



**Harvest Scientific Services**  
Environmental and Earth Science Consultants

## **2022 ANNUAL ENVIRONMENTAL MANAGEMENT REPORT**

### **SPRING FARM SAND AND SOIL EXTRACTION AND PROCESSING OPERATION (DA 75/256)**

**MACARTHUR ROAD, SPRING FARM**

**Prepared for:**

**M. Collins & Sons Holdings Pty Ltd**



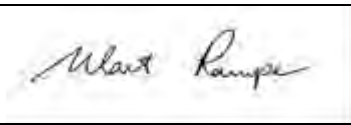
**JOB REFERENCE 75/25628**

**26<sup>th</sup> May 2023**

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| <b>ANNUAL REVIEW TITLE BLOCK</b>   |  |
|--|--|
| Name of Operation  | M. Collins and Sons Holdings Pty Ltd   |
| Name of Operator   | Collins Construction Materials Pty Limited   |
| Development consent/project approval #   | 75/256/5   |
| Name of holder of development consent/project approval   | M Collins & Sons Holdings Pty Ltd  |
| Mining Lease #   | NA   |
| Name of holder of mining lease   | NA   |
| Water licence #  | <b>CAA-2021-11492 / 10CX122891/CAA-E-2021-10016</b>                                  |
| Name of holder of water licence  | M.COLLINS & SONS HOLDINGS PTY LIMITED  |
| MOP/RMP start date   | NA   |
| MOP/RMP end date   | NA   |
| Annual Review start date   | 1/1/2022   |
| Annual Review end date   | 31/12/2022   |
| <p>I, Mart Rampe, certify that this audit report is a true and accurate record of the compliance status of the Spring Farm Quarry for the period 2021 calendar year and that I am authorised to make this statement on behalf of M Collins and Sons Holdings Pty Ltd.</p> <p><i>Note.</i></p> <p><i>(a) The Annual Review is an “environmental audit” for the purposes of Section 122B(2) of the Environmental Planning and Assessment Act 1979. Section 122E provides that a person must not include false or misleading information (or provide information for inclusion in ) an audit report produced to the Minister in connection with an environmental audit (if the person knows that the information is false or misleading in a material respect. The maximum penalty is, in the case of a corporation, \$1 million and for an individual, \$250,000.</i></p> <p><i>(b) The Crimes Act 1900 contains other offences relating to false and misleading information: section 192G (intention to defraud by false or misleading statement – maximum penalty 5 years imprisonment); sections 307A,307B and 307C (False or misleading statement applications/information/documents – maximum penalty 2 years imprisonment or \$22,000, or both).</i></p> |  |
| Name of authorised reporting officer   | Mart Rampe   |
| Title of authorised reporting officer  | Director – Harvest Scientific Services   |
| Signature of authorised reporting officer  |  |
| Date   | 26/5/2023  |

## Revisions register

| <b>Date</b> | <b>Details</b>   |
|-------------|--|
| 26/3/2018   | Progress Draft Report 1 for client review.   |
| 28/3/2018   | Final  |
| 28/3/2019   | Draft Report for Client review including Modification 4 Consent Updates                                    |
| 23/2/2020   | Draft report for Client  |
| 25/3/2020   | Final Report for Client  |
| 24/3/2021   | Draft report for Client  |
| 30/3/2021   | Final Report for Client  |
| 20/3/2022   | Draft Report for Client review including Modification 5 Consent Updates                                    |
| 29/3/2022   | Final Report for Client  |
| 13/3/2023   | Draft Report for Client  |
| 18/5/2023   | Amend to update as per Departmental request:<br><br>Schedule 2 (condition 2) and Schedule 5 (Condition 4c) |
| 26/5/2023   | Final Report submission to Department of Planning and Environment  |
|             |  |

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## 1.0 INTRODUCTION

Harvest Scientific Services Pty Ltd has been commissioned by M. Collins & Sons Holdings Pty Ltd (Collins) to prepare this *Annual Environmental Management Report* (AEMR) for 2022. The Report has been prepared in accordance with the NSW Department of Planning and Environment requirements for the Collins Sand and Soil Quarry on Lot 22 (DP833317), and Lot 32 (DP 635271), Macarthur Road, Spring Farm.

### 1.1. OBJECTIVES

The objective of this Annual Environmental Management Report is to address Item 4 of Schedule 5 of the NSW Department of Planning and Environment *Notice of Modification* (DA 75/256 Mod 4) dated 2 August 2018 and Modification 5 (DA 75/256 Mod 5) dated 23<sup>rd</sup> April 2021.

*By the end of March each year, the Applicant shall review the environmental performance of the project to the satisfaction of the Secretary. This review must:*

- a. *Describe the development (including rehabilitation) that was carried out in the previous calendar year, and the development that is proposed to be carried out over the current calendar year;*
- b. *Include a comprehensive review of the monitoring results and complaints records of the project over the previous calendar year, which includes a comparison of these results against:*
  - *The relevant statutory requirements, limits or performance measure/criteria;*
  - *The monitoring results of previous years; and*
  - *The relevant predictions contained within issued Modifications .*
- c. *Identify any non-compliance over the last year, and describe what actions were (or are being) taken to ensure compliance;*
- d. *Identify any trends in the monitoring data over the life of the project;*
- e. *Identify any discrepancies between the predicted and actual impacts of the project, and analyse the potential cause of any significant discrepancies; and*
- f. *Describe what measures will be implemented over the current calendar year to improve the environmental performance of the project.*

### 1.2. REPORTING PERIOD

This report covers the period between 1 January 2022 and 31 December 2022.

### 1.3. ACTIVE ENVIRONMENTAL MANAGEMENT PLAN

The active Environmental Management Plan is entitled '*Environmental Management Plan for Spring Farm Sand and Soil Extraction and Processing Operation*' dated January 2022 prepared by Harvest Scientific Services.

### 1.4. CONSENT AUTHORITIES

The following consent authorities will be provided with a copy of this AEMR:

- The NSW Department of Planning and Environment;
- Camden Council; and
- The NSW Environmental Protection Authority
- NSW Department of Natural Resources Access Regulator .

### 1.5. CONSENTS AND PERMITS

The site is operated by Collins Construction Materials Pty Ltd (a subsidiary of M. Collins & Sons Holdings Pty Ltd). This site is subject to the following consents and permits:

- NSW Department of Planning and Environment Notice of Modification (DA 75/256 Mod 5) dated 23<sup>rd</sup> April 2021 NSW Environmental Protection Authority Environmental Protection License (EPL) 4093;
- Controlled Activity Approval issued by the NSW Access Resource Regulator dated 10 December 2021; and
- Other activities which are critical to the operation but do not relate directly to DA 75/256 Mod 5 are undertaken on Lot 1 (DP 587631) and subject to Council approval (DA252/93) (Figure 1). These activities include access to the premises via the main entrance, weighbridge, wheel wash, site offices, workshops, resource processing and blending area and water supply pump from the Nepean River. These activities were not considered when preparing this AEMR.

