

Sydney Metro Northwest
Environmental Construction Compliance Report #5
April 2015 to September 2015



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|------------------|---|--------------------|------------------|
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Executive Summary

This Construction Compliance Report documents TfNSW's and its delivery contractors' compliance with three Planning Approvals (SSI-5100, SSI-5414, and SSI-5931) that have been granted to the Sydney Metro Northwest project (formerly known as the North West Rail Link project). This report covers the period 1 April 2015 to 30 September 2015 and is provided to the NSW Department of Planning and Environment (DP&E) in accordance with these Planning Approvals.

The project experienced a significant increase to construction activities during this reporting period. Four Tunnel Boring Machines (TBMs) were operating simultaneously, gantry crane operations commenced on the Skytrain and bulk earthworks commenced on the Cudgegong Road Station site and the Sydney Metro Trains Facility site (formerly known as the Rapid Transit Rail Facility site). As a result, the environmental compliance program has continued to intensify throughout this reporting period.

Over 1,600 environmental requirements were monitored, 64 environmental inspections were conducted by the three Independent Environmental Representatives that identified 387 issues in total. The establishment of the OTS Compliance Working Group (CWG) during the reporting period means that there are now three CWGs coordinating audit programs across the project.

A high number of complaints were received by the TSC contractor during this reporting period. The majority of these were in relation to TBM operations, in which all four were operating during this reporting period simultaneously. The SVC contractor continues to report high numbers of environmental issues, audit findings and non-compliances. However, the numbers of issues per inspection and findings per audit have decreased during this reporting period. An increased number of environmental issues are being reported by the Environmental Representative for the OTS contract as the construction phase became well progressed during the reporting period.

The project continues to report zero Class 1 and 2 incidents, however the number of complaints rose by 62%. This increase has been attributed to having all four TBMs operating simultaneously and the commencement of gantry crane operations.

| | TfNSW | TSC | SVC | OTS | Total (This Period) | Total (Previous Period) | |
|------------------------------------|--|------------|------------|-------------|------------------------|-----------------------------|---------------|
| Totals for Reporting Period | Ongoing Conditions at end of reporting period (non-compliances during the reporting period) | 179 (0) | 306 (2) | 519 (25) | 643 (0) | 1,647 (27) | 1,686 (16) |
| | ER Inspections (issues raised) | N/A | 14 (45) | 24 (251) | 26 (91) | 64 (387) | 39 (265) |
| | Audits (findings) | 0 (0) | 5 (1) | 8 (35) | 2 (5) | 15 (41) | 5 (28) |
| | Class 1 or 2 Incidents | 0 | 0 | 0 | 0 | 0 | 0 |
| | Complaints | 1 | 100 | 23 | 2 | 126 | 78 |

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1 Introduction

1.1 Purpose of this Report

This Construction Compliance Report documents Transport for New South Wales (TfNSW) and its delivery contractors' compliance with three Planning Approvals (SSI-5100, SSI-5414, and SSI-5931) that have been granted to the Sydney Metro Northwest project (formerly known as the North West Rail Link project). These approvals require regular reports to the Secretary of the NSW Department of Planning and Environment (DP&E) throughout construction of the project. This report is the fifth Construction Compliance Report for the project and covers the period between 1 April 2015 and 30 September 2015.

1.2 Background

The Sydney Metro Northwest project will deliver a new high frequency driverless single deck train system initially operating as a shuttle between Cudgegong Road, Rouse Hill and Chatswood. The project includes eight new stations, approximately 15.5 kilometres of tunnels from Epping to Bella Vista, a four kilometre elevated 'Skytrain' viaduct between Bella Vista and Rouse Hill, and conversion of the existing Epping to Chatswood Railway Line to deliver high frequency rapid transit services.

Figure 1 – Overview of the Project Alignment



1.3 Statutory Context

1.3.1 Planning Approvals

The Sydney Metro Northwest project is subject to environmental assessments under the NSW Environmental Planning and Assessment Act 1979 (EP&A Act) and is classified as Critical State Significant Infrastructure. The project is taken to be a Staged Infrastructure Approval under Part 5.1 of the EP&A Act. The Concept Plan for the project was approved in 2008. Under Part 5 of the EP&A Act, the project also seeks approvals for other works as required and not already covered by an existing approval.

The project is also considered to be a Controlled Action under the Commonwealth Environmental Protection and Biodiversity Conservation Act (EPBC Act) and received federal Commonwealth approval from the Australian Government Department of the Environment on 11 April 2013.

A summary of the approvals held by TfNSW that relate to the Sydney Metro Northwest project is provided in Table 1:

Table 1 – Summary of Planning Approvals

| Planning Approval | Determining Authority | Date Approved |
|--|--|---------------|
| Parramatta Rail Link | Minister for Planning (NSW) | 26/02/2002 |
| Major Civil Construction works (approval reference: SSI-5100) as Modified | Minister for Planning (NSW) | 25/09/2012 |
| Construction and Operation of NWRL (approval reference: EPBC 2012/6360) | Secretary for Department of the Environment (Commonwealth) | 11/04/2013 |
| Stations, Rail Infrastructure and Systems (approval reference: SSI-5414) as Modified | Minister for Planning (NSW) | 08/05/2013 |
| Sydney Metro Trains Facility (formerly Rapid Transit Rail Facility) (approval reference: SSI-5931) | Minister for Planning (NSW) | 15/01/2014 |
| Lindfield Substation (formerly Lindfield South Substation) | TfNSW (Sydney Metro) | 19/09/2014 |
| Epping to Chatswood Railway – Conversion to Rapid Transit | TfNSW (Sydney Metro) | 13/02/2015 |
| Lindfield Substation – Lindfield Station Electrical Works Conversion | TfNSW (Sydney Metro) | 1/05/2015 |
| Main North and North Shore Line Corridor Works | TfNSW (Sydney Metro) | 19/06/2015 |

1.3.2 Environmental Protection Licences

The Sydney Metro Northwest project requires its contractors to hold Environmental Protection Licences (EPLs) for works they undertake where those works trigger the need for an EPL under the Protection of the Environment Operations (POEO) Act. A summary of EPLs that are active on the project during the reporting period is provided in Table 2.

Table 2 – Summary of Environmental Protection Licences

| Licensee | Contract | Activity | EPL | Status |
|---|--------------------------------------|---|-------|--------------------|
| Thiess Pty Ltd (<i>Thiess John Holland Dragados</i>) | Tunnel and Station Civils (TSC) | Concrete Works and Railway systems activities | 20319 | Issued, 30/09/2013 |
| Salini Australia Pty Ltd (<i>Impregilo-Salini Joint Venture</i>) | Surface and Viaduct Civils (SVC) | Railway systems activities | 20454 | Issued, 03/06/2014 |
| John Holland Pty Ltd (<i>Northwest Rapid Transit</i>) | Operations, Trains and Systems (OTS) | Railway systems activities | 20544 | Issued, 19/12/2014 |

This report does not document compliance against the above EPLs. This is being undertaken by the relevant licensees to the NSW Environment Protection Authority (EPA).

2 Active Construction Packages

The following construction packages were active during the reporting period:

Table 3 – Active Construction Packages

| Contract Package | Contractor | Awarded | Status |
|--------------------------------------|---------------------------------------|----------------|----------------------|
| Tunnel and Station Civils (TSC) | Thiess John Holland Dragados (TJHD) | July 2013 | Construction ongoing |
| Surface and Viaduct Civils (SVC) | Impregilo-Salini Joint Venture (ISJV) | December 2013 | Construction ongoing |
| Operations, Trains and Systems (OTS) | Northwest Rapid Transit (NRT) | September 2014 | Construction ongoing |
| Lindfield Substation (LS) * | Laing O'Rourke Australia (LORA) | November 2014 | Construction ongoing |

* Compliance tracking against works that have been approved under Part 5 of the EP&A Act is not included in this report.

2.1 Tunnel and Station Civils (TSC)

The TSC package is to construct the 15.5 kilometre twin tunnels between Epping station and tunnel portals immediately north of Celebration Drive at Bella Vista. A combination of road headers and tunnel boring machines (TBMs) are being used to construct the tunnel and tunnel cross passages. Other facilities have been constructed including those for pre-cast segment production, batch plants, spoil handling, tunnelling support and water treatment plants.

The TSC package represents sub-stage 1b under the Stage 1 Approval SSI-5100.

During the reporting period:

- All sites have remained active and largely sealed with well-established environmental controls;
- Boring operations have continued. The first TBM on the project to arrive at its final destination ('Isabelle') broke-through at Epping Station on 18 Sep 2015. As of the end of September 2015;
 - TBM 'Maria' had 0.8 kilometres of travel left to the Epping Station site (86% complete);
 - TBM 'Elizabeth' had 2.5 kilometres of travel left to the Cherrybrook Station site (72% complete); and
 - TBM 'Florence' had 2.7 kilometres of travel left to the Cherrybrook Station site (70% complete).
- Preparation has commenced for the handover of 'Portion 1' sites. This includes the handover of;
 - The entire Norwest Station site to the OTS contractor;
 - A small section of the Showground Station site to the OTS contractor; and
 - Some sections of the Bella Vista Station site to both the SVC and OTS contractors.

Figure 2 – TJHD Bella Vista Precast Facility



2.2 Surface and Viaduct Civils (SVC)

The SVC package is to construct an elevated four kilometre viaduct (including earthworks) between Bella Vista and Cudgegong Road, Rouse Hill. The package includes the construction of a 270 metre single span bridge over Windsor Road at Rouse Hill.

The SVC package represents sub-stage 1c under the Stage 1 Approval SSI-5100 and sub-stage 2a under the Stage 2 Approval SSI-5414. The second approval places requirements on permanent works design, including urban design of the viaduct.

During the reporting period:

- Pile construction has continued and remains ongoing for both the Skytrain viaduct and the Windsor Road Bridge. As of the end of September 2015;
 - 283 of 422 piles had been completed for the Skytrain viaduct; and
 - 39 of 40 piles had been completed for the Windsor Road Bridge.
- Pier construction has continued and remains ongoing for the Skytrain viaduct. As of the end of September 2015, 62 of 118 piers were complete;
- Production of concrete viaduct segments has continued and remains ongoing. As of the end of September 2015, 503 of 1,128 viaduct segments were produced;

- Two gantry cranes have been assembled and erected at the Kellyville and Schofields Road sites. As of the end of September 2015, the Schofields Road site gantry crane had lifted seven segments into their final position within the Skytrain viaduct; and
- Preparation has commenced to accept the handover of a section of the Bella Vista Station site from the TSC contractor.

Figure 3 – Gantry Crane at the ISJV Kellyville Site



2.3 Operations Trains and Systems (OTS)

The OTS package includes construction of the Sydney Metro Trains Facility (formerly known as the Rapid Transit Rail Facility), eight new stations and the operation of the Sydney Metro Northwest project for 15 years. The eight new Sydney Metro Northwest stations are shown in Figure 1 and include underground, open cut and elevated station designs. The Sydney Metro Trains Facility (SMTF) is a train stabling and maintenance facility at Tallawong Road, Rouse Hill. Accordingly, TfNSW and the OTS package will be required to comply with Approval SSI-5931.

The operation of the Sydney Metro Northwest project includes the provision of new rolling stock and the delivery of rail systems, rail track and precinct works. This package represents sub-stage 2b under the Stage 2 Approval SSI-5414.

The OTS package also includes the conversion of the Epping to Chatswood Railway Line (ECRL) to rapid transit. This conversion includes the:

- Modification of track connections at Epping and Chatswood;

- Modification of systems including electrical, signalling, communications, fire and life safety, mechanical and fire systems;
- Modifications of Chatswood, North Ryde, Macquarie University, Macquarie Park and Epping stations; and
- Installation of air-control units within the station precincts at Epping, Macquarie University, Macquarie Park and North Ryde.

The above works are subject to the Epping to Chatswood Railway – Conversion to Rapid Transit approval under Part 5 of the EP&A Act. The Parramatta Rail Link (PRL) approval will, in part, also apply to the design and operation of the converted line.

During the reporting period:

- Construction has continued at the SMTF site and remains ongoing;
- Site establishment and construction has commenced at the Cudgegong Road Station site and remains ongoing;
- The Construction Environment Management Plans (CEMP) for both the Phase 2 works and for the Epping to Chatswood Railway Line (ECRL) conversion works are in the process of being finalised. Both CEMPs were submitted to TfNSW for review at the end of the reporting period. The Phase 2 works comprise all OTS works excluding those related to:
 - The SMTF and Cudgegong Road Station sites (Phase 1); and
 - The ECRL conversion works;
- Design investigation works have commenced across the project's station sites and within the Epping to Chatswood Railway Line. These works include pavement testing, pot-holing, surveying and non-destructive testing; and
- Preparation has commenced to accept the handover of 'Portion 1' sites from the TSC contractor. This includes the handover of;
 - The entire Norwest Station site;
 - A small section of the Showground Station site; and
 - A section of the Bella Vista Station site.

Figure 4 - Aerial Photograph of the SMTF and Cudgegong Road Station Sites on 15 Oct 2015



2.4 Lindfield Substation (LS)

The Sydney Metro Northwest project is responsible for delivering the Lindfield Substation project (formerly known as Lindfield South Substation), a new electrical substation to provide additional electrical capacity to the North Shore Line on the Sydney Trains network.

Planning approval for Lindfield Substation was determined by TfNSW on 19 September 2014 under Part 5 of the EP&A Act. A subsequent planning approval for a variation to electrical works through Lindfield Station was determined by TfNSW on 1 May 2015 (also under Part 5 of the EP&A Act). The scope of this approval covers the conversion of electrical transmission through Lindfield Station from aerial to buried and on-post galvanised steel troughing.

During the reporting period:

- TfNSW reviewed and approved the contractor's environmental plans;
 - The Construction Environment Management Plan was approved on 31 Mar 2015;
 - The Soil & Water Management Plan and the Waste Management Plan were both approved on 7 May 2015; and
 - The Construction Noise & Vibration Management Plan was approved on 17 Jul 2015.
- Site establishment and construction has commenced and remains ongoing; and
- Permanent foundation works have commenced and remain ongoing.

2.5 Main North and North Shore Line Corridor Works (‘Northern Corridor Works’)

The Sydney Metro Northwest project has taken responsibility for delivering signalling and overhead wiring works along the main north and north shore line corridor of the Sydney Trains rail network. These works extend between North Sydney and north of Waitara in the northern suburbs of Sydney.

Planning approval for these works was determined by TfNSW on 19 June 2015 under Part 5 of the EP&A Act. As of the end of September 2015, TfNSW was in the process of tendering to award a contractor to undertake these works.

2.6 Planning Approval and Construction Package Relationships

A summary of the relationship between the planning approvals and construction packages is provided in Table 4.

Table 4 – Allocation of Approvals

| Planning Approval | Approval Date | TSC | SVC | OTS | LS | Northern Corridor Works | TfNSW |
|---|---------------|-----|-----|-----|----|-------------------------|-------|
| Parramatta Rail Link | 26/02/2002 | | | ✓ | | | ✓ |
| SSI-5100 (Stage 1) | 25/09/2012 | ✓ | ✓ | | | | ✓ |
| Commonwealth Approval | 11/04/2013 | | | | | | ✓ |
| SSI-5414 (Stage 2) | 08/05/2013 | | ✓ | ✓ | | | ✓ |
| SSI-5931 (SMTF) | 15/01/2014 | | | ✓ | | | ✓ |
| Lindfield Substation | 19/09/2014 | | | | ✓ | | ✓ |
| Epping to Chatswood Railway – Conversion to Rapid Transit | 13/02/2015 | | | ✓ | | | ✓ |
| Lindfield Substation – Lindfield Station Electrical Works Conversion | 1/05/2015 | | | | ✓ | | ✓ |
| Northern Corridor Works | 19/06/2015 | | | | | ✓ | ✓ |

3 Environmental Management

3.1 Periodic Review of Compliance

A variety of activities are undertaken to ensure that compliance is managed effectively. Commitments to undertake regular monitoring of compliance are drawn from the Sydney Metro Environmental Management System (inclusive of the Construction Environmental Management Framework) and the contractors' Construction Environmental Management Plans (CEMPs). These activities are summarised in Table 5.

Table 5 – Compliance Monitoring Activities

| Activity | Responsibility |
|--|--|
| Daily | |
| Ongoing site surveillance | <ul style="list-style-type: none"> Contractor(s) |
| Weekly | |
| Independent Environmental Representative site inspections (SVC & OTS) | <ul style="list-style-type: none"> Independent ERs |
| Environmental Manager's site inspections | <ul style="list-style-type: none"> Contractor(s) and TfNSW |
| Review of environmental actions and controls | <ul style="list-style-type: none"> Contractor(s) |
| Fortnightly | |
| ER site inspections (TSC) | <ul style="list-style-type: none"> Independent ERs |
| Monthly | |
| ER site inspections (LS) | <ul style="list-style-type: none"> Independent ERs |
| Environmental compliance status update | <ul style="list-style-type: none"> Contractor(s) to TfNSW TfNSW to Project Executive |
| Quarterly | |
| Risk assessment review | <ul style="list-style-type: none"> Contractor(s) |
| Compliance Review | <ul style="list-style-type: none"> TfNSW, Contractor(s) and Independent ERs |
| Six Monthly | |
| Independent environmental auditing | <ul style="list-style-type: none"> Independent third party auditor |
| Annual | |
| TfNSW management review | <ul style="list-style-type: none"> TfNSW |
| Internal Environmental Management System auditing (annual audit cycle) | <ul style="list-style-type: none"> Contractor(s) and TfNSW |

3.2 Auditing

The Sydney Metro Northwest project convenes Compliance Working Groups (CWG) comprised of representatives from the contractors and TfNSW for each major contract. The primary function of the CWGs is to oversee and coordinate audit programs within respective works packages. This includes the contractors' internal environmental audits and independent third party environmental audits.

3.2.1 Internal Audits

The first level of audit is undertaken by the contractors with TfNSW representatives to an agreed schedule. Environmental audits cover:

- Compliance with approval, permit and licence conditions;
- Compliance with the contractor's, CEMP, sub-plans and procedures;
- Community consultation and complaint response procedures;
- Environmental training records; and
- Environmental monitoring and inspection results.

3.2.2 Independent Audits

The CWGs also assist in coordinating the Independent Environmental Audit program required by the Planning Approvals. These audits are targeted at certain Contract Packages or at TfNSW and may focus on specific issues that are prevalent at the time. The Independent Environmental Auditor is a third party to TfNSW and the contractors.

3.3 Incident Management

Emergency and incident response procedures are produced by each contractor as well as TfNSW. These procedures include:

- Categories for environmental emergencies and incidents;
- Forms for recording environmental incident details and responses;
- Notification protocols for each category of environmental emergency or incident, including notification of TfNSW and notification to owners/occupiers in the vicinity of the incident;
- Procedures for the immediate notification of each relevant authority when the incident results in material harm to the environment;
- Procedures for notification to the Director-General within 48 hours of becoming aware of an off-site incident that significantly affects people or the biophysical environment (this notification will be followed by a full written report within 7 days of the date on which the incident occurred);
- Identification of personnel who have the authority to take immediate action to shut down any activity or to affect any environmental control measure (including as directed by an authorised officer of the EPA); and
- Onsite rectification actions.

Categories for environmental incidents are assigned three classes (1, 2 and 3) under the TfNSW Incident Management Procedure. The classes shown in Table 6 are based upon the consequence matrix from the Sydney Metro Risk Management Procedure.

Table 6 – Environmental Incident Classes

| Class Category | Class Sub-Category | 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. |

3.4 Complaint Management

Complaints are handled through the Sydney Metro Northwest Complaints Management System. This system forms part of the Sydney Metro Northwest Communications Management System. The system for managing complaints was approved by DP&E on 19 March 2013 and includes procedures for:

- Responding to complaints;
- Recording complaints;
- Escalation;
- Mediation; and
- Reporting.

3.5 Independent Environmental Representatives

TfNSW engage Independent Environmental Representatives (ERs) as third party advisers to TfNSW and the contractors. The engagement of an Independent ER is a requirement of the Planning Approvals. The ER's role is generally to:

- Monitor compliance with the Planning Approvals;
- Be available to DP&E for advice;
- Provide advice in relation to environmental performance;
- Assist with the undertaking and reporting of site inspections;
- Endorse works as non-construction works in accordance with the Planning Approvals;
- Review relevant environmental reports and management plans; and
- Participate in auditing on an as needs basis.

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4 Compliance Accountability and Tracking

4.1 Compliance Status

Each Condition of Approval has been assessed to determine how it will be complied with over the life of the Sydney Metro Northwest project. Specific details of this assessment are contained in the Sydney Metro Northwest Staging Report. Each condition is initially determined to be **Active** at the project level until each works package to which it applies has provided evidence that it has discharged its obligations as described in the Sydney Metro Northwest Staging Report. At this point, the condition will become **Inactive**.

Within each works package, each applicable condition progresses through three distinct phases:

- 1) **Pending:** The condition is determined to apply to the works package, however that works package has not yet commenced construction or non-construction activities.
- 2) **Ongoing:** The condition is determined to apply to the works package and that works package has commenced construction or non-construction activities.
- 3) **Complete:** The condition is determined to apply to the works package and no further evidence is required to demonstrate compliance.

Where TfNSW has retained the obligation to comply with a particular condition, or holds a partial responsibility as defined in the Sydney Metro Northwest Staging Report, it will be classified as **Ongoing** and tracked in the same manner as a works package.

