



**ENVIRONMENTAL EARTH
SCIENCES**
CONTAMINATION RESOLVED

**SIX MONTHLY ENVIRONMENTAL
PERFORMANCE AUDIT, STAGE C1
IVANHOE ESTATE,
MACQUARIE PARK NSW
FRASERS PROPERTY AUSTRALIA
PTY LIMITED**

9 MAY 2023
123004R01
VERSION 1



9 May 2023

Frasers Property Australia Pty Limited

Level 2
1C Homebush Bay Drive
Rhodes NSW 2138

Attention: **Peter Statham**
Project Manager

Environmental management system (EMS) audit at Stage C1 Ivanhoe Estate, Macquarie Park, NSW

Please find enclosed a copy of our report entitled as above. Thank you for the opportunity to undertake this work. Should you have any queries, please do not hesitate to contact us on (02) 9922 1777.

For and on behalf of
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1 INTRODUCTION

1.1 Requirement

Environmental Earth Sciences International (EESI) were engaged by Frasers Property Australia Pty Limited (FPA) to conduct a six-monthly performance audit of the project environmental management system (EMS) for part of 'Stage C1' of construction works at Ivanhoe Estate, Macquarie Park, NSW (the "project").

The work was completed in accordance with the State Significant Development (SSD) Conditions of Consent ("CoC") within SSD 8903 MOD 6. The following schedule for independent environmental audits was prepared and submitted to the NSW Department of Planning, Industry and Environmental (DPIE) whereby the Planning Secretary confirmed the appointment of Environmental Earth Sciences as the independent auditor:

Environmental Earth Sciences (2020a), *Schedule for Independent Environmental Audit(s) at Stage 1 Ivanhoe Estate, Macquarie Park NSW* (ref: 120077_Audit Schedule_V1, 14 August 2020).

The following response from DPIE indicating concurrence with the abovementioned schedule and appointment is referred to below, and presented in **Appendix A**:

NSW DPIE (2020), *Audit Program, Ivanhoe Estate Stage 1 SSD-8903-PA-2* (ref: Appointment of Experts, 24 August 2020).

An independent EMS audit is required by the CoC for the development to demonstrate and verify FPA's project and their contractor's compliance with the environmental management framework for the project. The independent audit declaration is presented in **Appendix B**.

1.2 Framework

These 6-monthly EMS performance evaluation audits are being undertaken to satisfy the requirements of the following standard and requirements:

- International Organisation for Standardisation (ISO), Standards Australia / Standards New Zealand (AS / NZS) *Environmental Management Systems – Requirements with Guidance for Use* (AS / NZS ISO 14001:2015) (Clause 9) (the "Standard").
- NSW Department of Planning and Environment (DPE) (2015), *Independent Audit Guideline*.
- NSW DPE (2018), *Independent Audit: Post Approval Requirements Guidance*.
- NSW DPIE (2020a), *Compliance Reporting, Post Approval Requirements May 2020*.
- NSW DPIE (2020b), *Independent Audit, Post Approval Requirements May 2020*.

1.3 Project context and management

This audit is focusing on the 'Stage C1' construction work activities that have been completed thus far by Richard Crookes Constructions (Richard Crookes) in the central portion of the site.

Richard Crookes was engaged by FPA as a principal contractor for 'Stage C1' of the project in 2022 with development including construction of medium-density residential apartments for social housing, affordable housing and associated market areas. The development precinct area for 'Stage 1C' is approximately 8.2 hectares and comprises construction of:

- Four residential apartment buildings (IDs: C1.1, C1.2, C1.3 and C1.4) with a total of 492 units;
- Three-level basement carpark;
- Four terrace houses (C1.5); and
- Landscaping for communal and public areas.

This audit is also following up on the status and outcomes of the previous 6-monthly audit findings regarding 'Stage 1B' works completed by Christie Civil Pty Ltd (Christie Civil). FPA engaged Christie Civil as the contractor to undertake the construction of 'Stage 1B' civil and bridge works for project which commenced in March 2022. It is understood that at the time of this audit, Christie Civil is close to finishing up work onsite for 'Stage 1B', with remaining works comprising completion of bridge work and top soiling batters around roads.

It is important to note that the sediment basin onsite operating in conjunction with road construction activities in the southeast portion of site has been drained / removed since the previous six-monthly audit.

2 OBJECTIVES

The objective of the performance review environmental audit was to comply with Development Consent Conditions B5 – B9 of the Minister for Planning and Public Spaces, Development Consent, *Section 4.38* of the Environmental Planning and Assessment Act 1979 (EP&A Act), Consolidated Consent (ref: SSD 8903).

The Consolidated Consent has seen the following modifications:

- MOD 1 (10 November 2020);
- SSD 8903 MOD 2 (7 May 2021);
- SSD 8903 MOD 3 (21 December 2021);
- SSD 8903 MOD 4 (5 August 2022);
- SSD 8903 MOD 5 (19 December 2022) and

- SSD 8903 MOD 6; 23 December 2022).

Part B: Prior to commencement of works / issue of a crown building works certificate / issue of subdivision work certificate:

- B5: No later than one month before the commencement of construction or within another timeframe agreed with the Planning Secretary, a program of independent environmental audits must be prepared for the development in accordance with AS/NZS ISO 19011:2014 Guidelines for auditing management systems (Standards Australia, 2014) and submitted to the Planning Secretary for information.
- B6: the scope of each audit must be defined in the program. The program must ensure that environmental performance of the development in relation to each compliance requirement that forms the audit scope is assessed at least once in each audit cycle.
- B7: the environmental audit program prepared and submitted to the Planning Secretary in accordance with Conditions B5 and B6 must be implement and completed with for the duration of the development.
- B8: all independent environmental audits of the development must be conducted by a suitable qualified, experienced and independent team of experts and be documented in an audit report which:
 - assesses the environmental performance of the development and its effects on the surrounding environmental including the community;
 - assesses whether the development is complying with the terms of the consent;
 - reviews the adequacy of any document required under this consent; and
 - recommends measures or actions to improve the environmental performance of the development and improvements to any document required under this consent.
- B9: within three months of commencing an Independent Environmental Audit, or within another timeframe agreed by the Planning Secretary, a copy of the audit report must be submitted to the Planning Secretary, and any other NSW agency that requests it, together with a response to any recommendations contained in the audit report, and a timetable for the implementation of the recommendations. The recommendations must be implemented to the satisfaction of the Planning Secretary.

3 AUDIT PARTICULARS

3.1 Team

- Mark Stuckey – Primary technical reviewer and EMS Lead Auditor, and Site Auditor – accredited under the Contaminated Land Management (CLM) Act 1997 (NSW).

- Chris Newland – Project Director and content / quality reviewer.
- Karin Azzam – Project Manager and EMS Auditor assistant.

3.2 Audit period

The audit covers the six-monthly period for ‘Stage 1C’ works undertaken between 5 September 2022 and 29 March 2023.

3.3 Audit scope

For this six-monthly audit EESI undertook the following scope of works:

- Completion of the Audit by a team of suitably qualified experts.
- Submission of a document request to FPA, Richard Crookes and Christie Civil requesting relevant regulatory approvals (compliance documentation) including, but not limited to environmental monitoring results and waste disposal documentation.
- Site inspection by EESI personnel to confirm details of the CEMP plans and approvals are being followed.
- Consultation with relevant persons from FPA, Richard Crookes and Christie Civil.
- Review of recommendations and status of any requisite actions for the previous six-monthly audit period between 12 April 2022 – 5 September 2022 for ‘Stage 1B’ works (documented in Environmental Earth Sciences, 2022b).
- Environmental Audit of Stage 1C works.
 - Assess the environmental performance of the project and assess whether it is complying with the requirements in the Development Consent, the Independent Audit Post Approval Requirements (IAPAR) and CEMPs (including any assessment, plan or program required under these approvals).
 - Review the adequacy and currency of strategies, plans or programs required under the abovementioned approvals.
 - Monitoring and Environmental Audits (Condition A20).
 - Independent Environmental Audit (Conditions B5 – B9).
 - Construction Environmental Management Plan (Condition B40).
 - Construction Noise and Vibration Management Plan (Conditions B42 and C7).
 - Air Quality and Odour Management Plan (AQOMP) (Condition B43) and Dust Control Measures (Condition C38).
 - Construction Waste Management Plan (Conditions B44, C28 and C31).

- Construction Soil and Water Management Plan (Condition B45) and Stormwater (Condition C49).
- Contamination (Conditions B55, B56, B58, B61; C15 – C21; D5 – D6 and D52).
- Hazardous Materials Management Plan (Conditions B64 - B65 and C32 – C33).
- Vehicle Cleansing (Condition C35).
- Stockpile Management (Condition C36).
- Erosion and Sediment Control (Condition C37).
- Bunding (Condition C52).
- Recommend appropriate measures or actions to improve the environmental performance of the project, and/or any assessment, plant or program required under the abovementioned approvals.
- Delivery of this Audit report detailing the results and recommendations of the Audit.

4 AUDIT METHODOLOGY

4.1 Auditees and Participation

Audit Attendance Register of **Appendix C** reflects construction contractors personnel interviewed on site during the audit, including Peter Statham and Andy Huang (FPA project manager). Contractor representatives who were present during the Audit site inspection and available to be interviewed are included in **Table 1**.

Table 1: List of contractor interviewees

Name	Organisation	Position
Micheal Archibald	Richards Crookes	Safety Advisor
Andrey King	Richards Crookes	Site Manager
Patrick Nahas	Richards Crookes	Project Engineer
Liam Bell	Christie Civil	Site Engineer
Travis McCleary	Christie Civil	Project Manager
Raffi Jamgotchian	Christie Civil	Project Engineers Intern

4.2 Documentation audited

The documents reviewed as part of the six-monthly performance review Audit are listed below.

4.2.1 Richard Crookes

The following Construction Management Plan (CMP) and sub-plans were prepared by Richard Crookes to document procedures and management associated with 'Stage C1' construction works:

- Richard Crookes (2023), *Construction Management Plan - Ivanhoe Stage C1* (February 2022) (the "CMP").
- Richard Crookes (2023), *Air Quality Management Plan - Ivanhoe Stage C1* (February 2023) (the "AQMP").
- Richard Crookes (2023), *Noise and Vibration Management Plan - Ivanhoe Stage C1* (February 2023) (the "NVMP").
- Richard Crookes (2023), *Soil and Water Management Plan - Ivanhoe Stage C1* (February 2023) (the "SWMP").
- Richard Crookes (2023), *Waste Minimisation Plan* (February 2023) (the "WMP").

The CMP and environmental sub-plans were prepared to communicate procedures and management procedures to be implemented during the project, describing construction methodologies, processes, and procedures from site establishment through to practical completion.

- Richard Crookes (2023) *Environmental Inspections (January to March 2023) – Ivanhoe C1*; and
- Waste tracking documentation was recorded by Orange Bins Pty Ltd and Richard Crookes and provided as part of the Audit review.

4.2.2 Christie Civil

- Christie Civil (2022a), *Construction Environmental Management Plan – CEMP - Ivanhoe Estate Stage 1B Civil Works, Epping & Lyonpark Roads, Macquarie Park NSW* (24 October 2022; Revision G) (the "CEMP");
- Christie Civil (2022b), *Daily Site Checklists (September 2022 to February 2023) – Ivanhoe Estate 1B Civil Works*;
- Christie Civil (2022c), *Safety & Environmental Inspection Checklists (September 2022 to February 2023) – Ivanhoe Estate 1B Civil Works*;
- NSW EPA (2022) *Advisory Letter – Erosion and Sediment Control at Ivanhoe Estate, Macquarie Park*; and

- Alliance Geotechnical Pty Ltd (2022), *Waste Classification and Virgin Excavated Natural Material Report* (ref: 15030-ER-1-4; 21 December 2022).

4.3 Site inspection

Two site inspections were conducted for this audit period on the 15 and 29 March 2023 by Karin Azzam who was accompanied by representatives of FPA, Richard Crookes and Christie Civil. The site inspection generally consisted of:

- Inspection of representative construction aspects being undertaken which had the potential to cause environmental harm / pollution.
- Inspection of onsite documentation in-place associated with physical / operational / management controls for risk mitigation.

4.4 Community consultation

Community consultation was completed prior to the lodgement of the SSD DA and is detailed in the prepared by Elton Consulting (2021), *Consultation Outcome Report*, for which *Appendix Q* of this document is included within the EIS for the project. This aspect outlines the following consultation initiatives which have been undertaken:

- Establishment of a dedicated project email address setup for interested community members to ask questions and provide feedback.
- Letterbox drop of project information conducted for over 7,600 households within a 1 km radial distribution area (3 June 2021). The drop provided affected landowners with information detailing project aspects, anticipated short-term issues, relevant project contact details and an invitation to a community drop-in information session.
- Community drop-in session was held on 16 June 2021 between 5:30-7:30pm at Dunmore Lang College.

A complaints register is publicly available on FPA website for the Midtown Macquarie Park project and was reviewed by the auditor¹. This website provides a phone number and an email address for complaints and community feedback.

4.5 Consultation with relevant agencies

The Planning Secretary confirmed the appointment of EESI as the independent Auditor. In accordance with the IAPAR, the Auditor must consult with NSW DPIE who may request that other parties or agencies are consulted, to obtain their input into the scope of the audit. Refer to **Appendix A** for the submission letter of the Audit Schedule to the Planning Secretary of the NSW DPIE as well as correspondence with NSW DPIE and the Council regarding input into the audit scope.

¹ <https://www.frasersproperty.com.au/NSW/Midtown/Project-progress/Complaints-Register>

4.6 Compliance status descriptors

The findings from the Audit are assessed against the *Compliance Assessment Criteria* in NSW DPE (2018) as detailed in **Table 2**.

Table 2: Compliance status descriptors

Status	Description
Compliant	The Auditor has collected sufficient verifiable evidence to demonstrate that all elements of the requirement have been complied with within the scope of the audit.
Non-compliant	The Auditor has determined that one or more specific elements of the conditions or requirements have not been complied with within the scope of the audit.
Not triggered	A requirement has an activation or timing trigger that has not been met at the time when the audit is undertaken, therefore an assessment of compliance is not relevant.

5 AUDIT FINDINGS

Audit commentary and findings from this audit period are detailed in **Table A (Appendix D)**, the independent environmental audit table at the rear of this report.

5.1 Previous audit outcomes

Environmental Earth Sciences NSW has conducted the following previous independent environmental audits of the project environmental management system (EMS) for construction works at Ivanhoe Estate.

Relevant reports include:

- Environmental Earth Sciences (2020), *Preliminary findings – independent environmental audit at Stage 1 Ivanhoe Estate, Macquarie Park, NSW* (ref: 120077_EMS Audit_V2, 17 December 2020).
- Environmental Earth Sciences (2021), *Six monthly performance audit, Stage 1 Ivanhoe Estate, Macquarie Park, NSW* (ref: 120077_Review of EMS_V2; 1 October 2021).
- Environmental Earth Sciences (2022), *Six monthly performance audit, Stage 1 Ivanhoe Estate, Macquarie Park, NSW* (ref: 120038_Six-monthly Audit_V2; 16 August 2022).
- Environmental Earth Sciences (2022), *Six monthly performance audit, Stage 1B Ivanhoe Estate, Macquarie Park, NSW* (ref: 120038RP02V2; 25 October 2022).

The recommendations from the previous audit reports, with the present status or outcome are presented in **Table B (Appendix D)**. The main outcome of previous audit recommendations that are not resolved or regarded as still in progress are summarised below.

5.1.1 Erosion and Sedimentation

Issue of uncontrolled sedimentation was noted around certain stormwater drains during the last audit period. Recommendation for sediment controls around stormwater drains needing to be cleaned and maintained more frequently especially before and after heavy rainfall events. Status and corrective actions need to be recorded in the daily and weekly Safety and Environmental Inspection checklists.

Issue of buoyant sediment and debris trap installed downstream in Shrimpton Creek noted to be full during the previous audit period. Recommendation for routine checking and emptying of trap when near to full. It was noted that during this audit inspection the trap was observed to be cleared during the second audit inspection on 29 March 2023 of the current audit period.

EESI notes also that following road construction works by Christie Civil, the larger sedimentation basin in the centre of the 'Stage 1B' area was drained and removed since the end of the last audit period in September 2022, and as such there was not feature in-place to receive runoff water which originated from onsite. Runoff water originating from onsite is now directed into newly installed stormwater drains along Road 1 and Road 2, however at the time of this audit inspection this was not yet connected to Council's stormwater system. Overland flow was observed to freely flow into Shrimptons Creek in the south-eastern portion of site. It is also understood that existing staged detention ponds located in the southern portion of the site also did not appear to receive any runoff water originating from onsite.

With the detention basin no longer used, uncontrolled erosion and sedimentation were identified as the biggest environmental risks for the project. As such it was recommended that appropriate checks and internal auditing / recording of details should be undertaken by a suitably qualified project environmental representative (e.g., site manager or site engineer) on at least a weekly basis and/or immediately following rainfall events which cause runoff, as per suggestions in Landcom (2004) *Managing Urban Stormwater: Soils and Construction* (the "Blue Book"), which states:

"As part of statutory "diligence and care" responsibilities, a suitably qualified person will be required to oversee the installation and maintenance of all soil and water management works on site. The responsible person will need to ensure that the plan is being implemented correctly, repairs are undertaken as requires and essential modifications are made to the Soil and Water Management Plan if and when necessary."

In general, the Auditor emphasised that erosion and sediment control measures need to be prioritised and maintained until all construction and earthworks activities are completed and the site is rehabilitated. Ongoing responsibilities for erosion and sediment controls need to be clearly established when contractors are finishing up on site.

5.1.2 Water quality monitoring

There has been no water quality monitoring of the sediment basin using a calibrated water quality meter undertaken since April 2022. Recommendations to monitor the water quality onsite were recommendations of the last two six-monthly audits. At the end of the previous audit period, the sedimentation basin was drained in conjunction with road construction and stormwater across the site flows into stormwater drains along Road 1 and Road 2.

The quality of surface water in the creek, upstream and downstream of bridge works, and in the sediment retention basins should be monitored monthly using a calibrated water quality meter, noting the following water quality parameters:

- pH.
- Electrical conductivity (EC).
- Turbidity.
- Suspended solids.
- Indications of visual / olfactory contamination or eutrophication.

Calibration certificates for water quality meter(s) used to conduct assessment of water quality were recommended to be made available upon request for audit.

As mentioned in **Section 5.1.1**, with sedimentation basin no longer in use onsite, additional care needs to be implemented to manage erosion, sedimentation and water quality onsite, including the monitoring of surface water in Shrimptons Creek.

5.1.3 Dust monitoring

There is no active dust monitoring onsite. Dust monitors should be set up adjacent to sensitive receptors. Response from Christie Civil:

“Dust generated is minimal as there is a watercart onsite full time. Should complaints of dust from sensitive receivers be advised, dust monitoring may be implemented. It is noted that dust generation was minimal due to prevailing wet weather over the period of this audit, however the current audit requirement remains”.

According to SSD 8903 Condition of Consent B43, the ‘Air Quality and Odour Management Plan’ (AQOMP) must include proactive and reactive management strategies, key performance indicators (KPIs), monitoring measures, record keeping, response mechanisms, contingency and compliance reporting measures.

The Christie Civil AQOMP does not include key performance indicators, monitoring measures, response mechanisms and contingencies. Christie Civil response:

“We do not believe these are required as per response received 13 October 2022.”

5.1.4 Noise monitoring

According to SSD 8903 Condition of Consent B42h, the ‘Construction Noise and Vibration Management Plan’ (CNVMP) must include a suitable and proactive construction noise and vibration monitoring program which aims to ensure the operational construction noise and vibration criteria in this consent are tracked and not exceeded.

The project has established noise management levels (Acoustic Logic, 2019) however no active noise monitoring was conducted during the Audit period. Any exceedances of the “highly noise affected level” cannot be quantified.

Audit recommendations remain that an active noise monitoring program with noise monitors installed should be introduced for the site which aims to ensure the construction noise and vibration criteria in the condition of consent are not exceeded.

5.1.5 Update CMP

Part of audit requirement remains applicable. The updates to present site activities, stages and scope of works detailed in Section 8.3 of the Parkview CMP have been noted and are considered compliant.

Parkview are still yet to update relevant environmental management sub-plans for construction work for Building A1 in accordance with development consent SSD 8903 condition B40, B42, including:

- Dust Management Plan.
- Construction Noise and Vibration Management Plan.
- Air Quality and Odour Management Plan.
- Construction Waste Management Plan.
- Construction Soil and Water Management Plan.

5.2 Compliance performance

The list of conditions imposed by the CoC within SSD 8903 MOD 6 (“CoC”) are summarised in **Table A (Appendix D)** with this listing the compliance status of each condition, along with recommendations for further information (where required).

5.3 Site inspections

Works were physically inspected during two separate site inspections to observe how environmental aspects were being managed. At the time of the two audit inspections in March 2023, construction of buildings during ‘Stage C1’ by Richard Crookes was in progress in the central portion of the site and final stages of bridge works and topsoiling of batters around roadways was being in the final stages of being completed in the southern portion of the site by Christie Civil. Photographs from the site inspections are presented in **Appendix E**.

5.3.1 First site inspection (15 March 2023)

An initial performance review site inspection was conducted on 15 March 2023 by Karin Azzam (Environmental Earth Sciences), Peter Statham and Andy Huang (FPA), Michael Archibald, Andrew King and Patrick Nahas (Richard Crookes Constructions) and Liam Bell, Travis McCleary and Raffi Jamgotchian (Christie Civil). The weather was sunny and clear.

Items inspected are listed below.

- Richard Crookes work site:
 - Haulage trucking utilising covered loads, proceeding south along Road 2 and exiting via metal rumble grid by Road 1.
 - Project signage at entry / exit gates.
 - Spill kits present
 - Good housekeeping
 - Laydown areas observed for inert construction materials
 - Internal / external movements of building materials / inert construction waste.
 - Site fencing and barriers in place across the site
- Christie Civil work site
 - It is also understood that Christie Civil are finishing up works onsite, with remaining works comprising completion of bridge work and top soiling batters around the roads.
 - Following road construction works by Christie Civil in the south of the site the sediment pond has now been drained and is not receiving any runoff which originates from onsite.
 - It is understood that runoff from the site now primarily enters newly installed stormwater drains along Road 1 and Road 2 which are not yet connected to Council's stormwater system, with overland flow seemingly able to flow into Shrimptons Creek in the south east of site.

5.3.2 Second site inspection (29 March 2023)

An additional site inspection was conducted on 29 March 2023 by Karin Azzam (Environmental Earth Sciences), Peter Statham and Andy Huang (FPA) and Liam Bell and Travis McCleary (Christie Civil). The weather was rainy and overcast. The site visit included:

- Follow up inspection of the following items identified during previous audit:
 - Erosion and sediment controls around stormwater drains, stockpiles and along Shrimptons Creek.
 - Material storage zones.

5.4 Development impacts (actual / potential v predicted)

Predicted outcomes associated with the construction of the Project are described in the following documents:

- Ethos Urban (2021), *Environmental Impact Statement SSD 15822622 – Ivanhoe Estate, Macquarie Park – Stage 2 ‘Midtown’*, 26 August 2021 Version 1.1 (the ‘EIS’).
- FPA (2021), *Preliminary Construction Management Plan*, May 2021 Revision: A – For Development Application (the “PCMP”).

An assessment of compliance between actual and predicted impacts documented in the EIS and PCMP documents was undertaken, and as required by the IAPAR this included an assessment of potential off-site impacts. Through the course of the audit period, daily and weekly site inspections were undertaken to ensure environmental controls were performing as expected. Daily site checklists and Safety and Environmental Inspection Checklists / Reports for the audit period provided by Richard Crookes and Christie Civil have been reviewed.

A summary of the actual versus predicted environmental impacts resulting from the construction works is reported in the subsections below.

5.4.1 Construction soil & water management

Predicted impacts

The PCMP states that the principal contractors are to ensure that sedimentation and erosion control measures will be installed at critical locations around the site to divert, dam and remove, filter or catch water containing sediment from entering the existing storm water or sewerage systems. This will also include but not limited to sediment fences, sandbag traps, mesh and gravel inlet filters, geotextile filter pits etc.

The Stormwater Management Plan developed by ADW Johnson (2021) (included as *Appendix F* of the EIS) presents an indicative erosion and sediment control plan as *Exhibit 4- 6*, but notes that “*all erosion and sediment controls should be constantly updated during construction to ensure adequate protection is provided at all times*”.

In order to comply with requirements, the stormwater drainage system must effectively remove nutrients and gross pollutants from the site prior to runoff entering the downstream infrastructure.

Actual impacts

Richard Crookes

No excavations, earthworks or stockpiling was conducted by Richard Crookes during the current audit period with works limited to the construction of four residential apartment buildings. The works undertaken by Richard Crookes that would be associated with construction soil and water environmental impacts were limited to the management of stormwater and erosion control around the work site.

Richard Crookes is referring to the sediment detention basin in their Erosion and Sediment Control Plans. The erosion and sediment control plan has not been updated to adjust to changes in the proposed development over the life of the project. As previously mentioned, the larger sedimentation basin in the centre of the 'Stage 1B' area has been drained since the end of the last audit period (September 2022) and is not receiving any runoff which originates from onsite.

Rainwater around the site is now entering the stormwater drains along Road 1 and Road 2 and ultimately discharging into Shrimptons Creek.

Richard Crookes provided pH and Turbidity readings from monitoring location "B3 Tank", a 5000 L poly stormwater pumping station situated on basement level 3 that capture stormwater / groundwater captured on the structure. Monitoring was undertaken using an 'Aquasal pH tester" and an "Apera TN400 Turbidity Meter" prior to water being discharged into the main precinct stormwater system (Refer to **Appendix F** for pH and turbidity results). pH readings ranged between 7.2 and 8.45 with turbidity readings ranging between 21.2 and 48.2 NTU.

Key observations from the Richard Crookes construction site audit inspection pertaining to erosion and sediment control are listed below:

- Class A hoarding was installed east of the work site. Site fencing and barriers in place across the site (refer to **Photograph 2** in **Appendix E**).
- Noted that access road around the Richard Crookes construction area was asphalted and there was no tracking of mud and silt from Richard Crookes truck / equipment movements to and from the site with a metal rumble grid installed at site exit to facilitate removal of dirt and debris prior to vehicles leaving site (refer to **Photograph 8** in **Appendix E**). There was no evidence of heavy vehicles tracking soil from the internal roads onto external public roads.
- Stormwater drains were noted to be generally well managed and clear along Road 1 to the east of the site with silt bags and fabric filters installed around stormwater drains along Road 1, east of Richard Crookes construction site and along the top of Road 2 to the south of the work site.
 - Sedimentation was noted around one stormwater drain immediately south of Richard Crookes construction site during the site inspection 15 March 2023. The silt around the drain was noted to be cleared during the site inspection on the 29 March 2023 with additional silt bags re-applied around drain.

