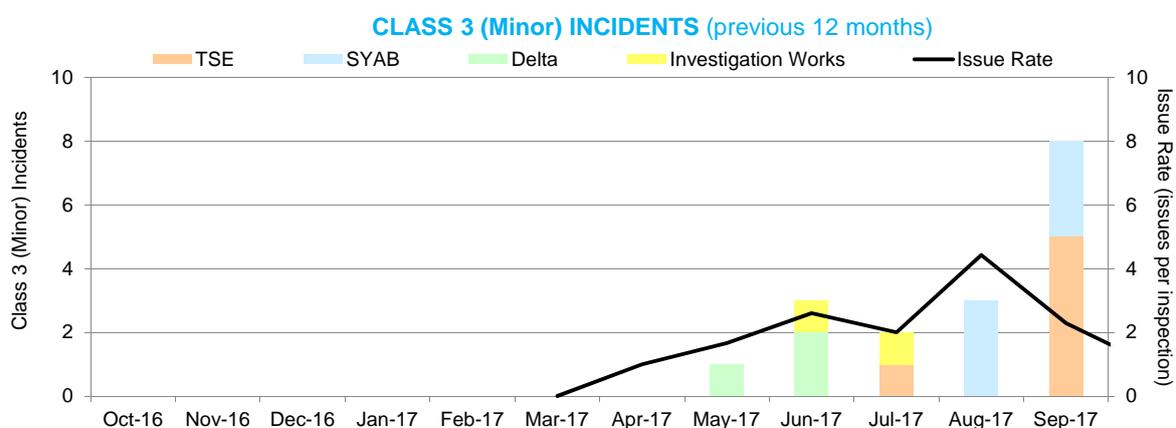
### 5.3. Incidents

No environmental ‘Incidents’, as defined by the Chatswood to Sydenham planning approval definition of ‘Incident’, occurred on the City & Southwest project during the reporting period. As a result, no formal Incident notifications to DP&E or the NSW Environment Protection Authority (EPA) were necessary under Conditions A41 and A44 of the Chatswood to Sydenham planning approval.

A total of 17 minor (Class 3) environmental incidents occurred on the project during the reporting period (9 January 2017 to 30 September 2017). Table 14, Figure 17 and Figure 18 provide breakdowns of all City & Southwest minor environmental incidents that have occurred during the reporting period.

**Table 14: All Incidents that Occurred during the Reporting Period**

Construction Package	Class 1 and 2 Incidents	Class 3 Incidents
Investigation Works Contracts	0	2
Demolition A (Delta) – Prior to TSE Novation	0	3
Demolition B (Metropolitan) – Prior to TSE Novation	0	0
SYAB (LOR)	0	6
TSE (JHCPBG) – Post Novation	0	6
<b>Totals</b>	<b>0</b>	<b>17</b>



**Figure 17: Minor Incidents (Class 3) and Issue Rate (issues per inspection per month)**

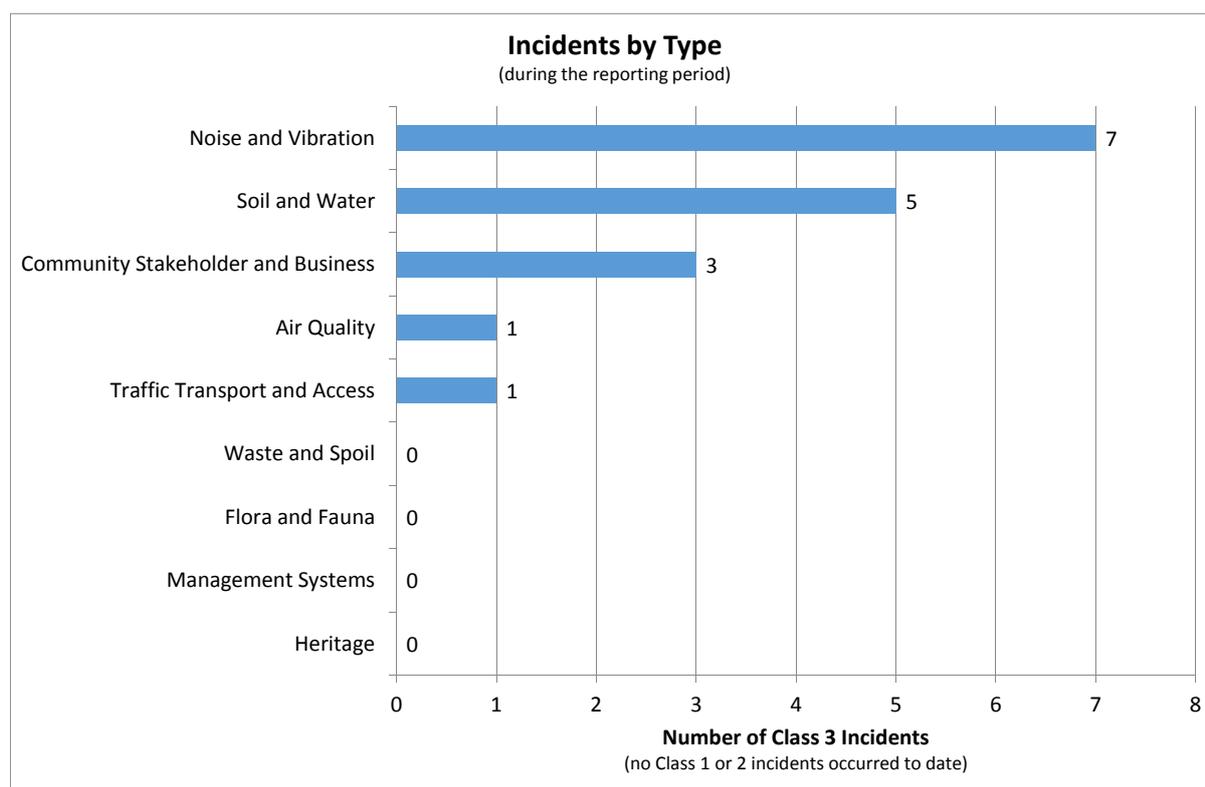


Figure 18: Class 3 Incidents by Type during the Reporting Period

## 5.4. Independent Environmental Representative Inspections

Two (2) Independent Environmental Representatives (ERs) conducted 28 environmental inspections and raised 74 environmental issues during the reporting period. Table 15 provides a breakdown of the frequency, number of ER inspections and number of issued raised as a result of ER inspections for each of the active construction packages during the reporting period.

Table 15: Independent ER Inspection Frequencies, Number of Inspections and Issues Raised

Construction Package	General Frequency	Inspections	Issues
Demolition A (Delta) – Prior to TSE Novation	Fortnightly	6	11
Demolition B (Metropolitan) – Prior to TSE Novation	As required	1	0
SYAB (LOR)	Fortnightly	9	25
TSE (JHCPBG) – Post Novation	Weekly	12	38
NCW Portion 7a (LOR)	As required	0	0
<b>Totals</b>	-	<b>28</b>	<b>74</b>

Figure 19 provides a breakdown of the type of environmental issues raised by the independent ERs during the reporting period. Environmental issues were dominated by Soil & Water issues (42%). These were mostly related to stockpile management and erosion and sediment control improvement recommendations.

The vast majority of environmental issues are generally closed within three (3) working days, or at least prior to the following inspection.

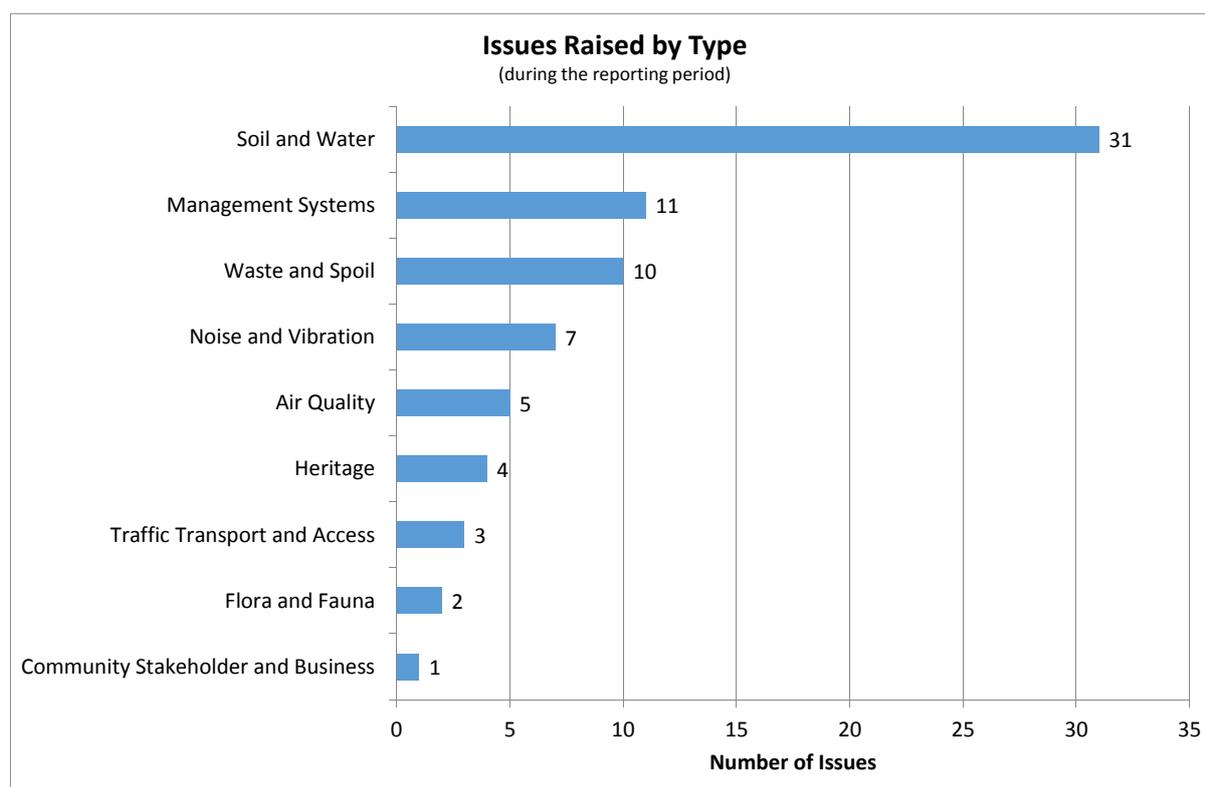


Figure 19: Environmental Issues Raised by Type during the Reporting Period

## 5.5. Environmental Audit Findings

One environmental audit has been undertaken on the project to date, which resulted in one finding. Refer to Table 16 for a summary of audits during the reporting period and Table 17 for details on the audit findings.