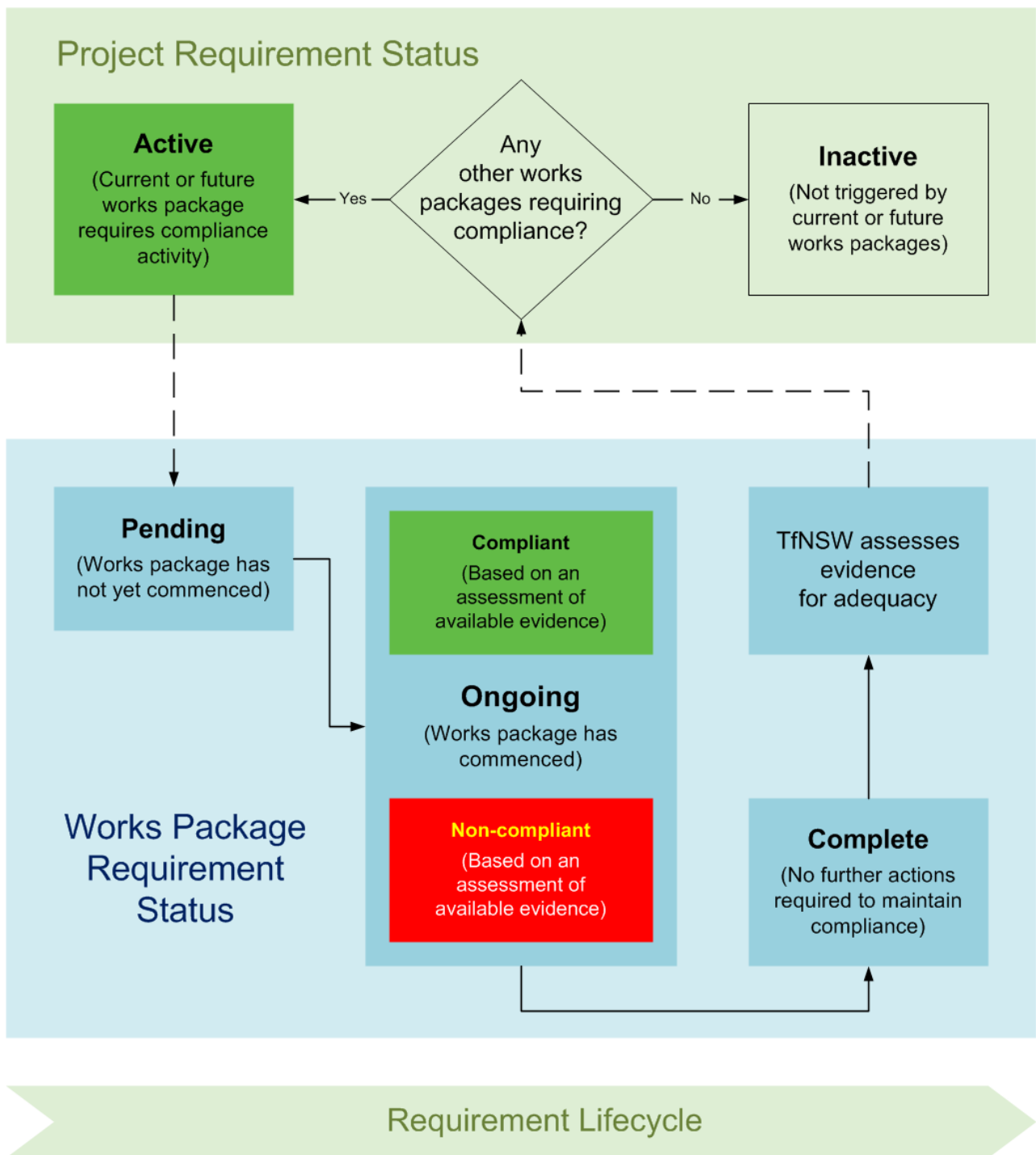
Compliance is assessed for Conditions of Approval with an **Ongoing** status and can be determined to be either **Compliant** or **Non-compliant**. These assessments occur during surveillance activities outlined in Table 5.

For the purposes of the Sydney Metro Northwest Compliance Tracking Program, **Compliant** and **Non-Compliant** are defined as:

- **Compliant:** A temporary status assigned to a Condition of Approval which indicates a check of evidence has occurred and confirmed it is adequate to demonstrate the requirements of a condition is being met on the day it was checked.
- **Non-Compliant:** A temporary status assigned to a Condition of Approval which indicates a check of evidence has occurred and confirmed it is inadequate to demonstrate the requirements of a condition is being met on the day it was checked.

The 'Requirements Lifecycle' is displayed as a flow chart in Figure 5.

Figure 5 – Requirements Lifecycle



5 Compliance Status

The total number of ongoing compliance requirements at the end of this reporting period was 1,647. There were a total of 27 non-compliances against these requirements during the reporting period. These are detailed in Table 8. There were no significant environmental incidents during the reporting period.

There were 15 environmentally relevant audits during the reporting period that generated 41 environmental audit findings. These audits include 3 that were undertaken at the end of the previous period but whose final report was not finalised until this reporting period. There were 18 findings open at the end of the reporting period, two of which have remained open from the previous reporting period.

5.1 Compliance Overview

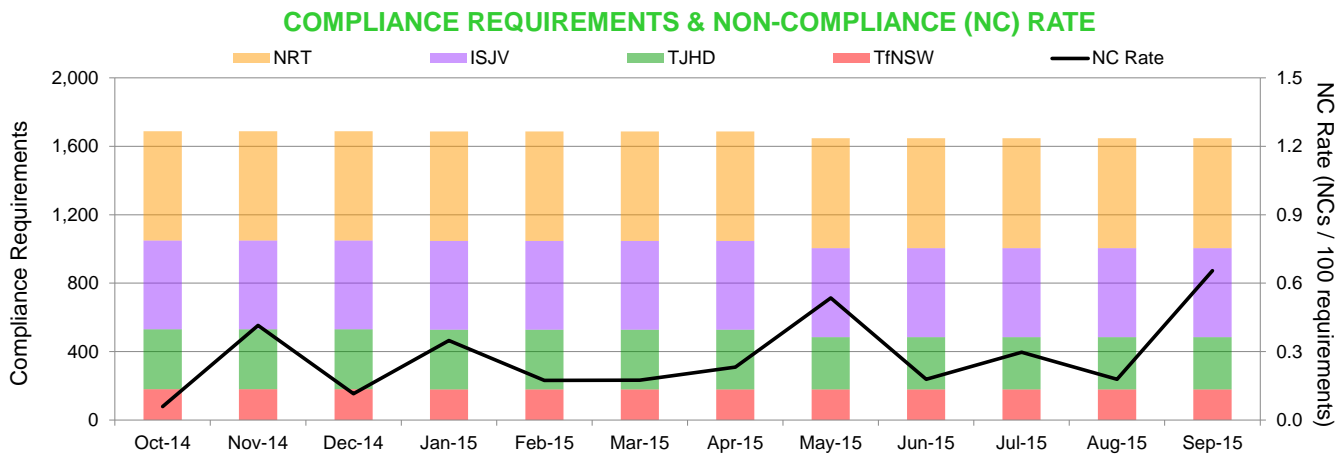
The results of the compliance monitoring are provided in Table 7. Non-compliances and audit findings are detailed in Section 5.3 and 5.4. Issues and observations arising from Independent Environmental Representative inspections that identify non-compliances against the Conditions of Approval are also included in Section 5.3.

Table 7 – Environmental Compliance Surveillance Data from April 2015 to September 2015

| | | TfNSW | TSC | SVC | OTS | Total |
|--------------------------|--|------------|------------|-------------|------------|-----------------------|
| By End of Q3 2015 | Ongoing Conditions (non-compliances during quarter) | 179 (0) | 306 (1) | 519 (16) | 643 (0) | 1,647 (17) |
| | ER Inspections during quarter (issues raised during quarter) | N/A | 7 (27) | 12 (130) | 13 (37) | 32 (194) |
| | Audits (Findings) | 0 (0) | 2 (1) | 2 (6) | 0 (0) | 4 (7) |
| | Class 1 or 2 Incidents during quarter | 0 | 0 | 0 | 0 | 0 |
| | Complaints Received during quarter | 0 | 66 | 14 | 1 | 81 |
| By End of Q2 2015 | Ongoing Conditions (non-compliances during quarter) | 179 (0) | 306 (1) | 519 (9) | 643 (0) | 1,647 (10) |
| | ER Inspections during quarter (issues raised during quarter) | N/A | 7 (18) | 12 (121) | 13 (54) | 32 (193) |
| | Audits (Findings) | 0 (0) | 3 (0) | 6 (29) | 2 (5) | 11 (34) |
| | Class 1 or 2 Incidents during quarter | 0 | 0 | 0 | 0 | 0 |
| | Complaints Received during quarter | 1 | 34 | 9 | 1 | 45 |

As demonstrated in Figure 6, the compliance load has been steady throughout the reporting period. In May 2015, the TSC contractor successfully closed 43 of their requirements and the OTS contractor took on 4 additional compliance requirements. This led to a very minor net reduction (2.3%) to the overall number of compliance requirements (from 1,686 to 1,647). The compliance load for the Sydney Metro Northwest project is expected to decrease significantly as the TSC and SVC contracts reach completion in 2016.

Figure 6 – Compliance Load and Non-Compliance Rate



The Independent ERs conducted six quarterly compliance reviews against the Conditions of Approval since 1 April 2015 across the three major contracts (two per contract). These reviews and other surveillance activities identified 27 non-compliances as detailed in Table 8. The ‘Non-Compliance Rate’ in Figure 6 represents the number of non-compliances reported each month per 100 requirements.

5.2 SVC Improvement Program

The SVC Improvement Program has been implemented to address key focus areas. This program was established in the last reporting period following increasing numbers of environmental issues, incidents and non-compliances from SVC site establishment.

Both TfNSW and ISJV have contracted or employed new staff in environmental roles on the SVC contract resulting in improvements to environmental reporting and the identification of systemic issues. In addition, ISJV conducted training sessions for construction staff on the following environmental matters during this reporting period:

- Environmental Due Diligence;
- Pollution Incident Response (mock incidents);
- Civil Sustainability Skill Sets;
- General Environmental Awareness; and
- Pre-works Planning

ISJV reported increased numbers of environmental issues, audit findings and non-compliances during the reporting period. This can be attributed to a significant increase in ISJV activity following the establishment of SVC sites at the end of the previous reporting period. Despite these increases, the numbers of issues per inspection and findings per audit have decreased. Currently, no decrease has occurred to the number of non-compliances being reported. The SVC Improvement Program will continue to focus on this area.

5.3 Non-Compliances

There were 27 non-compliances during the reporting period. These are presented in Table 8.

Table 8 – Non-Compliances between April 2015 and September 2015

| Month Raised | Contract | Identified Through | Condition | Classification | Issue | Status |
|--------------|----------|---------------------------|--|--------------------|--|--------|
| Apr 15 | TSC | Ongoing Site Surveillance | SSI-5100 – C6 | Soil & Water | Sodium-silicate spill caused pollution of Bella Vista waters. | Closed |
| Apr 15 | SVC | Ongoing Site Surveillance | SSI-5100 – C11 SSI-5414 – C37 | Soil & Water | Water Quality Monitoring Program results not reported to relevant authorities. | Closed |
| Apr 15 | SVC | Ongoing Site Surveillance | SSI-5100 – E46(b) SSI-5414 – E34(b) | Noise & Vibration | Monthly noise and vibration monitoring not undertaken. | Closed |
| May 15 | SVC | Ongoing Site Surveillance | SSI-5100 – E15 SSI-5414 – E15 | Noise & Vibration | Folding and securing of gantry crane finished out of hours (6:40pm). | Closed |
| May 15 | SVC | Ongoing Site Surveillance | SSI-5100 – E46(f) SSI-5414 – E34(f) | Flora & Fauna | Unauthorised removal of tree by subcontractor. | Closed |
| May 15 | SVC | Ongoing Site Surveillance | SSI-5100 – E15 SSI-5414 – E15 | Noise & Vibration | Folding and securing of gantry crane finished out of hours (2:25pm on a Saturday). | Closed |
| May 15 | SVC | Ongoing Site Surveillance | SSI-5100 – E15 SSI-5414 – E15 | Noise & Vibration | Subcontractor excavator operating out of hours (noise generating activities ceased at approximately 2:00pm on a Saturday). | Closed |
| May 15 | SVC | Ongoing Site Surveillance | SSI-5100 – E15 SSI-5414 – E15 | Noise & Vibration | Generator operating past approved 8:00pm out of hour finish time. | Closed |
| May 15 | SVC | Ongoing Site Surveillance | SSI-5100 – E33 SSI-5414 – E27 | Soil & Water | Dirty runoff water was seen percolating out of a Telstra pit and channelling down a v-drain to a stormwater system, ultimately flowing into Elizabeth MacArthur Creek. | Closed |
| Jun 15 | SVC | Ongoing Site Surveillance | SSI-5100 – E12 SSI-5414 – E12 | Noise & Vibration | Excavator and dozer working onsite out of hours on a Saturday until 1:10pm and 1:18pm respectively. | Closed |
| Jul 15 | SVC | Ongoing Site Surveillance | SSI-5100 – E12 SSI-5414 – E12 | Noise & Vibration | Bitumen-paving and compaction works finished out of hours on a Saturday at 4:00pm. | Closed |
| Jul 15 | SVC | Compliance Review | SSI-5100 – E26 & E27 | Management Systems | Monitoring and Protection Plan for property vibration inconsistent with condition's requirements. | Closed |
| Jul 15 | SVC | Ongoing Site Surveillance | SSI-5100 – E12 SSI-5414 – E12 | Noise & Vibration | Vac-truck dewatering of a pier finished out of hours at approximately 6:30pm. | Closed |

| Month Raised | Contract | Identified Through | Condition | Classification | Issue | Status |
|--------------|----------|------------------------------------|--|--------------------|--|--|
| Jul 15 | TSC | Environmental Manager's Inspection | SSI-5100 – E46(d) | Soil & Water | Turbid water sighted in the clean water drain that receives discharges from the Water Treatment Plant. | Closed |
| Jul 15 | SVC | Environmental Manager's Inspection | SSI-5100 – E33 SSI-5414 – E27 | Soil & Water | Soil tracked from site onto residential road. | Closed |
| Aug 15 | SVC | Ongoing Site Surveillance | SSI-5100 – B1 & E45 SSI-5414 – B1 & E33 | Management Systems | Utility relocation works commenced at two pier locations prior to the release of Environmental Hold Points (pre-ground disturbance and pre-start checklist). | Open – Corrective actions in the process of implementation |
| Aug 15 | SVC | Ongoing Site Surveillance | SSI-5100 – B1 & E45 SSI-5414 – B1 & E33 | Management Systems | Utility relocation works commenced at one pier location prior to the release of Environmental Hold Points (pre-ground disturbance and pre-start permits). | Open – Corrective actions in the process of implementation |
| Aug 15 | SVC | Ongoing Site Surveillance | SSI-5100 – C22 SSI-5414 – C46 | Waste & Spoil | Minor hydraulic oil spill accidentally cleaned up by a street-sweeper within the Mulgrave Precast Yard. | Open – All evidence submitted, waiting on ISJV Quality Manger to verify close-out. |
| Aug 15 | SVC | Ongoing Site Surveillance | SSI-5100 – E15 SSI-5414 – E15 | Noise & Vibration | Pier concrete pour works undertaken out of hours (finished at 5:30am). | Closed |
| Sep 15 | SVC | Ongoing Site Surveillance | SSI-5100 – E15(g) SSI-5414 – E15(g) | Noise & Vibration | Emergency out of hour works not reported to EPA within specified timeframe. | Closed |
| Sep 15 | SVC | Ongoing Site Surveillance | SSI-5100 – E18 SSI-5414 – E18 | Noise & Vibration | Use of beeper alarm on crane operating on gantry crane works. | Closed |
| Sep 15 | SVC | Ongoing Site Surveillance | SSI-5100 – E1 & E46 SSI-5414 – E8 & E34 | Air Quality | Construction activities (excavator with shaker bucket operating above soil stockpile) caused dust to travel to across site and into adjacent residential property. | Closed |
| Sep 15 | SVC | Ongoing Site Surveillance | SSI-5100 – B1 & E45 SSI-5414 – B1 & E33 | Management Systems | Commencement of ground disturbance works in Sydney Water land. | Open – Corrective actions in the process of implementation |
| Sep 15 | SVC | Ongoing Site Surveillance | SSI-5100 – B1 & E45 SSI-5414 – B1 & E33 | Management Systems | Commencement of ground disturbance works in Sydney Water land prior to the release of Environmental Pre-Ground Disturbance Permit Hold Point | Open – Corrective actions in the process of implementation |

| Month Raised | Contract | Identified Through | Condition | Classification | Issue | Status |
|--------------|----------|---------------------------|--|--------------------|--|--|
| Sep 15 | SVC | Ongoing Site Surveillance | SSI-5100 – B1 & E45 SSI-5414 – B1 & E33 | Management Systems | Commencement of pier works prior to the release of Environmental Hold Points | Open – Corrective actions in the process of implementation |
| Sep 15 | SVC | Ongoing Site Surveillance | SSI-5100 – B1 & E45 SSI-5414 – B1 & E33 | Management Systems | Commencement of ground disturbance works at Windsor Road median strip without a Ground Disturbance Permit. | Open – Corrective actions in the process of implementation |
| Sep 15 | SVC | Ongoing Site Surveillance | SSI-5100 – E1 & E46 SSI-5414 – E8 & E34 | Air Quality | Construction activities (excavator with shaker bucket operating above soil stockpile) contributed to wind-blown dust travelling to caravan park adjacent to work site. | Closed |

5.4 Audit Findings

The Construction Compliance Report for the previous reporting period (October 2014 to March 2015) indicated that 17 audit findings remained open, of which six findings contained actions that were under review. At the end of this current reporting period, all 17 open audit findings have been closed except for two. Table 9 contains further details on these two open findings and the six findings that had actions under review.

Table 9 – Audit Finding Actions ‘Under Review’ and Remaining Open Actions from the Oct 2014 to Mar 2015 Report

| # | Month | Audit ID (Auditee) | Finding | Agreed Action / Resolution | Current Status |
|----|----------|--------------------------|---|--|--|
| 6 | Dec 2014 | NWRL_008_SVC_ISJV (ISJV) | The document control system iTWOcx has not been used as yet to control the version and distribution of environment and related documentation including documentation required by subcontractors. | ISJV will upload iTWOcx with current versions of key environmental documentation, including management plans and Environmental Control Maps. Environmental Management Plans are available on the project website and accessible to all subcontractors and suppliers (iTWOcx is not used for distribution). | Closed |
| 10 | Dec 2014 | NWRL_008_SVC_ISJV (ISJV) | Processes used to define Planning Conditions and related technical requirements as design input had not always correctly identified relevant design-lot-specific requirements. | ISJV to facilitate a collaborative review of the SMEC Master Environment Compliance Register to ensure that requirements allocated to specific design lots are correct. | Open – The collaborative review process is ongoing and will be finalised in December 2015. |
| 18 | Dec 2014 | ISJV-SVC-EN-004 (ISJV) | There is no process in place to ensure that each subcontractor working on the site is subject to an environmental toolbox talk, records of toolbox talks have not been kept in some instances and there is no objective evidence that the Principal earthworks subcontractor is conducting environmental toolbox talks. | Create Environmental Toolbox Form and maintain records independently of Safety Toolbox process. Undertake regular (fortnightly) environmental toolboxes. | Closed |

| # | Month | Audit ID (Auditee) | Finding | Agreed Action / Resolution | Current Status |
|----|----------|------------------------|--|--|--|
| 19 | Dec 2014 | ISJV-SVC-EN-004 (ISJV) | The CNVIS for Piling Works and Piers has not evaluated the maximum diameter pile being used on the project nor has consideration been given to the fact that the piles are being socketed into rock. | Relate concerns to WSP (external consultant) and seek professional response. Amend CNVIS if required. | Closed |
| 20 | Dec 2014 | ISJV-SVC-EN-004 (ISJV) | Dilapidation surveys have been undertaken based on geotechnical modelling rather than specified distances from buildings and infrastructure for particular items of plant used in adjacent construction activities. | Dilapidation survey to be undertaken based upon specified distances from buildings and infrastructure. | Open – Monitoring and Protection Plan is being updated to include new Property Survey Location Maps that identify all properties within 60m of the project boundaries. |
| 22 | Dec 2014 | ISJV-SVC-EN-004 (ISJV) | The Plant Delivery Inspection (Cranes Excepted) Form does not include a requirement to confirm that each item of plant inspected does not exceed specified maximum allowable noise levels. | Required performance criteria for plant to be nominated in future tender documents and checked on delivery as part of Plant Inspection. | Closed |
| 27 | Dec 2014 | ISJV-SVC-EN-004 (ISJV) | On one occasion there was no evidence that the Environmental Incident Reporting & Investigation Form had been correctly distributed to the Construction Manager and ER, nor was there any objective evidence of notification within 24 hours. | For the exception identified by the auditor, the relevant form has been completed post audit. To ensure the process is operating effectively, an additional sample was selected. A review of ER#42 dated 15 May 2015 confirmed that the form has been distributed to the required personnel, as evidenced by the completion (i.e. ticked mark) of 'distribution list'. | Closed |
| 28 | Dec 2014 | ISJV-SVC-EN-004 (ISJV) | The specified zone of influence criteria for larger vibratory rollers is documented in Appendix A Table 8 of the CNVMP as requiring a clearance of 100m to preclude a human response (i.e. complaint). However ISJV are adopting a clearance of 50m. | Update the Monitoring and Protection Plan to acknowledge the 100m clearance criteria for vibratory rollers for consideration for future CNVISs. | Closed |

Fifteen environmental audits were conducted during this reporting period as shown in Table 10. These audits produced a total of 41 environmentally related findings which are detailed in Appendix A (note that the findings are paraphrased for the purpose of this report). There are 16 findings that currently remain open (excluding the two findings that remain open from the previous reporting period).