Richard Crookes provided nine site inspection reports with observation photographs dating from 11 January 2023 to 17 March 2023.

Christie Civil

Christie Civil were managing the south-eastern portion of the site down slope from the Richard Crookes work site extending to Shrimptons Creek. Key observations from the Christie Civil portion of the site are listed below:

- Limited activity of topsoiling of batters around the newly installed roads was observed during the site inspection.

- Topsoil was stockpiled around the site and used for topsoiling the batters along the newly installed roads.
- Batters and stockpiles of topsoil were mostly uncovered but were present on site in manageable sizes, not exceeding 4 m in height.
- Silt fences around stockpiles were observed.
- It was noted during the second site visit (29 March 2023) additional silt fences were erected along Shrimptons Creek and around bridge works.

Water management

Two buoyant sediment and debris trap were installed downstream in Shrimpton Creek. The water in the creek upstream of the bridge work and downstream from the sediment and debris trap was clear and slow moving with no visual and / or olfactory signs of contamination during the first audit visit and fast flowing and more turbid during the rainy second audit visit.

EESI was provided with pH and Turbidity readings by Christie Civil. It is understood that readings were taken from Shrimptons Creek surface water, downstream of bridgeworks. It was explained that pH readings were taken by a Liquid pH test kit. No water quality monitoring of creek surface water using a calibrated water quality monitor had been undertaken during the audit period.

In response to recommendations on 21/04/2023, Christie Civil informed that they have started taking pH and Turbidity reading using a calibrated water quality meter. Calibration certificate was supplied and reviewed.

Low-level sedimentation management seemingly undertaken in accordance with procedures documented in the SWMP (within the CEMP) and were current at the time of Audit.

Summary

To ensure erosion and sediment controls (ESCP) are performing as expected and with the sediment basin no longer in use, works on the site need careful management of activities to prevent sediment pollution.

During the initial site audit visit (15 March 2023) there was signs of uncontrolled sedimentation around one stormwater drain to the south of Richard Crookes site gate (**Photograph 7, Appendix E**).

Cars were parked upon an unsealed sloped area that was presumed to have caused the sedimentation. It was noted that there appeared to be uncertainty which contractor (Richard Crookes or Christie Civil) were in charge of erosion and sedimentation controls in area immediately below the worksite and along the newly developed roads.

During the second site visit (29 March 2023), the stormwater drain was cleared but parking in the unsealed, sloped area was still observed.

EESI notes that whilst environmental issues were recorded in the daily and weekly inspection checklists/ reports provided by Richard Crookes and Christie Civil, corrective actions / status

and maintenance of ESCP was not reported in accordance with requirements of the Blue Book. Recommendations and requirements are detailed in Section 6 of this report.

Two complaints (including one clean-up notice) were received within the current audit period (6 October 2022 and 9 November 2022) pertaining to erosion and sediment control issues in south of the site and are detailed in Section 5.5.2. Both complaints are stated as being actioned and rectified in the complaints register².

5.4.2 Dust and air quality / odour management

Predicted environmental impacts documented in the Air Quality (WSP, 2018) (*Appendix AA* of the EIS) mention that emissions to air were predicted to be higher during periods of earthworks from disturbance of soil (excavation / storage), and transportation / vehicle movements. Assessment criteria for relevant air pollutants are tabulated in *Section 4* of the air quality assessment.

No excavations, stockpiling and/ or earthworks were undertaken by Richard Crookes during this audit period.

Within *Section 4* of the Richard Crookes AQMP details control measures are to be in place to minimise or avoid emissions. Weekly environmental inspections are to be completed assures that all plant and equipment is suitably maintained to prevent emissions which cause a reduction in air quality.

No dust emissions were noted in the daily and weekly safety and environmental inspections.

During the current audit inspections, it was noted that construction hoardings have been built around the work site. No dust emissions and / or odours were noted during the time of the inspection.

During a follow up inspection of Christie Civil work site, that most of the stockpiles and batters around the newly installed roads were uncovered but were kept on site in manageable sizes not exceeding 4 m in height and were in the process of being seeded.

EESI notes that there was no active dust and air quality monitoring during the audit period and any comparison of actual air pollutants to assessment criteria detailed in the EIS was not possible.

EESI noted that there was no active dust and air quality monitoring undertaken by either Christie Civil and/ or Richard Crookes during the audit period and any comparison of actual air pollutants to assessment criteria was not possible.

One complaint regarding dust, air quality or odour were received during the Audit period with the nature of the complaint being that mud and dust was accumulating on pedestrian walkway at Shrimptons Creek. Response and rectifying actions to the complaint are presented within **Section 5.5.2** in this report.

² <https://www.frasersproperty.com.au/NSW/Midtown/Project-progress/Complaints-Register>

5.4.3 Construction noise & vibration management

The Noise Impact Assessment (Acoustic Logic, 2021) (*Appendix V* within the EIS) mentions that proposed development activities are not expected to have any adverse impacts on surrounding sensitive receivers during construction. The report states that construction noise is predicted to generally comply with the nominated acoustic criteria (presented in **Table 4**).

Table 3: Noise management levels

Receiver	Daytime Background Noise levels dB(A) _{L90(period)}	'Noise affected' dB(A) _{L_{eq}(15min)}	'Highly noise affected' dB(A) _{L_{eq}(15min)}
Residential receivers to the north of work site (R2)	43	53	75
Residential properties across Epping Road to the west of the site (R5)	50	60	75
Sensitive receivers (commercial/ residential) to the east and south of work site (R4/ R3)	Commercial	70	

Notes

dB(A) A-weighted Decibels (expression of the relative loudness of sounds perceived by the human ear)

L_{90(period)} Level exceeded for 90% of the period

L_{eq(15min)} Equivalent continuous sound level over 15 min

The Noise Impact Assessment report (Acoustic Logic, 2021) lists construction activities that are predicted to generate noise levels during the construction phase with the activities with the greatest potential to generate noise and vibration being:

- Hammering (Excavator with hydraulic hammer / jack hammering).
- Rock / concrete saws.
- Piling activities.

Where noise management levels are exceeded (which may occur when working close to the site's western, northern, and southern boundaries), the following appropriate mitigation measures should be adhered to:

- Providing construction hoarding around the site perimeter to assist with noise screening to northern receivers.
- Using alternative equipment as much as practicable to minimise activities with the greatest noise impacts (hammering; rock/concrete saws; piling activities).
- Using silencing devices such as engine shrouding or industrial silencers fitted to exhausts and requiring on-site work vehicles to turn off their engines when practicable.
- Implementing noise respite periods as consistent with ICNG recommendations where continuous exceedances are unavoidable.

- No Public Complaints regarding noise and / or vibration were received during the Audit period.

Observations from this site inspection included:

- Construction work was strictly being undertaken within the hours of 7.00am and 7.00pm on Monday to Friday inclusive. Richard Crookes and Christie Civil informed that minimal work on site was undertaken 8.00am to 4.00pm on Saturdays. No work was undertaken on Sundays and public holidays.
- Rock breaking, rock hammering, sheet piling, pile-driving and similar activities was not being undertaken at the time of the Audit inspection. It was noted that when these works were required, they were undertaken between 9.00am to 2.00pm, 2.00pm to 5.00pm on Monday to Friday, and 9.00 to 2.00pm on Saturdays.

EESI notes that there was no active noise and vibration monitoring undertaken during the duration of the current audit period by any principal contractor on site and any comparison of actual noise and vibration to management levels was not possible. It is noted that Christie Civil undertook noise monitoring during the previous audit period for 11 days during rock breaking along Road 1. Noise monitoring output for these 11 days were provided and reviewed.

5.4.4 Waste management

The PCMP delineates management during the construction phase of the development. It should be noted that waste management during demolition was assessed and approved as part of the Stage 1 SSDA (SSD 8903).

The PCMP states that the engaged Principal Contractor will be responsible for transporting all non-recyclable materials to NSW EPA approved landfill sites. Recyclable materials will be disposed by the Principal Contractor at the most appropriate recycling depot. Waste bins will be stored on-site and separated between recyclable and non-recyclable material for construction staff.

CoC B44 states that prior to commencement of any works, a Construction Waste Management Plan needs to be prepared by the Applicant.

Richard Crookes

Richard Crookes provided EESI with a Waste Minimisation Plan (WMP), showing waste targets for the Richard Crookes worksite as >90% diversion of waste from landfill by recycling, reuse design or other methods. The WMP was reviewed, and it is satisfied that the plan includes all items required in CoC B45.

Orange Bins Group Pty Ltd (Orange Bins) provided waste management services for Richard Crookes. EESI were supplied with waste management breakdown spreadsheets and reports, collated by Orange Bins from May 2022 through to February 2023. No soil or virgin excavated material (VENM) was exported from site during this period. The monthly waste breakdown reports are presented in **Appendix G** showing overall % of recycled material meeting the 90% target.

The Waste Management Register kept by Richard Crookes was provided to EESI for review and documented that approximately 1,137 tonnes to date of waste have left the site with approximately 95% having been recycled.

The main waste streams from Richard Crookes in terms of % volume is reported to be the following recycled material:

- Brick, Concrete, Tile and Stone (~50%).
- Timber and Green waste (~30%).
- Metal / Steel; (~50%).

5.4.5 Storage of materials

Richard Crookes

Materials storage seemingly undertaken in accordance with procedures documented in the CEMP which was current at the time of Audit. Observations from site inspection for material storage in the southern portion of the site:

- Areas for storage of construction materials were generally defined with good housekeeping considering the challenges faced by the limited available space.
- Areas for storage of storage of waste were clearly demarcated into separate waste streams (e.g., general waste sign on side of skip bin).
- Laydown areas and for materials used available space sufficiently (refer to **Photograph 5** in **Appendix E**).
- Lockable cages for hazardous chemicals were noted to the south of the site in a bunded area and next to spill kits.

Management of construction waste seemingly undertaken in accordance with procedures documented in the CWMP which was current at the time of Audit. In accordance with SSD 8903 MOD 6 Condition B44 and the CMP, general inert construction waste is being separated between recyclable and non-recyclable offsite at an EPA licenced facility.

Christie Civil

Following up on recommendations from the previous audit, an inspection was also undertaken of Christie Civil's area for hazardous substances (e.g., flammable liquids), in the southern portion of the site. Some containers were noted to be stored in unlocked cages and cabinets. Some containers (mostly empty) were stored on the ground outside the cages and cabinets. During the second site visit the area was tidied and cages locked. Safety data sheets were noted to be placed within the cabinet (refer to **Photographs 19, 20** and **21** in **Appendix E**).

5.5 Environmental management performance

5.5.1 Environmental management systems (EMS)

Project activities for the 'Stage C1' component did not have a standalone EMS, rather separate management plans have been prepared relating to the project (as summarised in Section 4.2), however Richard Crookes and Christie Civil operate under a current ISO 14001 accredited EMS.

5.5.2 Complaints

As required by CoC B17a, a complaint register for the project is required to be updated monthly and publicly available. A complaints register is publicly available on the FPA website for Midtown Macquarie Park and was reviewed by the auditor³. The website provides a phone number and an email address for community feedback.

The register list a total of seven complaints for the project dating from July 2021 to date with two complaints received within the current audit period (6/10/2022 and 9/11/2022) pertaining to erosion and sediment control issues. The complaint received 6/10/222 from Ryde Council is discussed in **Section 5.5.3** below.

The complaint received 9 November 2022 pertains to accumulation of mud and dust on pedestrian walkway at Shrimptons Creek. The complaints status in the register is regarded as closed-out with the following the response to the complaint:

“The section of pedestrian walkway affected has been raised and resealed to rectify the reported issue. FPA will monitor ongoing maintenance of the area with the contractor undertaking works along Shrimptons Creek.”

EESI was not made aware of any other complaints being reported during the six-monthly period between 5 September 2022 to March 2023.

5.5.3 Summary of agency notices, orders, penalty notices or prosecutions

A clean-up notice was issued to Christie Civil under Section 91 of the Protection of the Environment Operations Act 1997 (“the POEO Act”).

Following the clean-up notice, the NSW EPA received a report from The City of Ryde (Council) concerning significant sediment and erosion control issues onsite.

The NSW EPA and Council undertook a site visit on 18 November 2022 in response to concerns raised by Council regarding construction activities at the site. The NSW EPA officers that were present observed substantial sediment control measure issues onsite. Additionally, it was observed that there was sediment build-up within the Shrimpton’s Creek channel adjacent to site most likely due to construction activities onsite.

³ <https://www.frasersproperty.com.au/NSW/Midtown/Project-progress/Complaints-Register>

The NSW EPA issued an advisory letter addressed to Christie Civil requesting documents and information as well as requesting immediate control measures (**Appendix H**).

Following a second site inspection by the NSW EPA on 10 November 2022 and after additional proof of actions were provided to the NSW EPA and Council on 15 December 2022, the NSW EPA confirmed the incident was closed-out.

EESI is not aware of any other notices, orders, penalty notices or prosecutions relating to the activities undertaken at the site within the Audit period.

5.5.4 Incidents

EESI was not made aware of any incidents being reported during the six-monthly period between 5 September 2022 to 5 March 2023.

5.5.5 Key strengths

Richard Crookes is completing civil works generally in accordance with the Consolidated Consent. There are good records of waste management kept along with good communication.

Christie Civil were responsive in promptly rectifying erosion and sedimentation issues identified during the initial audit inspection.

6 CONCLUSION

EESI was engaged by FPA to conduct a six-monthly performance audit of the project EMS for 'Stage 1C' of construction works at Ivanhoe Estate, Macquarie Park, NSW in accordance with SSD Conditions of Consent within SSD 8903 MOD 6. The construction of 'Stage C1' was awarded to Richard Crookes Constructions Pty Ltd and this audit report presents the findings from the period between 5 September 2022 and 15 March 2023.

Portions of 'Stage 1B' construction activities contracted to Christie Civil were also audited with findings documented within this audit report.

The overall outcome of the independent audit was generally positive. Compliance records were logically organised and made available for review at the time of the site inspection. Contractor personnel from Richard Crookes and Christie Civil were also available for interviews and were forthcoming with requests for information.

Relevant environmental and compliance monitoring records were being collected and reported as required to provide verification of compliance to statutory requirements and the broader Project environmental requirements. In summary:

- There were 38 conditions assessed.
- There were no aspects of non-compliance (minor or otherwise) for the 'Stage C1' construction works for the audit period.

- There were 15 opportunities for improvements identified relating to improvement to water quality monitoring, erosion and sediment controls, active noise and dust monitoring and CEMP updates.

Detailed findings are presented in **Table A (Appendix D)**. Recommendations and actions proposed to address the findings are presented in **Table C (Appendix D)** together with proponent response to the draft Independent Audit report.

7 RECOMMENDATIONS

7.1 Opportunities for improvement

Although there were no non-conformances reported during the audit of 'Stage 1B' works for Christie Civil or 'Stage 1C' works contracted by Richard Crookes, the Auditor recommends the following opportunities for continued emphasis on environmental management and general improvement.

- Erosion and sediment control:
 - The sedimentation basin has been drained during roadworks and is not being utilised for runoff from the site. Update figure in *Section 1.2* of the Richard Crookes Soil and Water Management Plan to show the newly constructed Road 1 and Road 2 onsite and the location of all necessary sediment and erosion control measures for the site.
 - Sediment controls around stormwater drains need to be cleaned and maintained more frequently especially before and after heavy rainfall events.
 - Status and corrective actions following site inspections need to be recorded in the daily and weekly Safety and Environmental Inspection checklists.
 - Due to Christie Civil being close to finishing up works on site, it is important to clearly outline responsibilities for erosion and sedimentations on site.
 - A self-auditing program with recorded inspections should be undertaken by a suitably qualified person (the site manager or site engineer) at least weekly or immediately following rainfall events that cause runoff as per the Blue Book.
 - As part of statutory diligence and care responsibilities, a suitably qualified person will be required to oversee the installation and maintenance of all soil and water management works on site. The responsible person will need to ensure that the plan is being implemented correctly, repairs are undertaken as requires and essential modifications are made to the Soil and Water Management Plan if and when necessary.
 - Erosion and sediment control measures need to be prioritised and maintained until all construction and earthworks activities are completed and the site rehabilitated.

- Ongoing responsibilities for erosion and sediment controls need to be clearly established when contractors are finishing up on site.
- Water quality monitoring:
 - The quality of surface water in the creek, upstream and downstream of bridge works, and in the sediment retention basins should be monitored monthly using a calibrated water quality meter, noting water quality parameters (e.g., pH, EC and turbidity / suspended solids) and any visual / olfactory indications of contamination or eutrophication.
 - Calibration records for water quality meter should be made available upon request by Auditor and/or regulator.
- Air quality and odour management:
 - There was no active dust monitoring onsite during the current audit period. Dust monitors should be set up adjacent to sensitive receptors.
 - The Christie Civil AQOMP does not include key performance indicators, monitoring measures, response mechanisms and contingencies. Previous audit recommendations remain with the AQOMP updated to include these.
- Noise management:
 - The project has established noise management levels (Acoustic Logic 2019) however no active noise monitoring was conducted during the current Audit period. Any exceedances of the 'highly noise affected level' cannot be quantified. Noise meters should be set up adjacent to sensitive receptors.
- Management documentation:
 - Routinely update the Parkview CMP and all relevant sub environmental management plans for the duration of Stage 1A construction activities by Parkview. The CMP needs to clearly outline the present site activities / stages / scope of works and be updated in accordance with the development consent SSD 8903.

8 LIMITATIONS

This report has been prepared by EESI ACN 109 404 006 in response to and subject to the following limitations:

1. The specific instructions received from FPA;
2. The specific scope of works set out in email proposal issued by EESI, dated 3 February 2023 for and on behalf of FPA;

3. May not be relied upon by any third party not named in this report for any purpose except with the prior written consent of EESI (which consent may or may not be given at the discretion of EESI);
4. This report comprises the formal report, documentation sections, tables, figures and appendices as referred to in the index to this report and must not be released to any third party or copied in part without all the material included in this report for any reason;
5. The report only relates to the site referred to in the scope of works being located at Ivanhoe Estate, Macquarie Park, NSW (the “site”);
6. The report relates to the site as at the date of the report as conditions may change thereafter due to natural processes and/or site activities;
7. No warranty or guarantee is made in regard to any other use than as specified in the scope of works and only applies to the depth tested and reported in this report;
8. This report is not a geotechnical or planning report suitable for planning or zoning purposes; and
9. Our General Limitations set out at the back of the body of this report.

9 REFERENCES

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ENVIRONMENTAL EARTH SCIENCES GENERAL LIMITATIONS

Scope of services

The work presented in this report is Environmental Earth Sciences response to the specific scope of works requested by, planned with and approved by the client. It cannot be relied on by any other third party for any purpose except with our prior written consent. Client may distribute this report to other parties and in doing so warrants that the report is suitable for the purpose it was intended for. However, any party wishing to rely on this report should contact us to determine the suitability of this report for their specific purpose.

Data should not be separated from the report

A report is provided inclusive of all documentation sections, limitations, tables, figures and appendices and should not be provided or copied in part without all supporting documentation for any reason, because misinterpretation may occur.

Subsurface conditions change

Understanding an environmental study will reduce exposure to the risk of the presence of contaminated soil and or groundwater. However, contaminants may be present in areas that were not investigated or may migrate to other areas. Analysis cannot cover every type of contaminant that could possibly be present. When combined with field observations, field measurements and professional judgement, this approach increases the probability of identifying contaminated soil and or groundwater. Under no circumstances can it be considered that these findings represent the actual condition of the site at all points.

Environmental studies identify actual sub-surface conditions only at those points where samples are taken, when they are taken. Actual conditions between sampling locations differ from those inferred because no professional, no matter how qualified, and no sub-surface exploration program, no matter how comprehensive, can reveal what is hidden below the ground surface. The actual interface between materials may be far more gradual or abrupt than an assessment indicates. Actual conditions in areas not sampled may differ from that predicted. Nothing can be done to prevent the unanticipated. However, steps can be taken to help minimize the impact. For this reason, site owners should retain our services.

Problems with interpretation by others

Advice and interpretation is provided on the basis that subsequent work will be undertaken by Environmental Earth Sciences NSW. This will identify variances, maintain consistency in how data is interpreted, conduct additional tests that may be necessary and recommend solutions to problems encountered on site. Other parties may misinterpret our work and we cannot be responsible for how the information in this report is used. If further data is collected or comes to light we reserve the right to alter their conclusions.

Obtain regulatory approval

The investigation and remediation of contaminated sites is a field in which legislation and interpretation of legislation is changing rapidly. Our interpretation of the investigation findings should not be taken to be that of any other party. When approval from a statutory authority is required for a project, that approval should be directly sought by the client.

Limit of liability

This study has been carried out to a particular scope of works at a specified site and should not be used for any other purpose. This report is provided on the condition that Environmental Earth Sciences NSW disclaims all liability to any person or entity other than the client in respect of anything done or omitted to be done and of the consequence of anything done or omitted to be done by any such person in reliance, whether in whole or in part, on the contents of this report. Furthermore, Environmental Earth Sciences NSW disclaims all liability in respect of anything done or omitted to be done and of the consequence of anything done or omitted to be done by the client, or any such person in reliance, whether in whole or any part of the contents of this report of all matters not stated in the brief outlined in Environmental Earth Sciences NSW's proposal number and according to Environmental Earth Sciences general terms and conditions and special terms and conditions for contaminated sites.


To the maximum extent permitted by law, we exclude all liability of whatever nature, whether in contract, tort or otherwise, for the acts, omissions or default, whether negligent or otherwise for any loss or damage whatsoever that may arise in any way in connection with the supply of services. Under circumstances where liability cannot be excluded, such liability is limited to the value of the purchased service.

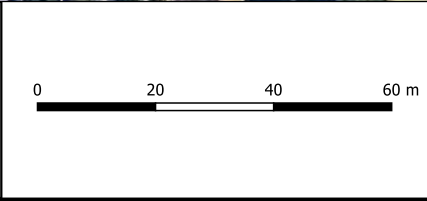
FIGURES



Legend

- Richard Crookes construction site
- Site boundary
- Ground level elevation contours (mAH)
- Shrimptons Creek







EESI
ENVIRONMENTAL
EARTH
SCIENCES
INTERNATIONAL

Location: Ivanhoe Estate, Macquarie Park, NSW

Project Manager: Karin Azzam

Drawn By: Karin Azzam

Title: Site Layout	
Client: Frasers Property	
Scale: As Shown	Job No: 123004
Date: March 2023	

Figure 2

APPENDIX A: PLANNING SECRETARY AUDIT TEAM AGREEMENT & STAKEHOLDER CORRESPONDENCE



By email: chris.koukoutaris@frasersproperty.com.au

24 August 2020

Dear Chris

**Audit Program
Ivanhoe Estate Stage 1 SSD-8903-PA-2**

I refer to recent correspondence submitted by Frasers Property Australia (SSD-8903-PA-2) informing the Department as required by condition B5 of SSD-8903 that Environmental Earth Sciences NSW (**auditor**) has been engaged to conduct a program of independent environmental auditing of Stage 1 Ivanhoe Estate SSD-8903. It is noted that the audit program consists of the initial independent environmental audit of Stage 1 in October / November 2020 followed by an annual audit.

Please note that the Independent Audit must be lead by a suitably qualified auditor and be prepared, undertaken and finalised in accordance with the requirements of Conditions B8 and B9 of SSD 8903. The Department also requests that consideration be given to the *Compliance Reporting Post Approval Requirements May 2020 (PAR 2020)* to the extent that it does not contradict Conditions B8 and B9 of SSD 8903. Failure to meet these requirements will require revision and resubmission. The PAR 2020 may be accessed at <https://www.planning.nsw.gov.au/-/media/Files/DPE/Other/Assess-and-regulate/About-Compliance/compliance-reporting-post-approval-requirements-2020-05-19.pdf>

Please append this correspondence to the Independent Audit Report.

Yours sincerely

A handwritten signature in black ink, appearing to read 'J Pope'.

Julia Pope
Team Leader Compliance - Metro
As nominee of the Secretary

Karin Azzam

From: Maria Divis <Maria.Divis@planning.nsw.gov.au>
Sent: Thursday, 9 March 2023 10:55 AM
To: Mark Stuckey
Cc: Karin Azzam; Chris Newland
Subject: RE: 123004 - Ivanhoe Estate project - consultation on EMS audit scope

Some people who received this message don't often get email from maria.divis@planning.nsw.gov.au. [Learn why this is important](#)

[EXTERNAL EMAIL] DO NOT CLICK links or attachments unless you recognize the sender and know the content is safe.

Good morning Mark

Thank you for consulting with the Department of Planning and Environment (the **department**) in order to obtain input into the scope of the Independent Environmental Audit (**IEA**), in accordance with the Independent Audit Post Approval Requirements 2020 (**IAPARs**).

Further to the areas that you have identified in your email, the department is not aware of any specific areas of concern in relation to the project that need to be included within the scope of the audit. Please ensure that the requirements of the Conditions of Consent and the IAPARs are satisfied in the submission.

It is suggested that you consult with the local Council, the EPA and any other agencies that may be referenced in the Conditions of Consent for the Ivanhoe Estate Project.

Kind regards,

Maria Divis
Senior Compliance Officer

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Locked Bag 5022 | PARRAMATTA NSW 2124
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The Department of Planning and Environment acknowledges that it stands on Aboriginal land. We acknowledge the traditional custodians of the land and we show our respect for elders past, present and emerging through thoughtful and collaborative approaches to our work, seeking to demonstrate our ongoing commitment to providing places in which Aboriginal people are included socially, culturally and economically.

From: Mark Stuckey <mstuckey@eesigroup.com>
Sent: Tuesday, 7 March 2023 5:40 PM
To: Maria Divis <Maria.Divis@planning.nsw.gov.au>

Karin Azzam

From: Sanju Reddy <SanjuR@ryde.nsw.gov.au>
Sent: Tuesday, 4 April 2023 1:27 PM
To: Mark Stuckey
Cc: Karin Azzam; Chris Newland
Subject: RE: Ivanhoe Estate project - consultation on EMS audit scope

[EXTERNAL EMAIL] DO NOT CLICK links or attachments unless you recognize the sender and know the content is safe.