Table 16: Environmental Audits undertaken during the Reporting Period

Auditee	Audit Title	Audit Type	Audit Date	Total Findings	Closed Findings	Open Findings
LOR (SYAB)	Environmental Audit (General)	Internal Contractor Audit	4 Jul 2017	1	1	0
<b>Totals</b>				<b>1</b>	<b>1</b>	<b>0</b>

Table 17: Environmental Audit Findings during the Reporting Period

Date	Auditee & Audit Title	Finding	Agreed Action / Resolution	Current Status
4 Jul 2017	LOR (SYAB) Environmental Audit	Despite photographic evidence existing of internal LORA site inspections being undertaken, no formal documentation of LORA environmental inspections and recording of actions are being kept.	Documentation of actions and resolutions undertaken to be filed on local server.	Closed

No independent environmental audits have been undertaken on the project to date. The first environmental audit(s) will be reported in the City & Southwest Construction Compliance Report 02. This includes two (2) independent environmental audits that are currently scheduled on the SYAB and TSE contractors to be undertaken before the end of 2017 in accordance with the Environmental Audit Program provided in the *City & Southwest Chatswood to Sydenham Compliance Tracking Program* report.

## 5.6. Environmental Monitoring

In accordance with Condition C9 of the Chatswood to Sydenham planning approval, environmental construction monitoring programs must be prepared and implemented for:

- Noise and vibration,
- Blasting,
- (Surface) Water quality, and
- Groundwater (quality).

Table 18 indicates the applicability of these construction monitoring programs to each construction package in accordance with the CEMP sub-plan requirements indicated in the City & Southwest *Chatswood to Sydenham Staging Report*.

During this reporting period, only the Demolition and SYAB construction packages have commenced construction. A summary and analysis of the results of the environmental monitoring programs applicable to the Demolition and SYAB construction packages (i.e. noise and vibration) is provided in Section 5.6.1.

Table 18: Environmental Monitoring Program Applicabilities to each Construction Package

Construction Package	Noise and Vibration	Blasting	Surface Water Quality	Groundwater Quality
<b>Demolition Contracts (A &amp; B)</b>	Applicable	N/A – No blasting activities have occurred on the project to date and no blasting activities are planned to occur.	N/A	N/A
<b>SYAB</b>	Applicable		N/A	N/A
<b>NCW (Portions 7a &amp; 7b)</b> (construction yet to commence)	Applicable		N/A	N/A
<b>TSE</b> (construction yet to commence)	Applicable		Applicable	Applicable
<b>SSJ</b> (construction yet to commence)	Assumed applicable (construction yet to commence). Applicability subject to City & Southwest Chatswood to Sydenham Staging Report update.		Assumed applicable (construction yet to commence). Applicability subject to City & Southwest Chatswood to Sydenham Staging Report update.	Assumed not applicable (construction yet to commence). Applicability subject to City & Southwest Chatswood to Sydenham Staging Report update.
<b>CSM</b> (construction yet to commence)	Applicable		Applicable	Applicable
<b>SSC</b> (construction yet to commence)	TBD – Subject to City & Southwest Sydenham to Bankstown Staging Report		TBD – Subject to City & Southwest Sydenham to Bankstown Staging Report	TBD – Subject to City & Southwest Sydenham to Bankstown Staging Report
<b>STME</b> (construction yet to commence)	Applicable		N/A	Applicable
<b>LWC</b> (construction yet to commence)	Applicable		N/A	N/A
<b>TSOM</b> (construction yet to commence)	Applicable		N/A	N/A

### 5.6.1. Noise and Vibration

Table 19 and Table 20 provide a noise and vibration summary and analysis at each City & Southwest site for construction activities undertaken during the reporting period.

**Table 19: Noise Monitoring Results Summary and Analysis**

Site	Number of Noise Management Level Exceedances	Comments
<b>Chatswood Dive</b>	2	Both exceedances occurred on 1 Sep 2017 in the early morning during the demolition of the awning in front of Mowbray House. Removal method was changed from dragging to lifting following these noise exceedances.
<b>Crows Nest</b>	0	-
<b>Victoria Cross</b>	4	Two exceedances in July 2017 were attributable to children playing on the childcare centre balcony. Causes of the other two exceedances (21 Aug 2017 and 4 Sep 2017) are unknown and it is unclear as to what activities generated these exceedances (whether attributable to the project or otherwise).
<b>Blues Point</b>		Yet to commence 'construction' as defined by the C2S planning approval conditions.
<b>Barangaroo</b>		Yet to commence 'construction' as defined by the C2S planning approval conditions.
<b>Martin Place</b>	Generally not exceeded	Regular meetings were undertaken with the nearest sensitive receiver, Macquarie Bank, throughout the reporting period to negotiate respite periods as requested by Macquarie Bank. All requests for respite periods were implemented during the reporting period.
<b>Pitt Street</b>	2	Both exceedances occurred on 24 Jul 2017 and are likely to have been caused by scaffold works. No complaints were received.
<b>Central Station (SYAB)</b>	Generally not exceeded	Noise exceedances were generally consistent with the noise assessments prepared for each approved Out of Hour application. Ambient noise levels were found to be elevated from the Rating Background Level due to rail and road traffic noise.
<b>Waterloo</b>	0	-
<b>Marrickville Dive</b>	2	An exceedance on 6 Aug 2017 was caused by an emergency vehicle siren driving by and an exceedance on 31 Aug 2017 occurred during inaudible works being undertaken. The cause of this exceedance is unknown but is not attributable to Delta works.

Table 20: Vibration Monitoring Results Summary and Analysis

Site	Number of Noise Management Level Exceedances	Comments
<b>Chatswood Dive</b>	2	An exceedance on the 5 Sep 2017 was caused as the monitor was being relocated to enable awning and fence demolition. An exceedance on 8 Sep 2017 has not been attributable to the project as Delta was not undertaking demolition activities at the time of the exceedance.
<b>Crows Nest</b>	89	11 exceedances were associated with structural demolition of 477 Pacific Highway. Due to the latent condition of an adjoining wall, the demolition method could not be developed to appropriately consider how the two walls were tied together. 78 exceedances were associated with the low management level set for the day surgery located at 22-26 Clarke Street. Monitoring results indicated that some of these exceedances occurred when no demolition activities were being undertaken. Demolition activities at this site have been managed in consultation with the day surgery to avoid the surgery's sensitive periods where possible. Revision of work schedules have ensured that exceedances occurred during less sensitive periods.
<b>Victoria Cross</b>	0	-
<b>Blues Point</b>		Yet to commence 'construction' as defined by the C2S planning approval conditions.
<b>Barangaroo</b>		Yet to commence 'construction' as defined by the C2S planning approval conditions.
<b>Martin Place</b>	Generally not exceeded	Regular meetings were undertaken with the nearest sensitive receiver, Macquarie Bank, throughout the reporting period to negotiate respite periods as requested by Macquarie Bank. All requests for respite periods were implemented during the reporting period.
<b>Pitt Street</b>	18	Monitoring results indicated vibration signatures consistent with hydraulic hammering were attributable for some of these exceedances. No complaints were received for any of these exceedances.
<b>Central Station (SYAB)</b>	Several one-second exceedances	Ambient background vibrations in excess of 2.5mm/s were experienced during OOH periods. The one-second exceedances are consistent with bumps from workers or material movements and workers walking beside the monitor. Several of these occurred during static-rolling construction activities, which is unlikely to have generated such small vibratory impacts – further attributing the exceedances to worker and material interactions.
<b>Waterloo</b>	0	-
<b>Marrickville Dive</b>	0	-

### 5.6.2. Surface Water Quality

As indicated in Table 18, no surface water quality monitoring program was applicable during the reporting period. The first surface water quality monitoring activities on the project will be undertaken by the TSE contractor following DP&E approval of its Soil and Water CEMP sub-plan.