Table 10 – Environmental Audits between April 2015 and September 2015

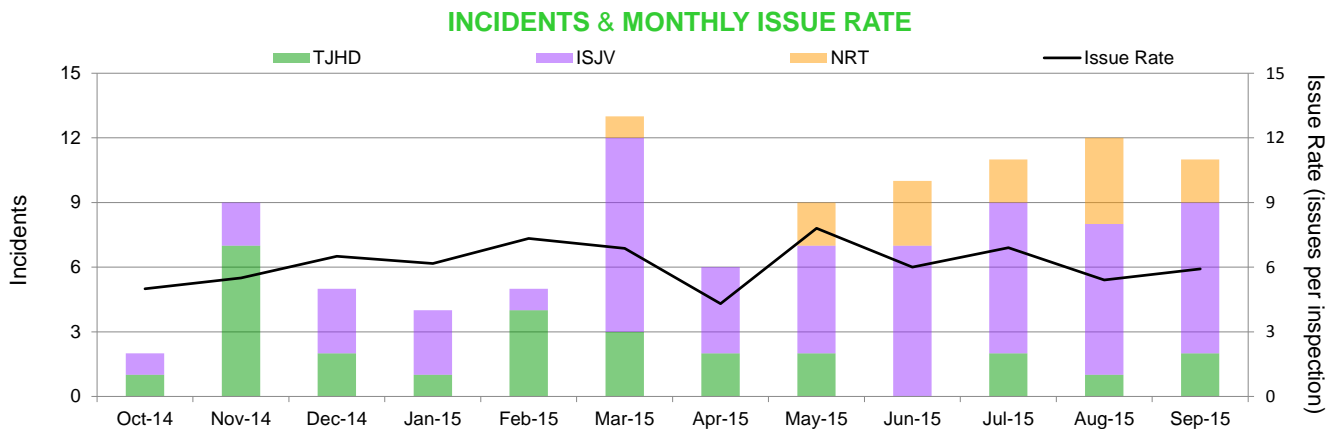
| Audit ID | Auditee | Audit Title | Audit Date | Total Findings | Closed Findings | Open Findings |
|---------------------------------------|---------|---|-------------|----------------|-----------------|---------------|
| TSC-AUD-060 | TJHD | Construction Flora & Fauna Management Plan | 23/3/2015 * | 0 | 0 | 0 |
| ISJV-SVC-PM-PLN-120206 | ISJV | Flora & Fauna Management Plan Implementation | 31/3/2015 * | 4 | 4 | 0 |
| ISJV-SVC-PM-PLN-120205 | ISJV | Heritage Management Plan and Visual Impact Strategy Implementation | 31/3/2015 * | 5 | 1 | 4 |
| NWRL-021-SVC-ISJV / ISJV-TfNSW-CS-010 | ISJV | Community Liaison Implementation Plan (including Complaints) | 15/4/2015 | 6 | 4 | 2 |
| TSC-AUD-063 | TJHD | Community Liaison Implementation Plan (including Complaints) | 28/4/2015 | 0 | 0 | 0 |
| NRT 2015/048 | NRT | Independent Environment (Planning Conditions) | 1/5/2015 | 4 | 0 | 4 |
| ISJV-SVC-PM-PLN-120212 | ISJV | Spoil Management Plan Implementation | 20/5/2015 | 5 | 5 | 0 |
| ISJV-SVC-PM-PLN-120215 | ISJV | Stormwater & Flooding Management Plan Implementation | 20/5/2015 | 2 | 2 | 0 |
| ISJV-SVC-PM-PLN-120213 | ISJV | Waste Management Plan Implementation | 20/5/2015 | 7 | 7 | 0 |
| NRT 2015/002 | NRT | Safety, Health, Environment & Quality (Project Start-Up) | 1/6/2015 | 1 | 1 | 0 |
| TSC-AUD-076 | TJHD | Construction Noise & Vibration Management Plan | 18/6/2015 | 0 | 0 | 0 |
| NWRLSVC-ISJV-SVC-PM-PLN-120209 | ISJV | Air Quality Management Plan Implementation | 23/7/2015 | 1 | 0 | 1 |
| NWRLSVC-ISJV-SVC-PM-PLN-120203 | ISJV | Soil & Water Management Plan Implementation | 23/7/2015 | 5 | 0 | 5 |
| TSC-AUD-077 | TJHD | Construction Soil & Water Management Plan | 30/7/2015 | 1 | 1 | 0 |
| TSC-AUD-080 | TJHD | Air Quality, Visual Amenity, Compound and Ancillary Management Facility Plans | 16/9/2015 | 0 | 0 | 0 |
| Totals | | | | 41 | 25 | 16 |

* Audit reports were finalised during this reporting period.

5.5 Incidents

There were no significant incidents (Class 1 or 2) for the reporting period. All environmental incidents that occurred on the project during the reporting period were considered Class 3 only and are displayed in the bar chart in Figure 7.

Figure 7 – Incidents (Class 3) and Issue Rate (issues per inspection per month)



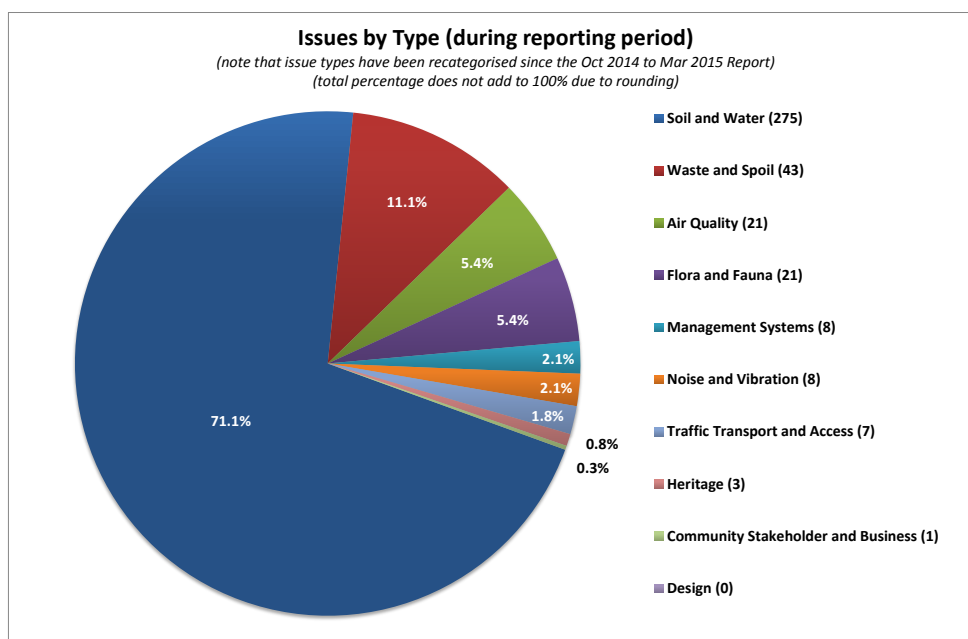
5.6 Independent Environmental Representative Activity

A summary of Independent Environmental Representative (ER) activity is provided in Figure 7. Three Independent ERs were working on the Sydney Metro Northwest project and monitored the activities of the three major contractors during the reporting period (TJHD, ISJV and NRT).

The Independent ERs conducted a total of 64 environmental inspections and raised 387 issues. During the reporting period, the monthly 'Issue Rate' remained between 4 and 8 issues per inspection per month. The last four months in particular maintained a steady Issue Rate between 4.9 and 5.6 issues per inspection per month.

During the reporting period, Soil & Water issues comprised over 80% of all issues identified during Independent ER inspections. This is a result of increased soil stripping and earthworks activities on both SVC and OTS works. Waste & Spoil, Air Quality and Flora & Fauna issues each represented over 5% of all issues identified on the project. A breakdown of the type of issues identified by the Independent ER inspections is provided in Figure 5.

Figure 8 – Environmental Issues Raised by Type during the Reporting Period



5.7 Complaints

During the reporting period, Sydney Metro Northwest received a total of 126 complaints:

- 100 relating to TSC (refer to Figure 11 for breakdown by site).
- 23 relating to SVC (refer to Figure 12 for breakdown by site).
- 2 relating to OTS (1 at the SMTF site and 1 at the Cherrybrook site).
- 1 relating to TfNSW at the Rouse Hill site.

All these complaints have been actioned and resolved in accordance with the Construction Complaints Management System. This chapter represents a summary of the complaints with more details provided in Appendix B.

Complaints fell mainly into seven categories, with the top issue being Noise & Vibration at 45%. This is attributed to having all four TBMs in operation and the commencement of the gantry crane operations at Cudgegong Road during this period. Property & Business Impacts followed at 15%, then 14% for Transport, Traffic & Access and Air Quality at 10%. There are no matters which are currently subject to mediation.

Complaint frequency and type can be attributed to site activities during the reporting period including tunnelling, spoil haulage, site establishment and the commissioning of the gantry cranes. Construction activities are being communicated effectively to stakeholders and the community in accordance with the approved Overarching Stakeholder and Community Involvement Plan (OSCIP) and contractor specific Community Liaison Implementation Plans (CLIP).

Of the 23 complaints attributable to ISJV works, 16 were from the Windsor Road - Cudgegong Road section. They concerned a mix of issues such as noise from gantry crane operations to air quality caused by dust from the site.

Both ISJV and TJHD complaints mainly concerned noise and vibration. The one TfNSW complaint concerned the changes of T-way car parks and parking generally around the 'Skytrain' portion of the alignment. Apart from noise and vibration complaints, TJHD also recorded a number of complaints in the category of Property & Business Impact. These are attributed to the tunnelling activities.

The total number of complaints has increased for this reporting period from 78 to 126, however this increase was anticipated as the tunnelling activities hit their peak and the ISJV gantry cranes commenced testing and operations.

The contractors have continued to build strong working relationships with community stakeholders including local residents, council representatives and business leaders. A particular focus this reporting period was given to informing stakeholders about the anticipated noise and vibration from the TBMs and out of hours deliveries. A program of community notifications, newsletters, doorknocking, forums and one on one meetings has helped ensure residents and business people know what to expect and when, and know whom to call if they would like more information.

TfNSW has supported this communication with its Sydney Metro Northwest Community Information Centre at Castle Hill, a program of mobile Community Information Centre engagements at fetes and markets, some newspaper advertising and a newsletter distributed along the alignment.

Figure 9 – Complaints by Type

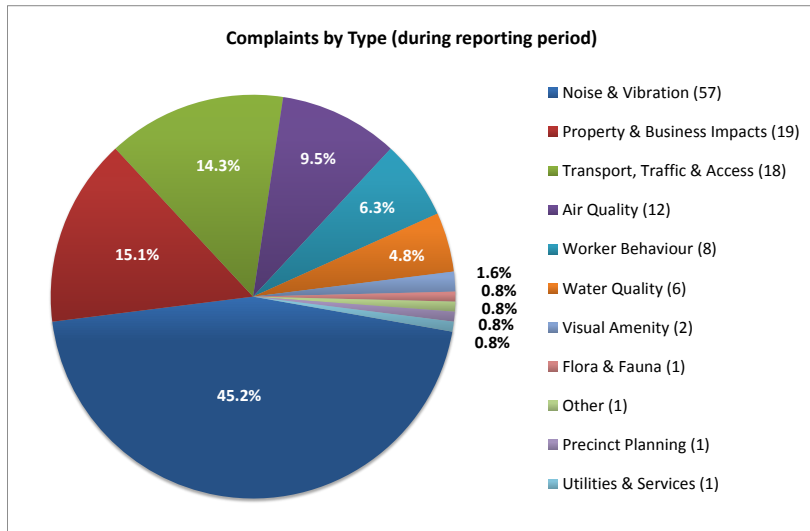


Figure 10 – Complaints by Contract Package

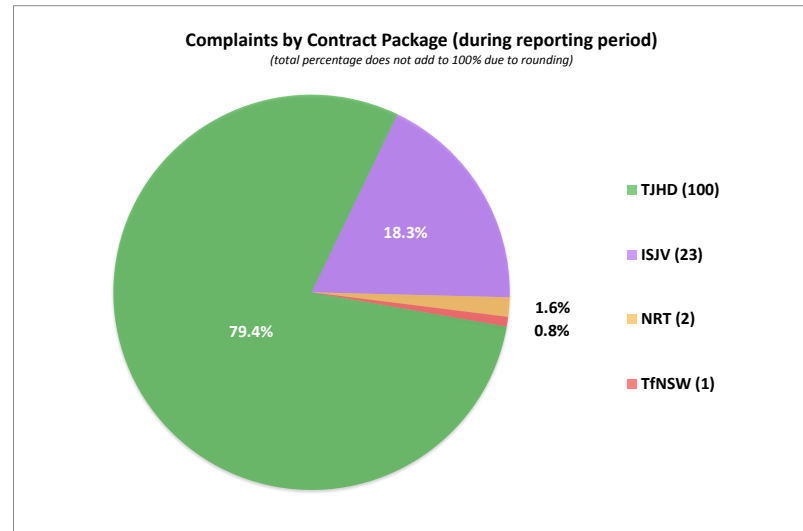


Figure 11 – TJHD Complaints by Site

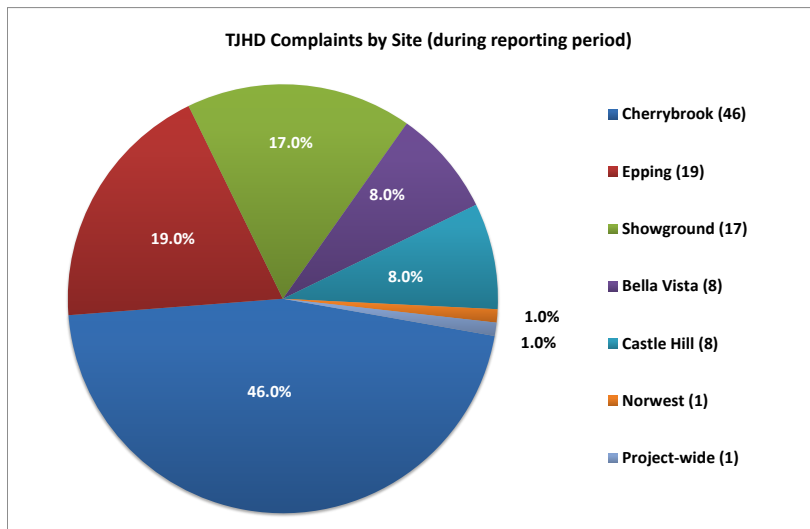
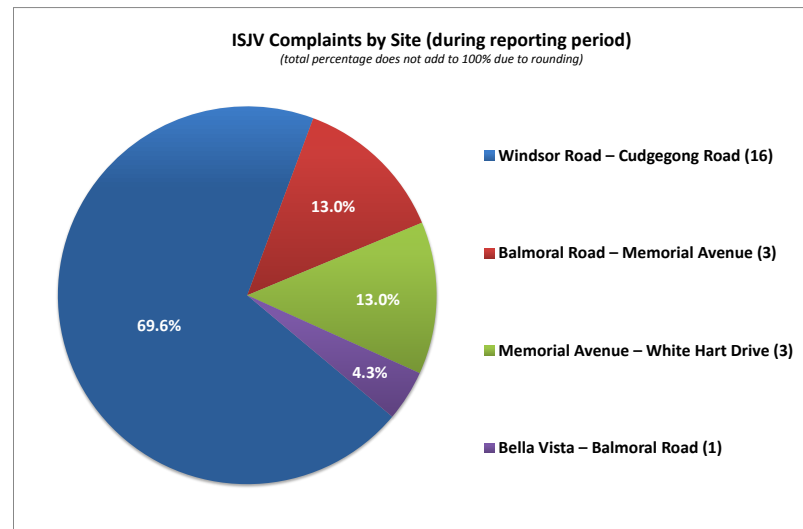


Figure 12 – ISJV Complaints by Site



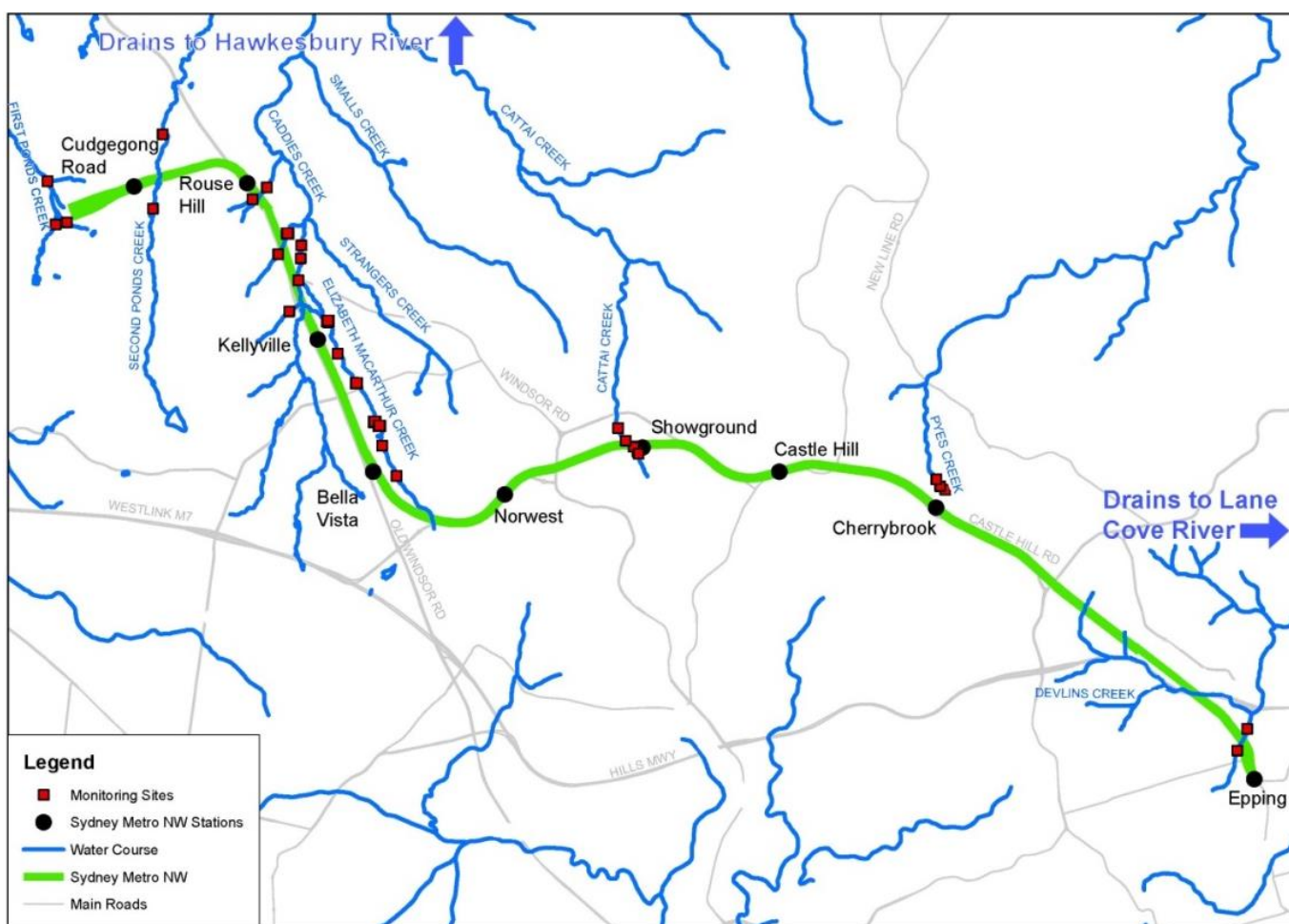
6 Environmental Monitoring

6.1 Water Quality Monitoring Program

The Sydney Metro Northwest project implements a Water Quality Monitoring Program (WQMP) that monitors surface water and groundwater quality along the alignment. The program is implemented by each of the three major contractors as part of their respective Construction Soil & Water Management Plans. Each of these plans has been approved by the DP&E.

The project's alignment crosses numerous watercourses (mostly ephemeral) as shown in Figure 13. The regional groundwater table is affected by beds of low lying permanently flowing streams in the Beecroft / Castle Hill area and rises away from surface watercourses.

Figure 13 – Location of Surface Watercourses and Surface Water Quality Monitoring Sites



The three Environmental Impact Statements (EISs) for the project identified that the main potential water quality impacts would be groundwater drawdown caused by tunnel and excavation works, and sediment transportation in downstream watercourses caused by disturbing soils. The highest potential for groundwater drawdown would be caused by tunnel and excavation works, which forms the Epping to Bella Vista section of the alignment. The remaining section of the alignment comprises of mostly surface works in the form of viaduct and at-grade construction sites. This section has the greatest potential to disturb surface and underlying soils and therefore cause sediment transportation in downstream

watercourses. As a form of mitigation against these potential impacts, the three Planning Approvals required the project to prepare and implement a WQMP.

Surface water quality monitoring is undertaken at locations on watercourses immediately upstream and downstream of exposed surface construction sites to mitigate potential sediment transportation impacts. Figure 13 identifies all locations where surface water quality monitoring data has been obtained over a period of at least six months.

Figure 14 – Erosion and Sediment Controls at the ISJV Cudgegong Road Site



6.1.1 Pre-Construction

Prior to construction, visual inspection and sample-based monitoring of watercourses was undertaken. Surface water quality data was obtained on a monthly basis from the majority of the project's monitoring sites, including (but not limited to) pH, salinity, turbidity, temperature and dissolved oxygen levels. The data obtained prior to construction generally exhibited low levels of dissolved oxygen. These results have been attributed to the characteristics of the surrounding catchment land uses (comprising mostly urban and semi-rural residences) and the ephemeral disconnected nature of the flow within these watercourses.

Groundwater quality monitoring was also undertaken throughout the alignment prior to construction. These results were consistent with the findings of the EISs, in that the groundwater generally exhibited high salinity and neutral pH levels.

6.1.2 Construction

During construction, surface water monitoring continues to be undertaken and includes both visual inspection and sample-based monitoring. Visual inspections provide a means of identifying any changes to watercourse characteristics as a result of the commencement of construction. Sample-based monitoring is undertaken at least quarterly and includes the testing of pH, salinity, turbidity, temperature and dissolved oxygen levels (amongst others).