Hi Mark

My apologies for the late response.

In the next review could the following conditions be taken into account.

- Monitoring and Environmental Audits (Condition A20).
- Independent Environmental Audit (Conditions B5 – B9).
- Construction Environmental Management Plan (Condition B40).
- Construction Noise and Vibration Management Plan (Conditions B42 and C7).
- Air Quality and Odour Management Plan (Condition B43) and Dust Control Measures (Condition C38).
- Construction Waste Management Plan (Conditions B44, C28 and C31).
- Construction Soil and Water Management Plan (Condition B45) and Stormwater (Condition C49).
- Contamination (Conditions B55, B56, B58, B61; C15 – C21; D5 – D6 and D52).
- Hazardous Materials Management Plan (Conditions B64 - B65 and C32 – C33).
- Vehicle Cleansing (Condition C35).
- Stockpile Management (Condition C36).
- Erosion and Sediment Control (Condition C37).
- Bunding (Condition C52).

Do not hesitate to contact me if you require any clarification.

Thanks

Sanju Reddy

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The City of Ryde wishes to acknowledge the Traditional Custodians of the Land on which we work and pay our respect to the Elders both past, present and emerging, and extend that respect to all Aboriginal and Torres Strait Islander peoples.

APPENDIX B: INDEPENDENT AUDIT DECLARATION FORM

Independent Audit Report Declaration Form

Project Name	Stage 1 Ivanhoe Estate
Consent Number	SSD 8903 MOD 1
Description of Project	Review of Environmental Management Practices as part of Stage 1 Construction Works, Building A1 area
Project Address	Ivanhoe Estate, Macquarie Park, NSW
Proponent	Frasers Property Australia
Title of Audit	Independent Six-monthly Environmental Audit, Stage 1 Ivanhoe Estate, Building A1, Macquarie Park, NSW (Version 2)
Date	16 August 2022

I declare that I have undertaken the Independent Audit and prepared the contents of the attached Independent Audit Report and to the best of my knowledge the audit has been undertaken in accordance with relevant condition(s) of consent and the Independent Audit Compliance Requirements (Department 2018):

- i. the findings of the audit are reported truthfully, accurately and completely;
- ii. I have exercised due diligence and professional judgement in conducting the audit;
- iii. I have acted professionally, objectively and in an unbiased manner;
- iv. I am not related to any proponent, owner or operator of the project neither as an employer, business partner, employee, or by sharing a common employer, having a contractual arrangement outside the audit, or by relationship as spouse, partner, sibling, parent, or child;
- v. I do not have any pecuniary interest in the audited project, including where there is a reasonable likelihood or expectation of financial gain or loss to me or spouse, partner, sibling, parent, or child;
- vi. neither I nor my employer have provided consultancy services for the audited project that were subject to this audit except as otherwise declared to the Department prior to the audit; and
- vii. I have not accepted, nor intend to accept any inducement, commission, gift or any other benefit (apart from payment for auditing services) from any proponent, owner or operator of the project, their employees or any interested party. I have not knowingly allowed, nor intend to allow my colleagues to do so.

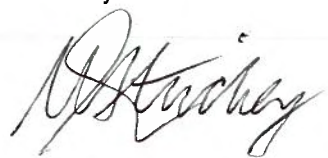
Notes:

- a. Under section 10.6 of the Environmental Planning and Assessment Act 1979 a person must not include false or misleading information (or provide information for inclusion in) in a report of monitoring data or an audit report produced to the Minister in connection with an audit if the person knows that the information is false or



misleading in a material respect. The proponent of an approved project must not fail to include information in (or provide information for inclusion in) a report of monitoring data or an audit report produced to the Minister in connection with an audit if the person knows that the information is materially relevant to the monitoring or audit. The maximum penalty is, in the case of a corporation, \$1 million and for an individual, \$250,000; and

- b. The Crimes Act 1900 contains other offences relating to false and misleading information: section 307B (giving false or misleading information – maximum penalty 2 years imprisonment or 200 penalty units, or both).

Independent Auditor Declaration	
Name of Auditor	Mark Stuckey
Signature	
Qualification	Environmental Management Systems (EMS) Lead Auditor; and Site Auditor – accredited under the Contaminated Land Management (CLM) Act 1997 in New South Wales
Company	Environmental Earth Sciences NSW
Company Address	PO Box 380, North Sydney NSW 2059

APPENDIX C: AUDIT INTERVIEW ATTENDANCE REGISTER

APPENDIX D: INDEPENDENT AUDIT TABLES

Table A: Audit findings - Independent Environmental Audit Table

SSD 8903 MOD 6 Condition of Consent		Compliance Requirement	Evidence collected (Data/document author, date, title, reference number)	Independent Audit Comment & Recommendations	Compliance status	Proponent Response to Findings
Schedule 2 - Part A Administrative Conditions						
Monitoring and Environmental Audits						
A20	1	Any condition of this consent that requires the carrying out of monitoring or an environmental audit, whether directly or by way of a plan, strategy or program, is taken to be a condition requiring monitoring or an environmental audit under Division 9.4 of Part 9 of the EP&A Act. This includes conditions in respect of incident notification, reporting and response, non-compliance notification and independent environmental auditing. <i>Note: For the purposes of this condition, as set out in the EP&A Act, "monitoring" is monitoring of the development to provide data on compliance with the consent or on the environmental impact of the development, and an "environmental audit" is a periodic or particular documented evaluation of the development to provide information on compliance with the consent or the environmental management or impact of the development.</i>	Evidence of monitoring and environmental audit provided in this report.	----	Compliant	
Schedule 2 - Part B Prior to commencement of works						
B5	2	No later than one month before the commencement of construction or within another timeframe agreed with the Planning Secretary, a program of independent environmental audits must be prepared for the development in accordance with AS/NZS ISO 19011-2014: Guidelines for Auditing Management Systems (Standards Australia, 2014) and submitted to the Planning Secretary for information.	A schedule for independent environmental audit(s) was prepared by Environmental Earth Sciences: <ul style="list-style-type: none"> Environmental Earth Sciences (2020a), <i>Schedule for independent environmental audit(s) at Stage 1 Ivanhoe Estate, Macquarie Park, NSW</i> (ref: 120077_Audit Schedule_V1, 14 August 2020). <p>The schedule was submitted to the Department of Planning, Industry and Environmental (DPIE) whereby the Planning Secretary confirmed the appointment of Environmental Earth Sciences as the independent auditor. Refer to Appendix A for the correspondence letter:</p> <p>DPIE (2020), <i>Audit Program, Ivanhoe Estate Stage 1 SSD-8903-PA-2</i> (ref: Appointment of Experts, 24 August 2020).</p>	----	Compliant	

Table A: Audit findings - Independent Environmental Audit Table

SSD 8903 MOD 6 Condition of Consent		Compliance Requirement	Evidence collected (Data/document author, date, title, reference number)	Independent Audit Comment & Recommendations	Compliance status	Proponent Response to Findings
B6	3	The scope of each audit must be defined in the program. The program must ensure that environmental performance of the development in relation to each compliance requirement that forms the audit scope is assessed at least once in each audit cycle.	The audit scope is defined in the following: Environmental Earth Sciences (2020a), <i>Schedule for independent environmental audit(s) at Stage 1 Ivanhoe Estate, Macquarie Park, NSW</i> (ref: 120077_Audit Schedule_V1, 14 August 2020).	----	Compliant	
B7	4	The environmental audit program prepared and submitted to the Planning Secretary in accordance with Conditions B5 and B6 above must be implemented and complied with for the duration of the development.	It is noted in DPIE (2020) that an annual audit will be implemented and complied with for the duration of the development.	----	Compliant	
B8	5	All independent environmental audits of the development must be conducted by a suitably qualified, experienced and independent team of experts and be documented in an audit report which: <ul style="list-style-type: none"> a) assesses the environmental performance of the development, and its effects on the surrounding environment including the community; b) assesses whether the development is complying with the terms of this consent; c) reviews the adequacy of any document required under this consent; and d) (d) recommends measures or actions to improve the environmental performance of the development, and improvements to any document required under this consent. 	Independent environmental audit conducted by Environmental Earth Sciences under the guidance of Mark Stuckey, the Environmental Management Systems (EMS) Lead Auditor; and Site Auditor – accredited under the Contaminated Land Management (CLM) Act 1997 (NSW).	----	Compliant	
B9	6	Within three months of commencing an Independent Environmental Audit, or within another timeframe agreed by the Planning Secretary, a copy of the audit report must be submitted to the Planning Secretary, and any other NSW agency that requests it, together with a response to any recommendations contained in the audit report, and a timetable for the implementation of the recommendations. The recommendations must be implemented to the satisfaction of the Planning Secretary. <i>Note: The audit team must be led by a suitably qualified auditor and include experts in any fields specified by the Planning Secretary.</i>	A copy of the audit report is submitted by Frasers Property Australia to the Planning Secretary and the City of Ryde Council.	----	Compliant	

Table A: Audit findings - Independent Environmental Audit Table

SSD 8903 MOD 6 Condition of Consent		Compliance Requirement	Evidence collected (Data/document author, date, title, reference number)	Independent Audit Comment & Recommendations	Compliance status	Proponent Response to Findings
Schedule 2 - Part B Pre-Construction Dilapidation Report						
B25	7	The Applicant is to engage a suitably qualified structural engineer to prepare a Pre-Construction Dilapidation Report, detailing the current structural condition of all existing adjoining buildings, infrastructure and roads within the 'zone of influence'. The report shall be submitted to the Certifier and Council, prior to issue of the relevant Crown Building Works Certificate for Building A1, or any works commencing, whichever is earlier.	<p>Mainland Civil engaged GreenPlus Property Services as the suitably qualified structural engineer to prepare Pre-Construction Dilapidation Reports:</p> <ul style="list-style-type: none"> GreenPlus Property Services (Nov 2020a), <i>Pre-construction Dilapidation Inspection, Herring Road in Conjunction with Re-development of Midtown at 1 Ivanhoe Avenue, Macquarie Park</i> (ref: 820049.1_(Rs), dated 10 November 2020). GreenPlus Property Services (Nov 2020b), <i>Pre-construction Dilapidation Inspection, Display Suite, In Conjunction with Re-development of Midtown at 1 Ivanhoe Avenue, Macquarie Park</i> (ref: 820049.2_(Rv.1), dated 10 November 2020). GreenPlus Property Services (Nov 2020c) – <i>Pre-construction Dilapidation Inspection 155 Herring Road, 1-3 Lachlan Avenue and 1, 3, 5, 7 Peach Tree Road (External Ground and Elevations), In Conjunction with Re-development of Midtown at 1 Ivanhoe Avenue, Macquarie Park</i> (ref: 820049.3_(Rv.1), dated 10 November 2020). 	----	Compliant	
Schedule 2 - Part B Construction Environmental Management Plan (CEMP)						
B40	8	<p>Prior to the commencement of any works, the Applicant shall prepare and implement a Construction Environmental Management Plan (CEMP) for the development and be submitted to the Certifier. The CEMP must be prepared in consultation with, and address the relevant requirements of, Council. The CEMP must:</p> <p>a) Describe the relevant stages and phases of construction including work program outlining relevant timeframes for each stage/phase;</p>	<p>Richard Crookes Constructions, Construction Management Plan Ivanhoe Stage C1 (dated 6 February 2023, Revision 4) (the 'CMP').</p> <p>a) The relevant stages and phases of construction are outlined in Section 6 of the CMP. Attachment 2 referenced in Section 6 provides the preliminary construction program in accordance to the stage/phases.</p>	----	Compliant	

Table A: Audit findings - Independent Environmental Audit Table

SSD 8903 MOD 6 Condition of Consent		Compliance Requirement	Evidence collected (Data/document author, date, title, reference number)	Independent Audit Comment & Recommendations	Compliance status	Proponent Response to Findings
B40	9	b) describe all activities to be undertaken on the site during site establishment and construction of the development;	<p>Activities undertaken are listed in section 6.2 of the CMP: Scope of Works. These include:</p> <ul style="list-style-type: none"> • Ground works: Amenities and offices setup, temporary/permanent fencing, excavations of footings, Establishment of core walks, basement 3 slab. • Podium and suspended structure: formation, reinforcement and concrete placement. • West tower C1.1-C1.4: Construction of concrete levels to levels 1-13 (C1.1), levels 1-20 (C1.2), levels 1-12 (C1.3) and levels 1-19 (C1.4). • Concrete precast panels, glazing and cladding externally. Internal cavity walls and ceilings, service installations, garbage chutes. Floor waterproofing, carpet and tile laying. Installations of wardrobes, kitchens and doors. • Podium and fit-out completion: Construction of communal podium with soft, hard and grass landscaping, lighting/security install, plant rooms, storage, service, and security established in basement. 	The scope of works does refer to the type of works that will be undertaken and separates each major activity appropriately.	Compliant	
B40	10	c) Include a Dust Management Plan, incorporating the mitigation measures outlined in the Air Quality Assessment, prepared by WSP, dated October 2018.	Richard Crookes: Mitigation measures listed in <i>Section 10.12</i> of the CMP: Air Quality and Dust Control. A standalone Air Quality Management Plan (AQMP) was provided (dated 22 April 2022) outlining management strategies.	----	Compliant	
B40	11	d) clearly outline the stages/phases of construction that require ongoing environmental management monitoring and reporting;	<p>The second page of the CMP refers to the following sections of construction that will required ongoing environmental management monitoring and reporting:</p> <ul style="list-style-type: none"> • 10.2 Public and Property Protection, • 10.4 Heritage & Archaeological Significance, • 10.5 Existing Operational Areas, • 10.6 Site Access/Egress, • 10.6.1 Worker Pedestrian Access, • 10.8 Traffic Management, • 10.11 Noise & Vibration, • 10.12 Air Quality and Dust Control, • 10.13 Waste Management, • 10.18 Soil and Water Mitigation Methods, • 10.18.1 Erosion and Sediment Control, • 10.19 Groundwater testing, treatment & discharge, • 10.20 Flora and Fauna, • 10.20.1 Dredging and land reclamation. 	Not all of these sections listed directly acknowledge the need for ongoing monitoring. As an extensive number of sections have been listed, the creation of a table or brief explanation of the ongoing monitoring required in these sections is recommended such as for soil and water control, dust, noise and vibration, hazardous materials, contaminated materials, construction waste management and complaints. Explain clearly how these aspects are being monitored and reported. There is no Section 10.61 Section 10.19 refers to sediment basin which is not in use anymore. This section needs to be updated.	Not triggered	

Table A: Audit findings - Independent Environmental Audit Table

SSD 8903 MOD 6 Condition of Consent		Compliance Requirement	Evidence collected (Data/document author, date, title, reference number)	Independent Audit Comment & Recommendations	Compliance status	Proponent Response to Findings
B40	12	e) detail statutory and other obligations that the Applicant is required to fulfil during site establishment and construction, including approvals, consultations and agreements required from authorities and other stakeholders, and key legislation and policies;	The key requirements of Commonwealth legislation, State legislation and National Codes of Practice that the Contractor must comply with are listed in <i>Section 7.0</i> of the CMP.	----	Compliant	
B40	13	f) be prepared in consultation with Council and include specific consideration of measures to address any requirements of Council during site establishment and construction;	There is no evidence in the revision register that the CMP has been prepared in consultation with Council	Please provide evidence of Council having been consulted on CMP scope. It is recommended to include a document control section in the CMP detailing name, position, signatures, and date of signatures of personnel who prepared and reviewed the CMP.	Not triggered	
B40	14	g) describe the roles and responsibilities for all relevant employees involved in the site establishment and construction of the works;	Employee roles and responsibilities listed in <i>Section 5.1</i> of the CMP, including Group services, Construction directors/managers, project managers, design managers, administrators, site manager, project coordinators, site supervisors, and graduates/undergraduates.	----	Compliant	
B40	15	h) detail how the environmental performance of the site preparation and construction works will be monitored, and what actions will be taken to address identified potential environmental impacts, including but not limited to noise, traffic and air impacts;	<p>The second page of the CMP refers to the following sections for details of how the environmental performance of the site preparation and construction works will be monitored, and what actions will be taken to address identified potential environmental impacts:</p> <ul style="list-style-type: none"> • 10.8 Traffic Management, • 10.11 Noise & Vibration, • 10.12 Air Quality and Dust Control, • 10.13 Waste Management, • 10.18 Soil and Water Mitigation Methods, • 10.18.1 Erosion and Sediment Control, • 10.19 Groundwater testing, treatment & discharge, • 10.20 Flora and Fauna, and • 10.20.1 Dredging and land reclamation. <p>The following separate management plans were provided to the auditor:</p> <ul style="list-style-type: none"> • Air Quality Management Plan, • Soil and Water Management Plans, • Noise and Vibration Plan, and • Waste Minimisation Plan. 	<p>Sections 10.18 Soil and Water Mitigation Methods and 10.19 Groundwater testing, treatment & discharge refer to a sediment basin for the interception of site runoff. The sediment basin is not being in use at the time of the audit. Stormwater is being discharged into stormwater drains along Road 1 and Road 2.</p> <p>Recommendation: Update sections 10.18 and 10.19 to reflect changes to erosion and sediment controls onsite.</p>	Not triggered	

Table A: Audit findings - Independent Environmental Audit Table

SSD 8903 MOD 6 Condition of Consent		Compliance Requirement	Evidence collected (Data/document author, date, title, reference number)	Independent Audit Comment & Recommendations	Compliance status	Proponent Response to Findings
B40	16	i) include measures to ensure adequate groundwater entitlement is sourced in order to account for groundwater flows into the construction excavations, unless any exemption applies;	Groundwater is not expected to flow into the excavation zones. According to Douglas Partners (2018), <i>Groundwater Monitoring report</i> (ref: 86043.01 Revision 5. 005.Rev0; 30 July 2018), standing water levels (SWLs) of groundwater were gauged below the lowest elevation of bulk excavation for project works, therefore ingress into excavations was not anticipated. The following section within the CMP address likelihood of groundwater ingress and associated management if required: <ul style="list-style-type: none"> 10.19 Groundwater testing, treatment & discharge. 	Section 10.19 refers to Groundwater being pumped into temporary sediment basin on site. The sediment basin is not being in use at the time of the audit. This section needs to be updated in the CMP.	Not triggered	
B40	17	j) management of groundwater during construction;	Management of groundwater includes the mitigation and management of ingress water which potentially enters any open excavation. This includes methods of pumping and collection, water testing, control of discharge and supplementary erosion/sediment controls. The CMP documents this in the following sections: <ul style="list-style-type: none"> 10.18 Soil and Water Mitigation Methods, 10.18.1 Erosion and Sediment Control, 10.19 Groundwater testing, treatment & discharge, 	No water quality monitoring/ testing undertaken at the site.	Not triggered	
B40	18	k) document and incorporate all relevant sub environmental management plans (Sub-Plans), control plans, studies and monitoring programs required under this part of the consent; and	The CMP contain all relevant environmental management plans required under this consent with the following management sub-plans provided to the auditor: Air Quality Management Plan, Soil and Water Management Plans, Noise and Vibration Plan and Waste Minimisation Plan.	----	Compliant	
B40	19	l) include arrangements for community consultation and complaints handling procedures during construction.	Complaint's handling is referenced in section 10.10 and references public notifications for community complaints, Contractor consultation, and issuing of CMP to council for feedback. A complaints register is publicly available on Frasers Property website for Midtown MacPark and was reviewed by the auditor: https://www.frasersproperty.com.au/NSW/Midtown/Project-progress/Complaints-Register The website also provides phone number and email for community feedback.	Recommendation: Please provide evidence of consultation with Council for review consultation regarding the CMP and all sub-plans as stated in <i>Section 10.10</i> of the CMP.	Not triggered	
Schedule 2 - Part B Noise and Vibration Management Plan (NVMP)						

Table A: Audit findings - Independent Environmental Audit Table

SSD 8903 MOD 6 Condition of Consent		Compliance Requirement	Evidence collected (Data/document author, date, title, reference number)	Independent Audit Comment & Recommendations	Compliance status	Proponent Response to Findings
B42	20	<p>Prior to the commencement of any works, a Construction Noise and Vibration Management Plan (CNVMP) prepared by a suitably qualified person shall be submitted to the Certifier. The CNVMP must be prepared in consultation with, and address the relevant requirements of, Council and the EPA. The CNVMP shall address (but not be limited to):</p> <p>a) Be prepared in accordance with the EPA's Interim Construction Noise Guideline</p>	<p>Construction Noise and Vibration Management Levels were established for the project in accordance with the EPA's Interim Construction Noise Guidelines in the following report (Appendix V of the EIA):</p> <ul style="list-style-type: none"> Acoustic Logic (2021) – <i>Proposed Residential Development, Ivanhoe Stage 2, Macquarie Park, Development Application Environmental Noise Impact Assessment</i> (ref: 20210325.1/1607A/R7/GW; 16 June 2021) <p>Richard Crookes prepared the following report referencing the EPA's Interim Construction Noise Guideline in Section 4.9:</p> <ul style="list-style-type: none"> Richard Crookes Constructions (2023), Health, Safety & Environmental Form - Noise and Vibration Management Plan (NVMP) for Ivanhoe Estate Stage C1 (dated 22/4/2022 – revision February 2023). 	<p>Recommendation: For Richard Crookes NVMP - Please identify the suitably qualified person, experience, and credentials to demonstrate compliance to B42.</p> <p>Recommendation: Please include a document control section in the NVMP detailing name, position, signatures, and date of signatures of personnel who prepared and reviewed the NVMP. Please provide evidence of consultation with Council NVMP</p>	Not triggered	
B42	21	b) Identify nearby sensitive receivers and land uses;	NVMP Section 4.0 Nearby Sensitive Receivers – 7 receivers identified and mapped in accordance to site surroundings.	----	Compliant	
B42	22	c) Identify the noise management levels for the project.	<p>NVMP Section 4.2:</p> <p>Noise emission limits tabulated as criteria for noise objectives based on location and time. Objectives included from Acoustic Logic (2020), <i>Additional Noise Monitoring, Master Plan for Ivanhoe Estate, Macquarie Park</i> (30 January 2020).</p>	Noise management levels have been determined for the project, however there is no quantitative assessment with active noise monitoring conducted by Richard Crookes during Audit period.	Not triggered	
B42	23	d) Identify the construction methodology and equipment to be used and the key sources of noise and vibration.	<p>NVMP Section 4.4 stated:</p> <p><i>“Before and during works at a Construction workplace, noise generating processes need to be assessed to assure appropriate control measures can be implemented. Detailed noise making activities listed in construction categories of: Excavation, Structure erection, Internal fit-out, Service fit-out.”</i></p> <p>NVMP Section 4.8 then lists the anticipated sources of vibration.</p>	----	Compliant	

Table A: Audit findings - Independent Environmental Audit Table

SSD 8903 MOD 6 Condition of Consent		Compliance Requirement	Evidence collected (Data/document author, date, title, reference number)	Independent Audit Comment & Recommendations	Compliance status	Proponent Response to Findings
B42	24	e) Details of all reasonable and feasible management and mitigation measures to be implemented to minimise construction noise and vibration.	NVMP <i>Section 4.9</i> states: <i>“Noise and vibration management controls clearly stated in the table, providing detail in relation to the hazard and impact of subject activities.”</i>	The project has established noise management levels (Acoustic Logic 2019) however no active noise monitoring was conducted during the Audit period. Any exceedances of the ‘highly noise affected level’ cannot be quantified. <ul style="list-style-type: none"> Routine active noise monitoring onsite is recommended. 	Not triggered	

Table A: Audit findings - Independent Environmental Audit Table

B42	25	f) Be consistent with and incorporate all relevant recommendations and noise and vibration mitigation measures outlined in Acoustic Logic (2019), <i>Stage 1 DA Acoustic Assessment</i> (15 October 2019).	<p>NVMP Section 4.9 states:</p> <p><i>“Should monitoring of noise and vibration need to occur, a suitable qualified person shall conduct the monitoring with appropriately calibrated equipment complying with Australian Standards.”</i></p> <p>There is no proactive construction noise and vibration monitoring program included in the NVMP.</p> <p>The below controls in Section 4.9 in the NVMP have been developed in accordance with all recommendations and noise and vibration mitigation measures outlined in the acoustic assessment (Acoustic Logic, 2019).</p> <ul style="list-style-type: none"> - <i>Eliminate out of hours works that generate excessive noise where practicable to do so</i> - <i>Engineering treatment of the noise transmission path, such as isolation of the noise</i> - <i>transmission path from other persons by providing adequate distance between the source and listeners or the erection of noise barriers.</i> - <i>Subcontractors to comply with WHS Act and Regulations 2017;</i> - <i>All plant hire suppliers and tool hire companies must comply with the WHS Act and Regulations 2017;</i> - <i>Remove any equipment or tools not complying with the noise levels nominated</i> - <i>Ensure plant and machinery is serviced regularly</i> - <i>Isolate vibrating parts of machinery to reduce noise</i> - <i>Give priority control measures to noise sources which contribute to the highest noise exposures affecting the largest number of people;</i> - <i>Personal hearing protection, such as ear muffs, ear plugs or acoustic helmets.</i> 	<p>Refer to comment above regarding CoC B42e.</p> <ul style="list-style-type: none"> • Active noise monitoring onsite is recommended. 	Not triggered	
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Table A: Audit findings - Independent Environmental Audit Table

SSD 8903 MOD 6 Condition of Consent		Compliance Requirement	Evidence collected (Data/document author, date, title, reference number)	Independent Audit Comment & Recommendations	Compliance status	Proponent Response to Findings
B42	26	g) Ensure all potentially impacted sensitive receivers are informed by letterbox drops prior to the commencement of construction of the nature of works to be carried out, the expected noise levels and duration, as well as contact details for a construction community liaison officer.	<p>NVMP Section 4.7 states:</p> <p><i>“One of the most effective means of reducing noise nuisance from construction activities where there are residents nearby is to limit the times of operation of noisy equipment vehicles and operations. Sensitive receivers should be informed by letterbox drops prior to the commencement of construction detailing the nature of works to be carried out, expected noise levels and durations and must be provided with a construction community liaison officer nominated by the Contractor’s site team.”</i></p> <p>As detailed in the EIS (2021) Letterbox drop of project information conducted for over 7,600 households within a 1 km radial distribution area (3 June 2021). The drop provided affected landowners with information detailing project aspects, anticipated short-term issues, relevant project contact details and an invitation to a community drop-in information session.</p>	----	Compliant	
B42	27	h) Include a suitable proactive construction noise and vibration monitoring program which aims to ensure the construction noise and vibration criteria in this consent are not exceeded.	There is no proactive construction noise and vibration monitoring program included in the NVMP.	<p>No proactive monitoring activities are provided. Active noise monitoring onsite is recommended to record any potential exceedances of the “sound power levels”.</p> <p>No reference to activities being conducted to, or actively monitoring in comparison to the EPA recommended vibration levels or German Standard DIN 4150-3 Structural vibration guideline levels, that are part of the Stage 1 DA Acoustic Assessment, prepared by Acoustic Logic, dated 15 October 2019.</p>	Not triggered	