### 5.6.3. Groundwater Quality

As indicated in Table 18, no groundwater quality monitoring program was applicable during the reporting period. The first groundwater quality monitoring activities on the project will be undertaken by the TSE contractor following DP&E approval of its Soil and Water CEMP sub-plan.

## 5.7. Complaints

A total of 64 complaints were received during the reporting period. Figure 20 to Figure 23 provide a breakdown of the complaints by month, type, site and construction package.

Full details on each complaint received during the reporting period are provided in Appendix 1. Each complaint has been actioned and resolved in accordance with the Complaints Management System. There are no matters which are currently subject to mediation.

The demolition contractors generated the majority of complaints during the reporting period (81%). This includes both pre and post TSE novation activities. These complaints can be attributed to high impact demolition works taking place in medium and high density urban areas, including the Sydney CBD.

The most common issues were Noise & Vibration, Property & Business Impacts, Air Quality and Traffic, Transport and Access issues. To mitigate against the Noise & Vibration impacts, lower-impact pulverisers are being implemented (where possible) and the local community is regularly receiving updates about works and potential impacts.

The SYAB contractor received seven complaints on environmental impacts, mostly relating to Noise & Vibration and Air Quality impacts. These complaints have mostly been attributed to the nature of the site, which is immediately adjacent to residential receivers and requires significant Out of Hour activities during rail possession periods due to its proximity to the live Sydney Trains rail network.