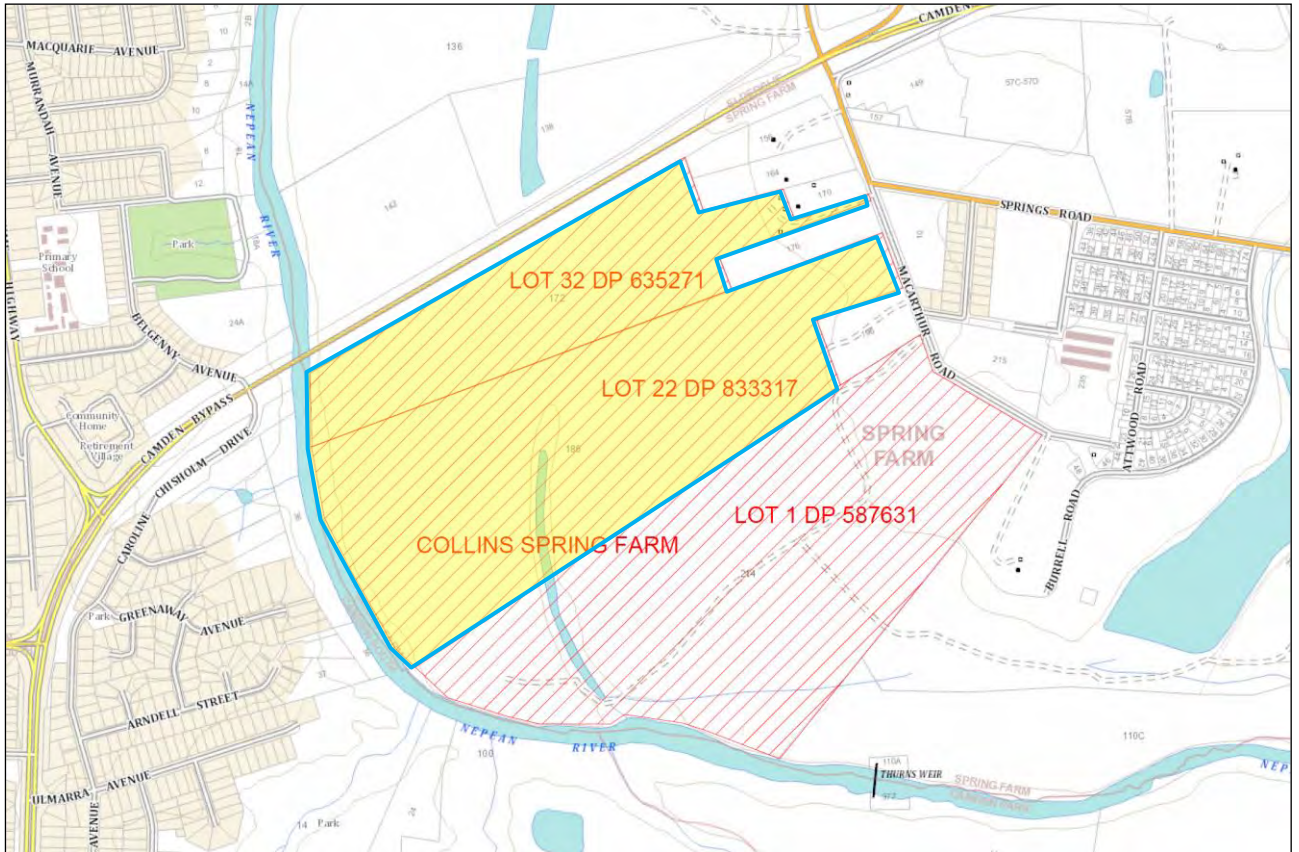
#### 1.6. KEY PERSONNEL RESPONSIBLE FOR ENVIRONMENTAL MANAGEMENT

The key personnel tabled below are responsible for the Environmental Management of the Quarry.

| <b>Table 1: Key Environmental Management Personnel</b> |                    |                        |
|--|--------------------|------------------------|
| <b>Contact person</b>                                  | <b>Designation</b> | <b>Contact details</b> |
| Matthew Collins  | Managing Director  | 0412 265 017           |
| David Eckford  | EMR                | 0419 497 106           |
| Emma Collins   | EMR                | 0409 869 094           |

**2.0 SITE IDENTIFICATION AND LOCATION**

Collins Construction Materials Pty Ltd - Spring Farm Quarry operations occupy Lot 1 (DP 587631), Lot 22 (DP833317) and Lot 32 (DP 635271), situated between Macarthur Road and the Nepean River, Spring Farm (Figure 1).



**Figure 1:** Site Locality (the area shaded yellow is the land subject to this 2022 AEMR)

### 3.0 PROJECT DESCRIPTION

The Collins Spring Farm Quarry is a major supplier of bulk sand and soil materials to the greater Sydney region. Sand and soil is extracted from an approved sixteen hectare (16 Ha) extraction area within the western part of Lot 22 (DP 833317) and an approved 6.8 hectare (6.8 Ha) extraction area within the western part of Lot 32 (DP 635271) - see Figure 1. The sand and soil resource is extracted to a nominated working depth of approximately 8 metres - the purpose of which is to safeguard the underlying groundwater.

The active working area is confined to five hectares (5 Ha) at any one time in accordance with the approved working plan with one hectare (1 Ha) concurrent rehabilitation. Sand and soil is extracted by excavator and placed into dump trucks. The dump trucks convey the material to the processing area where it is screened using a diesel driven screening plant. Sand and soil are screened to -2 mm and -8 mm respectively. Screened sand and soil is then hauled by dump truck from the processing area to a central stockpile and blending area. Oversize material (overburden) is used to backfill voids and for site rehabilitation purposes. Extraction and rehabilitation cells are illustrated in Figure 2.

Up to 5,000 tonnes of sand and soil are held at any one time in up to five stockpiles. These are segregated by material type, allowing the company to satisfy market demands for specific blended products. Current operations produce around 250,000 to 300,000 tonnes of sand and soil products annually. Five people are directly employed at the quarry including Operations Manager, Plant operator and Weighbridge staff. Five additional Company staff work onsite including Management and Clerical Staff. . In addition, Contractors are employed to Excavate and process material and Truck drivers are employed to deliver and distribute material to customers.

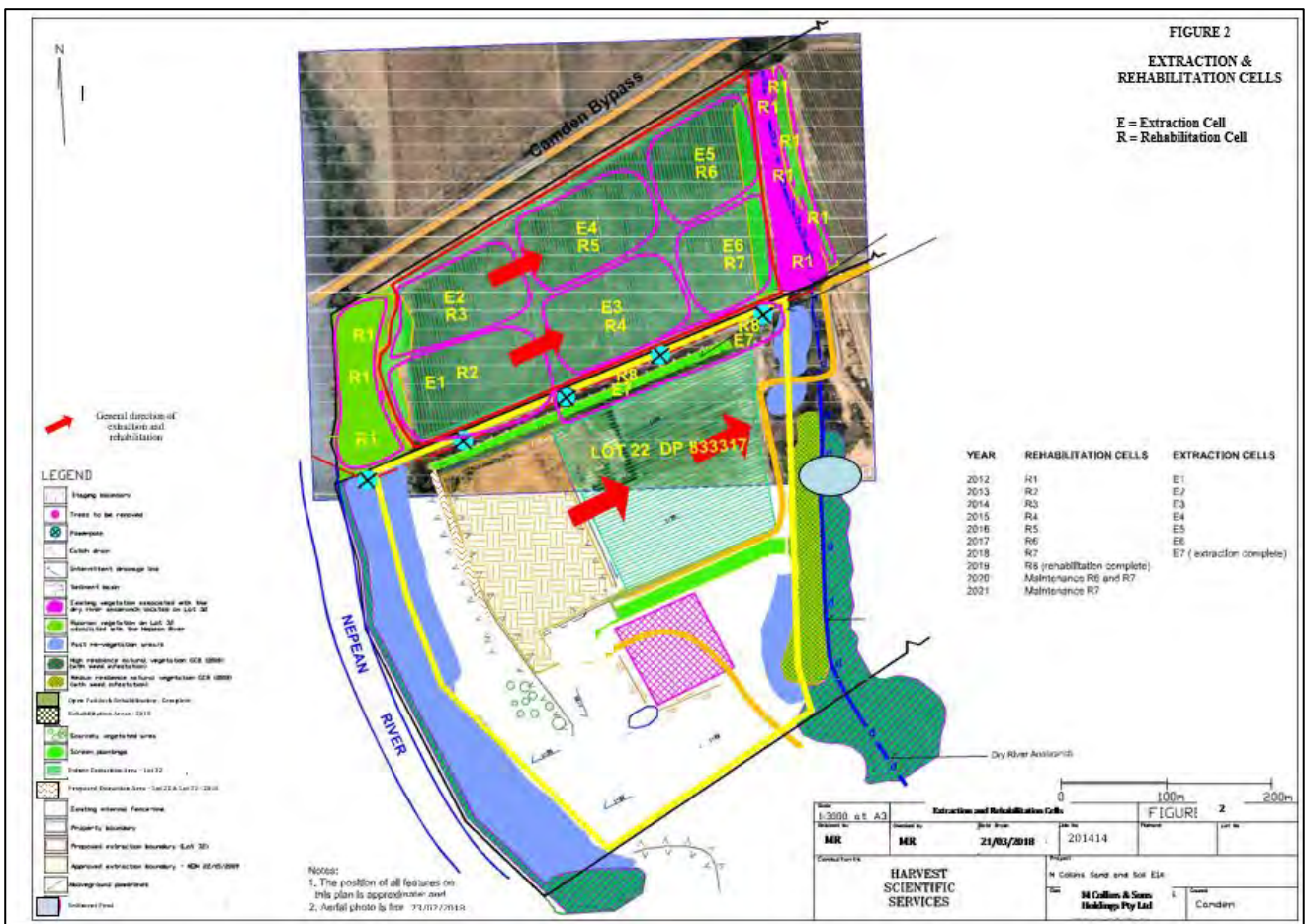


Figure 2: Location of Extraction and Rehabilitation Cells



## 4.0 ANNUAL PRODUCTION

Production of sand and soil over the 2022 AEMR is summarized in Table 2. Copies of supporting documentation provided by Collins are appended as follows:

- Industry and Investment Return for Extractive Materials are provided in Appendix 1; and
- Weigh Bridge Transactions are provided in Appendix 2.

| <b>Table 2: Collins Spring Farm Annual Production Statistics for the 2022 AEMR period</b> |                   |
|---|-------------------|
| Total number of laden loads outwards (appendices 2a and 2b)                               | 5617              |
| Average laden truck movements per day   | 15                |
| Total material extracted  | 76,685.33 tonnes  |
| Total Site Production (Appendix 3)*   | 157,164.16 tonnes |

*\*This figure incorporates production activities related to Lot 1 (DP 587631) and has been included for completeness but such activities are not relevant and are outside the scope of this AEMR as indicated in Section 1.5.*

## **5.0 ANNUAL CONTRIBUTIONS**

As per Item 7 of Schedule 2 of NSW Department of Planning and Environment *Notice of Modification* (DA 75/256 Mod 3) dated 25 October 2012, the Applicant is required pay an annual contribution to Camden Council for the maintenance of Macarthur Road between the main site entrance and intersection with Springs Road.

A total contribution of \$9,291.24 was paid to Camden Council to satisfy this requirement for the 2022 period (Appendix 3).

## 6.0 EXTRACTION AND WORKING AREA

### 6.1 PRODUCTION - 2022 AEMR PERIOD

Current and recent designated areas for extraction and rehabilitation are illustrated in Figure 2 and the aerial view for lot 22 and Lot 32 extraction and rehabilitation areas is found at Figure 3. Sand and soil was actively extracted from these portions between January and December 2022.

By the end of the reporting period the open area on lot 22 measured approximately 3 Ha and on Lot 32 approximately 0.2 Ha. A total of approximately 3.2 Ha was thus open during the 2022 period.

The 2022 total combined site area for active extraction and rehabilitation is within the Camden Council limit of 5.0 hectares.

Approximately 76,685 tonnes were extracted from these lands during the period of this return.



**Figure 3:** Extraction undertaken in 2022 within LOT 32 (NearMap™ image 9/3/2023)



6.2 FORECAST PRODUCTION – 2023 AEMR PERIOD

It is proposed to:

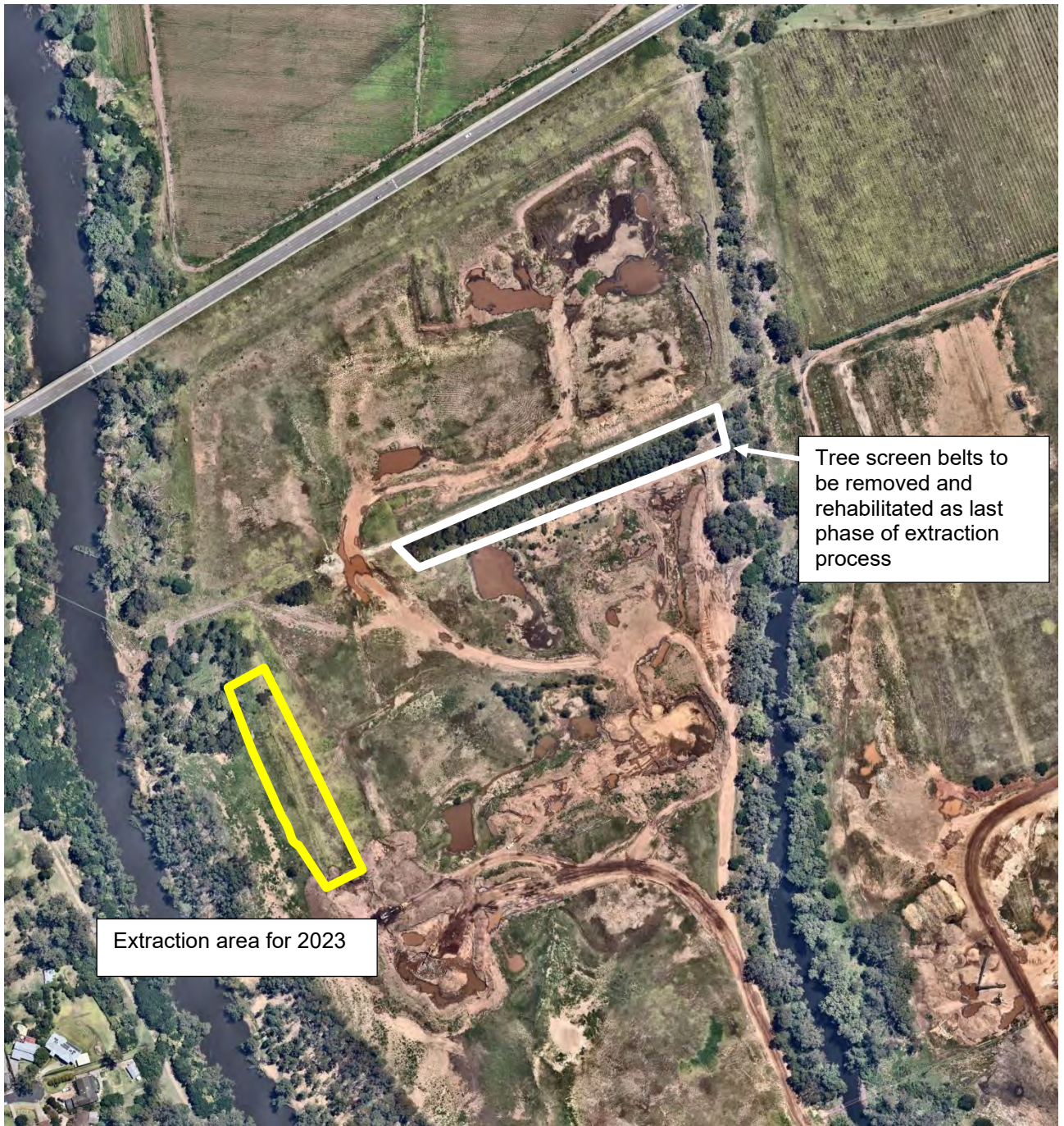
- Complete extraction from within Lot 22 (DP 833317) as illustrated in Figure 4; and
- Complete extraction on Lot 32 (DP 635271) proceeding north as illustrated in Figure 4 .

It is estimated that total extraction and production figures for the 2023 reporting year will be significantly reduced from that reported for 2022 . The proposed areas of production during the 2022-2023 AEMR are illustrated in Figure 5. It is noted that in the 2023 year, extraction will cease no later than 30<sup>th</sup> June 2023 in accordance with consent Modification 5.



Figure 4: Location of Proposed Extraction and Rehabilitation Cells





**Figure 5:** Proposed extraction areas for the 2023 reporting period (NearMap™ image 9/3/2023)



## 7.0 REHABILITATION – 2022 AEMR PERIOD

### 7.1 INTRODUCTION

Rehabilitation of the Collins quarry site is generally focused on three basic restoration and rehabilitation zones. These include the following:

- Zone 1 – Nepean River and adjacent banks
- Zone 2 – Dry River Anabranh; and
- Zone 3 – Areas intended for future agricultural areas.

These zones together with commentary on their future treatment is illustrated in Figure 6.

### 7.2 REHABILITATION AND MAINTENANCE

During Late February and Early March 2022 two rainfall events triggered widespread major riverine flooding along the Nepean River Valley. The first event that occurred from the 27th of February saturated fluvial soils, filling the river and its dams, inundation of parts of the project area onsite occurred during this event.

A second rainfall event that occurred from the 3rd to the 9th of March caused significantly flooding of the river corridor, causing the river to overflow its banks flooding the adjacent flood plain along the Nepean River Valley causing significant inundation of the project site.

The flood event caused significant damage to the land formation of the river bank and flood plain geomorphology and rendered access to the site impossible for vehicles for months – affecting the majority of the annual works plan period.