Table A: Audit findings - Independent Environmental Audit Table

SSD 8903 MOD 6 Condition of Consent		Compliance Requirement	Evidence collected (Data/document author, date, title, reference number)	Independent Audit Comment & Recommendations	Compliance status	Proponent Response to Findings
Schedule 2 - Part B Air Quality Management Plan (AQMP)						
B43	29	Prior to the commencement of any works, an Air Quality and Odour Management Plan (AQOMP) must be prepared and submitted to the Certifier. The AQOMP must recommend measures to minimise and manage any odours arising from excavation, stockpiling and removal of contaminated soils including, but not limited to: a) staged excavation to limit the surface area of exposed odorous material;	Richard Crookes Constructions (2023), <i>Health, Safety & Environmental Form – Air Quality Management Plan</i> for Ivanhoe Estate Stage C1 (dated 22/4/2022 – revision February 2023) (the “AQMP”). The AQMP (Section 2) states: “Through sequencing and staging of works the Contractor will be able to minimise the potential impact of odours from areas of open excavations.”	No excavation was undertaken by Richard Crookes during this audit period.	Not triggered	
B43	30	b) application of odour suppressants;	The AQMP (Section 3.0) details how stockpile management is an integral part of minimising potential odours and dust impact on air quality. It suggests: <ul style="list-style-type: none"> • Stockpiles will be utilised in the early works of the project and be limited to 4 meters in height. • These stockpiles will be wetted during working hours and covered overnight to control dust and suppress any odours given off by the detailed excavations. • The AQMP (Section 4.0) states: “Control measures are to be in place to minimise or avoid emissions. Weekly environmental inspections are to be completed assures that all plant and equipment is suitably maintained to prevent emissions which cause a reduction in air quality.” Richard Crookes provided nine site inspection reports with observation photographs dating from 11 January 2023 to 17 March 2023 (Appendix E).	No excavation and stockpiling activities were being undertaken during the audit period by Richard Crookes. No odours were noted during the audit inspection.	Compliant	
B43	31	c) effective covering of stockpiles and truckloads of excavation spoil; and	Such management is documented in the AQMP (Sections 3.0 & 4.0) and to satisfy CoC 43c. Respective controls are then detailed in the AQMP (Section 5.0).	No excavation and stockpiling were undertaken during the audit period by Richard Crookes. Trucks leaving the site were noted to be covered during audit inspection.	Compliant	

Table A: Audit findings - Independent Environmental Audit Table

SSD 8903 MOD 6 Condition of Consent		Compliance Requirement	Evidence collected (Data/document author, date, title, reference number)	Independent Audit Comment & Recommendations	Compliance status	Proponent Response to Findings
B43	32	d) expedited removal of odorous material from the development to a facility legally able to accept those wastes.	<p>The table within AQMP (<i>Section 5.0</i>) describes controls to expedite removal of any odorous material or excavated spoil from the development to a waste facility.</p> <p>Richard Crookes provided an Excel spreadsheet to the auditor with details of material removed from site showing evidence of regular waste pickups from site. Waste removed from site predominantly consisted of inert recyclables such as Brick/concrete/tile and stone. Food scraps that have potential to generate odours and attracting pests was removed weekly from site.</p>	<p>No excavation and stockpiling were undertaken during the audit period.</p> <p>No recycling or waste bins were observed to be overflowing or generating odours during the audit inspection.</p>	Compliant	

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B43	33	The AQOMP must include proactive and reactive management strategies, key performance indicators (KPIs), monitoring measures, record keeping, response mechanisms, contingency and compliance reporting measures.	<p>Proactive and reactive management strategies are documented in <i>Section 5.1</i> in the AQMP.</p> <p>Key Performance Indicators (KPIs), Monitoring measures and management strategies (response mechanisms) are tabulated in <i>Section 5.2</i>.</p> <p>Daily and weekly site inspection reports did not record any dust or odours during the audit period.</p> <p>One complaint regarding 'Mud & dust accumulation on pedestrian walkway at Shrimptons Creek' was received on 9 November 2022.</p>	<p>Key performance indicators in Section 5.1 in the AQMP include dust deposition levels below 4g/m²/month as per NSW guidelines (Test method as per AS3580.10.1):</p> <ul style="list-style-type: none"> • There has been no active air quality monitoring undertaken at the site during the current and the previous audit period and any exceedances of the above-mentioned key performance indicator of 4g/m²/month cannot be quantified. • It is noted that there are three principal contractors currently working onsite, and that there has not been any active dust monitoring since undertaken by AirSafe in 2021 (contracted by Mainland Civil). • During the previous audit period, Christie Civil stated that their AQOMP did not require KPIs, monitoring measures, response mechanisms and contingencies. • The previous proponent, Christie Civil stated that: <i>"Dust generated is minimal as there is a watercart onsite full time. Should complaints of dust from sensitive receivers be advised, dust monitoring may be implemented"</i>. • Previous audit recommendations remain, being at least one dust monitor should be set up adjacent to the nearest sensitive receptors to satisfy CoC B43. 	Not triggered	

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Schedule 2 - Part B						
B44. Construction Waste Management Plan (CWMP)						
B44	34	a) The estimated volume or weight of materials that will be reused, recycled or removed from the site.	Richard Crookes Constructions (2023), <i>Health, Safety & Environmental Form – Waste Minimisation Plan for Ivanhoe Estate Stage C1</i> (dated 22/4/2022 – rev February 2023) (the “WMP”). Particular section: <ul style="list-style-type: none"> Section 3.0: Construction Waste Volume - recycle/Reuse/Remove table 	Table in Section 3 of the WMP adequately describe volume and weight of material that is expected to be reused, recycled, or removed from the site.	Compliant	
B44	35	b) Onsite material storage areas during construction.	The WMP (Section 5.0) suggests: <p>“Hardstand is required within the lay-down area. The Contractor will store samples and additional site equipment next to the RCC (‘Richard Crookes Construction’) compound in designated containers. There will be a hardstand created by the early works contractor in which the Contractor will utilise as a laydown area and storage of skip bins. Throughout the site general waste and recycling bins will be provided in designated work areas.”</p> <p>Auditor notes plan details included on Page 1 of the WMP, listing proposed number of bins.</p>	Onsite storage of material and skip bins upon hardstand area along Road 2 was observed during audit inspection.	Compliant	
B44	36	c) Materials and methods used during construction to minimise waste.	The WMP (Section 1.0) states: <p>“Waste sorting and recycling shall be carried out by the waste contractor and records provided to The Contractor to enable waste targets to be determined.”</p> <p>The WMP (Section 2.0) states: <p>“The Workplace/Project Manager will review the workplace PCG monthly report to assure that the waste targets achieved are in accordance with this waste minimisation plan. Waste will be a standard item in Health Safety Environment auditing to assure waste is being managed to meet objectives and targets.”</p> <p>Monthly waste reports and summary of volume / weight of material was reviewed during the current audit.</p> </p>	Details in WMP adequately describes materials and methods used to minimise waste. <p>Good housekeeping by Richard Crookes was observed during the audit inspection.</p>	Compliant	

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B44	37	d) Provide details demonstrating compliance with the relevant legislation, particularly with regard to the removal of asbestos and hazardous waste, the method of containment and control of emission of fibres to the air.	<p>The WMP (Section 6.0) presents a table of legal requirements table with key features.</p> <p>The WMP (Section 7.0) states:</p> <p><i>“It is critical that the Contractor engage in safe management of Asbestos related issues during all phases of such works on a Construction workplace. All Guidance Notes are guidance documents only. Specific workplace conditions and requirements should always be taken into consideration.”</i></p> <p>The WMP (Section 8.0) states:</p> <p><i>“Prior to the removal and disposal of contaminated waste, the waste is to be categorised in accordance with the jurisdictional requirements, waste is then to be disposed of in accordance with category requirements within each jurisdiction.”</i></p>	No asbestos or contaminated material was observed during the audit inspection, encountered during siteworks by any contractor as unexpected finding, nor was it anticipated.	Compliant	
B44	38	e) Nomination of the end location of all waste and recycling generated from a facility authorised to accept the material type for processing or disposal.	<p>The following recycling and disposal facilities are listed in WMP (Section 9.0):</p> <ul style="list-style-type: none"> ENM/VENM: BT Civil / Western Earthmoving Terry Hill Road, Box Hill NSW 2765 GSW & Concrete: Benedict Recycling Challenger Drive, Belrose NSW 2085 Construction/Commercial Waste: Orange bins 79 Gow st, Padstow NSW 2211 <p>In the Waste reports produced by Orange Bins the following receiving facilities were listed:</p> <ul style="list-style-type: none"> Orange Recycling P/L InfraBuild/Barca Metals ResourceCo Doyle Bros Regyp Recycling Suez Recycling <p><i>In response to previous audit findings, Christie Civil provided their updated Construction Waste Management Plan on 24 October 2022, outlining nominated authorised receiving facilities of all waste and recycling generated.</i></p>	<p>Recommendations:</p> <ul style="list-style-type: none"> update Richard Crookes WMP (Section 9.0) to include all receiving recycling and disposal facilities. Moving forward, add weighbridge docket(s), volumes and details of receiving facilities (name / address) to waste management spreadsheet. 	Not triggered	

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B44	39	f) Identification within the CWMP of the responsibility for the transferral of waste and recycling bins within the property to the collection point.	The WMP (<i>Section 10.0</i>) tabulates Internal Waste Transfer Responsibilities.	----	Compliant	
Schedule 2 - Part B						
B45. Construction Soil and Water Management Plan (CSWMP)						
B45	41	A Construction Soil and Water Management Plan (CSWMP) must be prepared to manage soil and water impacts during construction of the development. The CSWMP must be prepared in consultation with Council and a copy provided to Council, prior to the issue of a Crown Building Works Certificate for each building. The CSWMP must be prepared in accordance with the provisions of the "Blue Book" Part 1 [Landcom (2004) Managing Urban Stormwater: Soils and Construction, 4th edition]. The CSWMP must consider likely stages of the works and provide for appropriate control of sediment and erosion for each stage and include, but not be limited to: a) Location and extent of all necessary sediment and erosion control measures for the site.	Richard Crookes Constructions (2023), <i>Soil & Water Management Plan for Ivanhoe Estate Stage C1</i> (22 April 2022; Revised February 2023) (the "SWMP").	Following road construction works by Christie Civil, the larger sedimentation basin in the centre of the Stage 1B area had been drained since the end of the last audit period (September 2022) and is not receiving any runoff which originates from onsite. It is also understood that staged detention ponds to the south of the site also do not receive any runoff from the site. The figure in <i>Section 1.2</i> of the Richard Crookes SWMP still refers to the sediment basin onsite that is now no longer in use. It was noted during the audit inspection that there is confusion what stormwater drains the proponents are responsible for. Recommendations: <ul style="list-style-type: none"> Update Figure in <i>Section 1.2</i> to show the newly constructed Road 1 and Road 2 on the site and the location of all necessary sediment and erosion control measure for the site. 	Compliant	
B45	42	b) Catchment plan.	<i>See previous.</i>	Recommendations: <ul style="list-style-type: none"> Update Figure in <i>Section 1.2</i> to show the catchment plan of the site. 	Compliant	

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B45	43	c) Sediment basin(s) locations including details showing how runoff from the entire site will be directed to the sediment basin(s).	The SWMP (<i>Section 1.2</i>) presents the erosion and sediment control plan map, with SWMP (<i>Section 1.3</i>) presenting the sediment basin detail plan map	Refer to comment for B45a. This particular section needs updating to ensure currency / reflect recent changes to the site.	Not triggered	
B45	44	d) All relevant details and calculations of the sediment basins including sizes, depths, flocculation, outlet design, all relevant sections, pump out systems, and depths.	The SWMP (<i>Section 1.3</i>) presents the sediment basin detail plan map	Refer to comment for B45a. This particular section needs updating to ensure currency / reflect recent changes to the site.	Not triggered	
B45	45	e) All details of basement and other excavation pump out and dewatering treatment systems including flocculation and any proposed discharge from the site from dewatering and pump out systems. Requirements for dewatering are specified below.	The SWMP (<i>Section 1.4</i>) states: "Groundwater entitlement is not expected to flow into the excavation zones. According to the Douglas Partners Groundwater Monitoring report, SWLs of groundwater are anticipated to be below the base level of excavation , therefore ingress is not expected. As such No dewatering is to occur if any of the water quality falls outside of adopted criteria.	No groundwater quality monitoring has been undertaken by Richard Crookes.	Not triggered	
B45	46	f) Identification and management of any stormwater run-on to the site from adjacent sites.	Refer to CoC B45e above.	It is recommended to include a brief explanation that directly refers to storm water run-on as section 1.4 does not clearly delineate between groundwater and stormwater at this point.	Not triggered	
B45	47	g) Location of any temporary stockpiles (soil, spoil, topsoil or otherwise) and accompanying sediment and erosion control measures;	The SWMP (<i>Section 1.2</i>) documents soil and water mitigation methods and associated controls. The SWMP (<i>Section 1.3</i>) states: "Sediment control and stockpiles are to be inspected as part of the weekly health safety and environmental inspection."	Richard Crookes is not undertaking any excavations or associated stockpiling of cuttings during the current audit period for 'Stage C1' constructions.	Compliant	
B45	48	h) Location and details of all vehicle washdown bays and associated erosion and sediment control measures such as earthen bunds.	The SWMP (<i>Section 1.2</i>) documents soil and water mitigation methods and associated controls.	Refer to response for comment above. However in the SWMP, a figure illustrating location of any washdown bays was missing.	Not triggered	

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B45	49	i) A daily and weekly site inspection checklist consistent with IECA Best Practice Erosion and Sediment Control documents.	<p>Daily and weekly site inspection checklists / reports provided by Richard Crookes and Christie Civil were reviewed as part of this audit.</p> <p>Richard Crookes provided nine site inspection reports with observation photographs dating from 11 January to 17 March 2023.</p> <p>Christie Civil provided daily and weekly site inspection checklists from September 2022 to February 2023.</p>	<p>Recommendations:</p> <p>With the detention basin not in use on the site, uncontrolled erosion and sedimentation were identified as the main environmental risk of the project.</p> <p>Appropriate internal checks of sediment controls and any associated impact is recommended to be undertaken by a suitably qualified person (e.g., site manager / site engineer, etc) on at least a weekly basis (and/or immediately following rainfall events).</p> <p>Controls should be inspected to meet the satisfaction of the Landcom (2004), <i>Managing Urban Stormwater: Soils and Construction</i> (the "Blue Book").</p> <p>As part of statutory diligence and care responsibilities, a suitably qualified person should oversee the installation and maintenance of all soil and water management onsite, with the responsible person ensuring that the plan is being implemented correctly, repairs are undertaken as requires and essential modifications are made to the SWMP to be current.</p>	Not triggered	
B45	50	<p>A Sediment Basin is required for every catchment discharging from the site as part of any CSWMP. Sediment basin(s) are to be designed as follows:</p> <p>a) According to the NSW Blue Book (section 6.3.4 and Appendix E). The calculations of the sediment basin size must be submitted with the CSWMP.</p>	<p>The sediment basin has been dredged since the last audit in October 2022. Stormwater is now entering stormwater drains that are released directly into Shrimptons Creek.</p>	<p>Recommendations:</p> <p>With no sedimentation basin, erosion and sediment control measures need to be prioritised and maintained until all construction and earthworks activities are completed and the site rehabilitated.</p>	Not triggered	
B45	51	b) Using type D soils (unless otherwise demonstrated by an analysis of site soils by a qualified geotechnical).	<p>Refer to comment in CoC B45a above regarding sediment basin.</p>	<p>Refer to comment in CoC B45a above regarding sediment basin.</p>	Not triggered	

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B45	52	c) For all events up to the peak flow rate from the 1 in 10-year ARI event for the site for the 5-day rainfall event.	See above. B45a	See comment above B45a regarding sediment basin	Not triggered	
B45	53	d) To include a gypsum flocculent to be added to the sediment basin in accordance with Appendix E of the Blue Book.	The SWMP (<i>Section 1.4</i>) states: <i>"If the turbidity of the water is greater than 50 NTU then the water will be treated with a flocculent at a dosing rate of 30kg / 100m³ (e.g. gypsum, liquid alum or flocculent blocks) will make the sediments drop to the bottom. Only environmentally safe flocculants are to be used based on the HSE Manager's review of SDS information."</i>	See comment above B45a regarding sediment basin	Not triggered	
B55	54	The Applicant must ensure that following demolition of any existing buildings, roads, electricity substations and in-ground utilities as part of the Stage 1 works, further investigation of soil contamination is undertaken within the footprint of those buildings, roads, electricity substations and in-ground utilities prior to undertaking any construction works. Details confirming compliance must be submitted to the Certifier prior to the commencement of any remediation works.	Environmental Earth Sciences prepared an updated RAP: Environmental Earth Sciences (2021o) – <i>Technical Memorandum: Addendum to Remediation Action Plan at Ivanhoe Estate, Corner of Herring Road and Epping Road, Macquarie Park, NSW</i> (ref: 120077_RAP Addendum_V1; 29 January 2021)	No contamination and/or asbestos management issue required management during this audit period. Auditor was not made aware of any Unexpected Findings Protocols (UFPs) that were triggered by either Christie Civil or Richard Crookes which required actioning / close-out.	Compliant	

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B56	55	<p>The Applicant must conduct additional site investigations and prepare an updated Remedial Action Plan to address any identified contamination with proper regard to the:</p> <p>a) NSW EPA Sampling Design Guidelines, 1995 b) Guidelines for the NSW Site Auditor Scheme (3rd edition) 2017 c) Guidelines for Consultants Reporting on Contaminated Sites 2011 Consultants Reporting on Contaminated Land (Contaminated Land guidelines (, (EPA, 2020) d) National Environment Protection (Assessment of Site Contamination) Measure, 2013 as amended (as amended 2013) e) other Relevant guidelines approved under section 105 of the Contaminated Land Management Act 1997. f) Details confirming compliance must be submitted to the Certifier prior to the commencement of any construction remediation works.</p>	<p>The following documents were submitted to the accredited site auditor prior to commencement of remediation works:</p> <ul style="list-style-type: none"> Environmental Earth Sciences (2021n), <i>Technical Memorandum: Additional Investigation at Ivanhoe Estate, Corner of Herring Road and Epping Road, Macquarie Park, NSW</i> (ref: 120077_Technical Memo_V1; 29 January 2021). Environmental Earth Sciences (2021o), <i>Technical Memorandum: Addendum to Remediation Action Plan at Ivanhoe Estate, Corner of Herring Road and Epping Road, Macquarie Park, NSW</i> (ref: 120077_RAP Addendum_V1; 29 January 2021). 	----	Compliant	
B58	56	<p>The Applicant must provide details of the proposed remediation and validation strategy to the accredited site auditor in a Works Plan and a Validation Sampling and Analysis Quality Plan for review by the site auditor prior to remediation works commencing. Details confirming compliance must be submitted to the Certifier prior to undertaking any remediation works.</p>	<p>The following documents were submitted to the accredited site auditor prior to commencement of remediation works:</p> <ul style="list-style-type: none"> Environmental Earth Sciences (2021n). Environmental Earth Sciences (2021o). 	----	Compliant	
B61	57	<p>The Applicant is to ensure that all reports prepared for the assessment of contamination must be prepared, or reviewed and approved, by a consultant certified under either the Environment Institute of Australia and New Zealand's Certified Environmental Practitioner (Site Contamination) Scheme (CEnvP(SC)) or the Soil Science Australia Certified Professional Soil Scientist Contaminated Site Assessment and Management (CPSS CSAM) scheme. Details confirming compliance must be submitted to the Certifier prior to undertaking any remediation works.</p>	<p>The following documents were submitted to the accredited site auditor prior to commencement of remediation works:</p> <ul style="list-style-type: none"> Environmental Earth Sciences (2021n). Environmental Earth Sciences (2021o). 	----	Compliant	

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B64	58	The Applicant shall comply with any notification requirements to SafeWork NSW concerning the handling and removal of any asbestos.	Richard Crookes Waste Minimisation Plan (<i>Section 7.0</i>) includes an Asbestos Management Plan. Richard Crookes did not undertake any excavations during the audit period.	----	Compliant	
B65	59	Prior to the commencement of any work, the Applicant is required to satisfy the requirements of the Protection of the Environment Operations (Waste) Regulation 2014 with particular reference to Part 7 'asbestos wastes'.	Richard Crookes Waste Minimisation Plan Section 7.0 includes an Asbestos Management Plan. Richard Crookes did not undertake any excavations during the audit period.	----	Compliant	
Schedule 2 - Part C						
During construction						
C7	60	The development must be constructed with the aim of achieving the construction noise management levels detailed in the Interim Construction Noise Guideline (Department of Environment and Climate Change, 2009). All feasible and reasonable noise and vibration mitigation measures shall be implemented and any activities that could exceed the construction noise or vibration management levels shall be identified and managed in accordance with the CEMP and CNVMP.	Richard Crookes Constructions (2023), Health, Safety & Environmental Form - Noise and Vibration Management Plan for Ivanhoe Estate Stage C1 (22 April 2022, revised February 2023) (the NVMP). This NVMP has been prepared in accordance with the Interim Construction Construction Noise Guideline.	The project has established noise management levels (Acoustic Logic, 2019) however no active noise monitoring was conducted during the Audit period. Any exceedances of the "highly noise affected level" cannot be quantified. As such active noise monitoring on site is recommended.	Not triggered	

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C8	61	If the noise from a construction activity is substantially tonal or impulsive in nature (as described in Chapter 4 of the NSW Industrial Noise Policy), 5 dB(A) must be added to the measured construction noise level when comparing the measured noise with the construction noise management levels.	For Richard Crookes Stage C1: the construction activities which occurred during the current audit period was the erection of structure with the noisiest anticipated equipment and processes anticipated to be: Concrete vibrator, Cement Mixing Truck, Concrete Pumps, Tower Crane and Hammering. Sound Power levels for these activities are tabulated in Section 4.9 of the NVMP. However, no noise monitoring has been undertaken during the current audit period.	The project has established noise management levels (Acoustic Logic, 2019) however no active noise monitoring was conducted during the Audit period. Any exceedances of the “highly noise affected level” cannot be quantified. As such active noise monitoring on site is recommended.	Not triggered	
C9	62	The Applicant must schedule intra-day ‘respite periods’ for construction activities predicted to result in noise levels in excess of the “highly noise affected” levels, including the addition of 5 dB to the predicted levels for those activities identified in the Interim Construction Noise Guideline as being particularly annoying to noise sensitive receivers.	No noise complaints were received by Richard Crookes, Christie Civil or FPA during the current audit period.	----	Compliant	
C10	63	Wherever practical, and where sensitive receivers may be affected, piling activities are completed using bored piles. If driven piles are required, they must only be installed where outlined in the CEMP.	Piling activities were not undertaken during the audit period	----	Compliant	
C11	64	Vibration caused by construction at any residence or structure outside the subject site must be limited to: a) for structural damage vibration to buildings (excluding heritage buildings), British Standard BS 7385 Part 2-1993 Evaluation and Measurement for Vibration in Buildings; b) for structural damage vibration to heritage buildings, German Standard DIN 4150 Part 3 Structural Vibration in Buildings Effects on Structure; c) for human exposure to vibration, the evaluation criteria presented in British Standard BS 6472- Guide to Evaluate Human Exposure to Vibration in Buildings (1Hz to 80 Hz) for low probability of adverse comment; and d) (d) these limits apply unless otherwise outlined in the CEMP.	The NVMP (<i>Section 8</i>) details the vibration goals based on German Standard DIN4150-3 (1999-02).	----	Compliant	

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C15	65	The Applicant must implement the recommendations of the Remedial Action Plan (Condition B56) as approved by the accredited site auditor.	<p>The following report documented the remediation works and subsequent validation assessment in accordance with the Remedial Action Plan:</p> <ul style="list-style-type: none"> Environmental Earth Sciences (2021p), <i>Validation Report for Ivanhoe Estate (Location BH8), Corner Herring Road and Epping Road, Macquarie Park, NSW</i> (ref: 120077_VAL_BH8_V1; 12 March 2021). <p>NSW EPA accredited Site Auditor (James Davis of Enviroview) issued a Site Audit Report (Enviroview, 2021a) and Site Audit Statement (Enviroview, 2021b) declaring that the soil remediation and validation works have been appropriately undertaken and that it is considered that the soils at the site are suitable for the proposed land use:</p> <ul style="list-style-type: none"> Enviroview Pty Ltd (2021a) – Site Audit Report, Ivanhoe Estate, Macquarie Park, NSW 2113; (ref: 600184_0301-2019; 6 April 2021) (Enviroview, 2021a). Enviroview Pty Ltd (2021b) – NSW EPA Site Auditor Scheme, Site Audit Statement, Ivanhoe Estate, Macquarie Park, NSW 2113; (ref: 600184_0301-2019; 6 April 2021) (Enviroview, 2021b). 	----	Compliant	
C16	66	The Applicant must ensure that an appropriate marker layer is installed above any emplaced contaminated fill material contained on the development site.	No contaminated fill material is contained on the development site and therefore marker layer is not required.	N/A	Not triggered	
C17	67	The Applicant must ensure all in-ground services are installed above the marker layer, referred to in Condition C16, to minimise any risks to workers undertaking future maintenance work in service trenches.	No contaminated fill material is contained on the development site and therefore marker layer is not required.	N/A	Not triggered	

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C18	68	Where applicable, the Applicant must develop a Long-Term Environmental Management Plan following remediation of the development site to document: a) the expected limitations on the development site use b) relevant environmental and health and safety processes and procedures c) management processes, procedures and responsibilities to be adopted by future site users within the development site d) (d) details on the location and extent of emplaced asbestos impacted soil and other contaminated soil to be contained on the site.	A Long-Term Environmental Management Plan is not required for this site as fill material and underlying natural material was excavated and disposed offsite.	N/A	Not triggered	
C19	69	The Applicant is to ensure that any contamination identified as meeting the trigger in the EPA Guidelines for the Duty to Report Contamination is notified in accordance with requirements of section 60 of the Contaminated Land Management Act 1997.	N/A	N/A	Not triggered.	
C20	70	The Applicant is to ensure the proposed development does not result in a change of risk in relation to any pre-existing contamination on the site that would result in significant contamination.	Pre-existing contamination was remediated and validated.	N/A	Not triggered.	
C21	71	Should any new information come to light during demolition or construction works which has the potential to alter previous conclusions about site contamination, the Department must be immediately notified, and works must cease. Works must not recommence on site until the Department confirms works can recommence.	Pre-existing contamination was remediated and validated. No unexpected find protocols were triggered during the current audit period.	N/A	Not triggered	

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C28	72	Notwithstanding the CWMP referred to in Condition B44, the Applicant must ensure that: a) All waste generated by the development is classified and managed in accordance with the EPA's Waste Classification Guidelines Part 1: Classifying Waste 2009; b) All waste generated by the development is treated and/or disposed of at a facility that has sufficient capacity to and may lawfully accept that waste; c) Any vehicle used to transport waste or excavation spoil from the site is covered before leaving the premises; d) The wheels of any vehicle, trailer or mobilised plant leaving the site and cleaned of debris prior to leaving the premises.	a) All solid waste generated were classified and managed in accordance with the NSW EPA (2014), <i>Waste Classification Guidelines – Part 1: Classifying Waste</i> (EPA, 2014). b) All solid waste generated by the development were disposed at facilities that have sufficient capacity to and may lawfully accept that waste. c) Christie Civil advised that all trucks had covered their loads prior to leaving site. d) Metal rumble grid installed at site exit to facilitate removal of sediment and other materials prior to vehicles leaving site.	----	Compliant	
C31	73	Waste materials must be appropriately stored and secured within a designated waste area onsite at all times, prior to reuse or being sent offsite. This includes waste materials such as paper and containers which must not litter the site or leave the site onto neighbouring public or private property. Receipts of all waste/recycling tipping must be retained and produced in a legible form to any authorised officer of the Council who asks to see them.	Receipts of all waste/recycling tipping were retained by Christie Civil and provided to EESI as part of this audit. Good housekeeping practices were observed by the Auditor assistant during both site inspections.	----	Compliant	
C32	74	Any hazardous materials, including asbestos, must be identified before demolition work commences and be removed in a safe manner.	N/A	N/A	Not triggered	
C33	75	Removal of asbestos and other hazardous building materials must be undertaken by a suitably licensed contractor and an asbestos clearance certificate must be provided before waste classification, disposal or site validation is undertaken.	N/A	N/A	Not triggered	
C34	76	All vehicles involved in the excavation and / or demolition process and departing from the property with materials, spoil or loose matter must have their loads fully covered before entering the public roadway.	N/A	N/A	Not triggered	

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C35	77	Prior to the commencement of work and during construction works, suitable measures are to be implemented to ensure that sediment and other materials are not tracked onto the roadway by vehicles leaving the Site. It is an offence to allow, permit or cause materials to pollute or be placed in a position from which they may pollute waters.	N/A	N/A	Not triggered.	
C36	78	The Applicant must ensure: a) Stockpiles of material do not exceed 4 metres in height; b) Stockpiles of material are constructed and maintained to prevent cross contamination; and c) Suitable erosion and sediment controls are in place for stockpiles.	N/A	N/A	Not triggered.	
C37	79	All erosion and sediment control measures are to be effectively implemented and maintained at or above design capacity for the duration of the construction works and until such time as all ground disturbed by the works has been stabilised and rehabilitated so that it no longer acts as a source of sediment.	N/A	N/A	Not triggered.	