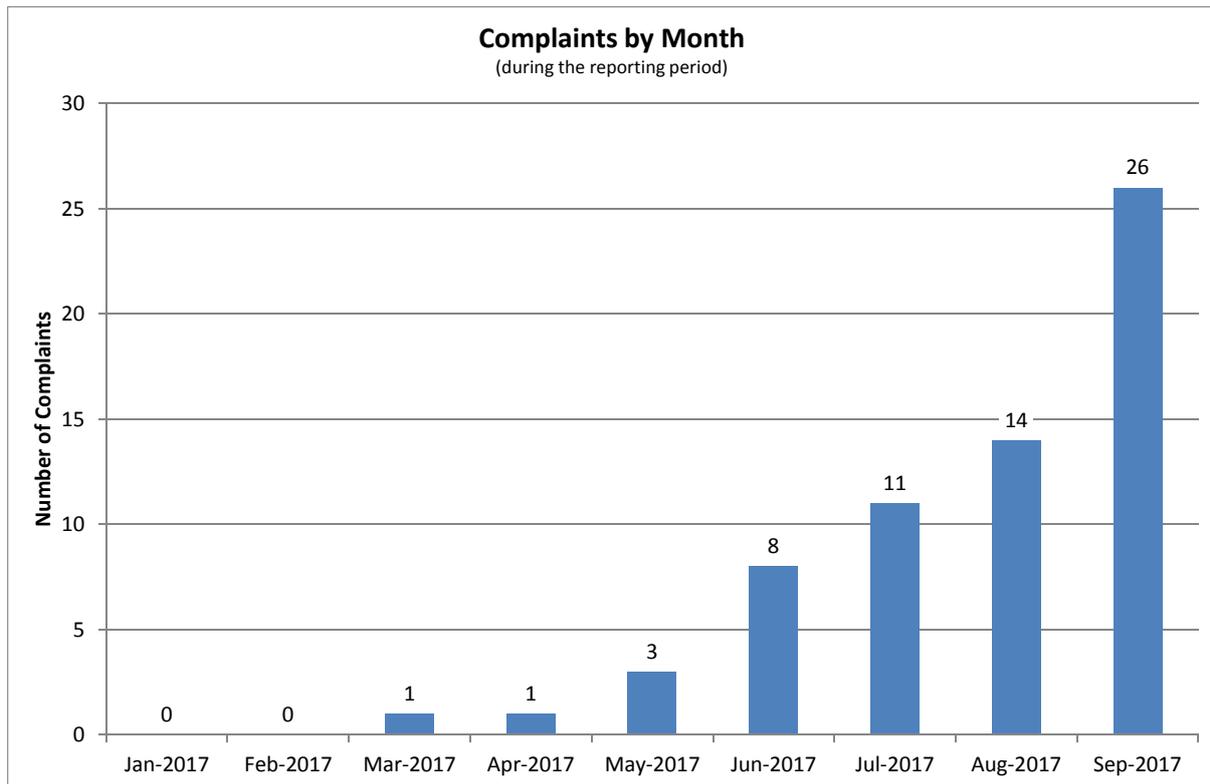


Figure 20: Complaints by Month during the Reporting Period

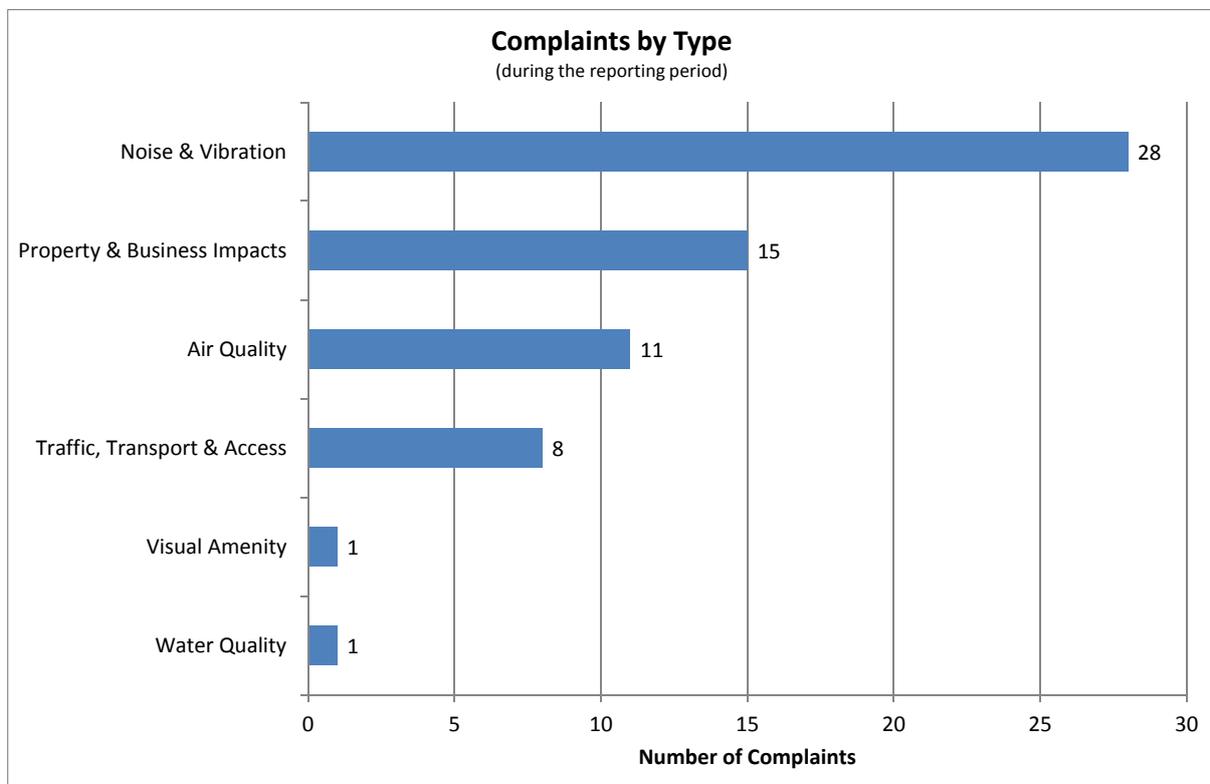


Figure 21: Complaints by Type during the Reporting Period

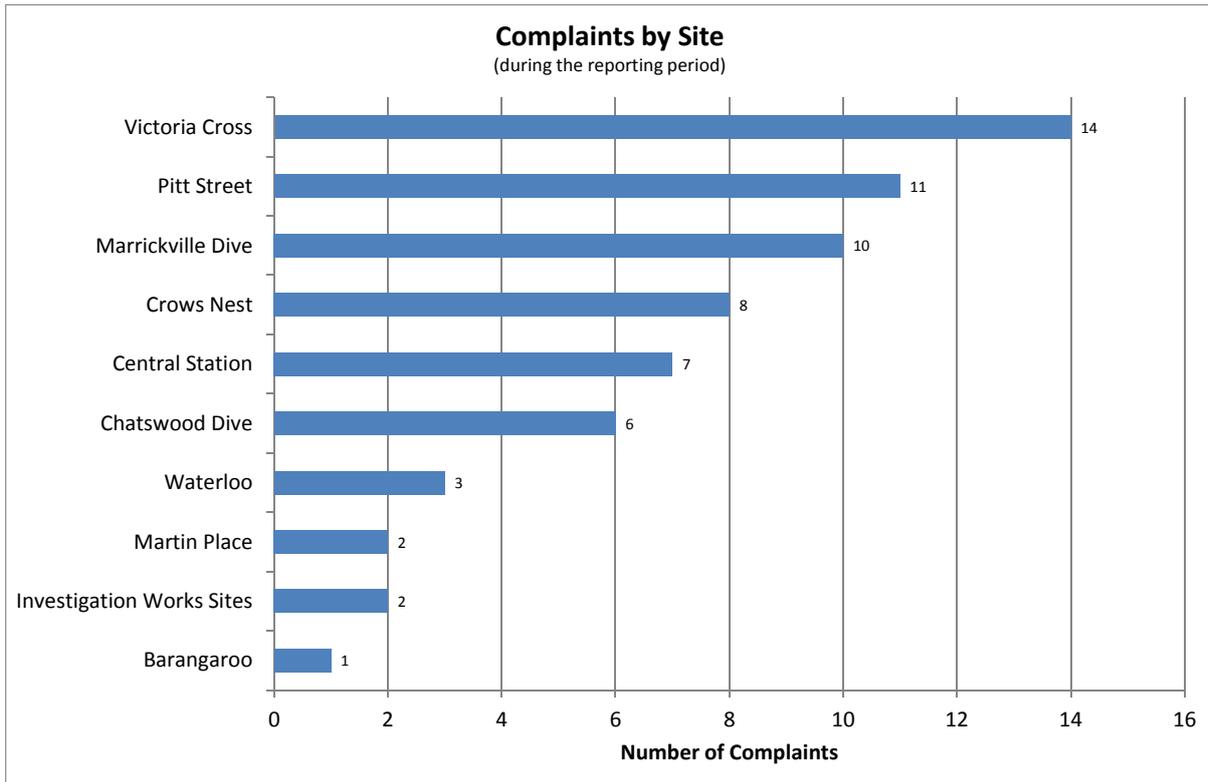


Figure 22: Complaints by Site during the Reporting Period

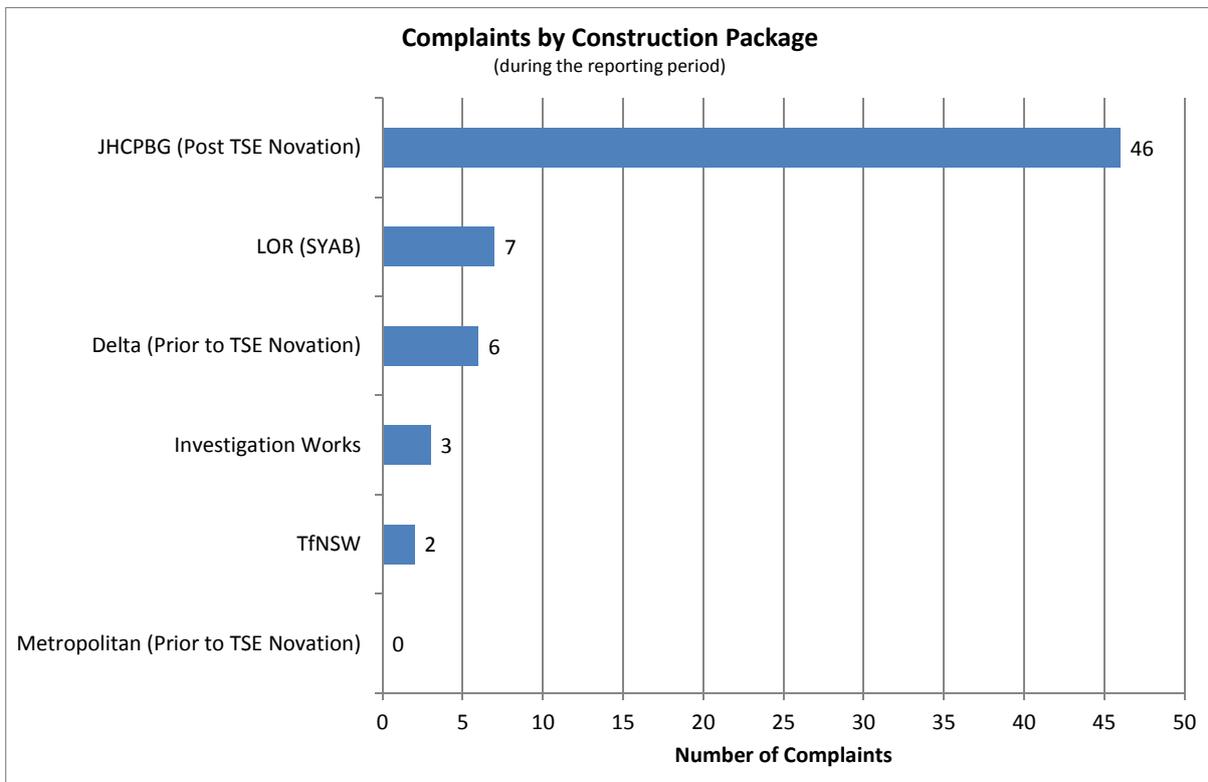


Figure 23: Complaints by Construction Package during the Reporting Period

## 6. Key Environmental Initiatives

Despite being in the initial phases of the project, TfNSW and its contractors have already achieved significant environmental outcomes through implementing some key initiatives. Examples of these are provided below.

### 6.1. Demolition

#### 6.1.1. Pulverisation

Demolition activities generally generate high noise, vibration and air quality impacts. Given the large scale of demolition required as part of the City & Southwest project, the Sydney Metro Delivery Office actively sought to procure demolition contractors that could implement significant mitigation measures to reduce the impacts of demolition activities. This was a significant consideration during the procurement phase of the Demolition A and Demolition B contracts.

As a result, both demolition contractors each committed to using pulverisers as the primary method of demolition. This technique uses a clamping-like device at the end of an excavator that crushes structural elements of buildings, rather than using high-energy impacts. This is generally implemented from the top floors of buildings and continues downwards sequentially through each level to the bottom floors.

The pulverisation method of demolition has helped to reduced noise and vibration impacts that would have otherwise been demonstrated through conventional methods of demolition.

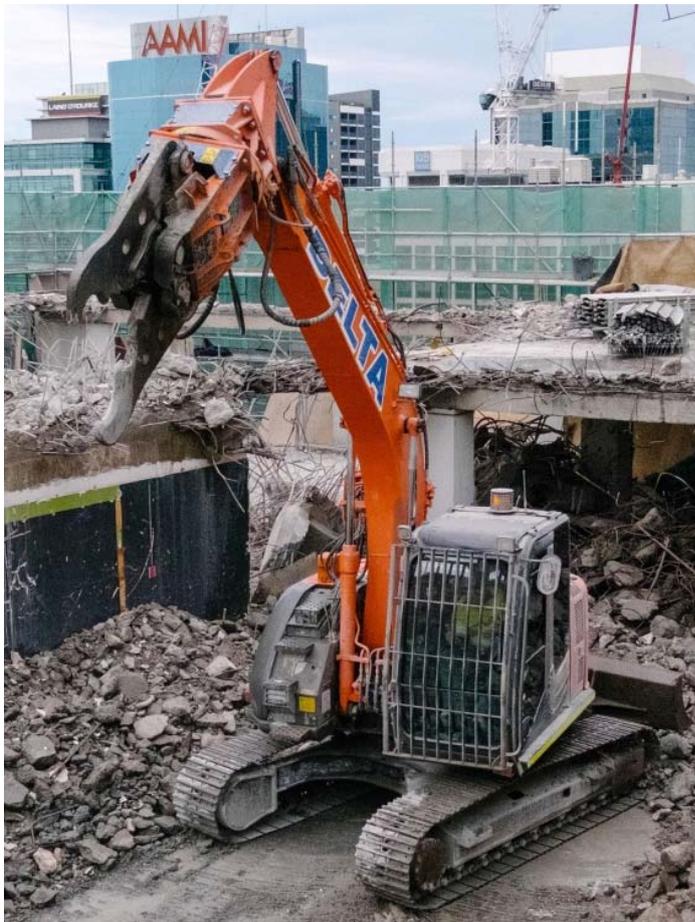


Figure 24: Pulveriser being used at the Victoria Cross Station site

### 6.1.2. Waste Reuse

Prior to structural demolition, buildings are subject to 'soft-strip' activities. These include the removal of fit-out installations and any abandoned furniture. The demolition contractors have been able to successfully reuse some of the abandoned furniture in their site offices and buildings. Furthermore, carpet and materials have been stripped from buildings and reused as screening to reduce noise and air quality impacts.

## 6.2. Acoustics Advisor

The Sydney Metro Delivery Office is aware that noise and vibration impacts are a key environmental risk for the City & Southwest project. For this reason, SMDO proposed to create and implement an Acoustics Advisor role on the project.

The development of the Acoustics Advisor role was first proposed by SMDO prior to the Chatswood to Sydenham EIS approval on 9 January 2017. Throughout consultation with DP&E during 2016, the responsibilities of the Acoustic Advisor role were discussed and finalised in the Chatswood to Sydenham planning approval conditions. The role acts as a representative and contact point for DP&E on all noise and vibration compliance matters.

The Acoustics Advisor was approved by DP&E on an interim basis on 28 February 2017 and then on a permanent basis on 11 April 2017. Since the 28 February 2017, the Acoustics Advisor has been a valuable addition in monitoring noise and vibration compliance requirements and advising on the appropriate and diligent management of noise and vibration impacts.

Examples of the Acoustics Advisor activities during the reporting period include:

- Review and endorsement of the Construction Noise and Vibration Strategy review (addendum) and the Out of Hour Works Protocol.
- Review and endorsement of the Delta, Metropolitan and LOR (SYAB) Noise and Vibration Management Plans.
- Review and endorsement of the Delta Construction Noise and Vibration Impact Statements (at least one for each of the six sites).
- Review and endorsement of the Metropolitan Construction Noise and Vibration Impact Statement.
- Review and endorsement of the LOR (SYAB) Construction Noise and Vibration Impact Statement.
- Review and endorsement of numerous Out of Hour applications.
- Site inspections and monitoring of noise and vibration impacts.
- Stakeholder meeting and consultation (including with affected receivers).
- General advice on implementing noise and vibration mitigation measures.