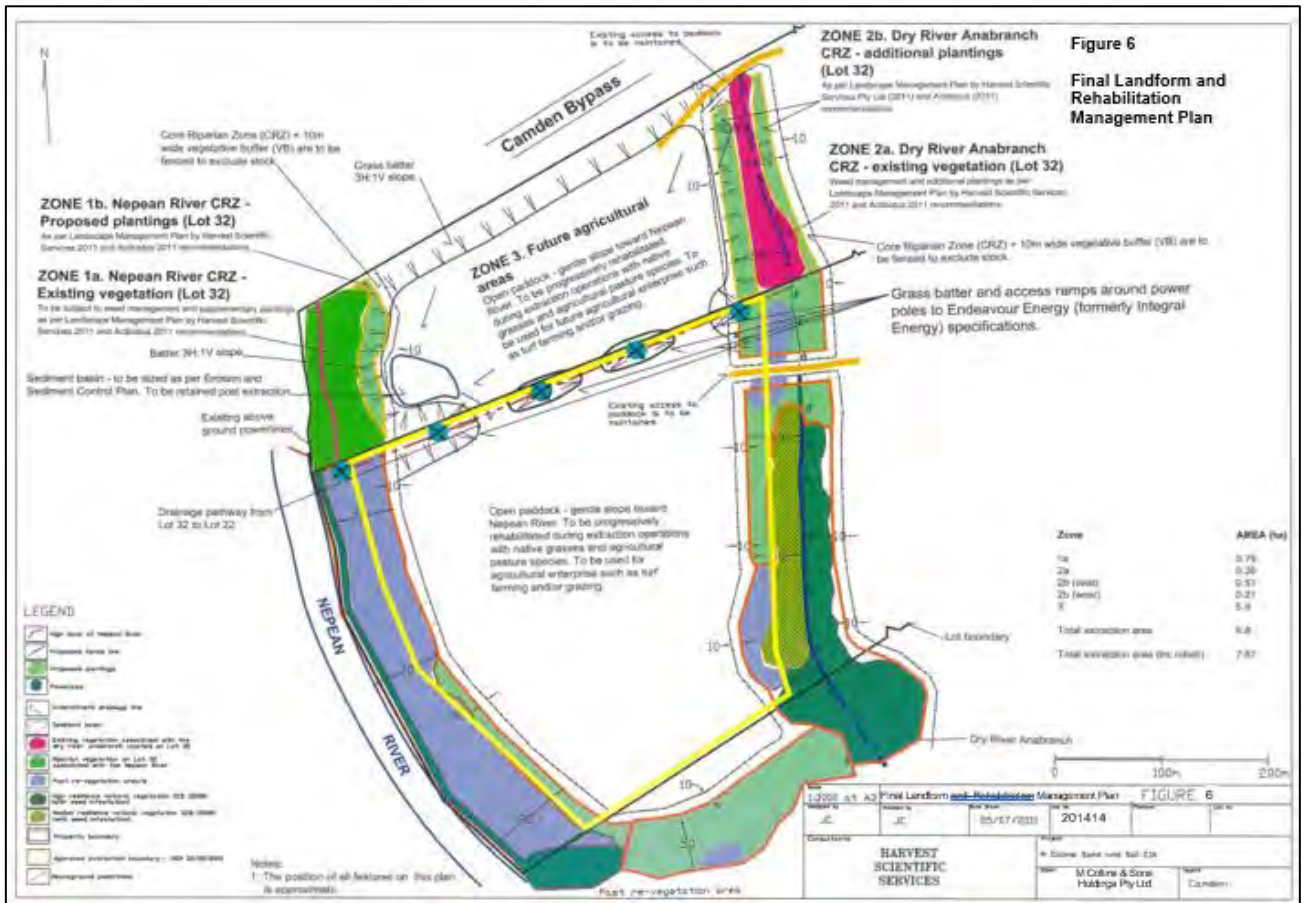


Figure 6: Proposed rehabilitation and restoration works 2023

As a result of the above described flooding and weather disruptions, the proposed revegetation activities planned for 2022 by Apical Bushfire and Planning were not programmed or undertaken across the target zones after February 2022. Their observations and subsequent proposals are attached as Appendix 4.

Significant rainfall causing broad scale flooding and inundation of the subject site and did not allow for site access to undertake works. In addition, these events caused significant damage and lead to the loss of many plants installed during the previous work seasons.

An audit of the revegetation zones after the major flooding events was prepared to ascertain the overall loss of previously installed plants which were installed to create increased vegetation buffers and biodiversity corridors to link areas of remnant vegetation (bushland) across the site. As a result of the audit, the 2023 program had to be revised resulting in a significantly amended program for 2023. This program is described in the following Section 8.0

## 8.0 PROPOSED REHABILITATION - 2023 AEMR PERIOD

### 8.1 FINAL LEVELS

The proposals for the 2023 AEMR period have now been revised due to the flooding events of 2022. It was previously proposed to:

- Achieve final levels(RL66) and trimming within Rehabilitation Cells R4 (Lot 32) denoted on Figure 4 and ensure their complete revegetation; and
- Achieve final levels and enter into final rehabilitation and revegetation of areas R3, R5 and R5 on Lot 22 as illustrated in Figure 4.

These activities have now been superseded by the following program (see attached Appendix 5 for details). It is noted that extraction will cease no later than 30<sup>th</sup> June, 2023 as per consent Modification 5 and at such time rehabilitation will be the site focus. In summary, activities for 2023 are now focused on the following activities:

### 8.2 REHABILITATION AND MAINTENANCE

#### 8.2.1 Revegetation (Re-planting/New Planting)

Maintenance Revegetation within the following Planting Zones:

- Zone 1a) 1b)
- Zone 2a) 2b)
- Zone 4

Repeated site flooding which occurred throughout the 2022 year considerably damaged revegetation areas by killing plants, physically removing plants and plant stakes and guards. Site revegetation areas were damaged to different levels of impact and require a variant level of replacement planting.

Maintenance of revegetation zones is an apparent requirement for all zones to help further establish any trees /shrubs that survived the flood events, control extending areas of weed infestation and reduce plant competition to the revegetation zones to encourage establishment growth of the desired plants.

Replacement tube stock supply and installation.

#### 8.2.2 Maintenance Revegetation Areas

- Maintenance of the selected revegetation areas will be formed by the following activities:
- Brush cutting of grasses and annual weeds
- Spot spraying of annual and perennial weeds within the revegetation areas
- Supplementary replacement tube stock planting
- Supplementary direct seeding of collected native plant seed
- Watering in drought periods

#### 8.2.3 Bushland Restoration (Threatened Species & Ecological Zones)

Areas categorised into this management unit include remnant stands of natural bushland which occur to the site. Remnant bushland areas are formed of Endangered Plant Community – Cumberland Shale Sandstone Transition Forest and have been protected over the life of the extraction period for the project. Ongoing weed management in the form of bush regeneration will be continued under this scope for the 2022-2023 management period.

Extensive flooding events of 2022 have modified the landscape topography, landform and vegetation stability with many areas being influenced by both erosive soil and bank loss and sediment deposition processes driven by influences of the flood events.

Weed control and restorative land management practice such as direct seeding, soil stabilisation and installation of surrogate habitat will be provide under this section of the scope.

Project Work Zones include:

- RiverZone South
- RiverZone Central
- RiverZone North
- Anabranche Corridor

**Weed Control:**

Woody weed control – Cut / Paint Remove

Annual weed control – Remove / Spot Spraying

Ascending Vines Weed Control – Remove, Skirting and Spraying

Invasive Grasses – Brush cut, Spot Spray

**Direct Seeding – Natural Regeneration:**

Seed collection seed processing and seed re-distribution within de-stabilised zones to encourage natural regeneration of local flora species.

**Installation – Fauna Habitat:**

Supply, install and monitor suitable habitat nesting boxes for known local threatened species (Micro-bat, Arboreal Mammals, and Birds). Locate boxes within the bushland restoration zones.