Surface water quality monitoring data obtained during construction are subject to 'trigger point' assessments. Trigger points are a pre-emptive means of notifying the project if monitoring results indicate deviations away from expected results. The trigger points adopted on the project are primarily based on how significantly different key monitoring data are between upstream and downstream locations. They also consider ANZECC Guideline principles and baseline conditions. The adoption of trigger values enables contingency and/or ameliorative measures to be implemented if required.

Surface water quality data obtained during construction has generally indicated either low impact to watercourses or highly varying results. These conclusions have been drawn by comparing watercourse upstream data to its downstream data and pre-construction data. The high variances are attributable to the ephemeral (and disconnected) nature of the watercourses and upstream influences from runoff external to the project construction sites.

Groundwater monitoring during construction has a strong focus around the tunnelling section of the project. This section has a very low risk of impacting groundwater quality given that the tunnelling and excavation works cause groundwater inflow into the works (not back into the water table). Therefore, no groundwater quality monitoring is being undertaken along this section. Groundwater levels however, are being monitored closely in this section (in some situations daily). Along the surface and viaduct section of the alignment, groundwater quality and level monitoring is being undertaken typically in areas that have the highest potential to impact the water table (e.g. within excavations for pylon construction).

6.2 Ecological Monitoring Program and Biodiversity Offset Package

The Sydney Metro Northwest project implements an Ecological Monitoring Program (EMP) to monitor the effectiveness of mitigation measures and ensure that the ecological value of the surrounding environment is not significantly impacted by the project. The program is implemented by each of the three major contractors as part of their respective Construction Flora & Fauna Management Plans (CFFMP). Each of these plans has been approved by the DP&E. In addition to the program, the project has secured biodiversity offsets for the loss of native vegetation and threatened species habitat that cannot be avoided or mitigated.

The three Environmental Impact Statements (EISs) for the project identified that approximately 31 hectares of vegetation would be directly affected by the construction of the project. This area comprises the total 'construction footprint' of the project and is heavily dominated by Cumberland Plain Woodland. The only significant potential impact on threatened species (both flora and fauna) was on the *epacris purpurascens var. purpurascens* shrub. This species was identified as being present within the vicinity of the project but located outside the construction footprint near the Cheltenham site.

The Planning Approvals require the project to comply with several interrelated conditions concerning ecological matters. The primary condition requires the project to prepare and implement an EMP. The program must be linked to ensuring the effectiveness of the mitigation measures proposed under the CFFMP, which are held by the three major contractors. The CFFMPs must include requirements to restore/rehabilitate riparian vegetation, conduct pre clearing surveys prior to construction and include a procedure for updating both the EMP and the Biodiversity Offset Package.

The Biodiversity Offset Package requires the project to detail how the ecological value lost as a result of the project will be offset. This condition also requires the EMP to indicate if biodiversity outcomes are not being achieved and hence develop subsequent remedial actions. The Biodiversity Offset Package is also required to incorporate a Nest Box Plan to provide hollows for displaced fauna. The requirement to offset biodiversity impacts is not only a condition of the state planning approvals, but also of the federal planning approval under the Environment Protection and Biodiversity Conservation Act 1999.

6.2.1 Pre Clearance Surveys

Pre clearance surveys have been undertaken prior to the commencement of construction at each site. These were important in order to verify the findings of the three EISs and to confirm the existing ecological condition of the areas to be cleared for construction (including sensitive area mapping). The surveys also maximised the retention of vegetated areas within the construction sites that were otherwise planned for clearance. These areas have since been fenced and demarcated for protection.

The pre clearance survey at the Cheltenham site identified two threatened flora species located outside the construction footprint. As a precautionary measure, cuttings of each species were taken and have been successfully propagated in the local area further away from the Cheltenham site. This was done as a precautionary measure in case these species experienced any adverse impacts from construction work at the Cheltenham site. Figure 15 shows a cutting from the *epacris purpurascens* var. *purpurascens* shrub.

Figure 15 – Threatened Flora Species Cutting



6.2.2 Nest Box Plan

One of the key elements of the pre clearance surveys was the identification of hollow-bearing trees. Under the Nest Box Plans held by the three major contractors, hollow-bearing trees to be removed are to be offset by the installation of nest boxes. The project has so far removed over 50 hollow-bearing trees and has consequently committed to installing over 250 nest boxes to offset this impact. Nest boxes are generally monitored at least yearly and have already begun to provide habitat for some bird species.

6.2.3 Monitoring and Management Activities

Ecological monitoring and management activities are generally undertaken as part of the regular project environmental site inspections. The ecological conditions of areas both internal and external of the construction footprint are regularly inspected by the Environmental Managers and the Independent Environmental Representatives. These inspections address many ecological issues, including pest control, weed management, native species monitoring, unexpected threatened species finds, etc.

The project generally has a low potential of impacting ecological communities external to the construction footprint. However in some locations, a more rigorous approach has been adopted in order to monitor these locations. At many of the tunnelling sites, transects are used to monitor vegetation species. At the Epping and Cheltenham sites, fauna monitoring is undertaken to identify the presence of bird species, mammals and frogs. Monitoring of these sites has so far indicated no significant difference between the number of species recorded prior to and during construction.

6.2.4 Riparian and Aquatic Ecology

As of the end of September 2015, the project has undertaken minimal clearance activities within two riparian zone locations:

- 1) A small section of Elizabeth Macarthur Creek near the Kellyville Site in order to construct the temporary public carpark to be used during the construction phase. The affected area has since been re-established in accordance with the contractor's Vegetation Management Plan, which was developed in consultation with and approved by Sydney Water (land owner). The area continues to be monitored closely in accordance with the plan.
- 2) A small section of Second Ponds Creek where it crosses beneath the Skytrain viaduct. The affected area currently remains subjected to construction activity and environmental controls continue to be implemented in order to mitigate impacts that the project may have in this area. Following completion of construction activity, the area will be re-established and rehabilitated in accordance with the contractor's Vegetation Management Plan.

6.2.5 Biodiversity Offset Package

As part of the Biodiversity Offset Package prepared by Sydney Metro, potential biodiversity impacts caused by the project are being offset by investing in NSW BioBanking sites. These offsets were successfully secured very early in the project's life. Of the 31 hectares of vegetation that will be cleared for construction of the project, 12 hectares have been offset by the Growth Centres Certification Orders. The remaining 19 hectares that required offsetting were assessed in the Biodiversity Offset Strategy to have a target offset area of 68 hectares based on the condition of the vegetation being impacted.

In order to achieve this biodiversity offset target, the project has purchased a total of 896 biodiversity credits from registered NSW BioBanking sites. Credits were purchased from two main sites:

- 504 credits were purchased from the Brownlow Hill site (equating to approximately 50 hectares). Figure 16 provides a boundary map of the Brownlow Hill site.
- 310 credits were purchased from the Summer Hill site (equating to approximately 55 hectares).

Both the Brownlow Hill and Summer Hill sites comprise of certified Cumberland Plain Woodland vegetation (as shown in Figure 17). The remaining credits were purchased from the Hills Shire Council for certified Turpentine vegetation, the Hornsby Shire Council for certified Blue Gum vegetation and from Western Sydney Parklands for non-certified vegetation.

The Biodiversity Offset Package was approved by the NSW Department of Planning & Environment on 23 June 2014.

Figure 16 – Brownlow Hill Site Boundary Map



Figure 17 – Biodiversity Offset Site at Brownlow Hill



6.2.6 Next Steps

The OTS contractor is required to prepare the Design Landscape Plan for the SMTF and the Urban Design and Landscape Plan for the remainder of the corridor. These plans include a significant planting program with suitable options for indigenous species at each of the stations and along the rail alignment. Species lists include drought-tolerant native trees, shrubs, grasses, groundcovers and climbers, as well as a separate list specifically for water courses, detention basins and riparian areas. The OTS contractor has had these species listings incorporated into their contract and they must use these as the basis for all plantings.

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7 Sustainability

The Sydney Metro Northwest project implements a Sustainability Policy and a Sustainability Strategy that was discussed within the Environmental Impact Statements and form part of the contracts with the major works packages. The Sustainability Strategy establishes objectives and targets in relation to sustainable outcomes in a variety of key focus areas and requires initiatives to be embedded throughout the entire project lifecycle. Key focus areas and their policy objectives are listed in Table 11.

Table 11 – Key Focus Areas and Policy Objectives for Sustainability Requirements and Targets

| Key Focus Areas | Policy Objectives |
|------------------------------|--|
| Governance | <ul style="list-style-type: none"> Demonstrate sustainability leadership within the rail, transport and land use sectors. |
| Climate Change | <ul style="list-style-type: none"> Be resilient to potential climate change impacts and manage infrastructure vulnerability. |
| Carbon Management | <ul style="list-style-type: none"> Improving shift towards lower carbon transport. Reduce operational, construction and embodied carbon emissions. Identify low carbon energy generation and procurement options. |
| Energy Efficiency | <ul style="list-style-type: none"> Promote energy efficient design and construction, including reducing fuel usage. |
| Land Use Integration | <ul style="list-style-type: none"> Promote liveability and sustainability benefits of urban renewal and consolidation. Optimise community and economic benefit of residual land development. Promote improved public transport patronage by leveraging connectivity and interchange capabilities. |
| Customer Experience | <ul style="list-style-type: none"> Promote enhanced urban design and passenger comfort. |
| Community Benefit | <ul style="list-style-type: none"> Enhance community benefits through transport amenity and reliability, healthy living, provide for community safety, ensure community engagement and involvement, provision of public art, accessible design and social inclusion. |
| Resource – Land | <ul style="list-style-type: none"> Optimise above and below ground land take requirements. |
| Resource – Water Efficiency | <ul style="list-style-type: none"> Minimise demand for, and use of, potable water as well as maximise opportunities for water re-use from captured stormwater, wastewater and groundwater. |
| Resource – Waste & Materials | <ul style="list-style-type: none"> Reduce materials use and minimise waste through the project life-cycle. Identify material with lower environmental footprint. |
| Heritage Conservation | <ul style="list-style-type: none"> Protect and promote local heritage through appropriate design, planning and management controls. |
| Biodiversity Conservation | <ul style="list-style-type: none"> Protect and create biodiversity through appropriate planning, management and financial controls. |
| Pollution Control | <ul style="list-style-type: none"> Reduce sources of pollution and optimise control at source to avoid environmental harm. |
| Supply Chain | <ul style="list-style-type: none"> Influence contractors, subcontractors and materials suppliers to adopt sustainable practices in support of the North West Rail Link Environmental and Sustainability Policy. |

Each Planning Approval and the Revised Environmental Mitigation Measures located in each Submissions Report contain a range of conditions that relate to sustainability. Compliance with these conditions is tracked alongside all other requirements as part of the Compliance Tracking Program.

Figure 18 provides a status update of some of the sustainability activity on the Sydney Metro Northwest project as of the end of September 2015.

7.1 Sustainability Initiatives and Performance Highlights

Throughout the Sydney Metro Northwest project construction period, initiatives have been implemented to ensure sustainability requirements of all construction packages are achieved and deed requirements are met. The following subsections provide examples of some of the project's sustainability initiatives and achievements. These topics are also referenced in the EISs.

7.1.1 Spoil Usage

The Sustainability Strategy requires that 100% of clean spoil from the project be beneficially reused. Spoil management details are outlined in the Construction Soil and Groundwater Management Plans for each delivery package. The majority of the TSC spoil material is currently transported to over 50 different external sites across Sydney for reuse, with the remainder used within the project or for environmental works. The SVC spoil material is currently entirely reused within the SVC project sites.

A graphical representation of the combined cumulative spoil data is shown in Figure 18. 100% of the spoil generated throughout the construction phase of the project has been reused. As of the end of the third quarter of 2015, over four million tonnes of spoil has been reused or stockpiled for reuse. During this quarter, 85% of spoil was reused external to the project and approximately 14% was reused within the project. The remainder was used for environmental works.

7.1.2 Waste Usage

A requirement of the Sustainability Strategy is that 90% of recyclable construction and demolition waste be recycled. Waste material is accumulated from a number of sources on the project, with classification and definition outlined in the Construction Environmental Management Plans. The project deed nominates a benchmark of 90% of all inert and non-hazardous construction waste generated to be recycled or reused. From the combined TSC and SVC data in Figure 18, it can be seen that the project works are currently averaging 94% of total waste material recycled.

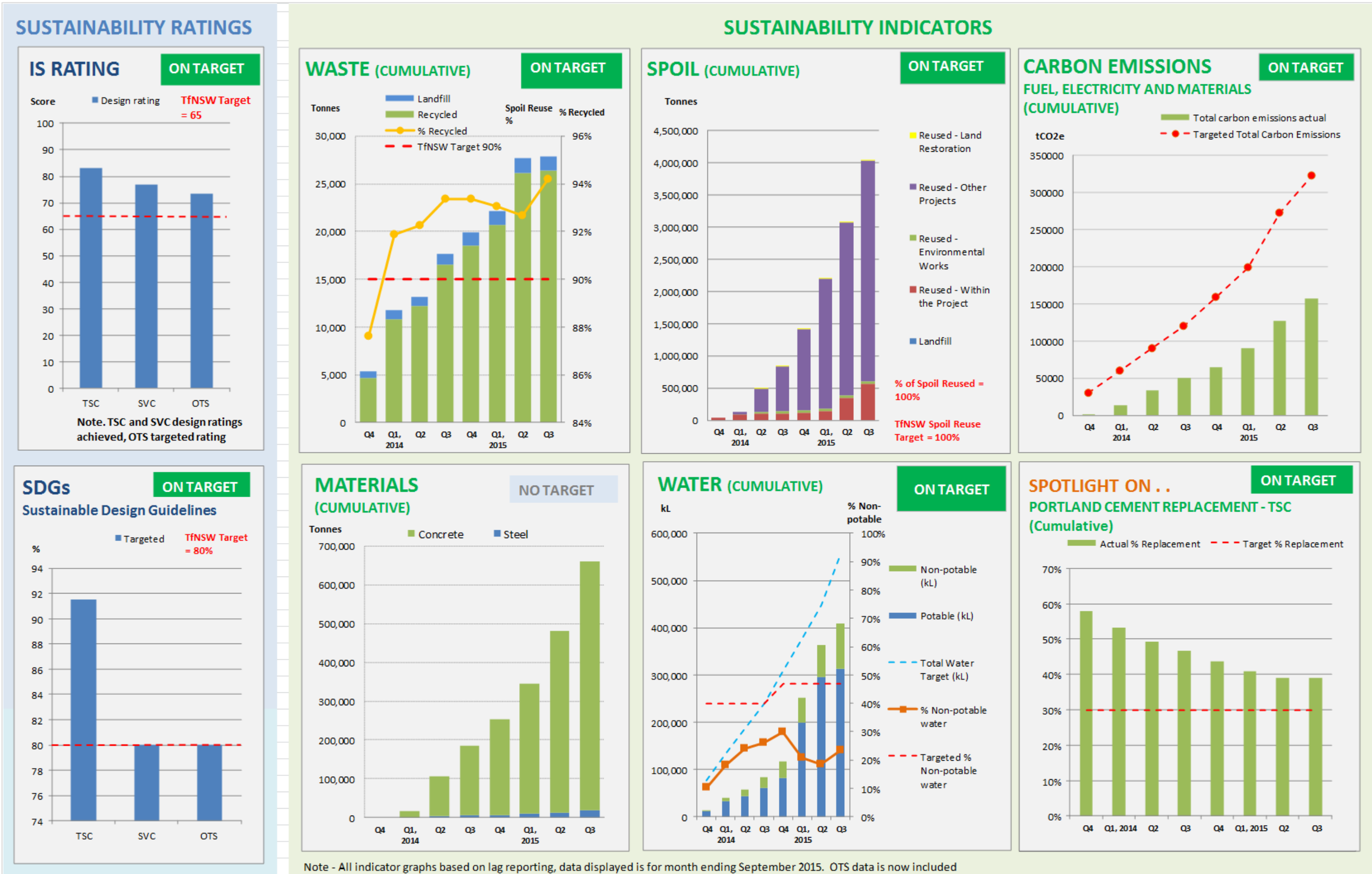
7.2 Greenhouse Gas Emissions Offset

The Sustainability Strategy and the Planning Approvals require 100% of the project's operational carbon emissions to be offset. On 25 August 2015, the Sydney Metro Delivery Office Executive endorsed offsetting operational greenhouse gas emissions via a renewable energy project.

7.3 Reporting

Sydney Metro has contracted a sustainability assessment and review of the project's Sustainability Strategy Objectives and Initiatives against performance to-date for each of the three major contract packages. This report is due to be produced in the first quarter of 2016.

Figure 18 – Sydney Metro September 2015 Sustainability Dashboard



Appendix A Environmental Audit Findings (Apr 2015 – Sep 2015)

* Indicates that the audit report was finalised during this reporting period.

| # | Month | Audit ID | Auditee | Finding | Action | Status |
|---|------------|------------------------|---------|---|---|--|
| 1 | Mar 2015 * | ISJV-SVC-PM-PLN-120205 | ISJV | Stanhope farm trees planted at boundary are not recorded in Table 1 of Appendix 5. | Appendix 5 (Table 1) of the plan to be updated to include RMS listing under Section 70. | Closed |
| 2 | Mar 2015 * | ISJV-SVC-PM-PLN-120205 | ISJV | The approval for the ISJV CEMP required resubmission of the HMP to DP&E once consultation requirements were addressed, but resubmission had not occurred. | Send final version of HMP to DP&E for information. | Open – HMP still undergoing final amendments. |
| 3 | Mar 2015 * | ISJV-SVC-PM-PLN-120205 | ISJV | Vibration monitoring records not available to show vibration has no impacts on Mungerie House. | Perform vibration monitoring at Mungerie House and keep records on file. | Open – Vibration monitoring of Mungerie House is yet to be undertaken. |
| 4 | Mar 2015 * | ISJV-SVC-PM-PLN-120205 | ISJV | Consultation has not yet occurred on the latest Visual Impact Strategy. The VIS does not read as a strategy. | Consultation to occur when VIS is updated. Revise VIS to be a strategy document, not a management plan. | Open – Visual Impact Strategy is yet to be finalised and submitted to TfNSW. |
| 5 | Mar 2015 * | ISJV-SVC-PM-PLN-120205 | ISJV | Unclear if dilapidation survey had been completed for Carriage Drive, which requires reinstatement after construction. | Do dilapidation survey of Carriage Drive. | Open – Evidence of dilapidation survey still to be provided to TfNSW. |
| 6 | Mar 2015 * | ISJV-SVC-PM-PLN-120206 | ISJV | Trees to be retained and trees to be removed are shown as same colour coding in different documents. | Update management plans to show consistent colour coding. | Closed |
| 7 | Mar 2015 * | ISJV-SVC-PM-PLN-120206 | ISJV | The plan indicates signage is to be shown on the Sensitive Area Maps, instead it is on the Environmental Control Maps. | The plan is amended to indicate this information is on the Environmental Control Maps. | Closed |

| # | Month | Audit ID | Auditee | Finding | Action | Status |
|----|------------|---------------------------------------|---------|---|--|--|
| 8 | Mar 2015 * | ISJV-SVC-PM-PLN-120206 | ISJV | The Tree Inspection Record is noted in the plan as being used for pre-clearing, however this is not being used. The intent of the record is being captured in ecologist reports instead. | The Ecologist Report is an acceptable record, however the plan should be updated to reflect this. | Closed |
| 9 | Mar 2015 * | ISJV-SVC-PM-PLN-120206 | ISJV | Ecological Monitoring Program indicates construction monitoring only occurs for 1 year. In reality, construction will continue for longer than 1 year and therefore this monitoring should continue for the duration. | Remove 'Year 1' in column title. Monitoring to continue during construction phase (update Table 2) which could be longer than 1 year. | Closed |
| 10 | Apr 2015 | NWRL-021-SVC-ISJV / ISJV-TfNSW-CS-010 | ISJV | Shade cloth has been installed around several worksites but not along the entire length of the construction zone. | Agreement was made with TfNSW that only the external faces that are most visible to the public would be installed with vinyl banners and shade cloth, and that vinyl banners would only be installed on hoarding as it is a public safety issue to install the vinyl to chain wire fence. | Closed |
| 11 | Apr 2015 | NWRL-021-SVC-ISJV / ISJV-TfNSW-CS-010 | ISJV | Consultation during The Ponds Community Day was not entered into Consultation Manager within the timeframe specified for these types of community interactions in accordance with the CLIP (24 hours). Data was entered on 29/1/2015. | Consultation Manager will be updated based on the timeframes specified in the CLIP. Where consultation occurs on a public holiday or over the weekend, Consultation Manager will be updated on the next business day. | Closed |
| 12 | Apr 2015 | NWRL-021-SVC-ISJV / ISJV-TfNSW-CS-010 | ISJV | Not all environmental, sustainability, transport, traffic and noise & vibration reports publicly available have been uploaded to ISJV's website. | A meeting will be scheduled between the relevant TfNSW and ISJV management representatives to agree on the interpretation of the CLIP requirements, identify processes to ensure timely updates of the ISJV website with regard to ministerial requirements and resolve any deficiencies that may be identified. | Closed |
| 13 | Apr 2015 | NWRL-021-SVC-ISJV / ISJV-TfNSW-CS-010 | ISJV | A Monthly Construction Update Memo (28/1/2015) was found requesting TfNSW to approve public materials within 2 days, contrasting with the 5-day turnaround specified in the CLIP. | Educate project team on the requirements for approval of communication materials. | Closed |
| 14 | Apr 2015 | NWRL-021-SVC-ISJV / ISJV-TfNSW-CS-010 | ISJV | ISJV is required to review the CLIP every 6 months. At the time of audit, the current version of the CLIP was issued in July 2014 and has not been reviewed and updated since then. | The CLIP and sub-plans are currently being reviewed and updated. Several inaccuracies have been identified between the three approved plans and it is important that these inconsistencies are amended to reflect the same information. The changes suggested in this report will also be included in the CLIP. Plans will be finalised once all changes have been made. | Open – Updated CLIP still to be provided to TfNSW. |