## 7. Sustainability

Sydney Metro is committed to achieving sustainable outcomes throughout project delivery and operations. This has already been evidenced in the sustainability achievements of the Northwest project thus far, as well as the numerous sustainability industry awards the Northwest project has received to date.

Sydney Metro plans to continue its commitment to sustainability throughout the delivery and operation of the City & Southwest project. This has been established in the City & Southwest Sustainability Strategy, which was submitted to DP&E on 7 July 2017.

The strategy outlines the sustainability objectives and targets that the City & Southwest project seeks to achieve. The objectives and targets have also been embedded into project contract requirements.

Figure 25 highlights a number of the Sustainability Strategy objectives and targets.

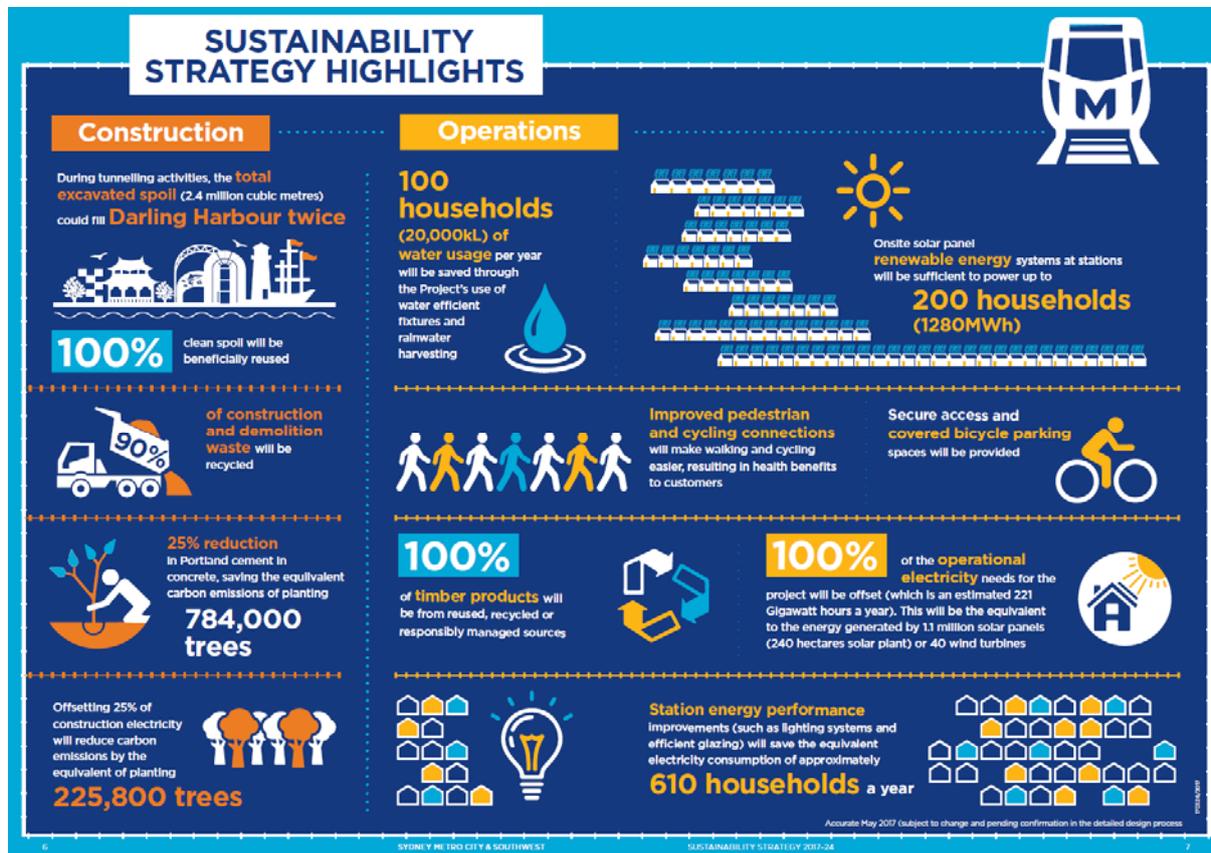


Figure 25: City & Southwest Sustainability Strategy Highlights

## 7.1. Sustainability Ratings

A program of sustainability ratings is being implemented on the project, which considers the scope and size of each contract package:

- The major construction packages are required to achieve a minimum *Infrastructure Sustainability Council of Australia* Design and As Built Rating of 65.
- The Enabling Works construction packages are required to achieve a minimum 'silver' level rating using TfNSW's Sustainable Design Guidelines.
- Each of the underground metro stations is required to achieve a minimum Green Star Rating Design and As Built rating of 5 Stars. This is to be achieved using a Green Star Rating tool that has been customised for Sydney Metro underground stations.

## 7.2. Reduction of Greenhouse Gases

Greenhouse gas emission reduction targets have been outlined in the Sustainability Strategy and mandated through contractual targets. Examples of these targets include:

- Minimum 20% reduction in carbon emissions associated with construction (compared to 'business as usual').
- Offset 25% of the electricity needs for the construction phase of the project.
- Minimum 20% reduction in carbon emissions associated with operations (compared to 'business as usual').
- 15% improvement to building designs (stations and stabling buildings) over the performance requirements set out in the *National Construction Code* (Section J).
- 5-20% of the low-voltage electricity required at above-ground stations and the stabling facility to be sourced from onsite renewable energy.

## 7.3. Waste Recycling and Reuse

Several contractual mandates have been applied to the management of wastes generated by the contractors. These include:

- 100% beneficial reuse of usable spoil.
- Recycle or reuse 90% of recyclable construction and demolition waste.
- Recycle or reuse 60% of office waste during the construction phase.

To date, all waste reporting from contractors has exceeded the 90% recycling or reuse of recyclable construction and demolition waste.

## Appendix 1 – City & Southwest Complaints during the Reporting Period

Table 21: Complaints during the Reporting Period

Date	TfNSW / Construction Package	Site	Type	Complaint Information
15 Mar 2017	Investigation Works	Barangaroo	Noise & Vibration	Stakeholder advised noise from Hickson Road was very loud and he had been referred to Sydney Metro after contacting council. Advised he hadn't received a notification. Place Manager advised that a notification was distributed along Kent Street on 6 March. Committed to sending a copy to him on the following day. Confirmed that the noisiest work would be completed around midnight.
19 Apr 2017	LOR (SYAB)	Central Station	Property & Business Impacts	Stakeholder made a complaint after a scheduled dilapidation survey did not go ahead as the contractor did not arrive. Place Manager spoke to stakeholder and organised for the inspection to be rescheduled for following Wednesday. Place Manager committed to attend inspection, provide letter for tenants and site contacts via email the following day.
04 May 2017	Investigation Works	Investigation Works Sites	Noise & Vibration	Complaint received about noise from out of hours work around Sydenham Station and that stakeholder did not receive a notification and could not get a response from the community information line. Place Manager advised that impacted residents up to 100m should have received a notification about the works. Place Manager determined that no call was forwarded from the call centre about the complaint.
12 May 2017	Delta (Prior to TSE Novation)	Victoria Cross	Property & Business Impacts	OAC advised that staff had reported that glass had been found on the balcony near their cubby house below the scaffold works at 181 Miller St. Sydney Metro advised that an onsite investigation would be undertaken regarding the glass found on the childcare balcony. Pending outcomes of safety investigation, Sydney Metro offered to pay for extra clean of OAC campus balcony area.
16 May 2017	TfNSW	Chatswood Dive	Traffic, Transport & Access	Complaint from stakeholder about knocking down a bridge in Nelson Street, Chatswood and a local street being closed permanently. Place Manager explained the bridge needs to be removed to allow for the T1 line to go over the metro lines, and sent information from the Chatswood to Sydenham EIS Summary document which provided more detail.
08 Jun 2017	Delta (Prior to TSE Novation)	Victoria Cross	Air Quality	Complaint received from OAC with concerns around demolition activities commencing prior to hazmat removal at 181 Miller Street North Sydney. Place Manager committed into providing a summary of the weekly monitoring report.
19 Jun 2017	Delta (Prior to TSE Novation)	Pitt Street	Noise & Vibration	Noise complaint during beam demolition at 175 Castlereagh St. Place Manager advised that work will continue with less noisy equipment and that stakeholder will be contacted ahead of noisy activities in future.
19 Jun 2017	Delta (Prior to TSE Novation)	Pitt Street	Noise & Vibration	Noise complaint from a hotel guest during beam demolition at 175 Castlereagh St. Place Manager advised that work will continue with less noisy equipment the next day.