**8.2.4 Routine Activities**

The contractors from Aptical Bushfire and Planning Pty Ltd will continue to routinely inspect the site to perform rehabilitation tasks as necessary. These tasks will be undertaken in general accordance with the active Landscape Management Plan (Harvest Scientific Services) and will include:

- Fencing maintenance and rubbish removal;
- Continue with the current extensive weeding regime incorporating the spraying and manual removal of woody, herbaceous and scrambling weeds;
- Monitoring and repair as necessary of eroded sites;
- Extensive planting with endemic species sourced from propagules collected on site;
- Monitoring of species composition;
- Monitoring of groundcover; and
- General on-going maintenance and pest control
- Undertake reporting of completed planting, weed re-growth, plant survival and required replacement after primary rehabilitation;
- Review Environmental Key Performance Indicators annually and rehabilitation progress;
- Enhance visual screening by the establishment of the Dry River Anabranche Vegetation;
- Staged retention of existing screening south of the extraction site;
- Carry out staged retention of vegetation cover on areas not being extracted and progressive rehabilitation of extracted areas; and
- Apply the use of recessive colours to visually intrusive plant, equipment and fencing.

## 9.0 ENVIRONMENTAL MONITORING

### 9.1 PERFORMANCE MEASURES

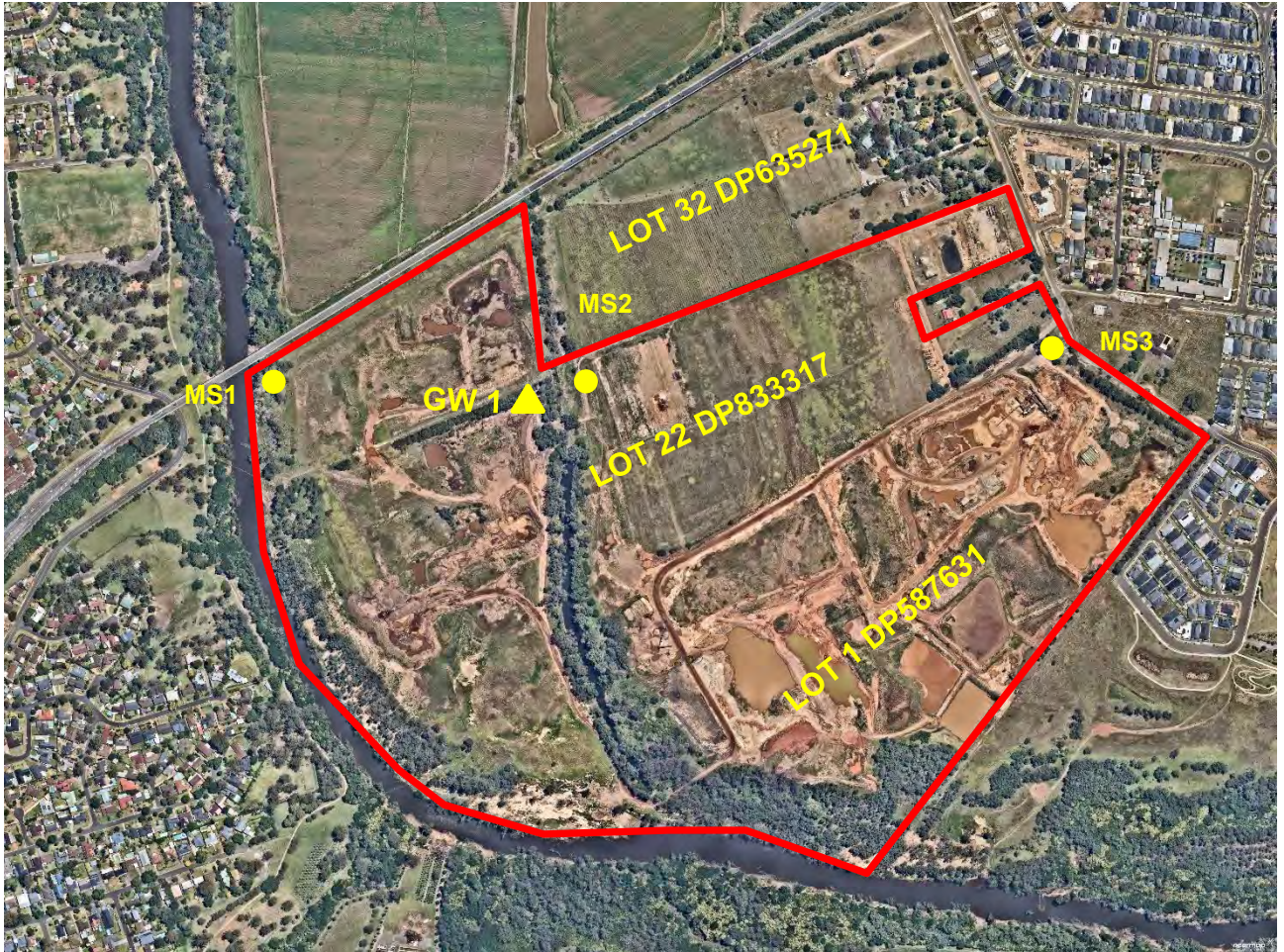
As per Item 8 of Schedule 3 of NSW Department of Planning and Environment *Notice of Modification* (DA 75/256 Mod 4) dated 2 August 2018, Modification 5 dated 23<sup>rd</sup> April 2021 and the Spring Farm Air Quality Monitoring Program dated 7 December 2018 an overview of Environmental Compliance Targets for this quarry is provided in Table 3 below.

| <b>Table 3: Environmental Targets (as per Table 1 in Schedule 3: Mod 4 consent)</b> |   |                               |  |   |
|---|---|-------------------------------|--|---|
| <b>Element</b>  | <b>Component</b>                            | <b>Target</b>                 | <b>Averaging period</b>  | <b>Source</b>   |
| Air quality   | Deposited Dust (maximum total)              | < 4 g / m <sup>2</sup> /month | Annual<br><br>Long Term assessment Criteria  | Conditions of Consent.                                      |
|   | Deposited Dust (maximum increase)           | 2 g / m <sup>2</sup> /month   | Annual   |   |
|   | Total Suspended Particles (TSP) Matter      | < 90 µg/m <sup>3</sup>        | After any legitimate dust related complaint thereafter   |   |
|   | Particulate Matter (PM <sub>2.5</sub> )     | 8 µg/m <sup>3</sup>           | After any legitimate dust related complaint thereafter.  |   |
|   | Particulate Matter (PM <sub>10</sub> )      | < 25 µg/m <sup>3</sup>        | Long Term assessment Criteria. After any legitimate dust related complaint thereafter. Long Term assessment Criteria |   |
|   | Particulate Matter (PM <sub>10</sub> )      | < 50 µg/m <sup>3</sup>        | Short term impact assessment any 24 hour period. After any legitimate dust related complaint thereafter.             |   |
| Noise   | LA10 (15 minute) at each sensitive receptor | < 55 dB(A)                    | 15 minutes   | Environmental Protection License 4093.                      |
| Groundwater   | Electrical conductivity                     | < 800 uS/cm                   | Monthly  | Water Management and Erosion and Sediment Control Plan 2021 |
|   | Depth to water table <sup>1</sup> (m)       | Depth < 5.83                  | Monthly  | Water Management and Erosion and Sediment Control Plan 2021 |
|   |   | Depth > 15.93                 |  |   |
| Ph  | 4.0 – 6.5                                   | Monthly                       | Water Management and Erosion and Sediment Control Plan 2021  |   |



## 9.2 MONITORING SITES

As per Item 17 of Schedule 5 of the NSW Department of Planning and Environment *Notice of Modification* (DA 75/256 Mod 4) dated 2 August 2018 and (DA 75/256 Mod 5) dated 23<sup>rd</sup> April 2021, there are three monitoring sites across the Collins Spring Farm Quarry; MS1 (*Penman*), MS2 (*Turf Farm*), and MS3 (*Wash Plant*). They can be identified on the western boundary of the site, central to the site and nearest the front gate respectively (Figure 7). Monitoring Stations MS1, MS2 and MS3 consist of a dust deposition samplers, whereas GW1 Station 2 consists of a groundwater monitoring bore.