Table A: Audit findings - Independent Environmental Audit Table

SSD 8903 MOD 6 Condition of Consent		Compliance Requirement	Evidence collected (Data/document author, date, title, reference number)	Independent Audit Comment & Recommendations	Compliance status	Proponent Response to Findings
C38	80	<p>Adequate measures shall be taken to prevent dust from affecting the amenity of the neighbourhood during construction. In particular, the following measures should be adopted:</p> <ul style="list-style-type: none"> a) physical barriers shall be erected at right angles to the prevailing wind direction or shall be placed around or over dust sources to prevent wind or activity from generating dust emissions; b) earthworks and scheduling activities shall be managed to coincide with the next stage of development to minimise the amount of time the site is left cut or exposed; c) all materials shall be stored or stockpiled at suitable locations and stockpiles shall be maintained at manageable sizes which allow them to be covered, if necessary, to control emissions of dust and/or VOCs/odour; d) the surface should be dampened slightly to prevent dust from becoming airborne but should not be wet to the extent that run-off occurs; e) all vehicles carrying spoil or rubble to or from the site shall at all times be covered to prevent the escape of dust or other material; f) all equipment wheels shall be washed before exiting the site using manual or automated sprayers and drive-through washing bays; g) gates shall be closed between vehicle movements and shall be fitted with shade cloth; and h) cleaning of footpaths and roadways shall be carried out regularly. 	<ul style="list-style-type: none"> a) Physical barriers were in place to prevent wind or activity from generating dust emissions. b) Earthworks were in progress during the time of the audit inspection. Christie Civil advised that earthworks were being scheduled so excavated material could be taken offsite expediently. c) Minimal amount of construction material was noted being stored on site. d) At the time of inspections, ground surfaces were noted to be wet due to recent rainfall events. e) Christie Civil advised that all vehicles carrying spoil offsite were covered. f) Metal rumble grid was in-place at site exit to facilitate removal of dirt and debris prior to vehicles leaving site. g) Gate was fitted with shade cloth. h) Roadways were regularly cleaned. Any tracking of soil from the internal to external roads was not noted during audit inspection. 	----	Compliant	

Table A: Audit findings - Independent Environmental Audit Table

SSD 8903 MOD 6 Condition of Consent		Compliance Requirement	Evidence collected (Data/document author, date, title, reference number)	Independent Audit Comment & Recommendations	Compliance status	Proponent Response to Findings
C49	81	<p>During construction, the following measures should be incorporated with direction from a suitably qualified Chartered Civil Engineer (registered on the NER of Engineers Australia) or equivalent:</p> <p>a) Construction equipment, materials, stockpile, access roads and work platforms should not be sited within floodways where the distribution of flood flows will be significantly altered and increase flood impacts on</p> <p>b) Adjoining properties</p> <p>c) Hazardous material should be sited so that the risk of such material entering a watercourse during a flood event is minimised</p> <p>d) Appropriate activities and methodologies should be put in place that addresses awareness, preparedness, response and recovery from a flood event in regard to such things as work health and safety, waterway impacts, site impacts and site reestablishment should a flood event occur during construction</p> <p>e) Temporary measures shall be provided and regularly maintained during demolition, excavation and construction to prevent sediment and polluted waters discharging from the site.</p>	<p>(a) The Auditor assistant noted generally good housekeeping practices during the site audit inspection.</p> <p>(b) -</p> <p>(c) Area for hazardous material</p> <p>(d) Sediment basin is no longer in use and additional erosion and sedimentation controls need to be prioritised before and after heavy rainfall events.</p> <p>(e) Additional silt fences and erosion and sedimentation controls were noted during the second site inspection.</p>	<p>Christies site:</p> <p>The area for storage of hazardous chemicals on site need to be regularly kept tidy with clearly labelled containers kept in lockable ventilated cages.</p> <p>During the second site visit, this was noted to be addressed.</p> <p>Self-auditing programs consisting of daily and weekly site inspections should address if this area needs to be tidied and a person will need to be in charge of keeping the area clean.</p>	Not triggered.	
C52	82	<p>The Applicant shall store all chemicals, fuels and oils used on-site in appropriately bunded areas in accordance with the requirements of all relevant Australian Standards, EPL requirements and/or EPA's Storing and Handling Liquids: Environmental Protection – Participants Handbook.</p>	<p>Richard Crookes and Christie stores diesel and petrol onsite. Diesel and petrol are stored in fuel jerry cans in bunded fuel cages on site.</p>	<p>See comment above.</p>	Not triggered.	

Table A: Audit findings - Independent Environmental Audit Table

SSD 8903 MOD 6 Condition of Consent		Compliance Requirement	Evidence collected (Data/document author, date, title, reference number)	Independent Audit Comment & Recommendations	Compliance status	Proponent Response to Findings
Schedule 2 - Part D						
Prior to Occupation or commencement of use						
D5	83	The recommendations of the RAP (Condition B56) are to be implemented, including provision of a Section A Site Audit Statement, issued by an EPA accredited site auditor, to the Certifier at the completion of remediation and validation works, certifying suitability of that part of the site requiring remediation as identified in the Remedial Action Plan for the approved use.	NSW EPA accredited Site Auditor (James Davis of Enviroview) issued a Site Audit Report (Enviroview, 2021a) and Site Audit Statement (Enviroview, 2021b) declaring that 'the soil remediation and validation works have been appropriately undertaken and that it is considered that the soils at the site are suitable for the proposed land use': <ul style="list-style-type: none"> • Enviroview Pty Ltd (2021a) – <i>Site Audit Report</i>. • Enviroview Pty Ltd (2021b) – <i>Site Audit Statement</i>. 	----	Compliant	
D6	84	On completion of remediation work and prior to any occupation, the relevant requirements of clauses 17 and 18 of SEPP 55 – <i>Remediation of Land</i> , being notification to Council, shall be complied with. Groundwater is not to be abstracted from the site for beneficial use.	The following report documented the remediation works and subsequent validation assessment in accordance with the RAP (Environmental Earth Sciences, 2021p). It is the Auditor's understanding that groundwater was not abstracted from the site.	----	Compliant	

Table A: Audit findings - Independent Environmental Audit Table

SSD 8903 MOD 6 Condition of Consent		Compliance Requirement	Evidence collected (Data/document author, date, title, reference number)	Independent Audit Comment & Recommendations	Compliance status	Proponent Response to Findings
D19	85	<p>Prior to the occupation or use of each building:</p> <p>a) The Applicant must engage a suitably qualified person to prepare a post-construction dilapidation report. This report must ascertain whether the construction works created any structural damage to adjoining buildings, infrastructure and roads.</p> <p>b) The report is to be submitted to the Certifier. In ascertaining whether adverse structural damage has occurred to adjoining buildings, infrastructure and roads, the Certifier must:</p> <p>c) Compare the post-construction dilapidation report with the pre-construction dilapidation report required by these conditions.</p> <p>d) Have written confirmation from the relevant authority that there is no adverse structural damage to their infrastructure and roads.</p> <p>e) Copy of this report is to be forwarded to the Certifier, the Planning Secretary and each of the affected property owners.</p>	----	GreenPlus Property Services was engaged by Mainland Civil to complete the post-construction dilapidation report.	Not triggered as the report is yet to be completed.	
D52	86	A Section A1 Site Audit Statement – or a Section A2 Site Audit Statement accompanied by an Environmental Management Plan (prepared by a NSW EPA-accredited Site Auditor) – certifying that the site is suitable for the proposed use, must be submitted to the Planning Secretary and the Certifier prior to use of the relevant buildings and infrastructure included in this consent.	<p>NSW EPA accredited Site Auditor (James Davis of Enviroview) issued a Site Audit Report (Enviroview, 2021a) and Site Audit Statement (Enviroview, 2021b) declaring that ‘the soil remediation and validation works have been appropriately undertaken and that it is considered that the soils at the site are suitable for the proposed land use’:</p> <ul style="list-style-type: none"> • Enviroview Pty Ltd (2021a) – <i>Site Audit Report</i>. • Enviroview Pty Ltd (2021b) – <i>Site Audit Statement</i>. 	----	Compliant	

Notes:

Complaint

Non-compliant

Not triggered



Table B: Previous audit comments/ recommendations – Status or Outcome

Condition	Compliance Requirement	Independent Audit Finding	Independent Audit Recommendation	Proponents Proposed Action / Action taken / Response (as applicable)	Status
Proponent response to Environmental Earth Sciences (2020) Preliminary findings – independent environmental audit at Stage 1 Ivanhoe Estate, Macquarie Park, NSW (ref: 122077_EMS Audit_V2, 17 December (2020))					
B42. Construction Noise and Vibration Management Plan (CNVMP)	Prior to the commencement of any works, a CNVMP prepared by a suitably qualified person shall be submitted to the Certifier. The CNVMP must be prepared in consultation with, and address the relevant be prepared in accordance with the EPA's <i>Interim Construction Noise Guideline</i> .		Environmental Earth Sciences (2020) Auditor Recommendation: <i>Please identify the suitably qualified person, experience and credentials to demonstrate compliance to Condition B42.</i>	Osterman Consult was engaged by Mainland Civil to conduct noise and vibration monitoring. Refer to Appendix C of <i>Version 1</i> of this audit (ref: 120077_Review of EMS_V1; 27 August 2021) for noise and vibration monitoring reports.	Complete / Compliant.
B42. CNVMP	Ensure all potentially impacted stakeholders are informed by letterbox drops prior to the commencement of construction of the nature of works to be carried out, the expected noise levels and duration, as well as contact details for a construction community liaison officer.		Auditor recommendation: <i>Mainland Civil to provide example of letter issued.</i>	Mainland Civil provided Environmental Earth Sciences with the letter provided to neighbouring residents. Refer to <i>Appendix C</i> of <i>Version 1</i> of the previous six-monthly compliance audit (ref: 120077_Review of EMS_V1, 27 August 2021) for the notification letter: <ul style="list-style-type: none"> Mainland Civil Pty Ltd (2020c), <i>Notice of Construction Commencement, Ivanhoe Estate</i> – (dated 16 December 2020). 	Complete / Compliant.
B45. Construction Soil and Water Management Plan (CSWMP)	A Sediment Basin is required for every catchment discharging from the site as part of any CSWMP. Sediment basin(s) are to be designed as follows: for all events up to the peak flow rate from the 1 in 10-year ARI event for the site for the 5-day rainfall event.		Auditor recommendation: Further information required as cannot find reference to this. Please provide evidence that these events were factored for the sediment basin design.	On review of Figure 5.7.3a Basin Detail Plan in the IMP, Environmental Earth Sciences is satisfied that the sediment basin is designed for all events up to the peak flow rate from the 1 in 10-year ARI event for the site for the 5-day rainfall event.	Complete / Compliant.

Table B: Previous audit comments/ recommendations – Status or Outcome

Condition	Compliance Requirement	Independent Audit Finding	Independent Audit Recommendation	Proponents Proposed Action / Action taken / Response (as applicable)	Status
Proponent response to Environmental Earth Sciences (2021) – Six monthly performance audit, Stage 1 Ivanhoe Estate, Macquarie Park, NSW (ref: 120077_EMS_V2, 1 October 2021) (Environmental Earth Sciences, 2021).					
C36 Stockpile Management	The Applicant must ensure: a) Stockpiles of material do not exceed 4 metres in height. b) Stockpiles of material are constructed and maintained to prevent cross contamination. c) Suitable erosion and sediment controls are in place for stockpiles.	Frasers Property received a complaint on 14 March 2021 from a local resident concerned about spoil in a stockpile collapsing towards her residence due to heavy rainfall. Mainland Civil investigated the complaint on 15 March 2021 and recommended flattening out of the stockpiles to improve the unsightly view for the neighbouring residents.	Limit the height of stockpiles and ensure stockpiles are compacted and secure at the end of each day.	Bulk and detailed earthworks by Mainland Civil have since been completed site.	Complete / Compliant.
B40 (c) Construction Environmental Management Plan (CEMP)	Include a Dust Management Plan, incorporating the mitigation measures outlined in the Air Quality Assessment, prepared by WSP, dated October 2018.	Section 5.8.4 refers to multiple monitors, but only one dust gauge installed each month. What is the reasoning for not having multiple dust gauges installed onsite?	Due to the size of the site, multiple dust gauges should be installed for monthly monitoring.	Bulk and detailed earthworks by Mainland Civil have been completed at the site.	Complete / Compliant.
B42 (f) Construction Noise and Vibration Management Plan (CNVMP)	Be consistent with and incorporate all relevant recommendations and noise and vibration mitigation measures outlined in the Stage 1 DA Acoustic Assessment, prepared by Acoustic Logic, dated 15 October 2019.	Section 6: Nearest Receivers - details the nearest properties likely to be affected from the report (Acoustic Logic, 2020), Master Plan for Ivanhoe Estate, Macquarie Park – Additional Noise Monitoring 30/1/2020.	Regular noise monitoring should be conducted focusing on more than one noise sensitive location.	Not required to be undertaken during this audit reporting period.	Complete / Compliant.

Table B: Previous audit comments/ recommendations – Status or Outcome

Condition	Compliance Requirement	Independent Audit Finding	Independent Audit Recommendation	Proponents Proposed Action / Action taken / Response (as applicable)	Status
<p>B45. Construction Soil and Water Management Plan (CSWMP)</p> <p>C48 Stormwater</p>	<p>Water quality targets in accordance with Council’s DCP 2014 Part 8.2 and all relevant guidelines must be maintained throughout all construction phases.</p>	<p>Calibration records for water quality meter should be available.</p>	<p>Water quality meter to be calibrated and records provided to Environmental Earth Sciences.</p>	<p>Records not provided at the time of issue of this audit report. Deadline provided, with advice to provide any such calibration records for meters used.</p> <p>Item to be closed out upon provision of information. Recommended to be submitted in the next audit cycle.</p> <p>Water quality monitoring with a water quality meter was not undertaken in the audit period between 12 April 2022 and 5 September 2022.</p> <p>Environmental Earth Sciences has been informed by Frasers that Christie Civil Pty Ltd are now responsible for managing the construction water on site.</p> <p>Regular water quality monitoring of Shrimpton Creek and the sedimentation basin using a calibrated water quality meter has been recommended in the September 2022 audit.</p> <p>Christie Civil will implement water quality monitoring on a monthly basis with a calibrated water quality meter. This will be in effect immediately, as per response received 13 October 2022.</p>	<p>Progressing.</p> <p>The auditor was informed that water quality monitoring of the creek (upstream and downstream) using a calibrated water quality meter has now commenced in response to recommendations from the audit period September 2022 – April 2023, as per information received 21 April 2023. Water quality calibration certificate was supplied to the auditor.</p>

Table B: Previous audit comments/ recommendations – Status or Outcome

Condition	Compliance Requirement	Independent Audit Finding	Independent Audit Recommendation	Proponents Proposed Action / Action taken / Response (as applicable)	Status
<p>B42 Construction Noise and Vibration Management Plan (CNVMP)</p> <p>C7 Construction Noise and Vibration Management</p>	<p>B42h) The CNVMP shall include a suitable proactive construction noise and vibration monitoring program which aims to ensure the construction noise and vibration criteria in this consent are not exceeded.</p>	<p>Noise meter is overdue for calibration.</p>	<p>Noise meter to be calibrated.</p>	<p>Noise monitoring not required to be implemented during the audit reporting period 17 December 2020 to 14 July 2021.</p>	<p>Progressing.</p> <p>No noise monitoring was undertaken at the site during the audit period September 2022 – April 2023.</p> <p>The auditor is of the opinion that noise monitoring should be conducted in order to ensure the operational construction noise and vibration criteria in this consent are tracked and not exceeded.</p> <p>Christie Civil (8 May 2023):</p> <p><i>“Noise monitors will be set up and results recorded daily.</i></p> <p><i>Results will be compared to the noise management levels for the project to determine any high disturbances.</i></p> <p><i>Additional preventive actions will be implemented if this is the case.</i></p>

Table B: Previous audit comments/ recommendations – Status or Outcome

Condition	Compliance Requirement	Independent Audit Finding	Independent Audit Recommendation	Proponents Proposed Action / Action taken / Response (as applicable)	Status
Proponent response to Environmental Earth Sciences (2022) – Six monthly performance audit, Stage 1 Ivanhoe Estate, Macquarie Park, NSW (ref: 122038_Six-monthly Audit_V2, 16 August 2022) (Environmental Earth Sciences, 2022).					
<p>B45. Construction Soil and Water Management Plan (CSWMP)</p> <p>5.7 SWMP: Table</p> <p>5.7.2 Soil and Water Sources and Mitigation Methods</p> <p>5.7.3 Temporary sediment basin</p>			<p>The quality of surface water in the creek, upstream and downstream of bridge works, and in the sediment retention basins should be monitored monthly using a calibrated water quality meter, noting water quality parameters (e.g., pH, electrical conductivity and turbidity / suspended solids) and any visual / olfactory indications of contamination or eutrophication. Calibration records for water quality meter should be available.</p> <p>Calibration records for water quality meter should be available. This supporting information has been requested and will be furnished by Parkview.</p>	<p>Water quality monitoring with a water quality meter was not undertaken in the audit period between 12 April 2022 and 5 September 2022.</p> <p>Environmental Earth Sciences has been informed by Frasers that Christie Civil Pty Ltd are now responsible for managing water monitoring on site.</p> <p>Regular water quality monitoring of Shrimpton Creek and the sedimentation basin using a calibrated water quality meter has been recommended in the September 2022 audit.</p> <p>Christie Civil will implement water quality monitoring monthly with a calibrated water quality meter. This will be in effect immediately, as per response received 13 October 2022.</p>	<p>Progressing.</p> <p>Due to road works, the sedimentation basin has not been in use since the last audit (October 2022) and stormwater is released directly into Shrimptons Creek.</p> <p>Environmental Earth Sciences was provided with pH and Turbidity readings by Christie Civil. It is understood that readings were taken from Shrimptons Creek surface water, downstream of bridgeworks. It was explained that pH readings were taken by a Liquid pH test kit. No water quality monitoring of creek surface water using a calibrated water quality monitor had been undertaken during the audit period September 2022 to April 2023.</p> <p>In response to recommendations on 21/04/2023, Christie Civil informed that they have started taking pH and Turbidity reading using a calibrated water quality meter. Calibration certificate was supplied and reviewed.</p>

Table B: Previous audit comments/ recommendations – Status or Outcome

Condition	Compliance Requirement	Independent Audit Finding	Independent Audit Recommendation	Proponents Proposed Action / Action taken / Response (as applicable)	Status
<p>B40, B42, B43, B44, B45 Construction Environmental Management Plan (CEMP)</p> <p>C6. Implementation of management plans</p>	<p>The CEMP must:</p> <p>c)include a include a Dust Management Plan, incorporating the mitigation measures outlined in the Air Quality Assessment, prepared by WSP, dated October 2018</p> <p>clearly outline the stages/phases of construction that require ongoing environmental management monitoring and reporting;</p> <p>The Applicant shall ensure that the requirements of the management plans required by Part B of this consent are implemented during construction.</p>		<p>Routinely update the Parkview Construction Management Plan (CMP) and all relevant sub environmental management plans.</p> <p>The CMP needs to clearly outline the present site activities / stages / scope of works and be updated in accordance with the development consent SSD 8903. The integrated management plan (Mainland Civil 2020) refers to Stage 1 Bulk excavations and roadworks.</p>	<p>After request, Parkview provided their updated CMP on 13 October 2022, outlining present site activities / stages / scope of works in <i>Section 8.3</i>.</p> <p>Parkview are still to update relevant sub environmental management plans in accordance with development consent SSD 8903 condition B40, B42, including:</p> <ul style="list-style-type: none"> • Dust Management Plan • Construction Noise and Vibration Management Plan • Air Quality and Odour Management Plan • Construction Waste Management Plan • Construction Soil and Water Management Plan <p>Response from Parkview (19/12/22):</p> <p><i>“As discussed Parkview are of the belief that the provided plans submitted on 12/10/22 address and close out the requirements as noted in the below.</i></p> <p><i>As noted the review undertaken dealt with the requirements as at the stage of construction at the time of review and submission, as such some of the items noted are no longer applicable other than in a general nature due to the construction progress at the time of review.</i></p> <p><i>Please note that the three plans submitted must be considered in conjunction as company procedures dictate their usage and application at differing times of the construction programme.”</i></p>	<p>Progressing.</p> <p>Audit recommendation remains.</p> <p>The Environmental management plans must include all requirements set out in the conditions of consent: B40, B42, B43, B44, B45.</p> <p>In accordance to condition C6: The Applicant shall ensure that the requirements of the management plans required by Part B of this consent are implemented during construction.</p> <p>If Parkview are operating under Mainland Civil managements plans, this needs to be clearly stated.</p> <p>In addition, if Parkview are operating under Mainland Civil management plans, controls and monitoring requirements stipulated in these plans should be followed.</p> <p>Environmental management plans are living documents and will need to be reviewed, updated and reflect present site activities.</p>

Table B: Previous audit comments/ recommendations – Status or Outcome



Condition	Compliance Requirement	Independent Audit Finding	Independent Audit Recommendation	Proponents Proposed Action / Action taken / Response (as applicable)	Status
Proponent response to Environmental Earth Sciences (2022) – Six monthly performance audit, Stage 1B Ivanhoe Estate, Macquarie Park, NSW (ref: 122038RP02V2, 25 October 2022) (Environmental Earth Sciences, 2022).					
<p>B45. Construction Soil and Water Management Plan (CSWMP)</p> <p>C37 Erosion and sediment control.</p>			<p>The buoyant sediment and debris trap installed downstream in Shrimpton Creek should be routinely checked and emptied when near to full. The status of the sediment trap will need to be evaluated and documented in the daily and weekly Safety and Environmental Inspection checklists and corrective action noted where required.</p>	<p>Proponent response:</p> <p><i>“Christie Civil will include this the checking of the silt boom downstream of Shrimptons Creek into the weekly site inspection. This will be in effect immediately, as per response received 13 October 2022.”</i></p>	<p>Progressing.</p> <p>At 15 March 2023: The buoyant sediment and debris trap was observed to be full during audit site visit on 15 March 2023 and uncontrolled sedimentation was observed around Shrimptons Creek.</p> <p>29 March 2023: The sediment and debris trap had been cleaned and silt fenced were erected alongside the Creek edge.</p> <p>The daily and weekly site inspections need to be conducted by <u>qualified</u> person and personnel need to be nominated to oversee and implement erosion and sediment control on site. Corrective actions need to be recorded.</p>