| # | Month | Audit ID | Auditee | Finding | Action | Status |
|----|----------|---------------------------------------|---------|--|---|--|
| 15 | Apr 2015 | NWRL-021-SVC-ISJV / ISJV-TfNSW-CS-010 | ISJV | The CLIP includes a requirement for ISJV to manage their own area within the NWRL website, however there is currently no ISJV maintained section within the NWRL website. | Correspondence will be issued to TfNSW requesting confirmation regarding website management. The CLIP will be updated accordingly. | Open – Updated CLIP still to be provided to TfNSW. |
| 16 | May 2015 | NRT 2015/048 | NRT | DJV had not clearly articulated specific functions / individuals who were considered competent nor assigned responsibility / authority to verify Environment Planning Approval compliance and consistency in design. | NRT to organise an independent review on the delivery of environmental planning requirements. The review will be undertaken by an independent environmental consultant and will make recommendations for improvement. | Open – Independent review currently being organised. |
| 17 | May 2015 | NRT 2015/048 | NRT | NRT had not specified functions / individuals who had responsibility / accountability for ensuring that designs were compliant and consistent with Environment Planning Approvals. | | |
| 18 | May 2015 | NRT 2015/048 | NRT | Hassell had not clearly defined many functions / individuals who had been deemed competent to verify Environment Planning Approval compliance and consistency in design. | | |
| 19 | May 2015 | NRT 2015/048 | NRT | The Design Management Plan, Quality Assurance Section 6.8 identified a 'Schedule of signatures of competent persons' as one of many key components of Design Reports, however the intent was subject to varied interpretation and the intent appeared not to have been implemented as yet. | | |
| 20 | May 2015 | ISJV-SVC-PM-PLN-120212 | ISJV | Spoil Sampling and Analysis Program has not been prepared as yet, noting it is not required until spoil is to be removed from site. | | |
| 21 | May 2015 | ISJV-SVC-PM-PLN-120212 | ISJV | Location of temporary spoil stockpiles should not be in close proximity to sensitive areas identified as Sensitive Area Maps or within flood prone areas. Location of Stockpiles is included in App 3 however this is now out of date. | Update figures in Appendix 3 as they are now out of date. Environmental Control Map 8 to be updated to include recently moved large stockpile. | Closed at time of this report's finalisation |
| 22 | May 2015 | ISJV-SVC-PM-PLN-120212 | ISJV | According to the plan, management of any unexpected finds of contaminated spoil is through the Contaminated Land Management System Procedure and Contamination Stop Work / Permission to Proceed Form, however the Permission to Proceed Form has now been replaced. | Update reference in the Plan to the new procedures. | Closed at time of this report's finalisation |

| # | Month | Audit ID | Auditee | Finding | Action | Status |
|----|----------|------------------------|---------|--|--|--|
| 23 | May 2015 | ISJV-SVC-PM-PLN-120212 | ISJV | A Spoil & Truck Movement Register is referenced in the plan but is not being used. | Investigate with construction teams about using a register, as the information contained is very useful and can lead to financial benefits also. | Closed at time of this report's finalisation |
| 24 | May 2015 | ISJV-SVC-PM-PLN-120212 | ISJV | An ITP was not available for recording volumes of spoil generated. | Develop ITP to record spoil volumes generated. | Closed at time of this report's finalisation |
| 25 | May 2015 | ISJV-SVC-PM-PLN-120213 | ISJV | Imported waste (spoil) had been received for laydown areas at Terry Rd compound. Waste exemption records were not available for this material. | Waste exemption to be kept on file (as per O5.2 of EPL). Keep record of receipt of sandstone material in Appendix E (Imported Materials Register). | Closed |
| 26 | May 2015 | ISJV-SVC-PM-PLN-120213 | ISJV | Waste sorting and recycling is generally occurring at the main site compounds. At Terry Rd site, some unlabelled waste bins were observed. | Ensure waste and recycling skips are labelled. | Closed at time of this report's finalisation |
| 27 | May 2015 | ISJV-SVC-PM-PLN-120213 | ISJV | Metal waste bin had not been replaced at Terry Rd leading to waste being left on the ground mixed with other bins. | Reinstate skip bin for metal waste at Terry Rd compound. | Closed |
| 28 | May 2015 | ISJV-SVC-PM-PLN-120213 | ISJV | Consider opportunities to reduce the amount of resources required for construction, operation and maintenance throughout the life of the project. This will include reference to the reporting requirements of the OEH 2011, WRAPP Reporting Guidelines. | Determine if WRAPP reporting is applicable for the project. | Closed |
| 29 | May 2015 | ISJV-SVC-PM-PLN-120213 | ISJV | ISJV will supply information to TfNSW in their requested format to allow reporting on total quantities of wastes being generated and recycled in accordance with the NSW Government WRAPP requirements. | Determine if WRAPP reporting is required. Data had not been requested from TfNSW to date. | Closed |
| 30 | May 2015 | ISJV-SVC-PM-PLN-120213 | ISJV | The plan refers to monitoring for WRAPP and NGERs, however this data has not been provided yet (NGERS threshold has not been met so reporting is not required as yet). | Update monitoring table to reflect monitoring that is occurring (e.g. WRAPP, NGERs, etc.). | Closed |
| 31 | May 2015 | ISJV-SVC-PM-PLN-120213 | ISJV | The plan refers to a number of issues specific to training requirements. There was no evidence of these being performed. | Update training section to reflect what training is occurring and is necessary. | Closed at time of this report's finalisation |

| # | Month | Audit ID | Auditee | Finding | Action | Status |
|----|----------|-------------------------------|---------|---|---|---|
| 32 | May 2015 | ISJV-SVC-PM-PLN-120215 | ISJV | The plan indicates construction material stockpiles and construction machinery and equipment are to be kept out of the 100 year ARI floodplain. This is quite a large demarcation and possibly should be 1:20 instead. | Confirm if mitigation measure should refer to 1:20 and update plan accordingly if so. | Closed |
| 33 | May 2015 | ISJV-SVC-PM-PLN-120215 | ISJV | Daily and weekly site inspections by the Site Superintendents are occurring, however records are kept by exception. | Update Section 6.2.3 to reflect what inspections are actually occurring and that records are kept by exception. | Closed |
| 34 | Jun 2015 | NRT 2015/002 | NRT | PIRMP extract not yet published in accordance with POEO Act requirements. This needs to be undertaken. | PRIMP has been published on John Holland Group website. | Closed |
| 35 | Jul 2015 | NWRLSVC-ISJ-SVC-PM-PLN-120203 | ISJV | The Soil and Water Management Plan indicates basins will be clay lined. The amended Salinity Plan does not require clay lined basins (unlike previous revisions), which has not been updated in the mitigation measures within the plan. | The plan is to be updated to align with the Salinity Plan. Update as part of next scheduled review. | Open – Plan in the process of being updated |
| 36 | Jul 2015 | NWRLSVC-ISJ-SVC-PM-PLN-120203 | ISJV | Salinity Testing Form shows a different disposal criterion to the Soil Salinity Report for saline material. | Amend either document (Form or Plan) to ensure both documents use the correct disposal criteria. | Open – Plan in the process of being updated |
| 37 | Jul 2015 | NWRLSVC-ISJ-SVC-PM-PLN-120203 | ISJV | Salinity Testing Form shows a different discharge criterion to the Soil Salinity Report for groundwater. | Amend either document (Form or Plan) to ensure both documents use the correct discharge criteria. | Open – Plan in the process of being updated |
| 38 | Jul 2015 | NWRLSVC-ISJ-SVC-PM-PLN-120203 | ISJV | Six months of groundwater monitoring results have not been collected / reviewed to determine ongoing requirements as per the commitment. | A report reviewing the available data is currently being prepared by ISJV for issue to ER and TfNSW. Following review of the report, agreement to be reached as to ongoing monitoring requirements. | Open – Groundwater Monitoring Report still to be provided |
| 39 | Jul 2015 | NWRLSVC-ISJ-SVC-PM-PLN-120203 | ISJV | The plan needs to be updated to reflect the current EPL requirements, including records, erosion and sediment control plans, weekly inspection checklist, non-compliance reports, monthly monitoring reports on website, monthly EPL non-compliance reports and annual return. The audit did not find any evidence that the EPL is not being complied with. | Include how the EPL is being implemented including where data is recorded and on which forms / procedures with respect to soil and water management. | Open – Plan in the process of being updated |

| # | Month | Audit ID | Auditee | Finding | Action | Status |
|----|----------|-------------------------------|---------|---|---|---|
| 40 | Jul 2015 | NWRLSVC-ISJ-SVC-PM-PLN-120209 | ISJV | The monitoring requirements listed in Section 8 indicate a daily record will be kept of visual air quality surveillance on the Weekly Environmental Inspection Checklist. The environment team are recording this weekly on the Weekly Environmental Inspection Checklist (as is also required in Section 8). | Section 8 of the plan to be updated to remove the requirement to record daily air quality surveillance. Site access staff to contact street sweeper directly should the entry / exit areas require additional cleaning. Update as part of next routine management plan review or within 3 months. | Open – Plan in the process of being updated |
| 41 | Jul 2015 | TSC-AUD-077 | TSC | Water Balance Table to be updated and the CSWMP provided to the ER for endorsement. | Water Balance Table updated. | Closed |

Appendix B Construction Complaints Management Report

| | |
|----------------------|---|
| Report | Construction Complaints Management Report |
| Review Period | 1 April 2015 – 30 September 2015 |

| Quarter | Site | Classification | Complaint ID | Date | Contractor | Nature of Complaint | Event Description |
|---------|-------------------------------|----------------|--------------|------------|------------|---------------------|--|
| Q2 | Epping | Unavoidable | 150401GREE | 1/04/2015 | TJHD | Noise & Vibration | Complainant phoned about a noise she was hearing from the Epping site. Noise source was determined to be a truck brought on site to vacuum the contents of sediment tanks onsite as part of site shutdown preparation works. Complainant was contacted and advised what the noise was likely to have been and asked if she could still hear it. She replied she couldn't. |
| Q2 | Epping | Unavoidable | 150402CALE | 2/04/2015 | TJHD | Noise & Vibration | Complainant called about strange whirring noise heard on and off for last few days from his home. He lives on the top floor of the Genesis Building. TJHD Community Place Manager and the Senior Project Engineer investigated and discussed what the noise might be but were unable to determine what it was. Noise monitoring was offered to the complainant who said the noise had since gone. He has been asked to contact the Community Place Manager if he hears the noise again. |
| Q2 | Cherrybrook | Unavoidable | 150407STAP | 7/04/2015 | TJHD | Noise & Vibration | Complainant has called on several occasions regarding noise from trucks leaving the Cherrybrook site which he claims is excessively noisy. TJHD has provided advice to the complainant on those occasions and has been offered noise monitoring but had refused it, advising he would seek his own. He accepted noise monitoring on this occasion. It was found that there was no audible noise from the site and that the ambient noise from Castle Hill Road, potentially compounded by windy conditions, was the dominant noise. Complainant was advised of this and informed that RMS is the body that regulates this traffic noise. Further, he was advised that the route the trucks use once they leave the site was not within the jurisdiction of the contractor. Complainant advises he will continue to complain to the contractor and the EPA. |
| Q2 | Windsor Road – Cudgegong Road | Avoidable | 150414KRAL | 14/04/2015 | ISJV | Worker Behaviour | Resident complained that a truck was making u-turns on their driveway. ISJV investigated and informed the subcontractor company who are investigating the incident. ISJV is reassessing toolbox talks and pre-starts to ensure subcontractors are aware of requirements. |

| Quarter | Site | Classification | Complaint ID | Date | Contractor | Nature of Complaint | Event Description |
|---------|---------------------------------|----------------|--------------|------------|------------|-----------------------------|---|
| Q2 | Balmoral Road – Memorial Avenue | Unavoidable | 150415THOR | 15/04/2015 | ISJV | Transport, Traffic & Access | Complainant stated a road works sign located in a service road between Balmoral Road and Memorial Avenue in Kellyville was causing obstruction to cyclists and pedestrians. ISJV advised the sign was a requirement for traffic management though reassessed the area and relocated the signs to the other side of the road. |
| Q2 | Castle Hill | Unavoidable | 150415LATH | 15/04/2015 | TJHD | Transport, Traffic & Access | Complainant from The Hills Council called about trenches on footpath near bus stop opposite 26 Carrington Road, Castle Hill. Temporary asphalt had settled and may cause a trip hazard. The trenches were dug to install some monitoring equipment as part of the NWRL work but not by TJHD. Resources were allocated that day to add more temporary asphalt to ensure the trenches are level with the footpath. This area undergoes regular inspections and the issue had been identified and scheduled to be rectified. Complainant was notified that the work had been carried out. |
| Q2 | Windsor Road – Cudgegong Road | Avoidable | 150419LAYT | 20/04/2015 | ISJV | Worker Behaviour | Resident emailed complaint regarding two separate circumstances. The resident claimed a security guard had entered her property at very early hours of Sunday morning (19 April 2015) without permission. Following investigation the stakeholder was informed that no security guard employed by ISJV entered any private property during the early hours of Sunday morning. The resident also stated that a water truck continuously uses her driveway to turn around from which has caused damage to the asphalt. ISJV investigated and advised that the construction superintendent will arrange for it to be repaired. |
| Q2 | Windsor Road – Cudgegong Road | Unavoidable | 150506HARV | 6/05/2015 | ISJV | Air Quality | Resident made a complaint on dust and explained that the new stockpile directly behind the caravan park was slowly drying up and starting to create dust. Caller requested that the water cart be used to hose down the stockpile. The site foreman arranged for a water cart to attend the site and dampen the stockpile immediately. Community Place Manager explained that the stockpile would be monitored and the water cart would be used as required. |
| Q2 | Windsor Road – Cudgegong Road | Unavoidable | 150506SAND | 6/05/2015 | ISJV | Air Quality | Resident complained that dust was being generated by the large stockpile adjacent to the caravan park. They explained that the stockpile was two times the size of the hoarding which was erected and that dust was travelling straight over the hoarding and onto their caravan. ISJV contacted the resident and explained that the site foreman had been instructed to monitor the stockpile during works and that a water cart was being used throughout the day. |
| Q2 | Castle Hill | Unavoidable | 150507FREE | 7/05/2015 | TJHD | Property & Business Impacts | Complainant called concerned that he had returned to his office after being on holidays to find water damage caused from water coming through the bottom of the masonry wall. His plumber investigated the matter and determined the cause to be the downpipe between the walls cracking which was attributed to building movement. The plumber has blocked the downpipes at the gutters and diverted the downpour out into a courtyard to stop the constant flooding of the wall space and office. This problem is near a crack in the courtyard which has previously been reported to |

| Quarter | Site | Classification | Complaint ID | Date | Contractor | Nature of Complaint | Event Description |
|---------|-------------------------------|----------------|--------------|------------|------------|-----------------------------|---|
| | | | | | | | TJHD as the complainant suspected it was due to excavation operations nearby. TJHD has engaged structural engineers to inspect the premises on 11 May 2015 to determine the cause of the damage. |
| Q2 | Cherrybrook | Unavoidable | 150508FALL | 8/05/2015 | TJHD | Property & Business Impacts | Complainant called stating that her mother's house had moved since the dilapidation report and commencement of tunnelling activity in the area. TJHD arranged for this matter to be followed up on 11 May 2015 with the complainant who was advised how to go about making a claim for property damage. |
| Q2 | Cherrybrook | Unavoidable | 150513WALL | 13/05/2015 | TJHD | Property & Business Impacts | Complainant called about a cracked water pipe and wants to know if it had anything to do with the work at Castle Hill. TJHD Community Place Manager contacted the complainant and informed him that the damage was not associated with tunnelling works. However as complaint is now being managed under the commercial third party assessment process it has been marked as unavoidable. |
| Q2 | Castle Hill | Unavoidable | 150514RAY | 14/05/2015 | TJHD | Air Quality | Complainant called to report dust in area at Castle Hill site. Complainant declined to provide contact details which meant that the Community Liaison Officer was unable to call back and investigate the dust complaint further. An environmental inspection had been carried out the day before and it was noted that all dust mitigation measures were in place and the site was adequately managing the dust. On the day of the inspection, sprinklers were in use and a worker was hosing down the dozer. |
| Q2 | Windsor Road – Cudgegong Road | Avoidable | 150514KAYL | 14/05/2015 | ISJV | Noise & Vibration | Resident made complaint to ISJV traffic controller regarding noise from out of hours delivery works at 97 Schofields Rd. ISJV Community Place Manager attempted to contact the resident several times (by phone and doorknock) to establish details of complaint but was unsuccessful. When the Community Place Manager did make contact, he explained that chains on crane had been replaced with straps. Complainant commented that since her initial contact she had not heard the noise. |
| Q2 | Showground | Unavoidable | 150515BOUR | 15/05/2015 | TJHD | Water Quality | Complainant from the Hills Shire Council called in relation to a water discharge into Cattai Creek at the rear of the Showground site. The matter had been reported to Council. Water was discharged from the sediment basin that morning following testing to confirm compliance with the EPL. The creek was flowing strongly and was very turbid during the recent storm events but has returned to low flows. The discharge has caused sediment deposited in the creek bed during the recent storm event to re-suspend in the creek. |
| Q2 | Cherrybrook | Unavoidable | 150518MART | 17/05/2015 | TJHD | Noise & Vibration | Complainant called about loud banging appearing to come from Cherrybrook site. Contact was made after noise stopped, making it difficult to determine where noise was coming from. Investigations found that the likely source of noise was from the use of the excavator bucket used to remove spoil. The noise was discussed with the site supervisor who has undertaken to contact the resident next time these works are |

| Quarter | Site | Classification | Complaint ID | Date | Contractor | Nature of Complaint | Event Description |
|---------|-------------------------------|----------------|--------------|------------|------------|-----------------------------|---|
| | | | | | | | undertaken at the weekend to establish if this is in fact the noise. The complainant was contacted and offered contact next time this work was undertaken to establish if this was the noise so that steps could be taken to mitigate and monitor it. |
| Q2 | Cherrybrook | Unavoidable | 150520LING | 20/05/2015 | TJHD | Property & Business Impacts | Complainant called to report cracks had started appearing in his house at 102 Castle Hill Rd. He had undergone a property condition report prior to the tunnelling. He was contacted and advised that a post-condition report would be completed between 15 th and 19 th June 2015. Complainant was satisfied with this and arrangements will be made to inspect his property between those dates. |
| Q2 | Cherrybrook | Unavoidable | 150520SPOO | 20/05/2015 | TJHD | Noise & Vibration | Complainant called concerned about the tunnelling occurring under her property. She was aware of what it was but expressed concern as her property was shaking and causing her some distress. Complainant was contacted and provided with information about where the TBM was and assured that the noise and vibration would diminish as the machine moved away. Complainant had been doorknocked and information provided to her about the tunnelling and what to expect. Following the complainant's call, the Community Liaison Officer contacted her daily to update the TBMs progress while it was near her property. The complainant was also added, with her consent, to the weekly email update list. |
| Q2 | Cherrybrook | Unavoidable | 2105STAP | 21/05/2015 | TJHD | Noise & Vibration | Complainant regularly contacts TJHD to complain about the spoil trucks using Glenhope Road instead of Franklin Road. Complainant listens to CB radio and claims to hear the drivers discussing the exits and that they could use Franklin Road. Complainant was again offered a meeting to explain the routes and again declined the offer. Noise monitoring and noise cancelling headphones were also offered but both were declined. Complainant was advised that truck noise was not regulated by TJHD and that complainant should approach RMS, as previously advised. The trucks entering and exiting site are in accordance with all approvals. |
| Q2 | Windsor Road – Cudgegong Road | Avoidable | 150521CHAP | 21/05/2015 | ISJV | Noise & Vibration | Resident phoned at 8.44pm and advised that a motor was running OOH at the Terry Road site. ISJV apologised for the inconvenience and immediately investigated. ISJV informed resident that the construction manager for the area had attended site and stopped works. ISJV contacted the construction manager, who ordered the site crew to finish their works and turn off generator immediately. Generator was switched off at 9.34pm and workers left site by 9.40pm. Incident would be raised at next toolbox talk and also with the project management team to ensure audible work would not take place OOH without appropriate approvals and community notification. |
| Q2 | Windsor Road – Cudgegong Road | Avoidable | 150521KAYL | 21/05/2015 | ISJV | Noise & Vibration | Resident made complaint regarding noise from out of hours activity at 97 Schofields Road, explaining that at 3.19am there was a loud bang sound which caused resident to wake up. Vibration could also be felt throughout house at this time and the noise caused distress to the resident's dog (which was going through labour) and would need to be taken to vet to deliver the pups. Place Manager investigated the matter. |