**Figure 7:** Collins Spring Farm Monitoring Sites in 2022 (Dust MS1, MS2 & MS3 and Groundwater GW1)

## 10.0 AIR QUALITY

### 10.1 MONITORING

To address Schedule 3 of the NSW Department of Planning and Environment *Notice of Modification* (DA 75/256 Mod4) dated 2 August 2018 and (DA 75/256 Mod 5) dated 23<sup>rd</sup> April 2021, Harvest Scientific Services has been monitoring dust deposition over the Spring Farm Quarry routinely since 2008. Samples are collected monthly from three monitoring stations (MS 1, MS 2 and MS 3 – see Figure 7) and forwarded to a NATA registered laboratory and analysed for Total Insoluble Matter (g/m<sup>2</sup>/month). This monitoring data is available on the Collins and Sons website – <http://www.mcollins.com.au/environmental/environmental-monitoring/>. Table 4 and Figure 8 below summarise the results for the 2022 monitoring period.

| Table 4: Results of 2022 Routine Dust Deposition Monitoring (exceedances highlighted in red) |                               |      |      |  |
|--|-------------------------------|------|------|--|
| Period   | TIM (g/m <sup>2</sup> /month) |      |      | Notes  |
|  | MS 1                          | MS 2 | MS 3 |  |
| Jan 22   | 0.8                           | 1.2  | 0.8  |  |
| Feb 22   | 0.6                           | 7.0  | 0.6  | Exceedance at Station MS 2                                 |
| Mar 22   | 0.0                           | 2.2  | 0.7  | Station 1 lost due to flooding                             |
| Apr 22   | 0.0                           | 2.2  | 0.7  | Station 1 lost due to flooding                             |
| May 22   | 0.0                           | 3.7  | 0.6  | Station 1 lost due to flooding                             |
| Jun 22   | 0.7                           | 10.0 | 1.1  | Exceedance at Station MS 2                                 |
| Jul 22   | 0.2                           | 0.6  | 0.6  |  |
| Aug 22   | 0.0                           | 5.3  | 0.1  | Exceedance at Station MS 2, Station 1 lost due to flooding |
| Sep 22   | 0.7                           | 7.4  | 1.7  | Exceedance at Station MS 2                                 |
| Oct 22   | 0.8                           | 3.6  | 1.0  |  |
| Nov 22   | 0.8                           | 5.1  | 1.6  | Exceedance at Station MS 2                                 |
| Dec22  | 2.8                           | 5.4  | 1.7  | Exceedance at Station MS 2                                 |

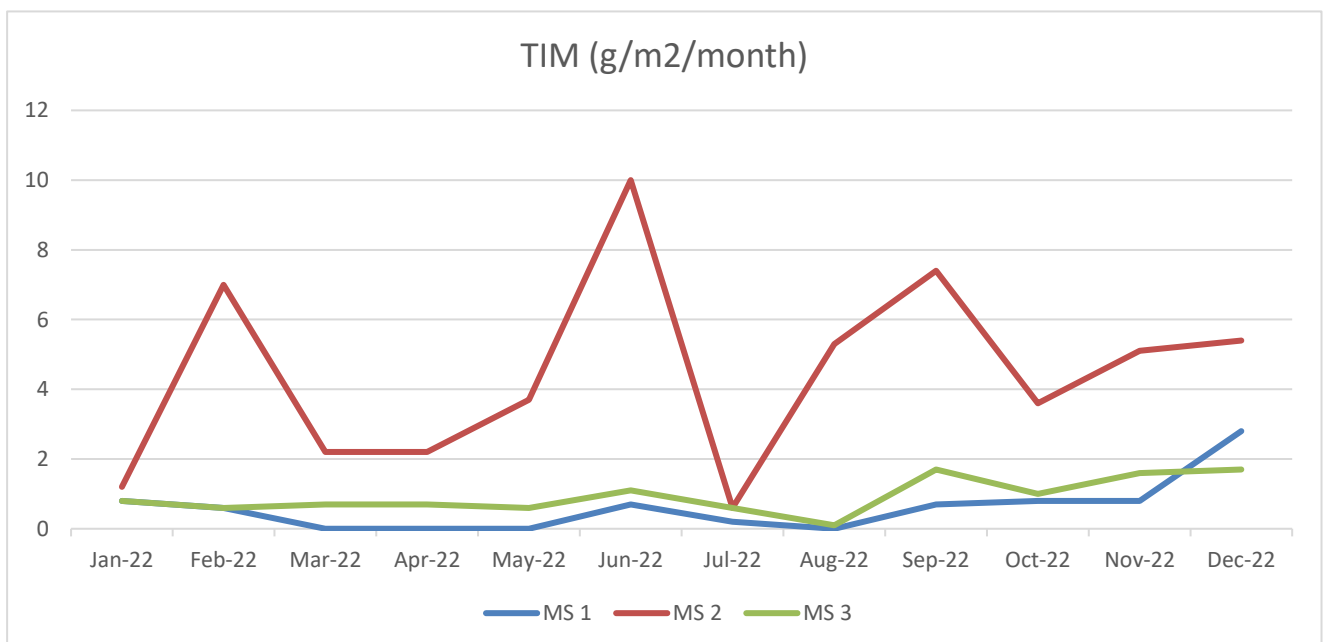
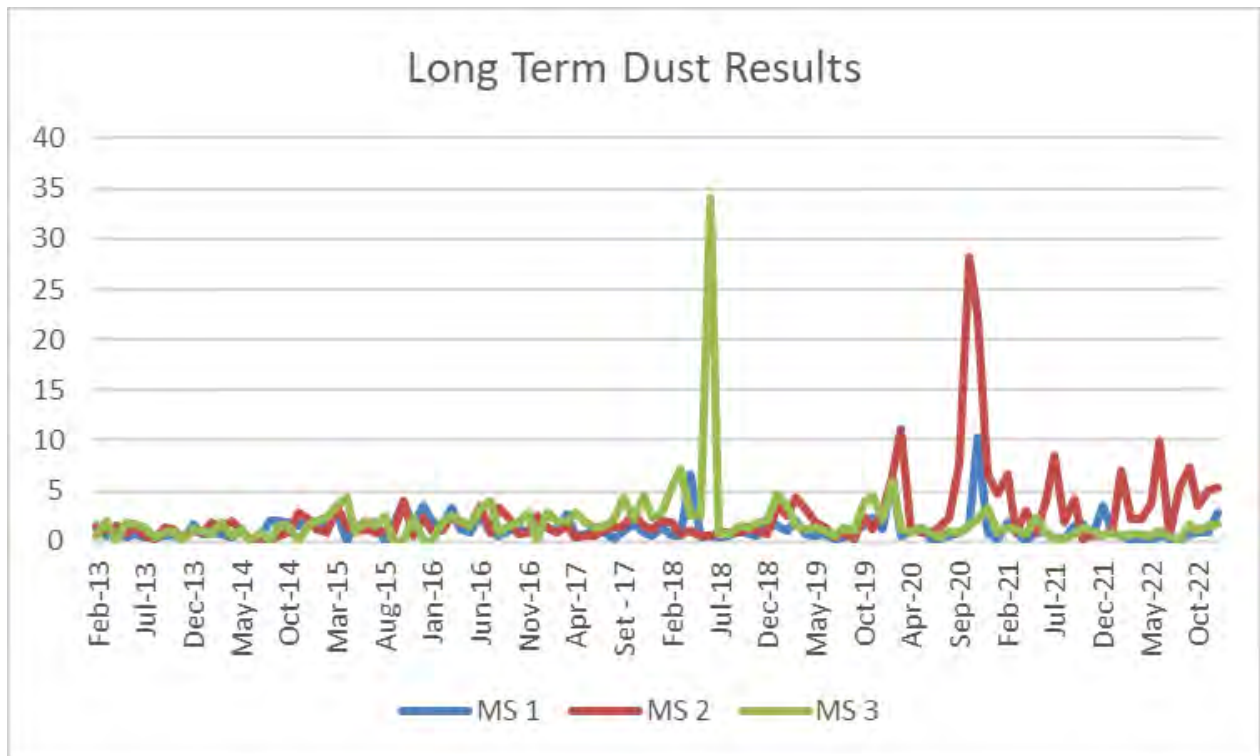


Figure 8: Dust results at MS1, MS2 & MS3 during 2022





**Figure 9:** Results of routine dust deposition monitoring at stations MS1, MS2 and MS3 over 9 years. LHS scale represents Total Insoluble Material (TIM). EPM target illustrated by red line (set at 4g/m<sup>2</sup>/month).

In addition, the Company undertook a series of Hi Volume, air quality assessments at Station 2 monitoring 24 hour Total Suspended Particles (TSP) and Fine Particulates (PM 10) during the reporting period. Under the Licence conditions for the site, the following air quality targets apply:

- Daily PM 10: 50 µg /m<sup>3</sup>/ 24 Hrs
- Daily TSP: 90 µg /m<sup>3</sup>/ 24 Hrs

The results of this assessment are attached as Appendix 6 which demonstrated that there were no exceedances of TSP, PM 2.5 and PM 10 criteria.