Table B: Previous audit comments/ recommendations – Status or Outcome



Condition	Compliance Requirement	Independent Audit Finding	Independent Audit Recommendation	Proponents Proposed Action / Action taken / Response (as applicable)	Status
<p>B45. Construction Soil and Water Management Plan (CSWMP)</p> <p>C37 Erosion and sediment control.</p>		<p>Uncontrolled sedimentation was noted around certain stormwater drains around the site.</p>	<p>Sediment controls around stormwater drains need to be cleaned and maintained more frequently especially before and after heavy rainfall events. Status and corrective actions need to be recorded in the daily and weekly Safety and Environmental Inspection checklists.</p>	<p>The sedimentation around stormwater pits and drains will be cleaned out regularly and monitored. Areas around drains have been lined with Geofabric to provide ground cover and minimise erosion or chance for contaminated water to enter the stormwater system.</p> <p>This will be in effect immediately, as per response received 13/10/2022.</p>	<p>Progressing.</p> <p>15 March 2023: There was still evidence of some uncontrolled sedimentation around some stormwater drains during audit site visit on 15 March 2023.</p> <p>29 March 2023: Additional controls were installed around the stormwater drains and was viewed to be satisfactory.</p> <p>The daily and weekly site inspections need to be conducted by a qualified person to be nominated to be in charge of erosion and sediment control onsite.</p>

Table B: Previous audit comments/ recommendations – Status or Outcome

Condition	Compliance Requirement	Independent Audit Finding	Independent Audit Recommendation	Proponents Proposed Action / Action taken / Response (as applicable)	Status
		<p>No active water quality monitoring is being undertaken of the creek.</p>	<p>The quality of surface water in the creek, upstream and downstream of bridge works, and in the sediment retention basins should be monitored monthly using a calibrated water quality meter, noting water quality parameters (e.g., pH, electrical conductivity and turbidity / suspended solids) and any visual / olfactory indications of contamination or eutrophication. Calibration records for water quality meter should be available.</p>	<p>Christie Civil will implement the monitoring of water quality upstream and downstream each month.</p> <p>This will be in effect immediately, as per response received 13 October 2022.</p> <p>Water quality monitoring of sediment ponds and Shrimptons Creek using a calibrated water quality meter was not undertaken in the audit period September 2022 to April 2023. The sediment pond has now been drained and decommissioned in conjunction with road construction in the south western portion of the site and stormwater empties into Shrimptons Creek which warrants regular water quality monitoring especially after heavy rainfall events.</p> <p>The quality of surface water in the creek, upstream and downstream of bridge works, and in the sediment retention basins should be monitored monthly using a calibrated water quality meter, noting water quality parameters (e.g., pH, electrical conductivity and turbidity / suspended solids) and any visual / olfactory indications of contamination or eutrophication. Calibration records for water quality meter should be available.</p>	<p>Progressing.</p> <p>The auditor was informed that water quality monitoring of the creek (upstream and downstream) using a calibrated water quality meter has commenced in response to recommendations from the current audit period September 2022 – April 2023, as per information received 21 April 2023. Water quality calibration certificate was supplied to the auditor.</p>

Table B: Previous audit comments/ recommendations – Status or Outcome

Condition	Compliance Requirement	Independent Audit Finding	Independent Audit Recommendation	Proponents Proposed Action / Action taken / Response (as applicable)	Status
C52. Bunding	The Applicant shall store all chemicals, fuels and oils used on-site in appropriately bunded areas in accordance with the requirements of all relevant Australian Standards, EPL requirements and/or EPA's <i>Storing and Handling Liquids: Environmental Protection – Participants Handbook</i> .	There was a dedicated area for hazardous substances (e.g., flammable liquids), in the southern portion of the site away from earthworks and next to spill kits. Some containers were noted to be stored in unlocked cages and cabinets. Some containers (mostly empty) were stored on the ground outside the cages and cabinets.	The area for storage of hazardous chemicals on site should be tidied up and all containers should be clearly labelled and kept in lockable and ventilated storage. Empty containers need to be disposed of appropriately.	The area will be tidied up and ensure all materials are labelled. The area is already well ventilated, and substances are stored in a lockable storage container (bunded). This will be in effect by 14 October 2022, as per response received 13 October 2022.	Progressing. During site inspection 15 March 2023: Hazardous chemicals storage area observed again to be untidy with rubbish and unlabelled half full containers sitting directly on the ground. Storage cages noted to be un-locked, and the yellow spill kit next to the containers not maintained with rubbish observed inside. The area for hazardous material storage was also not bunded and there was evidence of water runoff in that area. During site inspection 29 March 2023: The storage area was noted to have been cleaned and containers were locked in cages with spill kits tidied.
B44. Construction Waste Management Plan	(e) nomination of the end location of all waste and recycling generated from a facility authorised to accept the material type for processing or disposal.	nominated authorised receiving facilities of all waste and recycling generated was not included in Waste Management Plan.	Update to the Construction Waste Management Plan (<i>Appendix 10</i> of the CEMP) to include nominated authorised receiving facilities of all waste and recycling generated.	A table of nominated facilities used for waste will be added to Waste Management Plan as advised. This will be in effect by 14 October 2022, as per response received 13 October 2022.	Complete / Compliant. Christie provided their updated Construction Waste Management Plan on 24 October 2022, outlining nominated authorised receiving facilities of all waste and recycling generated in Appendix D .

Table B: Previous audit comments/ recommendations – Status or Outcome



Condition	Compliance Requirement	Independent Audit Finding	Independent Audit Recommendation	Proponents Proposed Action / Action taken / Response (as applicable)	Status
<p>B43. Air Quality and Odour Management Plan</p> <p>C38. Dust control measures.</p>	<p>The AQOMP must include proactive and reactive management strategies, key performance indicators, <u>monitoring measures</u>, record keeping, response mechanisms, contingency and compliance reporting measures.</p>	<p>There is no active dust monitoring onsite.</p>	<p>Dust monitors should be set up adjacent to sensitive receptors.</p>	<p>Dust generated is minimal as there is a watercart onsite full time. Should complaints of dust from sensitive receivers be advised, dust monitoring may be implemented.</p>	<p>Progressing.</p> <p>It is noted that dust generation was minimal due to prevailing wet weather over the period of this audit, however the current audit requirement remains. According to SSD 8903 MOD 4 Condition of Consent B43, the 'Air Quality and Odour Management Plan' (AQOMP) must include proactive and reactive management strategies, key performance indicators (KPIs), monitoring measures, record keeping, response mechanisms, contingency and compliance reporting measures.</p> <p>Christie Civil (8 May 2023):</p> <p><i>"Dust monitors will be set up and results recorded daily. Results will be compared to the dust management levels for the project to determine if it is exceeding 4g/m2/month. Additional preventive actions will be implemented if this is the case."</i></p>

Table B: Previous audit comments/ recommendations – Status or Outcome



Condition	Compliance Requirement	Independent Audit Finding	Independent Audit Recommendation	Proponents Proposed Action / Action taken / Response (as applicable)	Status
<p>B43. Air Quality and Odour Management Plan</p>	<p>The AQOMP must include proactive and reactive management strategies, key performance indicators, monitoring measures, record keeping, response mechanisms, contingency and compliance reporting measures.</p>	<p>The AQOMP does not include key performance indicators, monitoring measures, response mechanisms and contingencies.</p>	<p>It is recommended that the AQOMP should be updated to include these.</p>	<p>Christie Response: We do not believe these are required – as per response received 13 October 2022.</p>	<p>Progressing.</p> <p>As above the current audit requirement remains.</p> <p>According to SSD 8903 MOD 4 Condition of Consent B43 the AQOMP must include proactive and reactive management strategies, KPIs, monitoring measures, record keeping, response mechanisms, contingency and compliance reporting measures.</p> <p>Christie Civil (8 May 2023):</p> <p><i>“Dust monitors will be set up and results recorded daily. Results will be compared to the dust management levels for the project to determine if it is exceeding 4g/m2/month.</i></p> <p><i>Additional preventive actions will be implemented if this is the case.”</i></p>

Table B: Previous audit comments/ recommendations – Status or Outcome



Condition	Compliance Requirement	Independent Audit Finding	Independent Audit Recommendation	Proponents Proposed Action / Action taken / Response (as applicable)	Status
<p>B42. Construction Noise and Vibration Management Plan</p>	<p>The CNVMP shall include a suitable proactive construction noise and vibration monitoring program which aims to ensure the construction noise and vibration criteria in this consent are not exceeded.</p>	<p>The project has established noise management levels (Acoustic Logic 2019) however no active noise monitoring was conducted during the Audit period. Any exceedances of the “highly noise affected level” cannot be quantified.</p>	<p>Noise meters should be set up adjacent to sensitive receptors.</p>	<p>Christie response: If noise complaints are received, noise monitors can be considered adjacent to sensitive receivers. –as per response received 13/10/2022.</p>	<p>Noted, however current audit finding remains. According to SSD 8903 MOD 4 Condition of Consent B42h, the ‘Construction Noise and Vibration Management Plan’ (CNVMP) must include a suitable and proactive construction noise and vibration monitoring program which aims to ensure the operational construction noise and vibration criteria in this consent are tracked and not exceeded.</p> <p>The project has established noise management levels (Acoustic Logic, 2019) however no active noise monitoring was conducted during the Audit period. Any exceedances of the ‘highly noise affected level’ cannot be quantified.</p> <p>Christie Civil:</p> <p><i>“Noise monitors will be set up and results recorded daily. Results will be compared to the noise management levels for the project to determine any high disturbances. Additional preventive actions will be implemented if this is the case.”</i></p>

Table B: Previous audit comments/ recommendations – Status or Outcome

Condition	Compliance Requirement	Independent Audit Finding	Independent Audit Recommendation	Proponents Proposed Action / Action taken / Response (as applicable)	Status
<p>B45. Construction Soil and Water Management Plan</p>	<p>The Construction Soil and Water Management plan must include a daily and weekly site inspection checklist consistent with IECA Best Practice Erosion and Sediment Control documents.</p>	<p>The daily and weekly environmental checklist did not capture any need for erosion and sediment controls on site and / or any corrective actions undertaken such as changing silt socks around stormwater drains.</p>	<p>Ensure that corrective actions such as dredging of the sediment basin and the clearing and maintenance of sediment controls around stormwater drains are recorded in the daily and weekly site checklists.</p>	<p>Christie response: Noted and these will be captured. This will be in effect immediately, as per response received 13 October 2022.</p>	<p>Progressing.</p> <p>Records of the daily / weekly 'Safety and Environmental Inspection' checklists with comments and actions undertaken was inspected as part of this audit.</p> <p>The daily and weekly site inspections did not give any details and the inspections need to be conducted by a qualified person. Corrective actions need to be recorded.</p>
<p>B40. Construction Environmental Management Plan</p>	<p>The CEMP should satisfy all requirements under condition B40.</p>	<p>---</p>	<p>Routinely update the CEMP and all relevant sub environmental management plans, and/or specifically update CEMP and all relevant sub environmental management plans when changes to construction methods occur.</p>	<p>Christie Civil response:</p> <p><i>"Noted and to be updated regularly as advised within CEMP. This will be in effect immediately, as per response received 13 October 2022."</i></p>	<p>Complete / Compliant.</p> <p>The Christie Civil CEMP was reviewed as part of this audit.</p>

Table B: Previous audit comments/ recommendations – Status or Outcome

<p>B40. Construction Environmental Management Plan</p> <p>C6. Implementation of management plans</p>	<p>The CEMP should satisfy all requirements under condition B40.</p> <p>The Applicant shall ensure that the requirements of the management plans required by Part B of this consent are implemented during construction.</p>	<p>Parkview Construction Management plan did not satisfy all requirements under condition B40.</p>	<p>Routinely update the Parkview CMP and all relevant sub environmental management plans. The CMP needs to clearly outline the present site activities / stages / scope of works and be updated in accordance with the development consent SSD 8903.</p> <p>The auditor recommends Parkview to update relevant environmental management sub-plans in accordance with development consent SSD 8903 condition B40, B42, including:</p> <ul style="list-style-type: none"> • Dust Management Plan • Construction Noise and Vibration Management Plan • Air Quality and Odour Management Plan • Construction Waste Management Plan • Construction Soil and Water Management Plan 	<p>After request, Parkview provided their updated CMP on 13 October 2022, outlining present site activities / stages / scope of works in <i>Section 8.3</i>.</p> <p>Parkview are still to update relevant sub environmental management plans in accordance with development consent SSD 8903 condition B40, B42, including:</p> <ul style="list-style-type: none"> • Dust Management Plan • Construction Noise and Vibration Management Plan • Air Quality and Odour Management Plan • Construction Waste Management Plan • Construction Soil and Water Management Plan <p>Response from Parkview (19/12/22):</p> <p><i>“As discussed Parkview are of the belief that the provided plans submitted on 12/10/22 address and close out the requirements as noted in the below.</i></p> <p><i>As noted the review undertaken dealt with the requirements as at the stage of construction at the time of review and submission, as such some of the items noted are no longer applicable other than in a general nature due to the construction progress at the time of review.</i></p> <p><i>Please note that the three plans submitted must be considered in conjunction as company procedures dictate their usage and application at differing times of the construction programme.”</i></p>	<p>Progressing:</p> <p>Parkview are still yet to update relevant environmental management sub-plans in accordance with development consent SSD 8903 condition B40, B42, including:</p> <ul style="list-style-type: none"> • Dust Management Plan • Construction Noise and Vibration Management Plan • Air Quality and Odour Management Plan • Construction Waste Management Plan • Construction Soil and Water Management Plan <p>Audit recommendation remains.</p> <p>The Environmental management plans must include all requirements set out in the conditions of consent: B40, B42, B43, B44, B45.</p> <p>In accordance to condition C6: The Applicant shall ensure that the requirements of the management plans required by Part B of this consent are implemented during construction.</p> <p>If Parkview are operating under Mainland Civil managements plans, this needs to be clearly stated.</p> <p>In addition, if Parkview are operating under Mainland Civil management plans, controls and monitoring requirements stipulated in these plans should be followed.</p>
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Table B: Previous audit comments/ recommendations – Status or Outcome



Condition	Compliance Requirement	Independent Audit Finding	Independent Audit Recommendation	Proponents Proposed Action / Action taken / Response (as applicable)	Status
					Environmental management plans are living documents and will need to be reviewed, updated and reflect present site activities.

Table C: Proponents response to Audit recommendations

No.	Proponent	Condition Number (ID)	Compliance Requirement	Independent Audit findings	Independent Recommendations	Proponent's Proposed Action/Action taken/Response (as applicable)	Proposed Action Due Date
1.	Richard Crookes	B40. Construction Environmental Management Plan	The CEMP should: d) clearly outline the stages/phases of construction that require ongoing environmental management monitoring and reporting;	The second page of the CMP refers to the following sections of construction that will require ongoing environmental management monitoring and reporting: <ul style="list-style-type: none"> • 10.2 Public and Property Protection, • 10.4 Heritage & Archaeological Significance, • 10.5 Existing Operational Areas, • 10.6 Site Access/Egress, • 10.6.1 Worker Pedestrian Access, • 10.8 Traffic Management, • 10.11 Noise & Vibration, • 10.12 Air Quality and Dust Control, • 10.13 Waste Management, • 10.18 Soil and Water Mitigation Methods, • 10.18.1 Erosion and Sediment Control, • 10.19 Groundwater testing, treatment & discharge, • 10.20 Flora and Fauna, • 10.20.1 Dredging and land reclamation. 	Not all of these sections listed directly acknowledge the need for ongoing monitoring. As an extensive number of sections have been listed, the creation of a table or brief explanation of the ongoing monitoring required in these sections is recommended such as for soil and water control, dust, noise and vibration, hazardous materials, contaminated materials, construction waste management and complaints. Explain clearly how these aspects are being monitored and reported. There is no Section 10.61 Section 10.19 refers to sediment basin which is not in use anymore. This section needs to be updated.	Richard Crookes (3 May 2023): <i>"CMP updated"</i> <ul style="list-style-type: none"> • <i>Monitoring and reporting table has been added to explain how the specific aspects are monitored</i> • <i>Section 10.61 has been updated to be 10.6.2</i> • <i>Reference to sediment basin has been removed"</i> 	
2.	Richard Crookes	B40. Construction Environmental Management Plan	f) be prepared in consultation with Council and include specific consideration of measures to address any requirements of Council during site establishment and construction;	a) There is no evidence in the revision register that the CMP has been prepared in consultation with Council	Please provide evidence of Council having been consulted on CMP scope. It is recommended to include a document control section in the CMP detailing name, position, signatures, and date of signatures of personnel who prepared and reviewed the CMP.	Richard Crookes (3 May 2023): <i>"Condition B40 is a pre-construction requirement and was closed out by previous contractor prior to RCC engagement.</i> <i>Recommend that item no 2 is N/A and should be removed from recommendations section."</i> <i>"Reviewed and approved by section added to CMP. Once plan is reviewed, appropriate parties will sign."</i>	

Table C: Proponents response to Audit recommendations

No.	Proponent	Condition Number (ID)	Compliance Requirement	Independent Audit findings	Independent Recommendations	Proponent's Proposed Action/Action taken/Response (as applicable)	Proposed Action Due Date
3.	Richard Crookes	B40. Construction Environmental Management Plan	h) detail how the environmental performance of the site preparation and construction works will be monitored, and what actions will be taken to address identified potential environmental impacts, including but not limited to noise, traffic and air impacts;	<p>The second page of the CMP refers to the following sections for details of how the environmental performance of the site preparation and construction works will be monitored, and what actions will be taken to address identified potential environmental impacts:</p> <ul style="list-style-type: none"> • 10.8 Traffic Management, • 10.11 Noise & Vibration, • 10.12 Air Quality and Dust Control, • 10.13 Waste Management, • 10.18 Soil and Water Mitigation Methods, • 10.18.1 Erosion and Sediment Control, • 10.19 Groundwater testing, treatment & discharge, • 10.20 Flora and Fauna, and • 10.20.1 Dredging and land reclamation. <p>The following separate management plans were provided to the auditor:</p> <ul style="list-style-type: none"> • Air Quality Management Plan, • Soil and Water Management Plans, • Noise and Vibration Plan, and • Waste Minimisation Plan. 	<p>Sections 10.18 Soil and Water Mitigation Methods and 10.19 Groundwater testing, treatment & discharge refer to a sediment basin for the interception of site runoff. The sediment basin is not being in use at the time of the audit. Stormwater is being discharged into stormwater drains along Road 1 and Road 2.</p> <p>Recommendation: Update sections 10.18 and 10.19 to reflect changes to erosion and sediment controls onsite.</p>	<p>Richard Crookes (3 May 2023):</p> <p><i>"Sections 10.18 and 10.19 have been updated</i></p> <ul style="list-style-type: none"> • <i>Removal of sediment basin.</i> • <i>Responsibility of drain ways added.</i> • <i>Water testing procedure and responsibilities updated."</i> 	<i>Completed</i>
4.	Richard Crookes	B40. Construction Environmental Management Plan	i) include measures to ensure adequate groundwater entitlement is sourced in order to account for groundwater flows into the construction excavations, unless any exemption applies;	<p>Groundwater is not expected to flow into the excavation zones. According to Douglas Partners Groundwater Monitoring report (dated 30 July 2018, project 86043.01 Revision 5. 005.Rev0), the ground water levels are typically below the bulk excavation levels of the works and therefore groundwater flow into the construction excavations is not expected and highly unlikely.</p> <p>The following sections are listed to address ground water entitlement: 10.19</p>	<p>Section 10.19 refers to Groundwater being pumped into temporary sediment basin on site. The sediment basin is not being in use at the time of the audit. This section needs to be updated in the CMP.</p>	<p>Richard Crookes (3 May 2023):</p> <p><i>"Sections 10.18 and 10.19 have been updated</i></p> <ul style="list-style-type: none"> • <i>Removal of sediment basin.</i> • <i>Responsibility of drain ways added.</i> <p><i>Water testing procedure and responsibilities updated."</i></p>	<i>Completed</i>

Table C: Proponents response to Audit recommendations

No.	Proponent	Condition Number (ID)	Compliance Requirement	Independent Audit findings	Independent Recommendations	Proponent's Proposed Action/Action taken/Response (as applicable)	Proposed Action Due Date
5.	Richard Crookes	B40. Construction Environmental Management Plan	j) management of groundwater during construction;	<p>Management of ground water includes the prevention of site waters negatively impacting ground water using controls of discharge, <u>water testing</u>, and erosion/sediment controls: sections 10.18 and 10.18.1</p> <p>No water quality monitoring/ testing undertaken at the site.</p>	Amend CMP to describe management of groundwater.	<p>Richard Crookes (3 May 2023):</p> <p><i>"Section 10.19 has been updated</i></p> <ul style="list-style-type: none"> <i>Removal of sediment basin.</i> <i>Responsibility of drain ways added.</i> <i>Water testing procedure and responsibilities updated.</i> 	<i>Completed</i>
6.	Richard Crookes	B40. Construction Environmental Management Plan	l) include arrangements for community consultation and complaints handling procedures during construction.	<p>Complaint's handling is referenced in section 10.10 and references public notifications for community complaints, Contractor consultation, and issuing of CMP to council for feedback.</p> <p>A complaints register is publicly available on Frasers Property website for Midtown MacPark and was reviewed by the auditor: https://www.frasersproperty.com.au/NSW/Midtown/Project-progress/Complaints-Register The website also provides phone number and email for community feedback.</p>	Recommendation: Please provide evidence of consultation with Council for review consultation regarding the CMP and all sub-plans as stated in Section 10.10 of the CMP.	<p>Richard Crookes (3 May 2023):</p> <p><i>"Condition B40 is a pre-construction requirement and was closed out by previous contractor prior to RCC engagement.</i></p> <p><i>"Reviewed and approved by section added to CMP. Once plan is reviewed, appropriate parties will sign."</i></p>	<i>Completed</i>

Table C: Proponents response to Audit recommendations

No.	Proponent	Condition Number (ID)	Compliance Requirement	Independent Audit findings	Independent Recommendations	Proponent's Proposed Action/Action taken/Response (as applicable)	Proposed Action Due Date
7.	Richard Crookes	B42. Noise and Vibration Management Plan	<p>Prior to the commencement of any works, a Construction Noise and Vibration Management Plan (CNVMP) prepared by a suitably qualified person shall be submitted to the Certifier. The CNVMP must be prepared in consultation with, and address the relevant requirements of, Council and the EPA. The CNVMP shall address (but not be limited to):</p> <p>a) be prepared in accordance with the EPA's Interim Construction Noise Guideline</p>	<p>Construction Noise and Vibration Management Levels were established for the project in accordance with the EPA's Interim Construction Noise Guidelines in the following report (Appendix V of the EIA):</p> <ul style="list-style-type: none"> Acoustic Logic (2021) – <i>Proposed Residential Development, Ivanhoe Stage 2, Macquarie Park, Development Application Environmental Noise Impact Assessment</i> (ref: 20210325.1/1607A/R7/GW; 16 June 2021) <p>Richard Crookes prepared the following report referencing the EPA's Interim Construction Noise Guideline in Section 4.9:</p> <ul style="list-style-type: none"> Richard Crookes Constructions (2023), Health, Safety & Environmental Form - Noise and Vibration Management Plan (NVMP) for Ivanhoe Estate Stage C1 (dated 22/4/2022 – revision February 2023). 	<p>Recommendation: For Richard Crookes NVMP - Please identify the suitably qualified person, experience, and credentials to demonstrate compliance to B42.</p> <p>Recommendation: Please include a document control section in the NVMP detailing name, position, signatures, and date of signatures of personnel who prepared and reviewed the NVMP.</p> <p>Please provide evidence of consultation with Council NVMP</p>	<p>Richard Crookes (3 May 2023):</p> <p><i>"Noted, NVMP to be reviewed and updated as required during next scheduled update.</i></p> <p><i>"Reviewed and approved by section added to NVMP. Once plan is reviewed, appropriate parties will sign."</i></p>	Completed
8.	Richard Crookes, Christie Civil	B42. Noise and Vibration Management Plan	<p>c) identify the noise management levels for the project;</p>	<p>NVMP Section 4.2: Noise emission limits tabulated as criteria for noise objectives based on location and time. Objectives extracted from Acoustic Logic "Master Plan for Ivanhoe Estate, Macquarie Park – Additional Noise Monitoring 30/1/2020".</p>	<p>Noise management levels have been determined for the project, however there is no quantitative assessment with active noise monitoring conducted by Richard Crookes or Christie during Audit period.</p>	<p>Richard Crookes (3 May 2023):</p> <p><i>"Note that no noise complains were received during period, reviewing with acoustic consultant.</i></p> <p><i>NVMP was updated to include prior works"</i></p> <p>Christie Civil (8 May 2023):</p> <p><i>"Noise monitors will be set up and results recorded daily.</i></p> <p><i>Results will be compared to the noise management levels for the project to determine any high disturbances.</i></p> <p><i>Additional preventive actions will be implemented if this is the case.</i></p>	Completed

Table C: Proponents response to Audit recommendations

No.	Proponent	Condition Number (ID)	Compliance Requirement	Independent Audit findings	Independent Recommendations	Proponent's Proposed Action/Action taken/Response (as applicable)	Proposed Action Due Date
9.	Richard Crookes, Christie Civil	B42. Noise and Vibration Management Plan	e) details of all reasonable and feasible management and mitigation measures to be implemented to minimise construction noise and vibration;	NVMP Section 4.9: Noise and vibration management controls clearly stated in the table, providing detail in relation to the hazard and impact of subject activities.	The project has established noise management levels (Acoustic Logic 2019) however no active noise monitoring was conducted during the Audit period. Any exceedances of the "highly noise affected level" cannot be quantified. <ul style="list-style-type: none"> Active noise monitoring on site is recommended. 	Richard Crookes (3 May 2023): <i>"Note that no noise complains were received during period, reviewing with acoustic consultant.</i> <i>NVMP was updated to include prior works"</i> Christie Civil: <i>"Noise monitors will be set up and results recorded daily. Results will be compared to the noise management levels for the project to determine any high disturbances. Additional preventive actions will be implemented if this is the case."</i>	<i>Completed</i>
10.	Richard Crookes, Christie Civil	B42. Noise and Vibration Management Plan	f) be consistent with and incorporate all relevant recommendations and noise and vibration mitigation measures outlined in the Stage 1 DA Acoustic Assessment, prepared by Acoustic Logic, dated 15 October 2019	NVMP Section 4.9: Should monitoring of noise and vibration need to occur, a suitable qualified person shall conduct the monitoring with appropriately calibrated equipment complying with Australian Standards. The below controls have been developed in accordance with all relevant recommendations and noise and vibration mitigation measures outlined in the Stage 1 DA Acoustic Assessment, prepared by Acoustic Logic, dated 15 October 2019.	Refer to comment above regarding CoC B42e. <ul style="list-style-type: none"> Active noise monitoring on site is recommended. 	Richard Crookes (3 May 2023): <i>"Note that no noise complains were received during period, reviewing with acoustic consultant.</i> <i>NVMP was updated to include prior works"</i> Christie Civil: <i>"Noise monitors will be set up and results recorded daily. Results will be compared to the noise management levels for the project to determine any high disturbances. Additional preventive actions will be implemented if this is the case."</i>	<i>Completed</i>