Date	TfNSW / Construction Package	Site	Type	Complaint Information
20 Jun 2017	Delta (Prior to TSE Novation)	Pitt Street	Noise & Vibration	Pensione Hotel General Manager advised of a few complaints from guests regarding noise with the demolition on Castlereagh Street and that some guests have moved to the hotel's sister property. There were also noisy activities before 8am which was outside the notified work hours. Place Manager noted that hammering should not be occurring prior to 8am and that he would follow up with the contractor.
21 Jun 2017	Delta (Prior to TSE Novation)	Pitt Street	Noise & Vibration	Pensione Hotel General Manager (GM) confirmed that 7 guest complaints had been received out of 36 total rooms in regards to noisy night works the previous night. Complaints were from 10pm to 5am. Site Project Manager advised Place Manager it was likely that a subcontractor were using impact tools and confirmed this will not happen on future nights, which the Place Manager relayed to the GM for information.
22 Jun 2017	JHCPBG (Post TSE Novation)	Martin Place	Noise & Vibration	Stakeholder emailed with an objection to Saturday extended work hours and ongoing night works at Martin Place as they are affected by the ongoing noise at the site. Place Manager advised that extended hours for night works are required due to high daytime traffic volumes and the extended Saturday work hours have been approved by the Acoustic Advisor.
27 Jun 2017	JHCPBG (Post TSE Novation)	Pitt Street	Noise & Vibration	Pensione Hotel contacted the 1800 number to advise of noise complaints from multiple guests. Place Manager spoke to reception in the morning who advised there had been loud drilling noises at 2am. Complaint classed as avoidable due to hoarding contractor using impact tools, in violation of approved OOHW application.
30 Jun 2017	JHCPBG (Post TSE Novation)	Victoria Cross	Noise & Vibration	Email and phone complaint regarding noise of reverse alarm beepers and construction noise at 11.30pm, Friday 30 June, and that the community notification did not provide enough detail about these works. EPA and DP&E investigated the works and found that they were conducted in accordance with the relevant approvals. A commitment was made to the stakeholder to provide more detailed notifications regarding timing of activities and equipment to be used.
03 Jul 2017	TfNSW	Marrickville Dive	Property & Business Impacts	The stakeholder made a complaint as he was not receiving feedback from TfNSW regarding ongoing discussions around relocation of his business. It was found that the wrong email address was logged for this stakeholder and he had not been receiving correspondence therefore the complaint was avoidable. Email has been resent to correct address and the team has spoken with the stakeholder's lawyer.
05 Jul 2017	JHCPBG (Post TSE Novation)	Martin Place	Traffic, Transport & Access	Complaint regarding perceived impact on Elizabeth Street access from 9-19 Elizabeth Street and the attachment of crash tape around their building column. The Contractor Metropolitan Demolitions negotiated an agreed solution to the placement of the pedestrian safety signage for further hoarding night works with stakeholder.

Date	TfNSW / Construction Package	Site	Type	Complaint Information
07 Jul 2017	JHCPBG (Post TSE Novation)	Pitt Street	Noise & Vibration	Stakeholder advised of drilling happening now during a trial breakfast of a business group thought they have yet to confirm the impact to group. Place Manager called site project manager to ask about source of noise who advised they had to do 15 minutes of hammering before 8am as exploratory work for an engineering report. Complaint classified as avoidable as noisy work is not permitted before 8am as per CNVIS.
08 Jul 2017	LOR (SYAB)	Central Station	Visual Amenity	Resident at Co-masonic advised that night works over the past three months have been the most disruptive they've been since he moved in 18 months ago. Noise and light pollution has been high, particularly in the last week; that lighting towers were angled towards his bedroom and that workers had been yelling excessively during night works last week. Place Manager advised that SYAB works had been happening overnight this week and were currently happening today until 10pm and that their details will be passed on to Sydney Trains to contact him next week about other works happening in the area. Place Manager also advised the issue about angle of lighting towers and workers yelling will be brought up with the team to address.
21 Jul 2017	JHCPBG (Post TSE Novation)	Chatswood Dive	Noise & Vibration	Stakeholder made a complaint about loud noises experienced due to works and advised that her neighbour John Hoult has a noise monitor which said it was 70 and she was not sure what this meant. Place Manager advised the site's noise monitoring data will be investigated and the noise was likely due to demolition of a building that was of a particularly solid structure of bricks and cement. Place Manager advised the works would continue today and up until next Wednesday. The complaint was avoidable due to noise level exceedances. As a result, the contractor has reviewed their methodology to reduce the impact of the works and in future.
21 Jul 2017	JHCPBG (Post TSE Novation)	Pitt Street	Noise & Vibration	General Manager at Castlereagh Boutique Hotel called to make a complaint about excessive noise due to works and workers yelling and swearing from the site at 175 Castlereagh Street. Place Manger immediately called the Site Supervisor who advised he would stop works. The complainant confirmed that noise stopped immediately after the complaint was lodged. Place Manager emphasised that this behaviour was not acceptable and apologised for any disturbance to staff or guests.
22 Jul 2017	Investigation Works	Investigation Works Sites	Noise & Vibration	Stakeholder complaint due to noise from out of hours geotechnical investigations around Sydney Park Rd and its extension of hours. Stakeholder believed that a notification letter is inadequate to inform nearby residents of the impacts. Place Manager emailed with apology for disturbances experienced by stakeholder and neighbours and advised that they will contact the stakeholder directly ahead of works if they can provide direct contact details.

Date	TfNSW / Construction Package	Site	Type	Complaint Information
24 Jul 2017	JHCPBG (Post TSE Novation)	Chatswood Dive	Noise & Vibration	Stakeholder made a complaint about loud noises experienced due to works and that their own noise monitor measured noises up to 80dB. Place Manager advised the site's noise monitoring data will be investigated and the noise was likely due to demolition of a building that was of a particularly solid structure of bricks and cement. The complaint was avoidable due to noise level exceedances. As a result, the contractor has reviewed their methodology to reduce the impact of the works and in future.
24 Jul 2017	JHCPBG (Post TSE Novation)	Pitt Street	Noise & Vibration	Stakeholder called to complain about OOH crane works on 22 July. Place Manager returned call and spoke to stakeholder's wife. She advised they were woken at 2am and kept up for hours by banging noises and bright lights. They live on the 30th floor of the Park Regis City Centre and that their apartment looks over the site. She didn't think works should be allowed to happen at night and that no one would mind if it during the day on Sunday instead. Place Manager explained that works had to happen overnight as they were using a large crane to lift equipment onto the roof, which required a three-lane traffic closure that cannot happen during the day.
24 Jul 2017	JHCPBG (Post TSE Novation)	Chatswood Dive	Traffic, Transport & Access	Stakeholder complained about the construction impacts to the residents at 17 Nelson St that is being experienced currently and which they will expect will be ongoing throughout the life of the project. Stakeholder is asking the Project to consider mitigation measures for the residents to reduce impacts. Place Manager spoke to complainant to advise that noise and dust mitigation measures which will be established including a 5m noise barrier and acoustic shed which will further improve the impacts on the community. Nataliya also explained her concerns about the Nelson Street bridge removal and the additional construction traffic. She is concerned about the bottle neck on the Pacific Highway. Place Manager advised that detailed plans for traffic management are being developed by the contractors who will be informing the community once this is available.
31 Jul 2017	JHCPBG (Post TSE Novation)	Chatswood Dive	Water Quality	Officer from Willoughby Council visited site and believed existing environmental controls were inadequate. The JHCPBG team confirmed that controls had been installed as part of site establishment in accordance with the worksite Erosion and Sediment Control Plan (ESCP) and Blue Book requirements. JHCPBG Interface Manager provided further information to council officers at a meeting with Willoughby Council.
02 Aug 2017	JHCPBG (Post TSE Novation)	Victoria Cross	Property & Business Impacts	Manager of OAC Childcare sent an email expressing concerns about safety of a crane operating near the balcony. Provided video and photos and asked for immediate stop to work. Place Manager contacted complainant immediately and provided further information and details about next steps, including an investigation into the crane position and process. Investigation revealed that crane was appropriately positioned and all approvals/documentation were correct and in place. JHCPBG Senior Stakeholder Liaison Manager replied by email at 7.41pm with detailed information about the investigation process and outcome

Date	TfNSW / Construction Package	Site	Type	Complaint Information
03 Aug 2017	LOR (SYAB)	Central Station	Property & Business Impacts	Property owner at 54 Regent Street Chippendale emailed Place Manager to complain about project workers accessing the building frontage without permission and spreading mud throughout the area. He also expressed concern about the lack of traffic control and general supervision of the works. Place Manager advised that the area will be cleaned immediately and further investigations would be undertaken. Place Manager called property owner back to advise that contractors had acted against instructions and there would be supervision to make sure no vehicles would access his property again.
11 Aug 2017	JHCPBG (Post TSE Novation)	Victoria Cross	Property & Business Impacts	Email received from Manager of OAC childcare centre this morning advising that a piece of rusty barbed wire was found during their morning check of the outdoor area. Request was made by the Manager to stop work until the safety of the balcony area could be guaranteed. Work was stopped in the immediate area and investigation confirmed it was a metal tie wire used on scaffolding that was previously installed. Decision made to use zip ties to attach mesh to the scaffold. Remaining section of mesh will be attached on Saturday and supervisor will check outdoor area at 6.45 am on Monday to ensure there is no debris from the weekend work.
13 Aug 2017	JHCPBG (Post TSE Novation)	Pitt Street	Traffic, Transport & Access	Place Manager spoke to local resident who called the 1800 number to complain about traffic delays around Castlereagh Street when she was returning home in a taxi around 1am the night before. Place Manager then spoke to Site Engineer who confirmed all lanes were stopped for a 15 minute period to allow scaffolding to be removed due to safety concerns with crane movement. Police were on site. Complainant was sent a follow up email on 14/08/2017 confirming contact details and advising the Place Manager will work with building manager to ensure future notifications are circulated more widely to building residents.
16 Aug 2017	JHCPBG (Post TSE Novation)	Victoria Cross	Property & Business Impacts	OAC childcare emailed to advise that debris was found on childcare centre balcony which they believed to be from the worksite. Exposed balcony is a safety concern and request work to stop immediately. There are no structural demolition works underway near the centre. Initial investigation was that the material was unrelated to building, however, additional investigation of scaffold and stairs is being undertaken. A second email also sent with small piece of wire found later in another area of the balcony. This is also being investigated. AOC was updated during the day on actions and no works are underway.
17 Aug 2017	JHCPBG (Post TSE Novation)	Marrickville Dive	Air Quality	Inner West Council ranger attended site at 2.20pm and complained to EPA pollution line that demolition was occurring with no dust suppression and observed strong winds carrying dust off the premises. At the time two demolished buildings were being processed for recycling and two houses were being used for dust suppression which may not have been visible from the gate. Additional suppression was applied later in the day. Council to be provided complaint report and requested to contact JHCPBG directly with any future concerns.