## 10.2 IMPROVEMENTS

Collins dust suppression is managed using the following methods;

- Maintained the increased frequency of access road dust suppression wet-downs
- Access to the road carriageways between the weighbridge and Macarthur Road were restricted so as to prevent quarry plant and machinery from using that area.
- Collins is still considering the upgrade the sealed area to improve the prevention of dust collecting in this area. In addition, the road pavement approaching the weighbridge from the quarry will also be under consideration to further reduce potential dust emissions.
- The mobile water cart continues to operate solely for the purpose of monitoring weather conditions, truck movements and speeds and thus that wet-downs of the quarry and road areas are applied at a higher than normal frequency. Collins has a staff member dedicated to the role of Water Cart driver and in addition has back-up staff trained in the role to cover leave period or periods where an additional water cart driver may be required.
- Collins has instigated a log book record keeping system for the water cart so that frequency and timing of the water cart usage can be monitored.
- Bund heights are monitored and increased as ongoing site maintenance to capture quarry and extraction pit dust in conjunction with existing controls and the mobile water cart. During excessive dry heat and wind conditions, the plant is shut down, plant and vehicle speed is reduced, product stockpiles are reduced and wet down to form a crust to reduce windblown dust.

Other Critical Protocols for Dust Suppression implemented onsite routinely include:

- Watering: All haul roads, stockpiles and acoustic bunding is subject to a daily wetting from an installed sprinkler system. Water cannons are utilized to wet down all stockpiles being held for sale to suppress fugitive dust emissions;
- Plantings: Upon the completion of final land forming, all surfaces are planted with appropriate grasses and shrubs. This includes quarry floors and batters;
- Shut down: All extractive and processing operations are shut down when wind conditions exceed acceptable velocities and threaten dust generation. This is a subjective assessment by the quarry manager and is based on past experience; and
- Security: Monitoring stations are cordoned off to prevent vandalism and nuisance readings where appropriate.

## 11.0 SITE WATER MANAGEMENT

### 11.1 GROUND WATER MONITORING

To address Schedule 3 of the NSW Department of Planning and Environment *Notice of Modification* (DA 75/256 Mod 4) dated 2 August 2018 and (DA 75/256 Mod 5) dated 23<sup>rd</sup> April 2021, Harvest Scientific Services has been monitoring groundwater at the Spring Farm Quarry routinely since 2009. Grab samples are collected monthly from a groundwater bore located at MS2 (Figure 7) and forwarded to Sydney Analytical Laboratories Pty Ltd for pH and Conductivity analysis. Groundwater depth is also monitored on a monthly basis. Monitoring data is available on the Collins and Sons website – <http://www.mcollins.com.au/environmental/environmental-monitoring/>

Table 5 and Figure 10 summarise the results for the 2022 monitoring period, whereas Figure 11 provides a summary of data over the last 9 years.

A review of data over the last reporting year demonstrates the following;

- All samples tested were below the nominated salinity target (EC < 800 µS/cm) during 2022. Results reflect the trend of groundwater conductivity (EC) values decreasing over time;
- pH levels were found to occur within a relatively tight range (5.49 – 7.67) and has not altered significantly over the last 7 years; and
- Groundwater depths below ground level fluctuated between 7.00 m and 11.00m depth. A rise in the water table depth during the year has clearly reflected the high rain fall occurring within the basin and the subsequent flooding events.

| Table 5: Results of Routine Groundwater Analysis |       |              |            |      |                        |
|--|-------|--------------|------------|------|------------------------|
| Date   | Time  | Temp (Deg C) | EC (uS/cm) | pH   | Water Table Depth (m)* |
| 10/01/2022                                       | 10.00 | 25           | 178        | 6.83 | 11.00                  |
| 2/02/2022  | 10.00 | 21           | 214        | 5.52 | 11.00                  |
| 1/04/2022  | 10.00 | 16           | 264        | 5.49 | 7.00                   |
| 2/05/2022  | 10.00 | 15           | 92         | 7.67 | 7.40                   |
| 6/06/2022  | 10.00 | 11           | 100        | 6.14 | 8.40                   |
| 1/07/2022  | 10.00 | 10           | 95         | 6.36 | 9.10                   |
| 4/08/2022  | 11.00 | 20           | 202        | 7.39 | 7.70                   |
| 2/09/2022  | 10.00 | 14           | 223        | 5.85 | 8.90                   |
| 4/10/2022  | 10.00 | 15           | 235        | 5.60 | 9.40                   |
| 4/11/2022  | 10.00 | 18           | 188        | 5.83 | 8.60                   |
| 13/12/2022                                       | 10.00 | 22           | 169        | 5.81 | 9.70                   |

\*From top of stand pipe

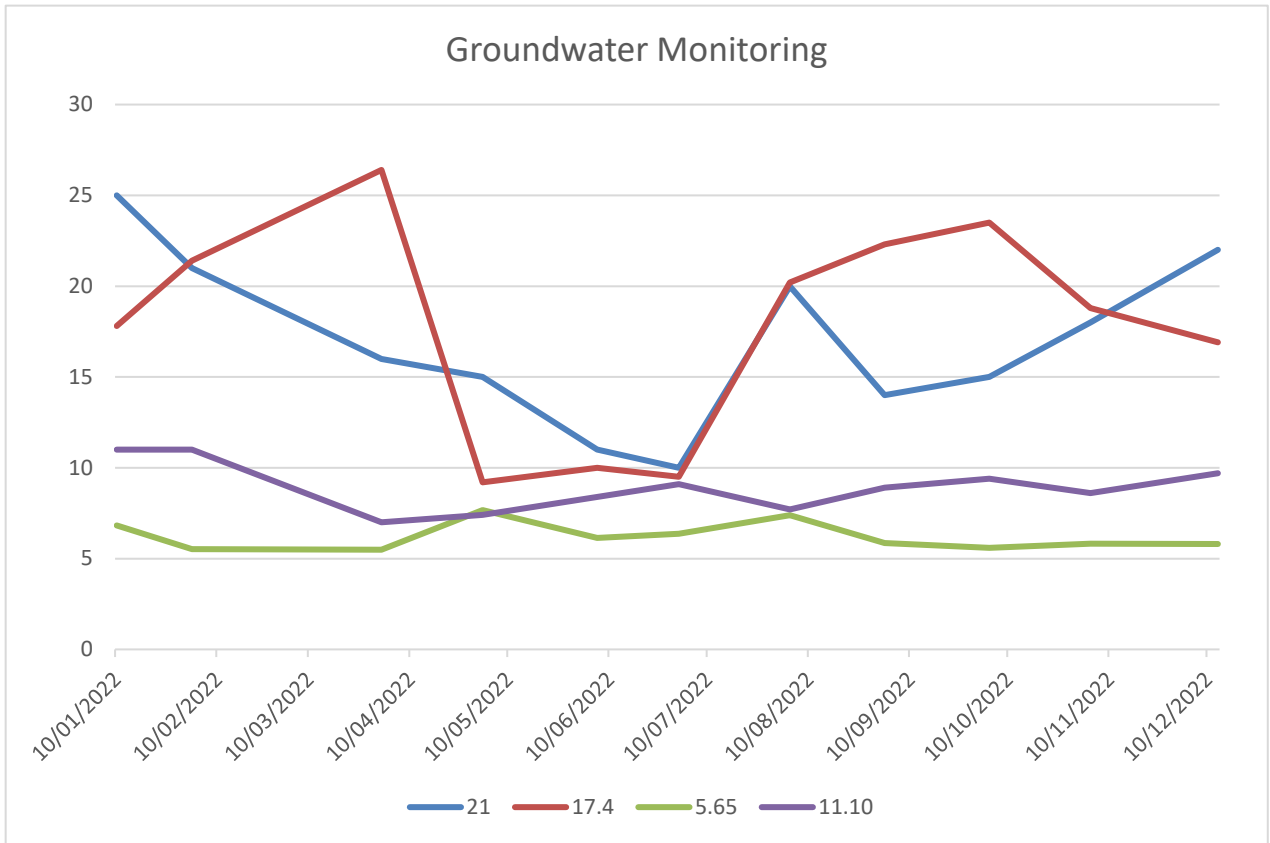


Figure 10: 2021 Groundwater Monitoring results during 2022 (Actual EC values divided by 10)