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| | | | | | | | There is currently no record of any incident occurring on site at this time which may have caused this noise/issue. The ISJV Community Place Manager phoned resident at 10.25am, 2.40pm, 4.16pm, 6.00pm to find out further details. Resident did not answer on all occasions, a message was left with the Place Manager's contact number. Resident was eventually contacted and advised that chains that were being used had been replaced with straps and that this had reduced the noise. |
| Q2 | Cherrybrook | Unavoidable | 150523INNE | 23/05/2015 | TJHD | Noise & Vibration | Complainant called concerning noise he likened to steel being dragged over concrete, a noise he hadn't heard previously from the site. The site supervisor was contacted and advised the noise could be from the loading bucket. Supervisor advised this was not the case as measures had been taken to minimise this noise following a similar complaint last week. The complainant was called back, advised that checks had been made at the site and asked that he call back immediately if he hears the noise again. Complaint is classified as unavoidable as the specific source of the noise complaint could not be found. Works to remove spoil are in accordance with licences and approval from TfNSW and plant used for this work, such as the excavator, has been shown to be compliant during noise assessments. |
| Q2 | Cherrybrook | Unavoidable | 150523WALS | 23/05/2015 | TJHD | Noise & Vibration | Complainant called as noise from tunnelling was very loud the previous evening despite being told by Community Liaison Officer that they would not hear the noise. The Community Liaison Officer called the complainant and advised that the TBM had passed her property and was now located under Copeland Road. Tunnelling would not recommence until 7am Monday morning. The complainant was also advised that the noise would diminish as the TBM moved away and as the background noise was higher during the day. The complainant was satisfied with the response. |
| Q2 | Cherrybrook | Unavoidable | 26052015 YIP | 26/05/2015 | TJHD | Noise & Vibration | Complainant has TBM4 beneath her property in Grace Avenue, Beecroft and is feeling the vibrations and hearing the noise as the machine passes. She wanted to know how much longer the disturbance would occur. The Tunnelling CNIS indicates that the complainant's property was predicted to receive less than 40dBA of ground-borne noise and less than 0.28 mm/s of vibration. As such monitoring was not offered to the complainant. Validation monitoring conducted in this area has confirmed that works are being carried out within prescribed limits. Complainant has been regularly contacted by TJHD in lead up to works and will continue to be updated prior to the cross passage being built below her property. |
| Q2 | Cherrybrook | Unavoidable | 280515RODR | 28/05/2015 | TJHD | Noise & Vibration | Complainant lives in Grace Avenue, Beecroft and was having difficulty with the noise and vibration from TBM4. Respite was offered and was accepted for the evening of 28/05/2015. Also offered and accepted for 1/6/2015. NB: Complaint is unavoidable as all works are in accordance with approvals, are within modelling expectations and |

| Quarter | Site | Classification | Complaint ID | Date | Contractor | Nature of Complaint | Event Description |
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| | | | | | | | proactive communications has been undertaken. |
| Q2 | Cherrybrook | Unavoidable | 150529SHAH | 29/05/2015 | NRT | Noise & Vibration | Complainant was disturbed by truck noises and flashing lights during night-works. NRT contacted complainant to advise that the works were related to design investigation taking place out-of-hours and that noise and light were coming from traffic control vehicles. NRT advised complainant that works near their property would start at 9pm and be completed at that location in approximately one hour. This complaint was unavoidable, as the works were notified and being undertaken in accordance with the minor works approval. |
| Q2 | Cherrybrook | Unavoidable | 290515BABI | 29/05/2015 | TJHD | Noise & Vibration | Complainant lives in Grace Avenue, Beecroft and was unable to sleep due to the noise and vibration from TBM4. She has asked to be relocated while the machine is under her property. TJHD Community Place Manager contacted the complainant and advised that the TBM would cease operation this evening for maintenance. The Community Place Manager will update the complainant how far the machine has moved today at close of business and will again call on Monday with updates. Complainant is an audiologist and says she will be advising all the neighbours to put in a claim for hearing loss as her professional view is that the long term noise could cause hearing loss. Complaint is unavoidable as all works are in accordance with approvals, are within modelling expectations and proactive communications has been undertaken. NB: TJHD has been asked to share details of any noise and vibration monitoring in the immediate area conducted that evening. |
| Q2 | Castle Hill | Unavoidable | 150601RAY | 1/06/2015 | TJHD | Air Quality | Complainant called about dust coming from Castle Hill site. Declined to leave contact details so no follow up could be made. Matter was investigated. Work at the time involved some excavation and spoil being removed. All dust mitigation measures were in place. In addition, three inspections were made during the past seven days where this exact work was involved and no observations were made involving dust. |
| Q2 | Cherrybrook | Unavoidable | 2/06/15BABI | 2/06/2015 | TJHD | Noise & Vibration | Complainant called in relation to the noise and vibration she had experienced with the passing of TBM4 under her property. Complainant claimed to have suffered discomfort and was at that point seeking medical advice from her GP. TJHD's Community Liaison Officer contacted the complainant to talk through the issues. Complainant was seeking relocation however it was explained to her that the noise levels which were less than 40dBA, did not allow for relocation to be offered. TBM had now moved past her property. Community Liaison Officer spoke to complainant at length and undertook to provide updates on cross passage works. |
| Q2 | Bella Vista | Unavoidable | 150603FENT | 3/06/2015 | TJHD | Property & Business Impacts | Complainant contacted TJHD regarding some property damage he suspected had been caused by tunnelling. The damage was to pipes under his car parking area which were now leaking. Complainant claims his building has been feeling the vibrations from tunnelling for past 6-12 months. TJHD is making arrangements for property team to inspect area around water leak (to occur from 9 June 2015). |

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| Q2 | Cherrybrook | Unavoidable | 030615MCGU | 3/06/2015 | TJHD | Worker Behaviour | Complainant called to raise concerns about the behaviour of a truck and dog driver who was in his view speeding and acting aggressively as he travelled to the Cherrybrook site. The driver was identified and spoken to. He denied speeding, indicating that his GPS tracking system would support this. TJHD undertook to speak to all its drivers again and remind them of their obligations to the community to behave in an acceptable manner. Complainant was advised of this action and was very grateful for the response and the seriousness in which the complaint was taken. |
| Q2 | Cherrybrook | Unavoidable | 150610WENG | 10/06/2015 | TJHD | Noise & Vibration | Complainant called unable to sleep due to the noise and vibration he was experiencing as TBM3 approached his home. Complainant acknowledged that he had been receiving regular communications about the tunnelling works but did not expect the level of disturbance he was now experiencing. He had not replied to the card that was left when TJHD had been doorknocking last week. The TJHD Community Place Manager agreed to update the complainant on the progress of the TBM the following day and to drop off some disposable ear plugs to his property if required. The Tunnelling CNIS predicts ground borne noise levels at this address to be below 45dBA (between 40 and 45dBA) and vibration levels to be less than 0.28mm/s. These levels are below the criteria related to the offer of relocation. |
| Q2 | Bella Vista | Unavoidable | 150615MASO | 15/06/2015 | TJHD | Transport, Traffic & Access | Complainant contacted TJHD concerned about the number of cars parking in the streets around the Bella Vista site. She had observed some of the drivers get out of their cars and make their way to the Bella Vista site. She would like time-limited parking provided. Complainant agreed that parking had become more difficult since the closure of the home centre. Workers on the site have designed parking and are instructed to park in this area only. Further investigation found that those parking on the street and making their way to the site were 'cold call' visitors. Workers will be reminded to park in the designated area onsite in a toolbox talk. Complainant was advised that parking requirements would be re-communicated to the site teams. |
| Q2 | Rouse Hill | Unavoidable | 150616KIRB | 16/06/2015 | TfNSW | Precinct Planning | Complainant believes there is a lack of parking available for T-way commuters on the Rouse Hill to Parramatta route. Complainant was contacted by TfNSW and provided with information regarding the changes to the T-way, the impact and the length of time some of the car park changes would remain in place. |
| Q2 | Cherrybrook | Avoidable | 150618BOSC | 18/06/2015 | TJHD | Transport, Traffic & Access | Complainant called concerned about the way in which trucks waiting to enter the Cherrybrook site were parked in County Drive over the past few weeks. He is a truck driver himself and says that the drivers should be using common sense and have hazard lights on to indicate to other road users they are stationary. He further commented that he needs to get a run up the hill to get up to Castle Hill Road. There is a potential hazard if there are trucks at the side of the road. The Community Place |

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| | | | | | | | Manager advised the complainant that contractors will be reminded of their obligations at the weekly toolbox talk regarding no parking on public roads. The complainant was satisfied with the response. The Senior Project Engineer has also been asked to investigate this with the trucking contractor. |
| Q2 | Balmoral Road – Memorial Avenue | Avoidable | 150619KAJE | 19/06/2015 | ISJV | Utilities & Services | Complainant emailed to say he is unhappy about the lighting at Balmoral Road carpark. He says they worked in the first week but not since. Complainant was contacted and advised that lights are solar powered and due to recent wet weather, there were times when they were not working. However, the lighting suppliers were contacted and they made some adjustments to lights to ensure that they are now working. In addition, daily inspections will be made to ensure lighting is operational. |
| Q2 | Cherrybrook | Unavoidable | 150622ANDE | 22/06/2015 | TJHD | Air Quality | Complainant called concerned about dust coming from trucks which he believes are from the Cherrybrook site. He said he was waiting at the lights at Glenhope Road where a truck and dog turned right from site onto Castle Hill Road and he watched a cloud of white dust follow. Community Place Manager explained the dust mitigation measures TJHD uses to reduce the potential impacts of dust on the community. She advised that these measures include concreted haul roads and hard stands, truck load covers when leaving site, truck wheel washes and water carts which clean the roads. Complainant said he was not concerned what happened onsite but concerned about the dust possibly being deposited on the childcare centre which his daughter attends and the adjacent houses. Community Place Manager said she would contact site and ask them to investigate and see if there were any additional measures which could minimise dust today. The complainant said there was no need to call him back and that he wanted his observations to be considered. The TSC contract management team is monitoring this issue. |
| Q2 | Cherrybrook | Avoidable | 220615ALAN | 22/06/2015 | TJHD | Transport, Traffic & Access | Complainant called concerning a number of large trucks with trailers, which were parked along County Drive this morning. He said they were blocking a large portion of his driveway, preventing him from backing out safely as they were blocking his sight lines. His property is located between the lights at Woodgrave Rd and John Rd. The TJHD Community Place Manager asked if there were any distinguishing marks on the trucks or whether the complainant had any registration details. Complainant said that the trucks were stationary for about five minutes and then as one truck moved on another one took its place. Community Place Manager explained TJHD induction requirements and the code of conduct that all drivers must sign prior to commencing works. She will investigate via the trucks' GPS systems whether they are part of TJHD works. Complainant did not necessarily want a return call but was grateful for the matter being taken seriously and investigated. |
| Q2 | Cherrybrook | Unavoidable | 230615STAP | 23/06/2015 | TJHD | Air Quality | Complainant called regarding dust coming from the trucks leaving the Cherrybrook site. Community Place Manager called and explained dust mitigation measures that |

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| | | | | | | | are in place such as wheel washing and covers on the spoil but that the site was also employing additional measures. A water cart was now being employed onsite to also dampen down the spoil. Complainant was invited to give the increased measures an opportunity to work but to call back in a few days if he still had concerns. Complainant called back 26 June 2015 (Ref: 230615STAP). |
| Q2 | Cherrybrook | Unavoidable | 150624 - McMIL | 24/06/2015 | TJHD | Air Quality | Complainant called and said he felt he was not receiving enough information about project. Complainant was contacted by Community Place Manager who asked if he was receiving the regular updates, which he had been but felt this was not enough. He could not specify the additional information he was seeking. Community Place Manager explained the activities onsite and current location of all the TBMs. When asked what he thought TJHD could do differently, complainant agreed there was nothing we could do about the trucks removing spoil on Castle Hill Road, however he asked to be better informed in a similar way last year where residents were invited to a visit. Community Place Manager undertook to discuss his request with her team. |
| Q2 | Bella Vista | Unavoidable | 250615NALI | 25/06/2015 | TJHD | Property & Business Impacts | Complainant called concerning an accident he had in his motor vehicle as a result of road works on Celebration Drive at Bella Vista. Complaint damaged his vehicle running into a barricade that was being used near the driveway of the BP service station. The claim was passed on to the TJHD commercial team. |
| Q2 | Bella Vista | Unavoidable | 150615MOHA | 26/06/2015 | TJHD | Noise & Vibration | Complainant has a five month old baby who is a light sleeper and she finds it difficult to settle the baby in the day time and believes it is due to the truck noise. She wants to know how long the trucks will be using Norwest Boulevard and is there another route they could take. Community Place Manager explained that the routes had been approved by the various authorities and that the trucks use main arterial roads to minimise the impacts on the community. Complainant was placed on the email list to receive updates and will also be sent truck fact sheet and links to information. The complainant was satisfied with the response. |
| Q2 | Cherrybrook | Unavoidable | 230615STAP | 26/06/2015 | TJHD | Air Quality | Complainant called back on 26 June 2015 (after calling on 23 Jun 2015 - Ref: 230615STAP) to say that dust mitigation measures had not alleviated the problem and he had taken pictures. Community Place Manager noted that an inspection that morning had not found any issues but a second inspection was subsequently carried out and a water cart was booked to do more regular cleans on Castle Hill Road. Complainant was advised of these additional measures. The TSC contract management team is monitoring this issue. |
| Q2 | Cherrybrook | Unavoidable | 260615MAIJ | 26/06/2015 | TJHD | Noise & Vibration | Complainant called annoyed at the level of noise and vibration she was experiencing from the work on Cross Passage 67 which is near her property. Complainant was offered earplugs and for noise monitoring to take place but she refused these offers. |

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| | | | | | | | It was explained to her that the works would be finished next week. Complainant was also concerned about noise from future train operations. This query was referred to the OTS team for response. |
| Q2 | Cherrybrook | Unavoidable | 150630MASO | 30/06/2015 | TJHD | Worker Behaviour | Complainant called to raise the issue of truck driver behaviour after observing the driver of a truck and dog allegedly speeding along Castle Hill Road. The complainant claims the driver must have been speeding as he was finding it difficult to keep up with the truck and that at times he believed the driver to be travelling 10km/hr over the speed limit. The TJHD Community Place Manager contacted the complainant who was unable to provide registration details or other identifying details of the truck. She explained that TJHD has a driver code of conduct which drivers sign and must comply with, and any breaches would be dealt with accordingly. The complainant was encouraged to provide registration details should this occur again. The Community Place Manager advised she would raise this with the site manager at Cherrybrook and he has been asked to discuss with the trucking contractor. The complainant was satisfied with this response. |
| Q3 | Bella Vista | Unavoidable | 150701MILA | 1/07/2015 | TJHD | Noise & Vibration | Complainant called to advise that the compression braking from trucks was disturbing him through daylight hours and not all trucks use this form of braking. The complainant said that there is one truck which is particularly bad and makes the whole house shake. The complainant said he can hear the truck coming and using the compression braking for the Brookhollow roundabout, Reston Grange roundabout (which is closest to his property and where the noise is worst) and then the Westwood Way roundabout. The complainant said he had tolerated the compression noise for two years but had reached his limit. He was unable to provide identification or registration details but was encouraged to do so to enable verification that the trucks are associated with the project. He was advised that not all trucks on Norwest Boulevard are associated with the project as there are several other construction sites in the area. The complainant intends to take a photo when he next hears the trucks and forward it to assist with investigations. He was satisfied with the response. |
| Q3 | Epping | Unavoidable | 150701MCKA | 1/07/2015 | TJHD | Noise & Vibration | Complainant was awakened at around 4.30am by loud noise from the Epping site. He says the noise continued till about 5:00am when workmen with loud voices were then heard discussing an approach to the work. The complainant notes that there was no notification of this loud and invasive work. The TJHD Community Place Manager contacted the complainant to advise the matter would be investigated. Mitigation measures identified in the Epping CNIS including noise walls are in place. Notifications were delivered to Epping in regards to 24 hour works in October 2014 and February 2015. Complainant also receives regular emails explaining ongoing works, most recently being 1/5/2015 reminding him of the ongoing 24 hour tunnelling works. The works carried out on the night of Tuesday 30 June 2015 were concrete |

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| | | | | | | | preparation works. This is consistent with activities that have been ongoing for the last month. There was no change to the activity between 4am and 5am. TJHD offered the complainant noise and vibration monitoring, which to date has not been accepted despite being followed up by phone on Friday 3 July 2015. In addition to this, the evening and night time workforce will receive a toolbox talk to emphasise the need to minimise noise (including talking) near residential areas. |
| Q3 | Cherrybrook | Unavoidable | 150606 MOTO | 6/07/2015 | TJHD | Noise & Vibration | Complainant is located at Beecroft and had been experiencing TBM4 tunnelling beneath her property. Complainant understood that TBM4 was meant to have passed her property and was concerned that her windows were still shaking. TJHD Community Place Manager contacted complainant and explained that TBM4 had passed her property but that construction on Cross Passage 64 had commenced. Advised complainant what work on the cross passage entailed and that works would cease at 10pm in the evenings. Complainant was happy with the explanation. She was offered noise monitoring but declined. |
| Q3 | Cherrybrook | Unavoidable | 150706SIMP | 6/07/2015 | TJHD | Visual Amenity | Complainant called unhappy with the state of the land between Oliver Way and Cherrybrook Station site. He says it is overgrown and has encouraged vermin onto his land. TJHD Community Place Manager investigated the matter and liaised with the Cherrybrook site superintendent. Regular monthly maintenance is scheduled for the site and was again scheduled for the following day, 7 July 2015. The site had undergone maintenance on 9 June 2015. TJHD Environmental Officer undertook an inspection and confirmed the state of the site was acceptable. The complainant was contacted and informed that maintenance was scheduled again on 7 July 2015 but also that the site condition was within the acceptable parameters according to the TJHD environmental team. The TSC contract management team's environmental officers also inspected the site post maintenance taking place and were satisfied with the maintenance that had been undertaken. |
| Q3 | SMTF | Unavoidable | 150707ZAMM | 7/07/2015 | NRT | Air Quality | Resident complained about the spoil stockpiled outside his property, advising that he could not open the windows due to bad odour coming from the spoil. NRT contacted resident and environmental manager doorknocked resident to inspect site. NRT explained that odour was result of spoil removed from dam and that NRT had stockpiled the spoil next to the resident's property in an attempt to create a noise barrier between the property and works. NRT advised resident that going forward they would stockpile the spoil in another area. This complaint is classified as unavoidable as works were being undertaken in compliance with project approvals. |
| Q3 | Cherrybrook | Unavoidable | 050709HEYW | 8/07/2015 | TJHD | Noise & Vibration | Complainant called to inquire whether the noise she had been hearing for the past few days was from TBM4. The TJHD Community Place Manager confirmed that it |

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| | | | | | | | was TBM4 and that the noise would get louder as the TBM approached her property. Complainant said she would have liked more information as the TBM is now in her area. The Community Place Manager explained that she had been notified: TJHD had doorknocked in her street on two occasions prior to the arrival of the TBM and that 'sorry I missed you cards' had been left if people were not at home. A request to provide email addresses is also made so that residents could be included in the email notifications. The complainant was advised that weekly and daily emails are sent to affected residents approximately 72 hours (3 days) before the TBM passes their properties to inform them the TBM is approaching. The complainant provided her email address so she could be included in the daily update on TBM progress. The complainant was satisfied with the response. |
| Q3 | Cherrybrook | Unavoidable | 150712GOUL | 13/07/2015 | TJHD | Property & Business Impacts | Complainant called and said she had arrived home after being away on holidays and was experiencing noise and vibrations together with water pouring from her taps and the water meter ticking over. She believes that cross passage construction activities, which are 17 metres from her property may be the cause. TJHD Community Place Manager called and confirmed that cross passage construction activities are located 60 metres from her home and that the ground borne noise model predicted that this activity should not disturb or impact upon the complainant's property. The Community Place Manager said she would call back the following day after she had consulted project engineers. Consultation with the project engineers confirmed that tunnelling occurred under the property at the end of June 2015 and cross passage works are too far away to have any impact. The complainant was advised of this. |
| Q3 | Memorial Avenue – White Hart Drive | Avoidable | 160715BLAI | 14/07/2015 | ISJV | Worker Behaviour | A member of the public approached and threatened two workers contracted to Daracon with a baseball bat alleging that the two men had said inappropriate things to his relative while she was waiting to be picked up at the new 'kiss and ride' section of the Riley T-way car park. ISJV notified the police at the time of the incident. Following an investigation by ISJV, the two workers claim to not have approached her at any time. The workers have since left the project. A toolbox talk on 17 July 2015 by ISJV was presented to all workforce to reinforce to everyone working on the project that inappropriate behaviour will not be tolerated at any time. |
| Q3 | Cherrybrook | Unavoidable | 150715WHIT | 15/07/2015 | TJHD | Noise & Vibration | Complainant called about noise and vibrations felt throughout her home. TJHD Community Place Manager called complainant to explain that TBM4 was traversing along Kenwick Lane which is directly opposite the complainant's property. She was advised that the TBM was likely to finish moving past during the day and the noise and vibrations would begin to diminish. Noise and vibration monitoring was offered as well as further updates by phone, all of which the complainant declined. Predicted regenerated noise in this area is less than 35dBA. |

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| Q3 | Memorial Avenue – White Hart Drive | Unavoidable | 160715BLAI | 16/07/2015 | ISJV | Transport, Traffic & Access | Stakeholder's daughter slipped in the wet on the tactiles installed on the pedestrian path at the 'kiss and ride' section of the new Riley T-way car park and informed ISJV that the daughter had landed on her arm and had also received a bloody nose. Stakeholder took daughter to the doctors for x-rays and advised later of a bruised arm. ISJV Community Relations Manager advised stakeholder that the area would be inspected immediately and 'slippery when wet' signs were installed. |
| Q3 | Windsor Road – Cudgegong Road | Avoidable | 150715BRITT | 16/07/2015 | ISJV | Visual Amenity | A resident complained about light spill and noise from segment deliveries at Cudgegong Rd that was causing distress to his animals. The lighting towers were re-positioned at the time of the call. ISJV are investigating alternate mitigation measures at the source to limit the light spill and noise (beepers) from OOH works. ISJV working with stakeholder to resolve issues. |
| Q3 | Showground | Unavoidable | 150918JOHN | 18/07/2015 | TJHD | Transport, Traffic & Access | Complainant called concerned about the behaviour of a truck and dog driver on Showground Road who he said had intimidated him earlier that day. TJHD Community Place Manager spoke to the complainant about the incident. The driver was located and spoken to. His version of the event was that he had observed the complainant stopped his car in a slip lane and was talking on his mobile phone. The truck driver was trying to get the complainant to move along. The Community Place Manager contacted the complainant and explained the driver code of conduct and that the project was at its peak for the removal of spoil. She also noted that there are other projects in the area. The complainant was satisfied with the response. |
| Q3 | Showground | Unavoidable | 1509118DEBR | 18/07/2015 | TJHD | Water Quality | Complainant called on behalf of himself and a number of businesses in Carrington Road at Showground, to advise that white coloured water had been observed flowing from a pipe from the Showground site into Cattai Creek. TJHD Community Place Manager contacted the complainant and arranged to meet onsite with a TJHD Environmental Officer to view the discharge and provide an explanation. The complainant was advised that this discharge was from the site's Water Treatment Plant; the quality of which is in accordance with the EPL. The complainant was informed that discharge from the site has been occurring for a number of months and is routinely tested before leaving site. He was informed that the EPA has inspected the discharge point and is satisfied that TJHD is complying with its licence. Community Place Manager offered to speak to the other businesses of the outcome of the investigation. The complainant advised he would speak with them direct. No further action is required and complainant was satisfied with the response. |
| Q3 | Cherrybrook | Unavoidable | 150720TROUS | 20/07/2015 | TJHD | Property & Business Impacts | Complainant called seeking a form to complete as she wishes to claim for damage to her property. TJHD Community Place Manager contacted complainant to advise that there is no form required. A post-condition survey of her property had been |