Date	TfNSW / Construction Package	Site	Type	Complaint Information
17 Aug 2017	JHCPBG (Post TSE Novation)	Victoria Cross	Noise & Vibration	Building Manager of 65 Berry Street called to advise that tenants in the building had complained about noise while they were holding a meeting this morning. Place Manager explained that the works were to demolish pre-cast panels on the eastern side of the demolition site. She outlined respite periods and upcoming works and arranged to meet and discuss additional means of updating tenants for future stages of demolition, monitoring and mitigation measures.
18 Aug 2017	JHCPBG (Post TSE Novation)	Waterloo	Property & Business Impacts	Glass and building fragments found on church property reported to TfNSW representative at meeting on site. Investigation found the debris is from a second storey window which has broken either as a result of high winds or vandalism. Site manager has agreed to clean up the debris and board the window to make the area more secure. It is noted that hoarding is planned to be installed between the church property and adjacent buildings prior to demolition.
25 Aug 2017	JHCPBG (Post TSE Novation)	Crows Nest	Air Quality	Caller from a business near the site was observing asbestos removal and believed workers were drilling into asbestos sheets. Site Manager and Stakeholder Manager North, Heather Jackson, explained that this was bonded and not friable asbestos, and that the drilling was into the steel end caps and not the sheets. They explained the works were being carried out in accordance with Asbestos Removal Code of Practice and removal is certified by occupational hygienist. Caller was satisfied with explanation.
28 Aug 2017	JHCPBG (Post TSE Novation)	Marrickville Dive	Air Quality	Call regarding dust on Sydney Steel Road near the demolition site. Demolition works on site involved two excavators loading out two separate stockpiles of concrete from previously demolished buildings. The concrete was being loaded into steel bins for offsite recycling. Each excavator was allocated a dedicated spotter with water hose for dust suppression for as long as the machinery was in use. Dust suppression via water hose was in use at the time of the complaint and additional hoses were deployed immediately when the complaint was lodged. Works were ceased for the day around 3:30pm and clean-up of the site occurred between 3:30pm and 4:30pm.
28 Aug 2017	LOR (SYAB)	Central Station	Air Quality	Property owner called to advise that there was a lot of dust coming off the site and no apparent mitigation measures in place. Advised that basement of property was full of white cement dust. Place Manager spoke to construction manager and environment manager. The dust master was moved to be in a better position with the wind which helped to improve the situation. Place Manager updated the complainant and advised that the contractor would continue to monitor dust levels.
28 Aug 2017	JHCPBG (Post TSE Novation)	Crows Nest	Noise & Vibration	Caller complained of noise from large tin awnings being demolished during OOH works on Pacific Highway as his bedroom faces the highway. Noise monitoring showed the works were compliant and that the required mitigation in the form of noise panels was in place on the traffic barriers. He was provided information on the remaining work and since the next nights' works would be directly opposite the resident he was offered alternate accommodation which he accepted.

Date	TfNSW / Construction Package	Site	Type	Complaint Information
29 Aug 2017	JHCPBG (Post TSE Novation)	Marrickville Dive	Air Quality	<p>Complaint was lodged with the Environment Protection Authority and referred to the Department of Planning and Environment. TfNSW was notified of the complaint at 5:33pm on 29/08/17. TfNSW notified JHCPBG at 6:35am on 30/08/17.</p> <p>On 29/8/17 Delta was undertaking two sets of work during standard daytime hours; lowering a large steel structure and loading out a stockpile of bricks. A spotter with watering hose was allocated to the excavator loading out the brick stockpile and an additional hose was added to the works to minimise dust. There is also a mobile sprinkler system in the southern end of the Marrickville site adjacent to the railway line and Sydney Water detention basin. This system is operated intermittently as needed but was positioned and turned on for the lowering and processing of the steel structure on 29/8/17 between 8am and 6pm.</p>
31 Aug 2017	LOR (SYAB)	Central Station	Noise & Vibration	Resident called to advise that large excavator was hammering slab 1m from his building. Advised that vibrations were so strong that he left the building, fearing it was not stable. Advised that building foundations are sandstone and cannot withstand the kind of vibration being generated by works.
02 Sep 2017	JHCPBG (Post TSE Novation)	Crows Nest	Noise & Vibration	<p>Resident called to complain that work had started on site at 7.30am and was still going at 1.20pm which is outside the approved work hours for Saturdays. Place Manager spoke to the project manager who advised there had been an issue with the equipment delivered to site that day which resulted in the need for emergency works and a later completion time of 1.30pm. Follow up investigation confirmed the plant should not have been delivered to site before 8am. Also Delta should have provided notification of the need for emergency works in accordance with the Out of Hours Work Protocol. Minor demolition works commenced prior to the endorsement of the CNVIS. These issues will be recorded as non-compliances against the relevant conditions. Place Manager called the complainant again at 9am on 4 September to provide an update on the steps taken to close the complaint, including a toolbox talk for workers and briefing for the trucking company about out-of-hours equipment deliveries. He was satisfied with this response.</p>
04 Sep 2017	JHCPBG (Post TSE Novation)	Waterloo	Noise & Vibration	The resident received notification and a doorknock regarding OOH utility works to be undertaken from next week. He objected to the works taking place at night. The Place Manager explained the reasons and also undertook to confirm and update the resident which was done. Resident said that he would likely complain any time there were works at night.
04 Sep 2017	JHCPBG (Post TSE Novation)	Victoria Cross	Property & Business Impacts	A complaint was referred from the Community Complaint Commissioner on behalf of a North Sydney child care centre requesting demolition works be suspended until additional mitigation measures are installed on the balcony. Complainant concerns have been previously addressed in detail and the contractor will continue the works. The complaint has been escalated to the Principal Manager, Project Communication.

Date	TfNSW / Construction Package	Site	Type	Complaint Information
05 Sep 2017	JHCPBG (Post TSE Novation)	Victoria Cross	Noise & Vibration	Building manager for building adjacent to the demolition site reported receiving complaint of noise from the tenants on the floor adjacent to the current works. Place Manager arranged to speak with him and will organise a presentation for the tenants (note this was previously offered and declined)
07 Sep 2017	JHCPBG (Post TSE Novation)	Pitt Street	Property & Business Impacts	Demolition Contractor Delta responded to the call from Castlereagh Boutique Hotel Maintenance Manager about water that was seen to be leaking from a small hot water copper pipe in the light well. Investigation found the pipe had been damaged by some rubble that fell onto the scaffold. It was realised at that time that this had likely occurred earlier in the day when a loud noise had been heard in the light well area. Delta Site Supervisor immediately arranged for a plumber to fix to the leaking pipe. The plumber advised that the pipe was old and the recent damage had caused a slow leak. The leak was fully contained within the hotel premises. This is a report only spill, recorded for trend tracking purposes. Safety investigations are ongoing and a safety incident report is being prepared, including an assessment of damage caused. Any damage caused from the incident will be rectified and the Construction Manager and Community Place Manager will continue to liaise with the hotel representatives to facilitate. Response from the hotel manager is that he is satisfied action is underway.
08 Sep 2017	LOR (SYAB)	Central Station	Air Quality	Resident of 52 Regent Street Chippendale sent an email complaining about a thick layer of dust in his backyard and high noise levels. He advised that the noise from machinery made it difficult to talk inside despite having double glazed doors. The Place Manager emailed back providing information about the project and requesting further details be provided of the times/dates the work occurred to assist with the investigation.
09 Sep 2017	JHCPBG (Post TSE Novation)	Chatswood Dive	Property & Business Impacts	Email received by TfNSW email on 9/9/17 forwarded to JHCPBG on 11/9/17 at 6.04pm. Resident who lives near demolition site believes cracks in her unit are as a result of demolition. Additional information has been requested and the claim, if received, will continue in the property damage claim process. It is noted there were no vibration readings at monitors located near the residence in August that triggered alert or halt action.
09 Sep 2017	JHCPBG (Post TSE Novation)	Victoria Cross	Traffic, Transport & Access	Email received by TfNSW email on 9/9/17 forwarded to JHCPBG on 11/9/17 at 7.12pm. Resident was highly critical of the hoardings installed on planter boxes on Miller St, believing the boxes should have been removed first to improve pedestrian access. A response explained that the current arrangement is temporary and has been constructed to meet the requirements of North Sydney Council and WorkSafe guidelines for overhead protection. Resident was advised the hoarding would be reconfigured during site establishment for TSE works.