Table C: Proponents response to Audit recommendations

No.	Proponent	Condition Number (ID)	Compliance Requirement	Independent Audit findings	Independent Recommendations	Proponent's Proposed Action/Action taken/Response (as applicable)	Proposed Action Due Date
11.	Richard Crookes, Christie Civil	B42. Noise and Vibration Management Plan C7. Construction Noise and vibration management	<p>h) include a suitable proactive construction noise and vibration monitoring program which aims to ensure the construction noise and vibration criteria in this consent are not exceeded.</p> <p>The development must be constructed with the aim of achieving the construction noise management levels detailed in the <i>Interim Construction Noise Guideline</i> (Department of Environment and Climate Change, 2009). All feasible and reasonable noise and vibration mitigation measures shall be implemented and any activities that could exceed the construction noise or vibration management levels shall be identified and managed in accordance with the CEMP and CNVMP.</p>	<p>The project has established noise management levels (Acoustic Logic, 2019) however no active noise monitoring was conducted during the Audit period. Any exceedances of the "highly noise affected level" cannot be quantified.</p> <p>There is no proactive construction noise and vibration monitoring program included in the NVMP.</p> <p>For Richard Crookes Stage C1: the construction activities which occurred during the current audit period was the erection of structure with the noisiest anticipated equipment and processes anticipated to be: Concrete vibrator, Cement Mixing Truck, Concrete Pumps, Tower Crane and Hammering.</p> <p>Sound Power levels for these activities are tabulated in Section 4.9 of the NVMP.</p>	<p>No proactive monitoring activities are provided. Active noise monitoring on site is recommended to record any potential exceedances of the "sound power levels".</p> <p>No reference to activities being conducted to, or actively monitoring in comparison to the EPA recommended vibration levels or German Standard DIN 4150-3 Structural vibration guideline levels, that are part of the Stage 1 DA Acoustic Assessment, prepared by Acoustic Logic, dated 15 October 2019.</p>	<p>Richard Crookes (3 May 2023):</p> <p><i>"Note that no noise complains were received during period, reviewing with acoustic consultant.</i></p> <p><i>NVMP was updated to include prior works"</i></p> <p>Christie Civil:</p> <p><i>"Noise monitors will be set up and results recorded daily. Results will be compared to the noise management levels for the project to determine any high disturbances. Additional preventive actions will be implemented if this is the case."</i></p>	Ongoing

Table C: Proponents response to Audit recommendations

12.	Richard Crookes, Christie Civil	B43	The AQOMP must include proactive and reactive management strategies, key performance indicators (KPIs), monitoring measures, record keeping, response mechanisms, contingency and compliance reporting measures.	<p>Proactive and reactive management strategies are documented in <i>Section 5.1</i> in the AQMP.</p> <p>Key Performance Indicators (KPIs), Monitoring measures and management strategies (response mechanisms) are tabulated in <i>Section 5.2</i>.</p> <p>Daily and weekly site inspection reports did not record any dust or odours during the audit period.</p> <p>One complaint regarding ‘Mud & dust accumulation on pedestrian walkway at Shrimptons Creek’ was received on 9 November 2022.</p>	<p>Key performance indicators in Section 5.1 in the AQMP include dust deposition levels below 4g/m²/month as per NSW guidelines (Test method as per AS3580.10.1):</p> <ul style="list-style-type: none"> • There has been no active air quality monitoring undertaken at the site during the current and the previous audit period and any exceedances of the above-mentioned key performance indicator of 4g/m²/month cannot be quantified. • It is noted that there are three principal contractors currently working onsite, and that there has not been any active dust monitoring since undertaken by AirSafe in 2021 (contracted by Mainland Civil). • During the previous audit period, Christie Civil stated that their AQOMP did not require KPIs, monitoring measures, response mechanisms and contingencies. • The previous proponent, Christie Civil stated that: “Dust generated is minimal as there is a watercart onsite full time. Should complaints of dust from sensitive receivers be advised, dust monitoring may be implemented”. • Previous audit recommendations remain, being at least one dust monitor should be set up adjacent to 	<p>Richard Crookes (3 May 2023):</p> <p><i>“N/A for RCC works during period.</i></p> <p><i>Continually review in line with upcoming works onsite.</i></p> <p><i>AQOMP was updated to include prior works and condition previously being closed by PCA.”</i></p> <p>Christie Civil (8 May 2023):</p> <p><i>“Dust monitors will be set up and results recorded daily. Results will be compared to the dust management levels for the project to determine if it is exceeding 4g/m²/month.</i></p> <p><i>Additional preventive actions will be implemented if this is the case.”</i></p>	Ongoing
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Table C: Proponents response to Audit recommendations

No.	Proponent	Condition Number (ID)	Compliance Requirement	Independent Audit findings	Independent Recommendations	Proponent's Proposed Action/Action taken/Response (as applicable)	Proposed Action Due Date
					the nearest sensitive receptors to satisfy CoC B43.		
13.	Richard Crookes	B44. Construction Waste Management Plan	e. nomination of the end location of all waste and recycling generated from a facility authorised to accept the material type for processing or disposal; and	<p>The following recycling and disposal facilities are listed in WMP (Section 9.0):</p> <ul style="list-style-type: none"> ENM/VENM: BT Civil / Western Earthmoving Terry Hill Road, Box Hill NSW 2765 GSW & Concrete: Benedict Recycling Challenger Drive, Belrose NSW 2085 Construction/Commercial Waste: Orange bins 79 Gow st, Padstow NSW 2211 <p>In the Waste reports produced by Orange Bins the following receiving facilities were listed:</p> <ul style="list-style-type: none"> Orange Recycling P/L InfraBuild/Barca Metals ResourceCo Doyle Bros Regyp Recycling Suez Recycling <p><i>In response to previous audit findings, Christie Civil provided their updated Construction Waste Management Plan on 24 October 2022, outlining nominated authorised receiving facilities of all waste and recycling generated.</i></p>	<p>Recommendations:</p> <ul style="list-style-type: none"> update Richard Crookes WMP (Section 9.0) to include all receiving recycling and disposal facilities. Moving forward, add weighbridge docket(s), volumes and details of receiving facilities (name / address) to waste management spreadsheet. 	<p>Richard Crookes (3 May 2023):</p> <p><i>"WMP updated to include all receiving recycling and disposal facilities.</i></p> <p><i>Please note that weighbridge dockets already include volumes and details and these are included within waste reports. These are included in a separate tab in the except spreadsheet provided by waste contractor."</i></p>	

Table C: Proponents response to Audit recommendations

14.	Richard Crookes	B45. Construction Soil and Water Management Plan	<p>c. Sediment basin(s) locations including details showing how runoff from the entire site will be directed to the sediment basin(s).</p> <p>d. All relevant details and calculations of the sediment basins including sizes, depths, flocculation, outlet design, all relevant sections, pump out systems, and depths.</p> <p>e. All details of basement and other excavation pump out and dewatering treatment systems including flocculation and any proposed discharge from the site from dewatering and pump out systems. Requirements for dewatering are specified below.</p> <p>f. Identification and management of any stormwater run-on to the site from adjacent sites.</p> <p>i. A daily and weekly site inspection checklist consistent with IECA Best Practice Erosion and Sediment Control documents.</p>	<p>Following road construction works by Christie Civil, the larger sedimentation basin in the centre of the Stage 1B area had been drained since the end of the last audit period (September 2022) and is not receiving any runoff which originates from onsite. It is also understood that staged detention ponds to the south of the site also do not receive any runoff from the site.</p> <p>The figure in <i>Section 1.2</i> of the Richard Crookes SWMP still refers to the sediment basin onsite that is now no longer in use.</p> <p>Section 1.3: Sediment basin detail plan map</p> <p>The SWMP (Section 1.4) states: “Groundwater entitlement is not expected to flow into the excavation zones. According to the Douglas Partners Groundwater Monitoring report, SWLs of groundwater are anticipated to be below the base level of excavation , therefore ingress is not expected.</p> <p>As such No dewatering is to occur if any of the water quality falls outside of adopted criteria.</p> <p>It was noted during the audit inspection that there is confusion what stormwater drains the proponents are responsible for.</p>	<p>Recommendations:</p> <ul style="list-style-type: none"> Update Figure in Section 1.2 to show the newly constructed Road 1 and Road 2 on the site and the location of all necessary sediment and erosion control measure for the site. Update Figure in <i>Section 1.2</i> to show the catchment plan of the site and show the changes to the site. Update Section 1.3 Update Section 1.4 (No groundwater quality monitoring has been undertaken by Richard Crookes) <p>For the project:</p> <ul style="list-style-type: none"> There needs to be a clear plan going forward what erosion and sediment controls on site proponents are responsible for. <p>With the detention basin not in use on the site, uncontrolled erosion and sedimentation were identified as the main environmental risk of the project.</p> <p>Appropriate internal checks of sediment controls and any associated impact is recommended to be undertaken by a suitably qualified person (e.g., site manager / site engineer, etc) on at least a weekly basis (and/or immediately following rainfall events).</p> <p>Controls should be inspected to meet the satisfaction of the Landcom (2004), <i>Managing Urban Stormwater: Soils and Construction</i> (the “Blue Book”).</p>	<p>Richard Crookes:</p> <p>“SWMP updated to include:</p> <ul style="list-style-type: none"> Water mitigation methods Removal of sediment basin Responsibility of drain ways Water testing has been completed and results have been attached <p>Note: RCC water testing was being conducted at the time of the audit. This information was not requested nor discussed during the interview; RCC water testing results have been attached.</p> <p>Weekly Environmental inspections are already being completed as per evidence previously submitted.”</p>	
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Table C: Proponents response to Audit recommendations

No.	Proponent	Condition Number (ID)	Compliance Requirement	Independent Audit findings	Independent Recommendations	Proponent's Proposed Action/Action taken/Response (as applicable)	Proposed Action Due Date
					As part of statutory diligence and care responsibilities, a suitably qualified person should oversee the installation and maintenance of all soil and water management onsite, with the responsible person ensuring that the plan is being implemented correctly, repairs are undertaken as requires and essential modifications are made to the SWMP to be current.		
15.	Christie Civil	B40	a) The CEMP should satisfy all requirements under condition B40.	<p>(a) The Auditor assistant noted generally good housekeeping practices during the site audit inspection.</p> <p>(b) -</p> <p>(c) Area for hazardous material</p> <p>(d) Sediment basin is no longer in use and additional erosion and sedimentation controls need to be prioritised before and after heavy rainfall events.</p> <p>Additional silt fences and erosion and sedimentation controls were noted during the second site inspection.</p>	<p>Christies site:</p> <p>The area for storage of hazardous chemicals on site need to be regularly kept tidy with clearly labelled containers kept in lockable ventilated cages.</p> <p>During the second site visit, this was noted to be addressed.</p> <p>Self-auditing programs consisting of daily and weekly site inspections should address if this area needs to be tidied and a person will need to be in charge of keeping the area clean.</p>		

Table C: Proponents response to Audit recommendations

No.	Proponent	Condition Number (ID)	Compliance Requirement	Independent Audit findings	Independent Recommendations	Proponent's Proposed Action/Action taken/Response (as applicable)	Proposed Action Due Date
16.	Parkview	B40	The CEMP should satisfy all requirements under condition B40.	<p>Parkview are still yet to update relevant environmental management sub-plans in accordance with development consent SSD 8903 condition B40, B42, including:</p> <ul style="list-style-type: none"> (e) Dust Management Plan (f) Construction Noise and Vibration Management Plan (g) Air Quality and Odour Management Plan (h) Construction Waste Management Plan (i) Construction Soil and Water Management Plan <p>For instance:</p> <p>According to condition B44e; The construction waste management plan must include:</p> <ul style="list-style-type: none"> (j) nomination of the end location of all waste and recycling generated from a facility authorised to accept the material type for processing or disposal. <p>This is not present in the Parkview CMP.</p>	<p>Audit recommendation: The Environmental management plans must include all requirements set out in the conditions of consent: B40, B42, B43, B44, B45.</p>	-	

APPENDIX E: AUDIT INSPECTION PHOTOGRAPHS



1. Building C1– facing northwest from south-eastern portion of site. 15/03/2023



2. Class A hoarding installed along road 1 - facing northwest. 15/03/2023



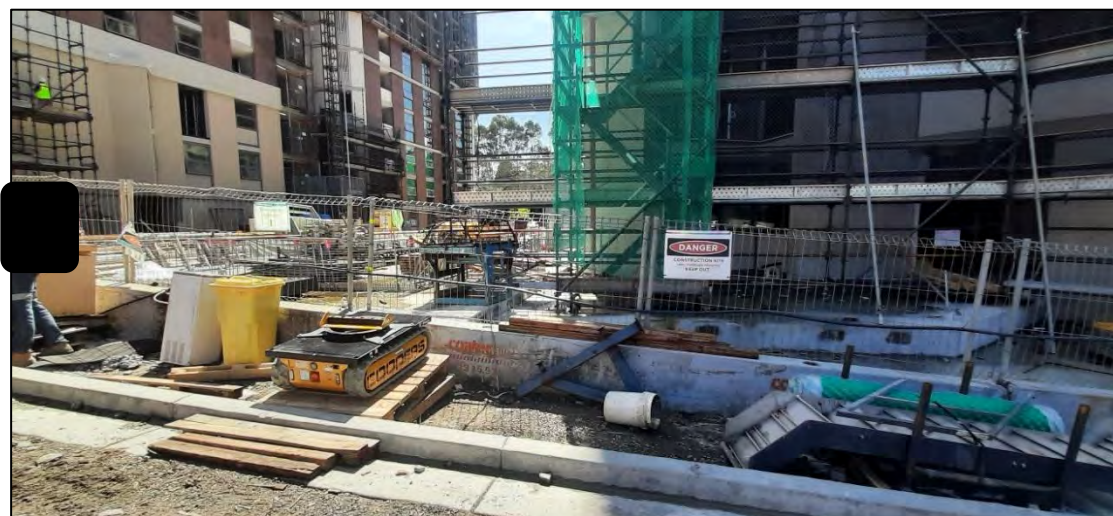
3. Silt bags and fabric filter installed around stormwater drain along Road 1. 15/03/2023



4. Personnel entrance to Richard Crookes Constructions work site on Road 1. 15/03/2023



5. Road No. 2 facing southeast - Richard Crookes construction to the left in the photograph. 15/03/2023



6. Richard Crookes Construction site – facing northeast from Road No. 2. Yellow spill kit situated alongside site fence. 15/03/2023



7. Signs of uncontrolled erosion and sedimentation around stormwater drain along Road 2 to the south of Richard Crookes Construction site below parked vehicles. 15/03/2023



8. Silt bags reappplied around stormwater drain along Road 2 to the south of Richard Crookes Construction site. 29/03/2023



9. Heavy vehicle entrance / exit to work site – facing north towards Road 1. Shaker grid in foreground and Christie site office beyond. 15/03/2023



10. Facing south towards Stage 1B road construction works. 15/03/2023



11. Bridgeworks over Shrimptons Creek - facing southeast. 15/03/2023



12. Additional siltfences erected upslope of bridgeworks. 31/03/2023



13. Additional silt fence installed upslope from Shrimptons Creek 31/03/2023.



14. Additional silt fence and shade cloth installed along footpath to the south of the site 31/03/2023.



15. Upstream Shrimptons Creek. Water appeared clear with no signs of algae, visual and / or olfactory signs of contamination 15/03/2023.



16. Downstream Shrimptons Creek – Water appeared clear with no signs of algae, visual and / or olfactory signs of contamination. collapsed silt fences noted. 15/03/2023



17. Collapsed siltfences noted along western bank of Shrimptons Creek – downstream from bridgeworks. 15/03/2023



18. Siltfences re-erected along Shrimptons Creek. 29/03/2023



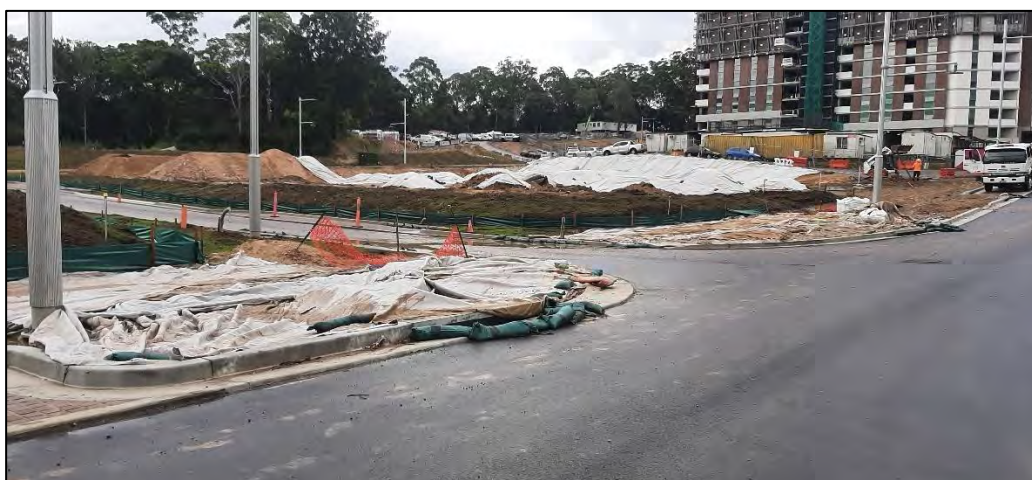
19. Hazardous storage area to the south of the site. 15/03/2023



20. Hazardous storage area to the south of the site tidied up. 29/03/2023



21. Hazardous storage area with locked cages and cabinets and spill kit. 31/03/2023



22. Silt bags installed around stormwater drains and covered soil stockpiles – facing north west. 29/03/2023



23. Newly seeded soil batters along access road 2 – facing south west. 29/03/2023

APPENDIX F: WATER MONITORING RESULTS

APPENDIX G: RICHARD CROOKES MONTHLY WASTE MANAGEMENT SUMMARIES



Ph: 1300 767 006

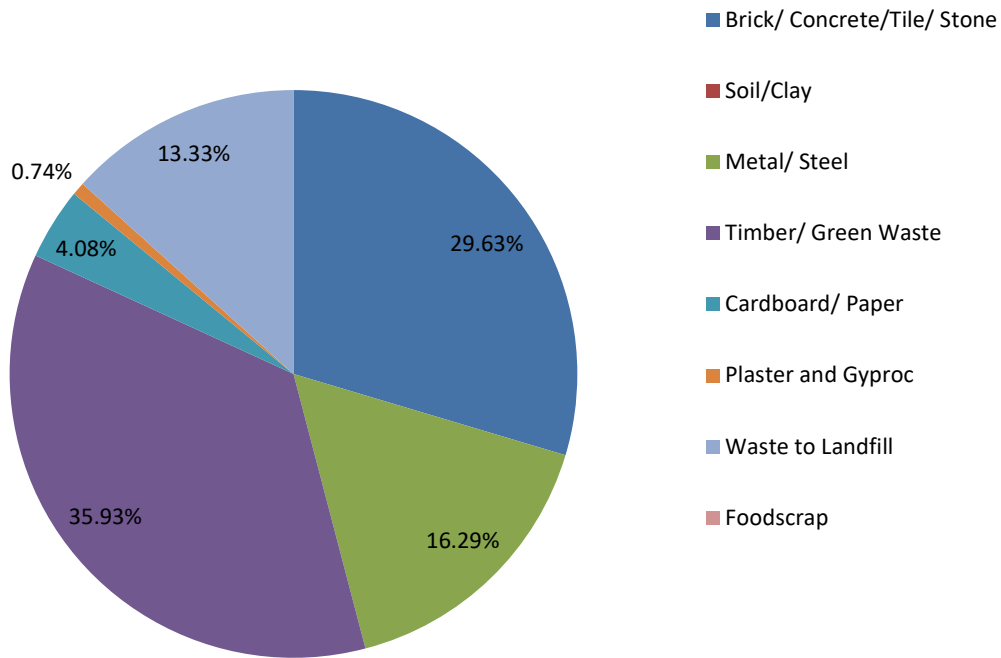
P.O. Box 369 Revesby North NSW 2212
Fax: 9708 5800

May 2022 Recycling Waste Report

135 Cubic Metres

	Total Volume	% Recycled	
Brick/ Concrete/Tile/ Stone	29.63%	75.54%	Orange Recycling P/L
Soil/Clay	0.00%	0.00%	Canberra Recycling
Metal/ Steel	16.29%	4.59%	InfraBuild/Barca Metals
Timber/ Green Waste	35.93%	12.69%	Canberra Recycling
Cardboard/ Paper	4.08%	0.46%	Doyle Bros
Plaster and Gyproc	0.74%	0.00%	Regyp Recycling
Waste to Landfill	13.33%		Canberra Recycling
Foodscrap	0.00%		Suez Recycling
Total	100.00%	93.28%	

Richard Crookes - Macquarie Park





Ph: 1300 767 006

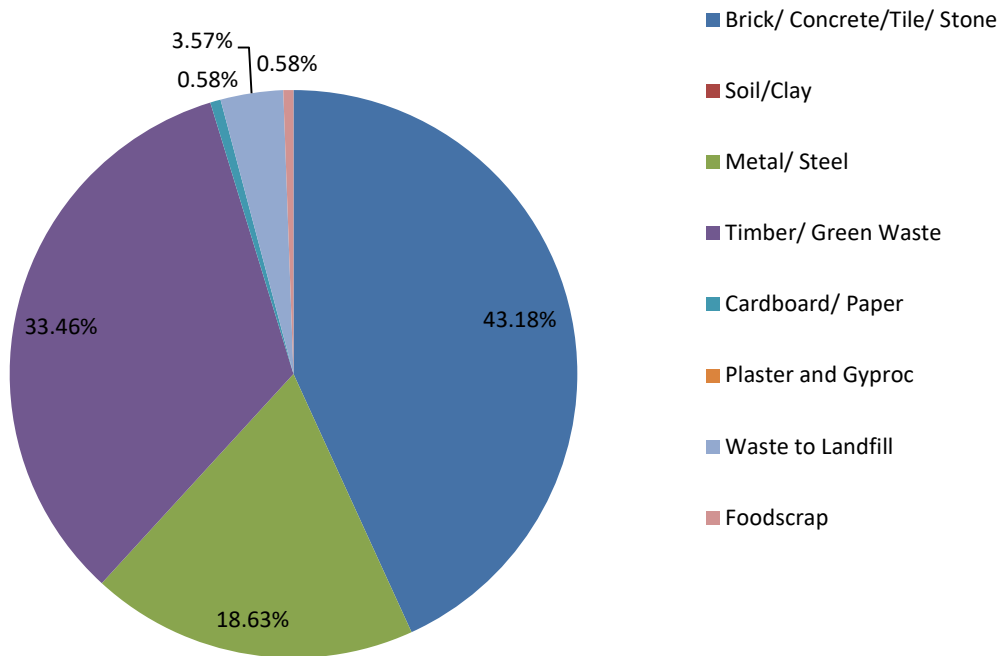
P.O. Box 369 Revesby North NSW 2212
Fax: 9708 5800

June 2022 Recycling Waste Report

214 Cubic Metres @ 51.54 Tonnes

	Total Volume	% Recycled	
Brick/ Concrete/Tile/ Stone	43.18%	43.18%	Orange Recycling P/L
Soil/Clay	0.00%	0.00%	Canberra Recycling
Metal/ Steel	18.63%	18.63%	InfraBuild/Barca Metals
Timber/ Green Waste	33.46%	33.46%	Canberra Recycling
Cardboard/ Paper	0.58%	0.58%	Doyle Bros
Plaster and Gyproc	0.00%	0.00%	Regyp Recycling
Waste to Landfill	3.57%		Canberra Recycling
Foodscrap	0.58%		Suez Recycling
Total	100.00%	95.85%	

Richard Crookes - Macquarie Park





Ph: 1300 767 006

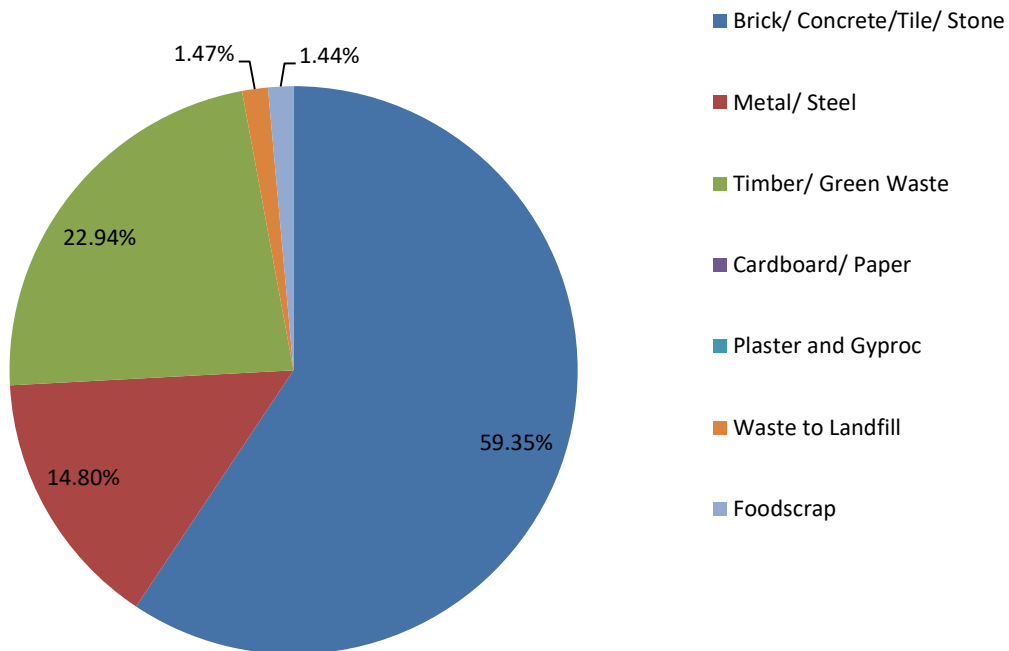
P.O. Box 369 Revesby North NSW 2212
Fax: 9708 5800