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| | | | | | | | completed two days before and that she may wish to wait until she had received that report. This report will be expedited and forwarded to her. The process for making a claim was then explained to the complainant who was grateful for the information. |
| Q3 | Showground | Unavoidable | 150722ANON | 22/07/2015 | TJHD | Water Quality | Anonymous report received about turbid water in Cattai Creek near Showground site. Matter was investigated by TJHD Environmental Officer and samples of water taken for testing. Results showed water quality was compliant. Water was later discharged from site in preparation for rain event later in week. This flushed out sediment. |
| Q3 | Epping | Unavoidable | 150723MCKA | 23/07/2015 | TJHD | Noise & Vibration | Complainant emailed about hammering noise from the Epping site. TJHD Community Place Manager emailed a response to the complainant explaining that the hammering works currently taking place at Epping are part of the ongoing tunnelling work. This work will be ongoing during standard daytime construction hours throughout August 2015 and is subject to regular noise monitoring to ensure that construction is undertaken within the approved EPA limits. Issues about notification raised by the complainant were also addressed, with the Community Place Manager detailing the notifications that had been sent to him, including the wording and the dates of notification. Noise monitoring undertaken to 23/7/2015 has been within the predicted noise levels modelled for the construction works at Epping. Noise monitoring was undertaken on the morning of 23/07/2015 and was found to be compliant. A concrete saw has been ordered which is expected to speed up the works and reduce the duration of the noise experienced by the local community. |
| Q3 | Epping | Unavoidable | 240715MUDD | 23/07/2015 | TJHD | Noise & Vibration | Complainant emailed about hammering noise from the Epping site stating the noise had been going on for approximately three days. He wanted to know how much longer it would be going on as he and his family were finding it difficult to manage. TJHD Community Place Manager contacted the complainant to explain that the hammering is from excavation works and will continue throughout August 2015. Community Place Manager is to visit his family to explain the works. The Project Manager at Epping has also been contacted and has indicated that no hammering works have started before 8am, that respite periods of 3 hour work and 1 hour respite have been strictly adhered to and the noise is at levels that are compliant. A concrete saw has been ordered which is expected to speed up the works and reduce the duration of the noise experienced by the local community. Noise cancelling headphones have previously been provided to this complainant. |
| Q3 | Cherrybrook | Unavoidable | 150724CREA | 24/07/2015 | TJHD | Noise & Vibration | Complainant is located in Welham Street, Beecroft and had experienced noise from the TBM passing under his property and wants to know how long it will continue for. He commented that last night his house was shaking from 11pm - 3:00am. TJHD Community Place Manager called complainant and explained where the TBM was currently located and that it was moving away from his property so noise would begin to lessen. Also that tunnelling would cease at 7am on 25/7/2015 and not |

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| | | | | | | | recommence until 27/7/2015. |
| Q3 | Showground | Unavoidable | 150724DIBB | 24/07/2015 | TJHD | Noise & Vibration | Complainant called to report noisy trucks servicing the construction at Cherrybrook. He has also lodged a complaint with the RMS. He said the trucks were disturbing his sleep. TJHD Community Place Manager asked for clarification as TJHD does not have trucks operating at night at the present time. Complainant said it was in the morning but that he had no specific details of the trucks such as licence plate numbers. Community Place Manager explained that all trucks are checked to be compliant with relevant licences and rules, drivers are inducted, their obligations to the community explained, all drivers agree to the terms and sign the 'Heavy Vehicle Drivers' code of conduct and are reminded at toolbox talk sessions. It was also explained that not all trucks on Showground Road are associated with the project. Complainant said he would provide specifics to the Community Place Manager who welcomed this additional information. |
| Q3 | Showground | Unavoidable | 150724MCDO | 24/07/2015 | TJHD | Transport, Traffic & Access | Complainant called to say that truck drivers leaving the Showground site are using the right lane to turn left, creating a traffic hazard and traffic jam. Complainant said that he has observed that the majority of the trucks from the Showground site are using the left lane of the access road to turn left into Showground Road, which he believes is the correct thing to do. However on some occasions he has observed trucks using the right hand lane to turn left. TJHD Community Place Manager contacted the management from the haulage subcontractor and was advised that a percentage of the haulage fleet have larger trailers and hence the trailer connection is also longer. These trucks need a wider turning circle to navigate safely onto Showground Road and this would account for the observations of the complainant. The complainant has been updated with this information. |
| Q3 | Memorial Avenue – White Hart Drive | Avoidable | 260715BLAI | 26/07/2015 | ISJV | Worker Behaviour | Resident complained that he was told to stop taking photography of the launching gantry at Kellyville from a public car park. ISJV Place Manager apologised and explained that security have been advised to prevent members of the public and media from entering construction sites, but should not have prevented him from taking photos from a public space. ISJV Place Manager explained to security guards that photography is permissible, so long as the member of public is not causing a hazard or potential safety risk and not attempting to access the construction site. |
| Q3 | Cherrybrook | Unavoidable | 150727GIBS | 27/07/2015 | TJHD | Noise & Vibration | This complaint involves three complainants at two addresses in Kenwick Lane, Beecroft. All complainants called or emailed about the noise they were hearing from the construction of Cross Passage 62. TJHD Community Place Manager contacted the first complainant, explained the works, detailed the contact she had had with his house mate and explained why relocation was not offered (the noise was estimated |

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| | | | | | | | at below 35dBA which was below the threshold for relocation). He was also offered noise monitoring. He had emailed his complaint and copied in his neighbour who also added his concerns the following day. |
| Q3 | Cherrybrook | Unavoidable | 150727MAND | 27/07/2015 | TJHD | Property & Business Impacts | Complainant called to report damage to his property in Grace Avenue, Beecroft. He has noticed sewerage overflow on to his property and leaking in his pool which he believes has been caused by the tunnelling works. TJHD Community Place Manager called complainant and encouraged him to book a post-condition survey. After the report was provided he would be able to decide if he wished to lodge a claim for damage. The complainant was provided with the contact details to book a survey. |
| Q3 | Cherrybrook | Unavoidable | 150728STUA | 27/07/2015 | TJHD | Property & Business Impacts | Complainant emailed concerning damage to his home in Kenwick Lane, Beecroft which he believes is as a result of the recent tunnelling activity. TJHD Community Place Manager called complainant and encouraged him to book a post condition survey. After the report was provided he would be able to decide if he wished to lodge a claim for damage. The Community Place Manager explained the claims process and provided with the contact details to book a survey. The complainant is also going to seek his own advice from a structural engineer. |
| Q3 | Cherrybrook | Unavoidable | 150728GILM | 29/07/2015 | TJHD | Noise & Vibration | This complaint is from the neighbour of 150727GIBS in Kenwick Lance, Beecroft. He had similar concerns about the noise from the construction of Cross Passage 62. The TJHD Community Place Manager contacted him and he was also offered noise monitoring which was accepted. The monitoring took place that evening and the results were that the noise level was below 35dBA. The Community Place Manager explained the results and offered regular updates. The complainant accepted the outcomes and was grateful for these actions. |
| Q3 | Cherrybrook | Unavoidable | 150729WEGN | 29/07/2015 | TJHD | Noise & Vibration | The complainant is the house mate of the complaint from 27/7/2015 (Ref: 150727GIBS) and also raised concerns about the noise he was hearing from the construction of Cross Passage 62. The complainant stated via email that he had not received notification of the cross tunnel works and had been disturbed by the TBM works recently. TJHD Community Place Manager contacted the complainant and updated him on the noise monitoring results from his neighbour's property. The Community Place Manager also advised the complainant of the notifications that had been distributed to him concerning the works, including doorknocking his property and leaving a "sorry we missed you card" encouraging contact. There has been no further response from either complainant at this particular property. |
| Q3 | Epping | Unavoidable | 150731CHOI | 31/07/2015 | TJHD | Noise & Vibration | Complainant called in relation to loud noise from Epping site and during the course of the conversation stated she had been disturbed the previous evening from a light coming from the site. She is located in Edensor Street, Epping. TJHD Community Place Manager explained the reason for noise from the rock hammering from the site and its likely duration. She undertook to investigate the source of the light and spoke |

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| | | | | | | | with site's Senior Project Engineer and Electrician. Neither was able to pinpoint the source of the light but will continue to investigate and check lighting on the site that evening. Community Place Manager undertook to visit the complainant, go through the works program and see what might be done to mitigate or provide some respite. |
| Q3 | Showground | Unavoidable | 150731DIBB | 31/07/2015 | TJHD | Noise & Vibration | Complainant emailed TfNSW concerning the TBM tracker and in the course of speaking with him, he raised a complaint about the noise and vibration from the TBM currently close to his property located at Britannia Road, Castle Hill. Specifically, his girlfriend had been staying at his home and she had been disturbed during the previous evening due to rattling of windows and blinds which complainant assumed was due to the TBM. TJHD Community Place Manager contacted the complainant and explained where TBM1 was in relation to his property and that it was expected to move away from his property within the next 24 hours. She also advised she would email the complainant with regular updates on the locations of both TBMs and send a current map showing their locations. The complainant was happy with this response. |
| Q3 | Castle Hill | Unavoidable | 150804ANON | 4/08/2015 | TJHD | Air Quality | Complainant, who wished to remain anonymous, called concerning dust which he stated was coming into his home. He was concerned for his health. TJHD Community Place Manager followed up with the Castle Hill site regarding dust mitigation measures. All measures were found to be in place and working. The complainant was unable to be advised because of his request for anonymity. Further monitoring was undertaken the following day. There have been no additional complaints about dust from this site during the week. |
| Q3 | Cherrybrook | Unavoidable | 150806WEGN | 6/08/2015 | TJHD | Property & Business Impacts | Complainant, who lives in Kenwick Lane, Beefcroft, called concerned as he had noticed cracks in his garage and is concerned about the structural integrity of his property. He believes the cracks have been caused by current cross passage and tunnelling work. TJHD Community Place Manager contacted him and has arranged for a post-condition survey to be carried out and a report forwarded to the complainant. The complainant has had a pre-condition survey carried out. |
| Q3 | Balmoral Road – Memorial Avenue | Avoidable | 070815WILL | 7/08/2015 | ISJV | Transport, Traffic & Access | Stakeholder made a complaint to a TfNSW site surveillance officer about the way ISJV trucks were accessing and exiting the work site from Balmoral Road, observed to be in an unsafe manner. The surveillance officer advised ISJV onsite about the complaint and addressed an ISJV worker about the matter. ISJV Community Place Manager followed up with the stakeholder and advised that the driver has been spoken to regarding driving behaviour around the sites and that the issue will be addressed at toolbox talks going forward to promote awareness to all staff. |

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| Q3 | Bella Vista – Balmoral Road | Avoidable | 070815WILC | 7/08/2015 | ISJV | Transport, Traffic & Access | Complainant observed a truck leaving the site heading eastbound, exit on to the incorrect side of the road in the direct path of oncoming traffic. The matter was passed initially on to SVC which then forwarded to ISJV. ISJV Community Place Manager advised that drivers would be reminded of their obligations at the toolbox talk. This would be done at all sites. Complainant was updated on the actions taken. |
| Q3 | Bella Vista | Unavoidable | 150810 WILC | 10/08/2015 | TJHD | Transport, Traffic & Access | Complainant called about the segment trucks turning out of the site into oncoming traffic. He is a truck driver himself and says this is dangerous as well as discourteous. No specific times or the registration details were provided. The TJHD Community Place Manager spoke to the complainant and advised that the segment truck drivers receive a toolbox talk on common driver courtesy and a reminder of the driver code of conduct. The complainant was happy with this response. |
| Q3 | Showground | Unavoidable | 150811 ANON | 11/08/2015 | TJHD | Water Quality | Anonymous complaint from a member of the community to The Hills Shire Council which was passed to TJHD. The complaint concerned waste water from the Showground site being discharged into Cattai Creek, causing pollution in the creek. TJHD investigated the matter, testing the water in the creek with the results showing the water quality was in accordance with EPA approvals. This was conveyed to The Hills Shire Council. The TSC contract management team has investigated and is satisfied that the water discharge is in accordance with the EPA approvals. |
| Q3 | Bella Vista | Unavoidable | 150812FALL | 12/08/2015 | TJHD | Transport, Traffic & Access | Complainant called concerned that TJHD segment trucks are contributing to the traffic congestion on Norwest Boulevard. She also alleged they drive side by side and are intimidating. She asked why the trucks have increased in number. TJHD Community Place Manager spoke to complainant explaining the increased tenancy in the Norwest Business Park had contributed to the increase in traffic. Community Place Manager also explained that all TBMs were operating and therefore required segments, which is likely to be contributing to the complainant seeing an increase in truck activity. This is in contrast to a month ago when only two machines were fully operational. The complainant was also advised that contractors tried to avoid peak times for deliveries as they also did not want to be stuck in traffic. The complainant was asked if she would provide details of trucks involved in the described behaviour next time she saw it. Complaint appreciated the call and was satisfied with the response. |
| Q3 | Cherrybrook | Unavoidable | 150812 ANON | 12/08/2015 | TJHD | Transport, Traffic & Access | Anonymous complaint concerning a truck either entering or leaving the Cherrybrook Station site allegedly speeding along Castle Hill Road. The complainant described the truck as being black with silver writing. The TJHD Community Place Manager contacted the Senior Project Engineer managing the spoil contract to establish if the driver was a contractor on this project. The Senior Project Engineer was not aware of a truck of this description, which he says would be an unusual vehicle for this project. As specific times and registration details were not provided and it is not possible to |

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| | | | | | | | follow this matter up with the complainant no further investigation was undertaken. |
| Q3 | Windsor Road – Cudgegong Road | Avoidable | 120815HOFF | 12/08/2015 | ISJV | Noise & Vibration | Caravan Park General Manager called ISJV Community Relations Manager to inform that a resident at the Caravan Park had lodged a complaint about the use of beepers instead of squawkers at the Terry Road and Schofields Road site. Stakeholder stated that the resident could hear them at night and they are being used during the day also. ISJV investigated activities on site and is looking into conducting a site-wide audit on all plant to eliminate the use of beepers on Skytrain sites. |
| Q3 | Windsor Road – Cudgegong Road | Avoidable | 130815BRIT | 13/08/2015 | ISJV | Noise & Vibration | Stakeholder called to complain about noise (machinery and beeper) from segment delivery activities at Cudgegong Rd. Resident in Rouse Road is approx 500m away from site and has exotic animals on property that stakeholder reported are being disturbed by noise. ISJV called stakeholder to inform that noise monitoring would be undertaken at Cudgegong Road during night on each item of plant to assess noise levels. Noise monitoring would also be conducted in Rouse Road during construction activities to assess what noise levels were being produced by each plant item. Agreed to talk after Wed 19 Aug 2015 to discuss noise monitoring inside property. |
| Q3 | Castle Hill | Unavoidable | 150814OTT | 14/08/2015 | TJHD | Transport, Traffic & Access | Complainant had a number of complaints about the behaviour of truck drivers around a number of sites. He said he had observed drivers speeding, running a red light and using a mobile phone. He was unable to provide any specific times or identify branding on any of the trucks. TJHD Community Place Manager advised the complainant of the induction process for all truck drivers and the code of conduct they each have to sign. She also suggested that if he had specific details to pass them on and TJHD would investigate. She also noted that there were other construction projects in the area that were also using trucks which the complainant acknowledged. |
| Q3 | Cherrybrook | Unavoidable | 150813FRAS | 14/08/2015 | TJHD | Property & Business Impacts | Complainant emailed concerned about the post-construction building survey report that had been conducted at her premises recently. She pointed out to person undertaking report that she noticed new area of floor tiles had cracked and front door had started to scrape. These details are not mentioned in report. Community Place Manager contacted complainant and referred this matter to TJHD commercial team for further investigation and advised that they would make direct contact with her. |
| Q3 | Showground | Unavoidable | 150814DIBB | 14/08/2015 | TJHD | Other | Complainant called concerned the TJHD Community Place Manager had accessed his property. He stated that gate was locked and he has high fence. He was unhappy with what he said was trespassing. The Community Place Manager contacted the complainant and stated the gate was not locked and that she had only called in at his home to follow up that he was no longer hearing noise from recent tunnelling activity that he had complained about. Complainant requested that he only be contacted via phone or email in future. TJHD advised it would do this and note it on its records. |

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| Q3 | Norwest | Unavoidable | 150817CHEU | 17/08/2015 | TJHD | Property & Business Impacts | Complainant emailed stating that he had noticed cracked floor tiles in his Bella Vista home. TJHD Community Place Manager phoned the complainant and informed him of the property damage claims process. The complainant received a post-condition survey report on or just after 20 July 2015. |
| Q3 | Showground | Unavoidable | 150815MCAD | 17/08/2015 | TJHD | Noise & Vibration | Complainant emailed about noise that she had been hearing which was disturbing her sleep. TJHD Community Place Manager contacted complainant to establish where she lives so that they could investigate as well as give an update of the works and duration of the noise from the TBMs. The complainant was contacted via email and asked for her address details but she has not responded. The Community Place Manager informed the complainant in the return email that it had added her to the mailing list for updates and also gave an overview of the project inviting her to email or call if she required any further information. |
| Q3 | Showground | Unavoidable | 150818STAR | 18/08/2015 | TJHD | Transport, Traffic & Access | Complainant called concerned about unsafe driving by truck drivers he believes are contracted to the Sydney Metro Northwest project. Says he has registration details to pass on. TJHD Community Place Manager contacted the complainant who says he is frustrated by the length of time it takes to drive down Showground Road at Castle Hill and believes the trucks are slowing the rest of the traffic down, especially up the hill towards Victoria Avenue when they travel side by side. Following a robust conference call, the complaint advised that he was satisfied with the amount of information provided and clarification given, especially around the TJHD code of conduct and that in this instance he did not want to take further action. The discussion took in that safety is the primary concern and drivers are encouraged not to travel beside each other. TJHD explained there has been a significant increase in the number of trucks on the roads because there are many other construction projects in the area. The complainant was also advised that TJHD truck movements are currently at the peak, as all four TBMs are operating. This will continue for the next 4-5 weeks and then movements will decrease. He was encouraged to contact us again should he see any another trucks that he has concerns about and provide specific details that would assist in an investigation. The complainant elected to not send in any photos or registration details at this stage and was satisfied with the response from TJHD. |
| Q3 | Windsor Road – Cudgegong Road | Unavoidable | 180815BRIT | 18/08/2015 | ISJV | Transport, Traffic & Access | Stakeholder called to complain again about noise and lighting that was having an effect on his animals. Said he had complained a few days ago and was feeling frustrated that his animals were still being impacted by the construction noise. ISJV advised that noise monitoring had been conducted as discussed with him previously and been found to be within acceptable limits. ISJV would like to resolve the issue so that all parties were satisfied. ISJV contacted the site foreman to determine if there were any activities that were happening that would be causing levels to be higher at that moment and reiterated that previous monitoring of normal |

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| | | | | | | | operations were measured within acceptable range. Site supervisor was contacted but only a winch was operating to lift segments and half as many lights were on as is normally the case. All equipment had quackers in place of beepers. ISJV to coordinate noise monitoring at 77 Rouse Road with the resident. This is required to allow ISJV the opportunity to adequately determine what activities are generating noise levels that concern the resident. |
| Q3 | Epping | Unavoidable | 150820CHOI | 20/08/2015 | TJHD | Noise & Vibration | Complainant lives in Edensor Street, Epping close to the site where works are underway. Caller was concerned that there was still noise and light coming from site at 9.30pm and that she believed works were supposed to be finished on 18 Aug 2015 according to an email she received. TJHD Community Place Manager contacted the site and established that the final concrete truck had left the site just before 9.45pm and the site had been packing up the equipment. The resident was unaware of the works as she had been away for a number of weeks and therefore had not received the TJHD notifications which are regularly emailed and letterboxed. Residents in this area are also regularly doorknocked. The Community Place Manager advised that work would be continuing and that the Community Place Manager for Epping would contact her tomorrow to further explain current and upcoming works. Community Place Manger for Epping rang resident the following morning and provided an overview of upcoming works. Resident noted that as their living room and a bedroom is directly opposite where the concrete boom is located, the light from the boom is disturbing the family in the evening. As the lighting is associated with plant, TJHD agreed to investigate mitigation measures to reduce the impact from the lighting. Resident did not require any further information or help at this time. |
| Q3 | Epping | Unavoidable | 150821KRUT | 21/08/2015 | TJHD | Property & Business Impacts | Complainant called about the amount of light coming from a floodlight at the Epping site into his bedrooms and living room. He says it is very bright. TJHD Community Place Manager spoke to the complainant and said adjustments would be made to the light to angle it away from the entire apartment block. Later on the Community Place Manager was able to confirm that the light had been identified and disconnected. |
| Q3 | Showground | Unavoidable | 150820DEAV | 21/08/2015 | TJHD | Water Quality | Complainant regularly fishes in Cattai Creek which runs behind the Showground Station site. He had noticed sediment in creek and wanted to inform project of this. TJHD Community Place Manager spoke to the complainant who attended the project offices at Showground, explaining that TJHD is working in accordance with its EPA license and is aware of the issue of sediment appearing in the creek. TJHD has been testing the water quality and regularly walks the creek to check whether there have been any changes since the last check. To date, the water quality has been found to be well within the EPA requirements. She thanked the complainant for coming in and |