Date	TfNSW / Construction Package	Site	Type	Complaint Information
11 Sep 2017	JHCPBG (Post TSE Novation)	Crows Nest	Noise & Vibration	Resident complained of the continuous operation of a truck for 80 mins during night works. The resident observed that there was a crane on the truck. It was explained that this was the crane mentioned in the notification and was an essential element of the works. Workers have been reminded of the need to minimise engines running where possible. Noise monitoring showed two spikes above the predicted noise level, however the construction methodology was consistent with the approved out of hours application.
11 Sep 2017	JHCPBG (Post TSE Novation)	Pitt Street	Noise & Vibration	The GM of the Boutique Hotel that is adjacent to the demolition works at 175 Castlereagh St has requested information on monitoring results and consideration of whether the noise monitor currently installed should be relocated. It is noted that at a regular meeting held two days earlier, the hotel stakeholders reported that demolition was proceeding without any issues. A further meeting to clarify information previously provided on respite and to reiterate the methods to minimise impacts has been arranged today. A formal response to the issues raised in the email will be provided when the investigation is complete. (Investigation is continuing)
12 Sep 2017	JHCPBG (Post TSE Novation)	Crows Nest	Noise & Vibration	Resident lives on Pacific Highway and complained of being woken when works to install the hoarding at Crows Nest moved to in front of his unit at around 4am. The resident is highly sensitive to noise and as the works are to continue near his unit again tonight, arrangements were made to relocate him. Noise monitoring showed noise to be consistent with predictions.
12 Sep 2017	JHCPBG (Post TSE Novation)	Victoria Cross	Property & Business Impacts	Building Manager for adjoining building on Miller Street complained that some shade-mesh or tarp was seen on the roof of the café and asked for it to be removed. He also advised there had been a loud thump at around 4.30pm which differed from other demolition noises. The mesh (about 2m in size) was removed by 5pm. Noise and vibration data was found to be compliant.
12 Sep 2017	JHCPBG (Post TSE Novation)	Marrickville Dive	Traffic, Transport & Access	Complaint from a business in Edinburgh Rd near demolition site of rubbish left in parking space and that workers are not to park in these spaces. Stakeholder Manager South apologised for the nuisance. Workers to be toolboxed and reminded of their community obligations.
14 Sep 2017	JHCPBG (Post TSE Novation)	Crows Nest	Noise & Vibration	Email referred to JHCPBG at 3.25pm. Resident initially believed he had not received a notification regarding OOHW. Stakeholder Manager North provided an additional copy and advised that it had been delivered (note it had been personally delivered by her in conjunction with a doorknock). Resident later confirmed he had misread the part of the notice that said the works would be carried out over three weeks. He thanked the Manager for prompt attention.

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14 Sep 2017	JHCPBG (Post TSE Novation)	Marrickville Dive	Property & Business Impacts	Business owner rang concerned that reinstatement of trenching across driveway might not be adequate and would cause access to be disrupted if it failed. Options for reinstatement were discussed and it was agreed to use concrete. A follow up meeting was held on site with Stakeholder Manager and Project Manager to reassure the caller that this option would be adequate for the business traffic and would meet council requirements. Business owner was satisfied with response.
21 Sep 2017	JHCPBG (Post TSE Novation)	Marrickville Dive	Air Quality	EPA forwarded a complaint concerning dust and lack of effective dust management at the Marrickville site and claims that the site is unidentified. The response to the EPA outlined the use of dust controls including hoses with spotters and a fan that applies atomised water over a large area. The atomised water can look similar to dust plumes. The two site entrances on Sydney Steel Road and Murray Street both have prominent signage advising site ownership, contractor and contact details.
21 Sep 2017	JHCPBG (Post TSE Novation)	Victoria Cross	Noise & Vibration	The building manager of the MLC building which is adjacent to the demolition works at 155 Miller Street referred a complaint from tenants on level 1 of hearing loud "thuds" over a period of an hour. Works at the time of the complaint were to clear an area to allow an inspection of the wall. Noise and vibration results from monitors on the MLC building were within the relevant management levels and a response to the building manager outlines the possible source is loading out which occurs near their wall. Attended noise monitoring is being arranged on level 1 to confirm if this is the case.
22 Sep 2017	JHCPBG (Post TSE Novation)	Marrickville Dive	Air Quality	Business adjacent to site called with concerns about dust and her food business. She commended the efforts of the site team to manage dust but noted the hot temperature meant water was drying out more quickly. She was concerned about upcoming food safety audits. It was confirmed that dust management has been given a high priority on site and that all dust suppression controls were in place for load out works at the time of the complaint.
22 Sep 2017	JHCPBG (Post TSE Novation)	Victoria Cross	Noise & Vibration	Caller is in Berry Street near the demolition works. He believed that jackhammering works should not have been occurring after 5pm. Place Manager advised construction hours were 7am-6pm, and that works with extended hours would be occurring on Saturday 7am-5pm. Stakeholder Manager North attempted to follow up at 6.11pm and left a detailed voice message re the working hours. She also advised of emergency works occurring at the time as a result of a mechanical breakdown of the crane that were due to be completed in the next 10 minutes. TSE Environmental Coordinator advised ER and TfNSW of the emergency works as per the OOH Protocol. Due to the short duration of works, community notification requirements were not triggered. A further attempt to contact the caller was made on 25/9/17, with a message left to call if more details needed.

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25 Sep 2017	JHCPBG (Post TSE Novation)	Marrickville Dive	Traffic, Transport & Access	Local resident emailed to complain they were forced to take a long pedestrian detour around trenching works without any forewarning and the traffic controllers were rude. Place Manager contacted the project manager who advised he would ensure traffic controllers are polite and provide correct information in future. The Place Manager emailed the complainant to provide more information about the works and report on the action taken in response to the complaint.
26 Sep 2017	JHCPBG (Post TSE Novation)	Crows Nest	Traffic, Transport & Access	Email received from manager of Kellys Place Children's Centre complaining that two trucks associated with Crows Nest demolition were parked in parking bay/drop-off zone for their facility. Following an investigation, a memo will be issued to the relevant subcontractor advising all drivers they are not to park in the parking bay. The drivers involved in the incident were also spoken to directly.
27 Sep 2017	JHCPBG (Post TSE Novation)	Victoria Cross	Property & Business Impacts	Café owner in Miller Street called to complain that a sandwich fridge was cracked due to adjacent demolition works. Site engineer visited the cafe at 3.25pm to examine the fridge and take photos. Café owner advised that the damage occurred before 11am on the previous day. Site records show there was no demolition at the closest building to the café during this time. Vibration data for the period showed maximum level recorded was at 1.1mm/s, which is within limits prescribed by the CNVIS. Place Manager rang complainant to explain results of investigations and results of vibration monitoring. Caller accepted results of investigation but is still concerned about impact of demolition work. Place Manager will visit when she is next on site to provide more information.
27 Sep 2017	JHCPBG (Post TSE Novation)	Marrickville Dive	Air Quality	Complaint from a local resident forwarded by email from Inner West Council. Complainant is concerned about dust levels coming from the Marrickville site and apparent lack of dust suppression. Place Manager contacted the site manager and senior environmental coordinator to discuss the complaint and obtain more information about activities occurring on site. The complainant referred to concerns on Friday 22 September. Load out works were being undertaken on that day and all dust suppression controls were in place, including dust suppression unit which applies atomised water to a large area and spotters equipped with hoses. Place Manager emailed the complainant to provide this information and invited her to contact her directly or via the 1800 number if she had any further questions or concerns.
27 Sep 2017	LOR (SYAB)	Central Station	Noise & Vibration	Place Manager received email from resident of Regent Street complaining about noise levels and querying whether out-of-hours work should be occurring as he hadn't been notified. Place Manager investigated and found that emergency concrete works were required at the Mortuary Siding site. Due to technical issues, a concrete pour was delayed and for safety reasons could not be stopped until it was completed. She provided this information to the complainant and apologised for the disturbance.

Date	TfNSW / Construction Package	Site	Type	Complaint Information
28 Sep 2017	JHCPBG (Post TSE Novation)	Waterloo	Air Quality	Local resident called to complain about dust levels and lack of visible mitigation measures. Place Manager spoke to project engineer who confirmed a pressure washer (gerni) was being used on site but may not have been visible behind the hoarding. Place Manager called complainant to provide this information. The complainant advised he had visited Delta's website and noticed their environmental management certificate had expired. Place Manager followed up with Delta and found they hold a current certificate but it hadn't been uploaded to the website and they were instructed to do so. Place Manager emailed complainant to update him on the outcome of her investigations.
29 Sep 2017	JHCPBG (Post TSE Novation)	Crows Nest	Property & Business Impacts	Complainant is the owner of a property adjoining the demolition works in Crows Nest. He contacted the TfNSW Property Manager to advise that a tenant had reported cracking in the brickwork in the property. JHCPBG are reviewing vibration monitoring, pre-construction condition surveys and will meet with the resident to inspect damage and continue investigations.