July 2022 Recycling Waste Report

222 Cubic Metres @ 63.19 Tonnes

	Total Volume	% Recycled	
Brick/ Concrete/Tile/ Stone	59.35%	59.35%	Orange Recycling P/L
Metal/ Steel	14.80%	14.80%	InfraBuild/Barca Metals
Timber/ Green Waste	22.94%	22.94%	ResourceCo
Cardboard/ Paper	0.00%	0.00%	Doyle Bros
Plaster and Gyproc	0.00%	0.00%	Regyp Recycling
Waste to Landfill	1.47%		ResourceCo
Foodscrap	1.44%		Suez Recycling
Total	<u>100.00%</u>	<u>97.09%</u>	

Richard Crookes - Macquarie Park





Ph: 1300 767 006

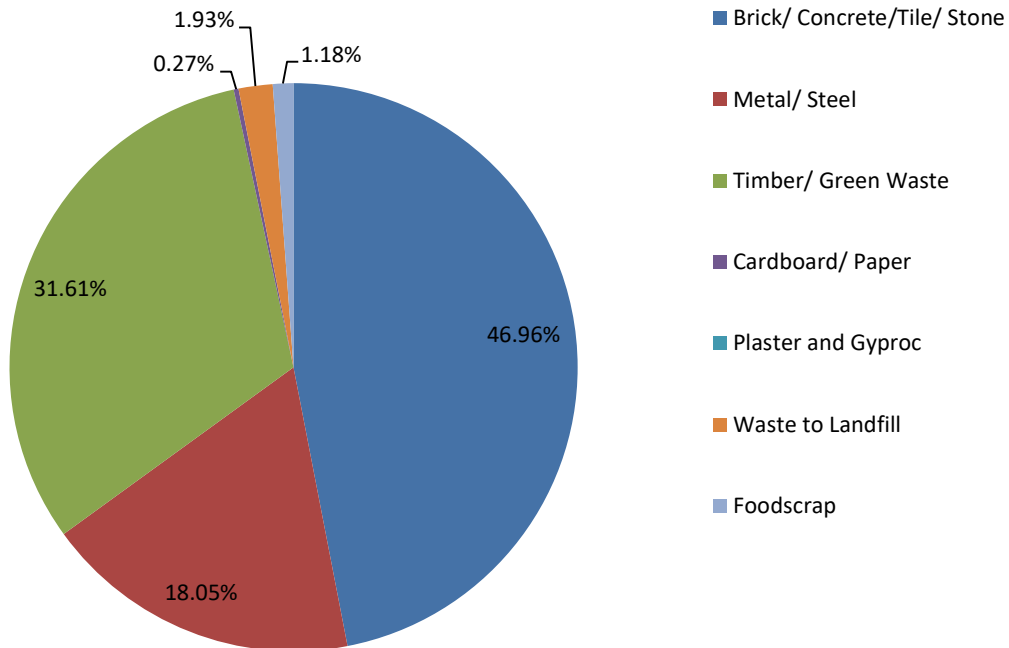
P.O. Box 369 Revesby North NSW 2212
Fax: 9708 5800

August 2022 Recycling Waste Report

98 Cubic Metres @ 94.14 Tonnes

	Total Volume	% Recycled	
Brick/ Concrete/Tile/ Stone	46.96%	46.96%	Orange Recycling P/L
Metal/ Steel	18.05%	18.05%	InfraBuild/Barca Metals
Timber/ Green Waste	31.61%	31.61%	ResourceCo
Cardboard/ Paper	0.27%	0.27%	Doyle Bros
Plaster and Gyproc	0.00%	0.00%	Regyp Recycling
Waste to Landfill	1.93%		ResourceCo
Foodscrap	1.18%		Suez Recycling
Total	<u>100.00%</u>	<u>96.89%</u>	

Richard Crookes - Macquarie Park





Ph: 1300 767 006

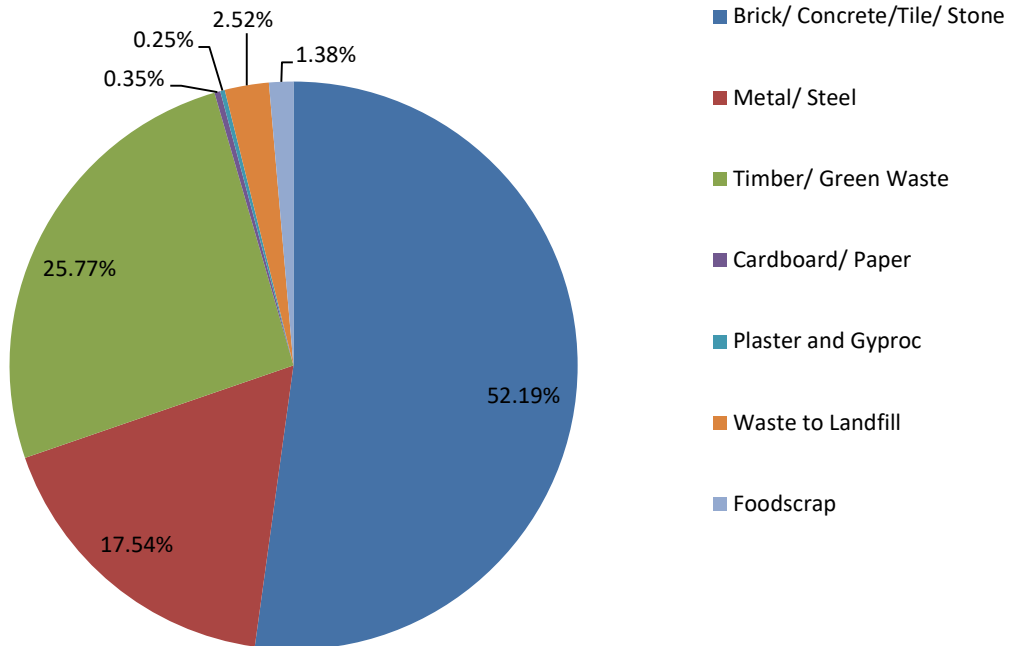
P.O. Box 369 Revesby North NSW 2212
Fax: 9708 5800

September 2022 Recycling Waste Report

345 Cubic Metres @ 98.97 Tonnes

	Total Volume	% Recycled	
Brick/ Concrete/Tile/ Stone	52.19%	52.19%	Orange Recycling P/L
Metal/ Steel	17.54%	17.54%	InfraBuild/Barca Metals
Timber/ Green Waste	25.77%	25.77%	ResourceCo
Cardboard/ Paper	0.35%	0.35%	Doyle Bros
Plaster and Gyproc	0.25%	0.25%	Regyp Recycling
Waste to Landfill	2.52%		ResourceCo
Foodscrap	1.38%		Suez Recycling
Total	<u>100.00%</u>	<u>96.10%</u>	

Richard Crookes - Macquarie Park





Ph: 1300 767 006

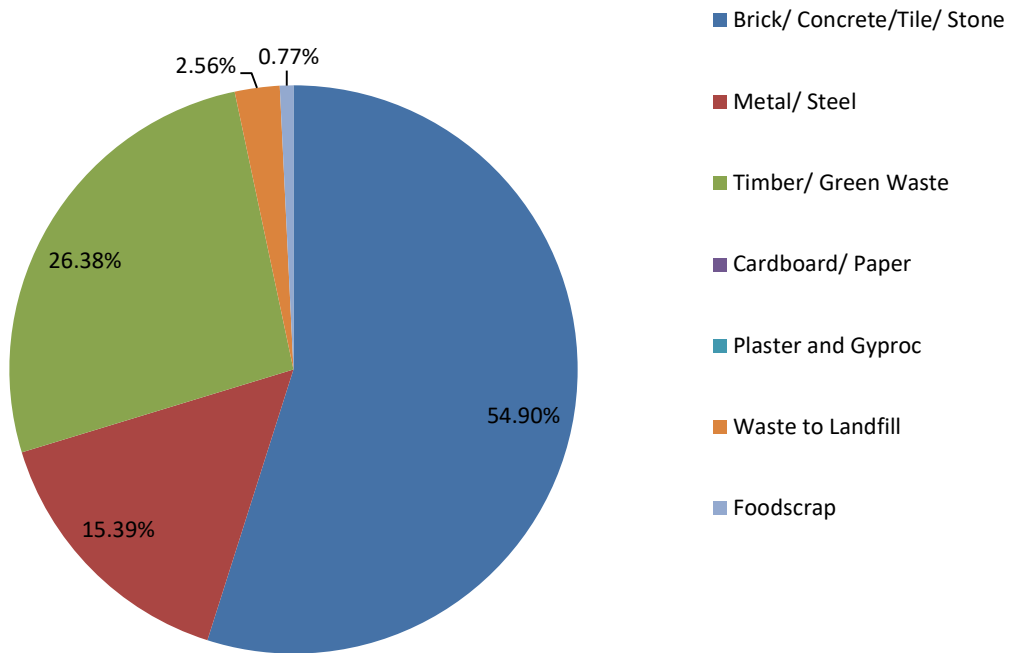
P.O. Box 369 Revesby North NSW 2212
Fax: 9708 5800

October 2022 Recycling Waste Report

511 Cubic Metres @ 142.92 Tonnes

	Total Volume	% Recycled	
Brick/ Concrete/Tile/ Stone	54.90%	54.90%	Orange Recycling P/L
Metal/ Steel	15.39%	15.39%	InfraBuild/Barca Metals
Timber/ Green Waste	26.38%	26.38%	ResourceCo
Cardboard/ Paper	0.00%	0.00%	Doyle Bros
Plaster and Gyproc	0.00%	0.00%	Regyp Recycling
Waste to Landfill	2.56%		ResourceCo
Foods Scrap	0.77%		Suez Recycling
Total	100.00%	96.67%	

Richard Crookes - Macquarie Park





Ph: 1300 767 006

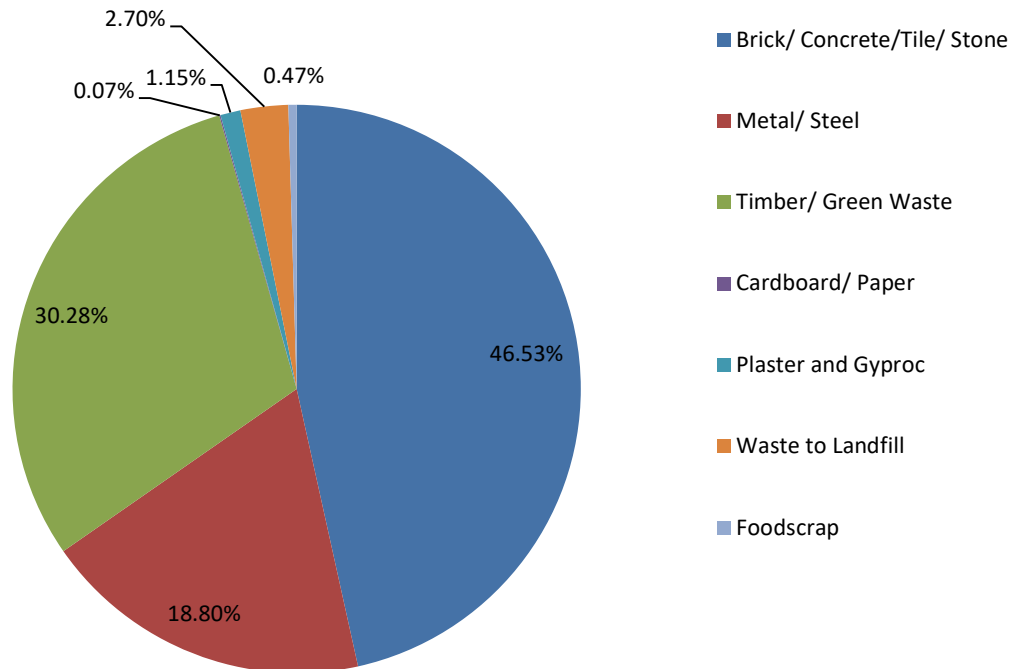
P.O. Box 369 Revesby North NSW 2212
Fax: 9708 5800

November 2022 Recycling Waste Report

736 Cubic Metres @ 224.63 Tonne

	Total Volume	% Recycled	
Brick/ Concrete/Tile/ Stone	46.53%	46.53%	Orange Recycling P/L
Metal/ Steel	18.80%	18.80%	InfraBuild/Barca Metals
Timber/ Green Waste	30.28%	30.28%	ResourceCo
Cardboard/ Paper	0.07%	0.07%	Doyle Bros
Plaster and Gyproc	1.15%	1.15%	Regyp Recycling
Waste to Landfill	2.70%		ResourceCo
Foodscrap	0.47%		Suez Recycling
Total	<u>100.00%</u>	<u>96.83%</u>	

Richard Crookes - Macquarie Park





Ph: 1300 767 006

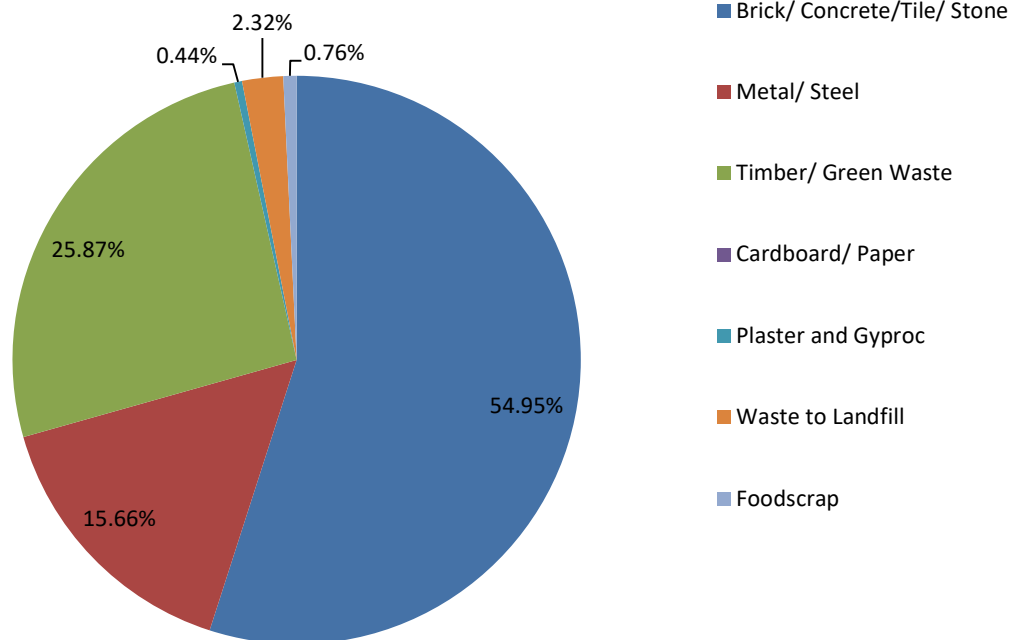
P.O. Box 369 Revesby North NSW 2212
Fax: 9708 5800

December 2022 Recycling Waste Report

517 Cubic Metres @ 146.94 Tonne

	Total Volume	% Recycled	
Brick/ Concrete/Tile/ Stone	54.95%	54.95%	Orange Recycling P/L
Metal/ Steel	15.66%	15.66%	InfraBuild/Barca Metals
Timber/ Green Waste	25.87%	25.87%	ResourceCo
Cardboard/ Paper	0.00%	0.00%	Doyle Bros
Plaster and Gyproc	0.44%	0.44%	Regyp Recycling
Waste to Landfill	2.32%		ResourceCo
Foodscrap	0.76%		Suez Recycling
Total	100.00%	96.92%	

Richard Crookes - Macquarie Park





Ph: 1300 767 006

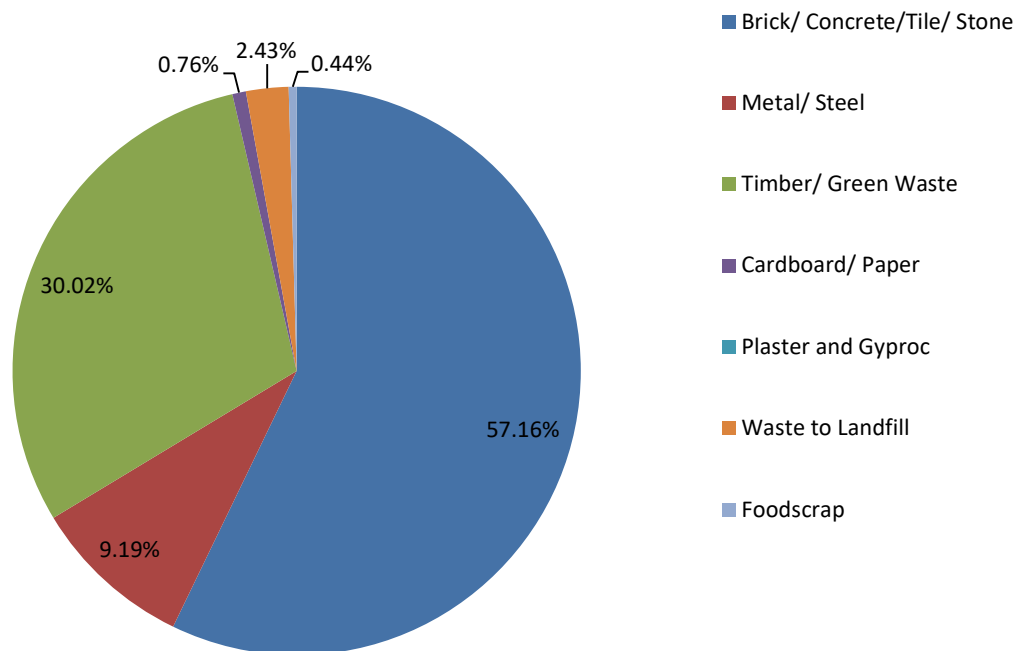
P.O. Box 369 Revesby North NSW 2212
Fax: 9708 5800

January 2023 Recycling Waste Report

398 Cubic Metres @ 93.61 Tonnes

	Total Volume	% Recycled	
Brick/ Concrete/Tile/ Stone	57.16%	57.16%	Orange Recycling P/L
Metal/ Steel	9.19%	9.19%	InfraBuild/Barca Metals
Timber/ Green Waste	30.02%	30.02%	ResourceCo
Cardboard/ Paper	0.76%	0.76%	Doyle Bros
Plaster and Gyproc	0.00%	0.00%	Regyp Recycling
Waste to Landfill	2.43%		ResourceCo
Foodscrap	0.44%		Suez Recycling
Total	100.00%	97.13%	

Richard Crookes - Macquarie Park





Ph: 1300 767 006

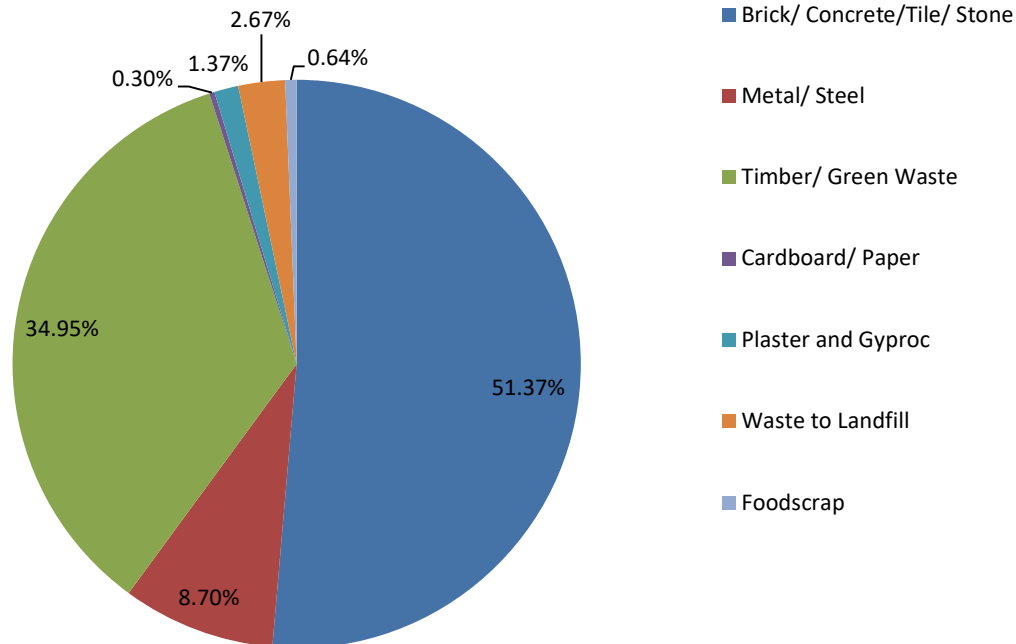
P.O. Box 369 Revesby North NSW 2212
Fax: 9708 5800

February 2023 Recycling Waste Report

729 Cubic Metres @ 181.30 Tonnes

	Total Volume	% Recycled	
Brick/ Concrete/Tile/ Stone	51.37%	51.37%	Orange Recycling P/L
Metal/ Steel	8.70%	8.70%	InfraBuild/Barca Metals
Timber/ Green Waste	34.95%	34.95%	ResourceCo
Cardboard/ Paper	0.30%	0.30%	Doyle Bros
Plaster and Gyproc	1.37%	1.37%	Regyp Recycling
Waste to Landfill	2.67%		ResourceCo
Foodscrap	0.64%		Suez Recycling
Total	100.00%	96.69%	

Richard Crookes - Macquarie Park



APPENDIX H: EPA ADVISORY LETTER



Notice Number: REG-3411
Reference Number: REG-3411
Contact: Afnan Fazli Ph: 0282751455

CHRISTIE CIVIL PTY. LTD.
74 096 455 346
7 BRIDGE ROAD
STANMORE NSW 2048

Attn: Travis McCleary

Advisory Letter – Erosion and Sediment Control at Ivanhoe Estate, Macquarie Park

Dear Mr McCleary,

The Environment Protection Authority (EPA) has received a report regarding activities at Lot 13 DP 1271599 2 Mahogany Avenue Riverwood and Lot 200 DP 1274184 2R Lyon Park Road Macquarie Park, known as Ivanhoe Estate, Macquarie Park (the Premises).

Why is the EPA writing to Christie Civil?

The EPA is the Appropriate Regulatory Authority (“ARA”) for activities carried on by the State or a public authority, as defined in Section 6(2)(c) of the *Protection of the Environment Operations Act 1997* (“the Act”). As Christie Civil is undertaking works on behalf of NSW Land and Housing Corporation (LAHC), the EPA is the ARA for the activities undertaken by Christie Civil. The EPA understands that this Premises was approved as a State Significant Development with conditions of consent issued under SSD-8903 (CoC) in 2020.

Why the EPA is concerned about this matter?

On 5 October 2022, the EPA received a report from The City of Ryde (Council) concerning significant sediment and erosion control issues at the Premises. Council provided photos and notified the EPA that a Clean-Up notice was issued to Christie Civil under Section 91 of the Act.

On 18 October 2022, the EPA conducted a site inspection at the Premises, in response to the report from Council. The EPA officers present observed substantial sediment and control issues, as well as other related environmental concerns on the Premises. Additionally, it was observed that there was significant sediment build up in Shrimpton’s Creek most likely due to the activities on the Premises.

What the EPA requests from Christie Civil

The EPA requests that Christie Civil take the following actions:

1. Provide the EPA with the following documents:
 - a) A copy of your Construction Soil and Water Management Plan (CSWMP).
 - b) A copy of any erosion and sediment control plans for the Premises
 - c) A site map showing discharge points, as well as pit identifiers.

- d) A copy of the daily and weekly site inspection checklists consistent with IECA Best Practice Erosion and Sediment Control documents, as per condition B45(i) of the CoC.
2. Provide the following information about the activities on the Premises:
 - a) Detail the processes Christie Civil will put in place to improve the mitigation of sediment runoff and prevent the reoccurrence of discharge into Shrimptons Creek, in accordance with the CoC.
 - b) Outline the processes and documentation in place to manage any potential groundwater that may flow into the premises from the Richard Crooke's construction site.
 3. Immediately implement these control measures on the Premises:
 - a) Replace the silt fencing and booms located around and in Shrimptons Creek.
 - b) Assess the risks and explore options to remove sediment build-up in Shrimptons Creek. Implement the identified action(s) to remove the sediment ensuring the activity is done in an environmentally safe manner.
 - c) Replace the sandbags located around Shrimptons Creek and implement measures as appropriate according to Managing Urban Stormwater, Soils and Construction – Volume 1 as published by Landcom.
 - d) Place cover on the soil stockpiles that are below the sediment basin discharge area.
 - e) Improve sediment and erosion control measures around the stormwater pit near the stockpiles below the sediment basin discharge area.
 - f) Increase capacity to capture water in areas of concentrated water flow.
 - g) Cover the slope batter on the eastern side of the bridge construction, as well as any other uncovered slope batters.
 - h) Ensure the storage and bunding of the chemical storage area is improved and is in accordance with the requirements of all relevant Australian Standards, EPL requirements and/or EPA's Storing and Handling Liquids: Environmental Protection – Participants Handbook.

The EPA requests the above actions be completed by **Monday 7 November 2022**.

The EPA will continue to monitor operations at the Premises to ensure compliance with the relevant sections of the Act, as well as ensuring that the requirement to meet EPA standards and guidelines as required by the CoC are met. The EPA views non-compliances with the Act, a licence and/or other legislative requirements as a serious matter. In instances where a breach of the Act, a licence or other legislative requirements is identified, the appropriate regulatory response is determined by examining the circumstances surrounding the breach and considering the principles contained within the EPA's Regulatory Policy and Prosecution Guidelines

If you have any questions or concerns in relation to this request, please call Afnan Fazli on (02) 82751455.

Where to send your response

Manager Regulatory Operations Metro - West

Environment Protection Authority

Locked Bag 5022

PARRAMATTA NSW 2124

or by email to RegOps.MetroRegulation@epa.nsw.gov.au, cc to afnan.fazli@epa.nsw.gov.au

Yours sincerely,

A handwritten signature in black ink, appearing to read 'L Borysko', is centered on the page.

Larissa Borysko
Acting Unit Head

Environment Protection Authority
26-10-2022