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| | | | | | | | indicated that another inspection would be undertaken the following week. |
| Q3 | Showground | Unavoidable | 210815PEAR | 21/08/2015 | TJHD | Noise & Vibration | Complainant called to say she had been woken the previous evening by a loud bang and then again twice by the noise from a horn. TJHD Community Place Manager spoke to the complainant and undertook to investigate the source of the noises and also offered noise monitoring, which was accepted. Complainant was asked to note the times that she hears the noises if she hears them again and to let the Community Place Manager know so they can be investigated. Community Place Manager will follow up again during the following week after the noise monitoring had been completed. At this stage no source for the noise has been established. |
| Q3 | Showground | Unavoidable | 150824CHEO | 24/08/2015 | TJHD | Air Quality | Complainant called concerned about dust coming in from the Showground Station site. He has noticed it on the road going into the site and that it was all over his car, on laundry and in the backyard. The complainant included a photo. TJHD Community Place Manager contacted complainant and explained the dust mitigation measures for the trucks in containing the dust, which includes passing over a rumble grid to shake off the dust. The complainant was also advised that a street sweeper was used to keep dust on the road to a minimum. The complainant was advised that the team at Showground will be asked to continue to be vigilant in managing the dust. Note: TSC has also raised concerns about the amount of dust on Showground Road the week before and a water truck had subsequently been used at the intersection of the haul road and Showground Road. |
| Q3 | Showground | Unavoidable | 150824EZZY | 24/08/2015 | TJHD | Noise & Vibration | Complainant called as noise from the TBM was very loud and was rattling the cupboard doors in his bathroom. The property is along Showground Road. TJHD Community Place Manager contacted complainant and advised that TBM2 was 45 metres from his property and that he would continue to hear it for today but that the noise would begin to reduce as the TBM moved away. The complainant was also advised of cross passage works and encouraged to contact the community number if he had any concerns about noise from that activity. The complainant has been receiving the notifications and was satisfied with the response. |
| Q3 | Epping | Unavoidable | 150826WANG | 26/08/2015 | TJHD | Noise & Vibration | Complainant called about the noise from TBM3 which is passing near her property in Romford Road, Epping. The noise had woken her and she described it as intolerable. This was her third night of disturbance. TJHD Community Place Manager advised that TBM3 was under her neighbour's property moving away from her so noise would begin to subside. Complainant acknowledged that she had received notifications but that this had not prepared her for the noise. The Community Place Manager agreed to advise complainant and her husband before TBM4 passes under their property. |
| Q3 | Showground | Unavoidable | 150826DIBB | 26/08/2015 | TJHD | Noise & Vibration | Complainant called wanting to know how long the tunnelling would continue this evening as it was near his home in Britannia Street, Castle Hill and was loud. TJHD Community Place Manager advised that the TBM was still approaching his property |

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| | | | | | | | and was just on the corner of Britannia Road near his home. Depending on the speed it may pass his property the following day and the noise would therefore begin to subside. Complainant was satisfied with this response and acknowledged that he had been receiving the emails from TJHD; his preferred method of communication about the project (he has asked not to be doorknocked or phoned). |
| Q3 | Bella Vista | Unavoidable | 150824FERN | 28/08/2015 | TJHD | Property & Business Impacts | Complainant called stating that she had noticed that doors had moved following the tunnelling. She asked to be called back on Monday between 8.00-9.30am or between 4.00-5.00pm. This complaint will be updated after the TJHD Community Place Manager has spoken to the complainant on 31/8/2015. |
| Q3 | Epping | Unavoidable | 150828CLAR | 28/08/2015 | TJHD | Noise & Vibration | Complainant called and said TBM was passing near his property at Romford Road, Epping and that it had been loud for past few nights. He wanted to know if this would cease soon. TJHD Community Place Manager spoke to the complainant who was more interested in information than resolution of the complaint as he had noticed the noise had started to move away. He was advised that the TBM had moved away and asked if he had received the cards and notifications in his letterbox. He was advised that if he provided an email information would be regularly provided to him. An email was provided and the complainant was satisfied with the follow up and response. |
| Q3 | Cherrybrook | Unavoidable | 150831MART | 31/08/2015 | TJHD | Noise & Vibration | Complainant called about a distant bombing sound she was noticing coming from the Cherrybrook site. She told the TJHD Community Place Manager that the noise was like a bomb sound that continued periodically from 11:00pm until at least 1:00am. Investigations by the Community Place Manager led to the belief that the banging sound was coming from large rocks that were coming through as spoil as TBM4 traversed Cheltenham Services Facilities shaft. As TBM4 moved back underground it was expected that the spoil would revert to smaller pieces and the noise would diminish. As a precaution workers onsite were reminded of their obligations to minimise noise. |
| Q3 | Cherrybrook | Unavoidable | 150831VLAT | 31/08/2015 | TJHD | Noise & Vibration | Complainant called concerned about the amount of noise and vibration she had experienced during the day which was still continuing into the evening. She wants to go to sleep but is finding it difficult because of the noise. TJHD Community Place Manager contacted the complainant who mentioned that she has not heard the noise before but described it as a banging noise. The Community Place Manager undertook to investigate the matter and the complainant was satisfied with this and asked not to be called back that evening. She preferred a call back the following morning. Investigations by the Community Place Manager led to the belief that the banging sound was coming from large rocks that were coming through as spoil as TBM4 traversed Cheltenham Services Facilities shaft. As TBM4 moved back |

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| | | | | | | | underground is was expected that the spoil would revert to smaller pieces and the noise would diminish. As a precaution workers on site were reminded of their obligations to minimise noise. |
| Q3 | Castle Hill | Unavoidable | 150901MOSL | 1/09/2015 | TJHD | Noise & Vibration | Complainant called about the noise and vibration she was experiencing from the tunnelling beneath her property on Showground Road, Castle Hill. She wanted to know where the TBM was and how much longer she can expect the vibration to occur. TJHD Community Place Manager advised that TBM1 is under the opposite side of Showground Road in-line with her property and the cutter head has almost passed her property. It was explained that as the TBM progresses further past her property the noise and vibration associated with tunnelling will reduce. Complainant was satisfied with this information and it was agreed that TJHD would call back around 5pm on Tuesday to provide an update. The tunnelling noise monitoring predicted that ground borne noise from TBM activities at this location would be between 35 & 40dBA, with vibration expected to be less than 0.28mm/s. |
| Q3 | Epping | Unavoidable | 150902HUTC | 2/09/2015 | TJHD | Noise & Vibration | Complainant emailed TJHD Community Place Manager concerning the amount of noise and vibration she and her family had experienced as TBM3 tunnelled beneath her property in Ray Road, Epping. The Community Place Manager contacted the TBM3 Project Engineer to obtain details of the progress of the TBM and ground conditions as it is noted that the property is approximately 70m from the TBM. A call was made to the complainant who said that the noise and vibration was causing vertigo and illness to three members of her family. Her son had no sleep the previous night. The Community Place Manager explained how the TBM would be progressing in relation to the resident's property and agreed to call again tomorrow to see how the night went as well as provide an update on tunnelling progress and arrange noise and vibration monitoring if needed. The complainant later that day sent a second email stating that neither she nor her family could tolerate the noise and vibration for one more day and has requested relocation. The complainant then changed her mind and decided to remain at home and change the location where she would sleep that night as she felt this would help. |
| Q3 | Epping | Unavoidable | 150904JACK | 2/09/2015 | TJHD | Noise & Vibration | Complainant called as she could feel vibrations through house in Ray Road, Epping during the night and day and has felt them since 11.30pm on Tuesday 1/9/2015. The windows and door shaking and musical instruments vibrating. She is having difficulty sleeping and her dog is terrified. TJHD Community Place Manager explained the TBM was located across Ray Road beneath Number 48 and would be tunnelling toward her property tonight. It is expected to be moving away from her property within the next 24 to 48 hours. The complainant was relieved that the activity would soon pass. Note: noise monitoring was conducted at 67 Ray Road during the evening on 1/9/2015. Ground-borne noise from TBM activities was measured at 33dBA which is |

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| | | | | | | | compliant. |
| Q3 | Epping | Unavoidable | 1509603PHAM | 3/09/2015 | TJHD | Noise & Vibration | The complainant called about loud construction work going on outside of his house located at Ray Road, Epping which he was very unhappy about. TJHD Community Place Manager explained the TBM was located across Ray Road beneath number 48 and would be tunnelling toward his property tonight. It is expected to be moving away from her property within the next 24 to 48 hours. The complainant was advised that the activity would soon pass. Note: noise monitoring was conducted at 67 Ray Road, during the evening on 1/9/2015. Ground-borne noise from TBM activities was measured at 33dBA which is compliant. |
| Q3 | Cherrybrook | Unavoidable | 150907WALS | 7/09/2015 | TJHD | Property & Business Impacts | Complainant called to advise that she has received her post-condition survey report which indicated that new cracks and the widening of old cracks had occurred in the time since the two tunnel boring machines had passed near her property in Copeland Road, Beecroft. TJHD Community Place Manager advised complainant to lodge a written claim and provided details of what to include with the claim and where to send it. This matter has been referred to TJHD's commercial team. |
| Q3 | Project-wide | Unavoidable | 150907ANON | 7/09/2015 | TJHD | Transport, Traffic & Access | Complainant called but declined to provide his name or contact details. He claims that he had worked for the TJHD subcontractor engaged to transport the tunnel segments. He is no longer working for the subcontractor. His complaint was that he believes none of the new drivers had been inducted and that they are using the incorrect size chains for the segment loads on the trucks. He says this is a safety concern. TJHD Community Place Manager investigated the matter and confirmed that all drivers have received 'Delivery Driver Induction' and that the chains and other safety equipment being used achieve the load restraint criteria. |
| Q3 | Showground | Unavoidable | 150907WEIR | 7/09/2015 | TJHD | Property & Business Impacts | Complainant emailed TJHD stating that the tunnelling work had caused damage to his property. TJHD Community Place Manager emailed complainant seeking his phone number and asking if a pre-condition survey report had been undertaken on his property. The complainant responded and indicated that a pre-condition survey had been completed. An appointment was arranged for the post-condition survey report team to attend his premises on 11 September 2015 and undertake a survey. The matter has been referred to the commercial team to follow up. The complainant was satisfied with the actions taken. |
| Q3 | Castle Hill | Unavoidable | 150909JENK | 9/09/2015 | TJHD | Transport, Traffic & Access | Complainant called about the noise she was experiencing from the trucks passing her home at Pennant Way, Castle Hill. She expressed frustration with the noise especially from 6.00pm to 6.30am. TJHD Community Place Manager explained all truck movements and that the project was at peak production hence the number of spoil truck movements but that this will decrease in the coming weeks. She was also |

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| | | | | | | | informed that there are no spoil truck movements in the evenings or overnight. The complainant was also advised that there are a number of construction projects in the area at present and that not all truck movements were related to the project. The complainant accepted the explanation. She was offered ear plugs but declined. It is reported she was satisfied with the explanation. |
| Q3 | Windsor Road – Cudgegong Road | Avoidable | 110915HOFF | 11/09/2015 | ISJV | Worker Behaviour | Caravan Park General Manager called ISJV Community Relations Manager and made a complaint that residents at the OK Caravan Park were hearing offensive language from the construction workers near Terry Road. ISJV advised that a toolbox talk will be held for all construction workers, advising of appropriate behaviour, especially when working around residential areas and public places. Appropriate worker behaviour would also be communicated to all construction staff in the daily morning pre-start. |
| Q3 | Windsor Road – Cudgegong Road | Avoidable | 110915RILE | 11/09/2015 | ISJV | Noise & Vibration | Resident complained that he was woken due to noise being generated by a large parked truck that was left idling directly opposite the resident's house. Continuous humming / generator noise which could be heard at the resident's property was ongoing until 3am. Resident also mentioned works that were causing a lot of dust towards his house. ISJV Place Manager explained that generators were used to power the lighting towers which should be protected using eco-barriers, which reduce the noise levels around the generators. Following investigation, eco-barriers were incorrectly installed. The resident was advised that this will be corrected for future night works. Site crew will also monitor wind direction and speed and use water carts where appropriate to minimise dust. |
| Q3 | Cherrybrook | Unavoidable | 150915 KIM | 15/09/2015 | TJHD | Noise & Vibration | The complainant is a resident of the apartments located in Edensor Street, Epping and called as the tunnelling works under her property was noisy and making her feel nauseous. She inquired about relocation. The TJHD Community Place Manager contacted the complainant and discussed relocation as well as the duration of the tunnelling under the property. The complainant decided not to relocate and the Community Place Manager undertook to contact her again the next day with an update on where the TBM was located. |
| Q3 | Epping | Unavoidable | 150916SAMA | 16/09/2015 | TJHD | Noise & Vibration | Complainant called as he and his family were being affected by the noise from the TBM passing. He is located in Edensor Street, Epping. TJHD Community Place Manager contacted complainant and advised how to manage the noise as well as respite. The complainant declined the offer to discuss respite that evening. It was agreed that the Community Place Manager would contact the complainant the following day and discuss further. The following day relocation was offered but not taken up as the TBM had moved away from the property. The Community Place Manager will inform the complainant when TBM4 approaches. |

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| Q3 | Epping | Unavoidable | 150916SMAL | 16/09/2015 | TJHD | Noise & Vibration | Complainant called stating that the noise from the TBM beneath apartment was unbearable and was making her feel ill. TJHD Community Place Manager contacted the complainant and discussed various options including relocation. The complainant was not at home at the time. The complainant was going to think about this and the Community Place Manager would contact her later when she was back at home. The Community Place Manager called the complainant at the agreed time. She was not at home and a message was left with her son asking her to phone when she arrived home to review noise and discuss the options. The complainant did not call back and the matter has been closed. |
| Q3 | Epping | Unavoidable | 150917BIAN | 17/09/2015 | TJHD | Flora & Fauna | Complainant located in Cheltenham-Becroft had been advised that eight trees had been removed from Ray Road, Epping and expressed his dissatisfaction with this action via email. The TJHD Community Place Manager contacted complainant and explained that the trees posed a safety risk. An arborist's report had confirmed it was necessary to remove the trees. An explanation was provided to the complainant by email. To date he has not responded. |
| Q3 | Windsor Road – Cudgegong Road | Unavoidable | 160915REB | 17/09/2015 | ISJV | Noise & Vibration | Resident made a complaint via online comment about noise of cutting equipment at night and reversing alarms into the early hours of the morning. ISJV Place Manager contacted resident and advised the noise the stakeholder heard was potentially related to the night road works on Windsor Road between Rouse Hill Drive and Commercial Road. ISJV night works supervisor advised hand tools were used until 12pm but no saw cutting or concrete cutting has been undertaken. ISJV Place Manager advised resident in regards to the reversing signals, that unfortunately due to the nature and location of the work site, some larger vehicles may need to reverse into the median strip to safely access the site, however ISJV night works supervisor also advised no beepers were used. |
| Q3 | Epping | Unavoidable | 150918ANON | 18/09/2015 | TJHD | Noise & Vibration | TJHD Senior Environment Advisor was undertaking noise monitoring outside 13 Ray Rd, Epping when he was approached by member of public. The complainant used a number of expletives and said he had been putting up with noise for months. The complainant shouted into noise monitor and then walked off and appeared to go into 19 Ray Rd. The complainant did not provide an opportunity to respond to his issues and walked off. The Senior Environmental Advisor advised the Community Place Manager who looked up the stakeholder database to see if there were any known stakeholders associated with 19 Ray Rd. While the property is listed, no stakeholders have registered to receive information or have otherwise contacted the project. |
| Q3 | Epping | Unavoidable | 150921MCKA | 19/09/2015 | TJHD | Noise & Vibration | Complainant called at 3.27pm on Saturday stating that the work onsite at Epping should have finished at 1pm but that a crane was still operating. TJHD Community |

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| | | | | | | | Place Manager contacted the Project Manager for Cherrybrook/Epping who advised that there were two more crane lifts required that day but that the works complied with the EPA licence. The Community Place Manager called the complainant back. He was dissatisfied with the explanation including being advised that notifications had been distributed to the local stakeholders. He was offered a follow up phone call on Monday to go through the various notifications that had been provided. A follow up email with details of all notifications was provided along with a repeated offer of noise monitoring and noise cancelling headphones which the complainant has declined on several previous occasions when he has raised concerns about noise. |
| Q3 | Epping | Unavoidable | 150915MCKA | 22/09/2015 | TJHD | Noise & Vibration | Complainant from Ref: 150921MCKA forwarded an email to TJHD outlining concerns about a front end loader being used on site, stating that it is in need of repair and it is this lack of repair which is, in his view, causing issues with noise. TJHD Community Place Manager replied to his email stating that the equipment was not in need of repair and outlined what it was used for onsite. An explanation was also provided regarding checks that all plant undergo before use to ensure no defects would cause noise or compromise safety. The complainant was again encouraged to take up the offers of noise monitoring and noise cancelling headphones. |
| Q3 | Windsor Road – Cudgegong Road | Avoidable | 230915HOFF | 23/09/2015 | ISJV | Air Quality | Caravan park General Manager made a complaint about dust that was being blown from the construction site towards his house and the caravan park. Stakeholder also advised that the residents of the caravan park were also complaining about noise at night time which he believed was coming from the gantry. This included "metal on metal" banging sounds. ISJV investigated the dust issue and the site superintendent confirmed they would stop a shaker bucket activity which should have ceased during high wind conditions. A water cart was also organised to control dust on the haul road. ISJV offered noise monitoring to be undertaken during a night shift at the nearest sensitive receiver at the Caravan Park as this would provide information to see if any noise caused by night works was within the environmental guidelines. Stakeholder accepted the offer for noise monitoring which will be conducted over the coming days. |
| Q3 | Cherrybrook | Unavoidable | 1509024SAMM | 24/09/2015 | TJHD | Worker Behaviour | Complainant called to register concerns about the behaviour of a truck driver who he said had cut him off on the road, tailed him and yelled abuse. Registration details and other identifying numbers were provided. TJHD Community Place Manager called the complainant but the contact details were not correct. Investigations to the TfNSW Call Centre provided another contact which was also incorrect. No response has been able to be provided because it has not been possible to get in touch with the complainant. The truck driver has been followed up but denies the incident occurred. |

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| Q3 | Cherrybrook | Unavoidable | 150924 SHIE | 24/09/2015 | TJHD | Property & Business Impacts | Complainant called saying that since the post-condition property survey was completed on his property in Chapman Avenue, Beecroft he has noticed six new cracks in his property. TJHD Community Place Manager called the complainant and explained that he could lodge a damage claim if he felt his home had been damaged as a result of the tunnelling works. He was also provided with an email detailing the information he should provide in support of his claim. |
| Q3 | Windsor Road – Cudgegong Road | Avoidable | 240915HOFF | 24/09/2015 | ISJV | Noise & Vibration | Caravan Park General Manager called to complain about noise at night coming from the gantry operations, specifically that there was excessive clanging and banging and tooting of horns from 1am to 4.30am. Stakeholder also informed ISJV Community Relations Manager that the workers were yelling, swearing and working as if it was during the day therefore suggested that only day works take place in future. ISJV Community Relations Manager explained although approval is in place to work at night in this area, activities undertaken can be assessed and further mitigation measures can be implemented. ISJV will cease use of horns on plant and monitor worker behaviour to ensure limiting non-essential noise during the night. Noise monitoring was organised in the evening to assess noise levels and pre-start information provided to workers to address responsibilities in regard to noise and worker behaviour. |
| Q3 | Cherrybrook | Unavoidable | 150925KIRK | 25/09/2015 | TJHD | Water Quality | An Environmental Officer from Hornsby Shire Council attended Cherrybrook site to discuss water discharge into Pyes Creek following two complaints to Council from residents living close by. The Officer noticed a translucent white colouration with no obvious sediment in the water column. He traced the colouration to the Cherrybrook work site. THJD representatives discussed the colouration of water observed downstream in Pyes Creek with the council representative who showed photos that council had taken. Site operations and the presence of the Water Treatment Plant (CB-1) and Sediment Basin (CB-A) and their operational parameters and associated Environment Protection Licence conditions were discussed. The chemical treatment of water was discussed, noting the use and function of coagulants and polymers. TJHD explained that water discharged from the Water Treatment Plant was continuously monitored by inline probes and manual testing of the water is also undertaken daily to confirm the accuracy of the probes. TJHD committed to perform additional checks immediately that afternoon. TJHD attended the Water Treatment Plant and checked discharge values at 16:55 on 25/9/2015 (ph7.8, 23NTU), which is within acceptable limits. It was noted that the sediment basin had been partially discharged under permit earlier in the day, but discharge had ceased at around 14:30 due to rain. TJHD assessed turbidity at the site boundary with a turbidity tube and |

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| | | | | | | | noted a level of 35NTU. A grab sample for laboratory analysis was collected at 17:10. Results from the laboratory analysis are pending. |
| Q3 | Cherrybrook | Unavoidable | 150928DELF | 28/09/2015 | TJHD | Property & Business Impacts | Complainant emailed outlining the damage to their property that they had noticed after the post-condition survey had been completed and sent to them. They are seeking assistance on lodging a claim. TJHD Community Place Manager contacted the complainant and advised that the property team would contact her and make arrangements to come and inspect the damage. The complainant was contacted the following day and a time arranged for the damage to be inspected. This matter is now with the property team. |