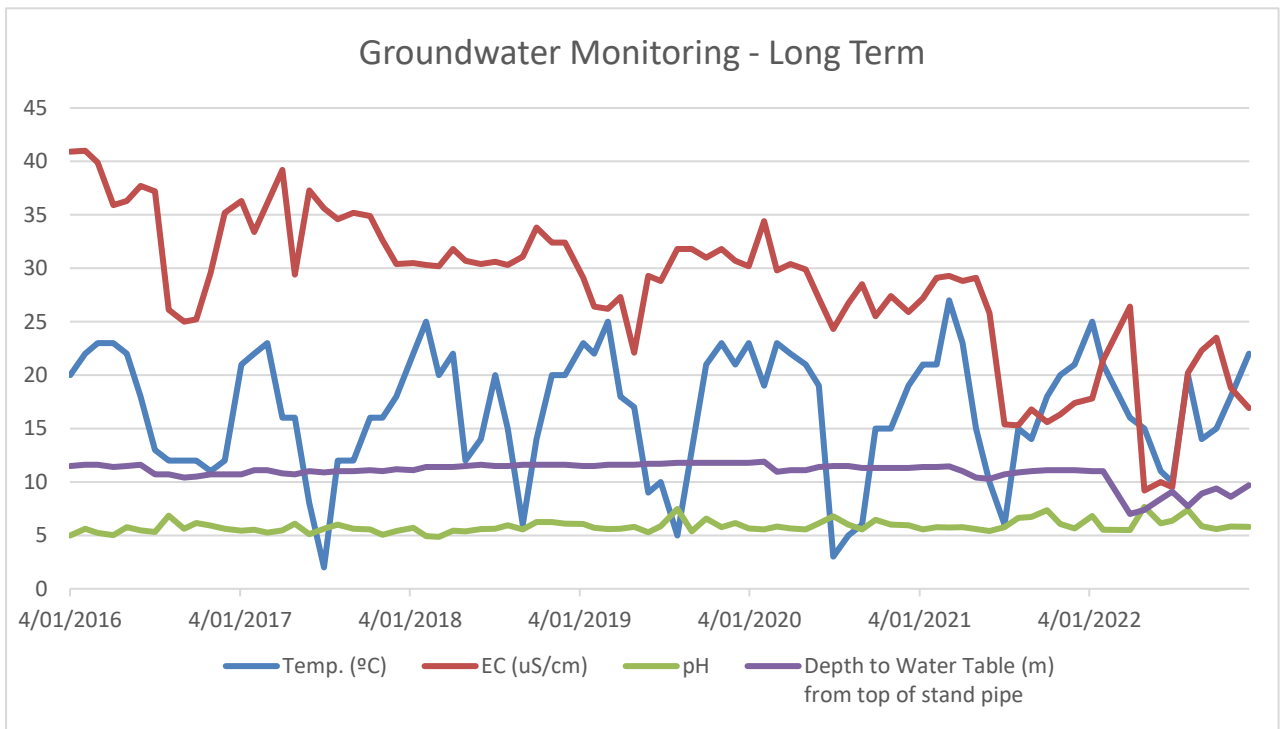


Figure 11: Groundwater Monitoring results over last 7 years (Actual EC values divided by 10)

## 11.2 PROJECTIONS

Projections for the groundwater parameters for the next reporting period are based on the last nine years of monitoring data. However, these projections may now be subject to a significant rainfall/flooding event that occurred during March 2022.

- It is likely that the nominated salinity target (<800  $\mu\text{S}/\text{cm}$ ) will be maintained and readings for 2022 will reflect even lower values as evidenced in the trend from mid-year 2021;
- pH levels are likely to remain within a relatively tight range (6.00 – 7.50); and
- Groundwater depths may vary during 2022 due to the flooding of the Nepean River during March 2022. It is anticipated that the depth will reduce to approximately 10.00 to 10.50 metres (if not lower) and then taper back to more normal levels during the course of the year – subject to any other flooding event that may occur.

Based on the above assumptions and a final landform level of up to 8 metres below the existing natural ground level, the permanent groundwater level is anticipated to be approximately 2-3 metres below the finished final landform. This distance is considered to be sufficient buffer distance for the protection of the local groundwater regime from future agricultural impacts.

The following groundwater management protocols which have been adopted for some time, are as follows:

- Maintenance of 1m vertical buffer distance. During active extraction, a buffer distance of 1 meter is to be maintained between the base of the quarry floor and the permanent groundwater horizon. The purpose of the buffer is to ensure adequate protection of groundwater. This buffer is based upon accepted practice on adjacent operations;
- If, during active extraction, the permanent groundwater is inadvertently intercepted, the quarry floor is to be back-filled to provide a 1 meter buffer between the operational surface and groundwater; and
- Groundwater depth, pH and salinity levels are to be continued to be monitored at the existing groundwater monitoring location on a monthly basis.

## 11.3 SITE WATER BALANCE

### 11.3.1 Introduction

To address Condition 13 of Schedule 3 of the NSW Department of Planning and Environment *Notice of Modification* (DA 75/256 Mod 4) dated 2 August 2018 an overview of available water and water usage is presented in the following sections. In summary, the extraction and processing activities on Spring Farm indicates a positive water balance outcome.

### 11.3.2 Maximum Harvestable Right Dam Capacity (MHRDC) and proposed sedimentation terminal pond

Based on the Maximum Harvestable Right Dam Capacity (MHRDC) calculator located on the Department of Primary Industries Water website (NSW DPIW, 2011), the project site has a MHRDC of 0.075 ML/ha, which equates to 1.32 ML for the approximate 17.7 hectare lot size.

The proposed terminal pond (Figure 6) is to be limited to the MHRDC size of 1.32 ML. As the terminal sedimentation pond is less than the MHRDC a Water Access Licence (WAL) is not required for this structure. This feature is proposed to be retained post extraction as a sediment trap for the post-extraction agricultural production areas.

Water is to be pumped from the terminal sedimentation pond and used for dust suppression purposes during the life of the extraction proposal and irrigation purposes post-extraction.

### 11.3.3 Sources and security of water supply

An annual total of 370.3 ML will be available for site operations from sources including river water from the Nepean River, bore water and surface water from the proposed terminal sedimentation pond. A breakdown of the various water sources is outlined in Table 6.



| <b>Table 6: Summary of available water sources and volumes</b> |                         |                              |                                  |   |
|--|-------------------------|------------------------------|----------------------------------|---|
| <b>Source</b>  | <b>WAL<br/>WMA 2000</b> | <b>WMA 2000<br/>Approval</b> | <b>Available<br/>Volume (ML)</b> | <b>Notes</b>                                |
| Nepean River   | 10AL117216              | 10WA117217                   | 41                               | River pump                                  |
|  | 10AL117214              | 10CA117215                   | 230                              | River pump                                  |
| Groundwater  | 10AL117186              | 10CA117187                   | 0                                | Offset for 20ML Aquifer Interference Policy |
|  | 10AL109570              | 10CA109571                   | 98                               | Bore pump (Lot 1 DP 587631)                 |
| Onsite terminal sediment basin                                 | Exempt.                 | Exempt.                      | 1.3                              | Based on MHRDC                              |
| <b>Total</b>   |                         |                              | <b>370.3</b>                     |   |

The total available volume of water from the Nepean River is 271 ML per annum which is to be sourced from two existing licences under the Water Act 2000 (NSW) (WA, 2000). The Water Access Licences (WAL's) are administered by the NSW Department of Primary Industries Water (DPIW) under the WMA (2000).

The total available volume of water from groundwater sources is 98 ML per annum which is to be sourced from one existing licence under the Water Act 2000 (NSW) (WA, 2000). The Water Access Licences (WAL's) are administered by the NSW Department of Primary Industries Water (DPIW) under the WMA (2000). Approximately 1.3ML of surface water from the proposed onsite terminal sedimentation pond will also be available to supplement site water needs. As this volume is less than the Maximum Harvestable Right (MHR) for the site, a Water Access Licence is not required to utilise this water.

Owing to actual site conditions in the reporting period, the actual quantity of water accessed through the above licences noted in Table 6 was a total of 43.7 MGL, whilst the available water totalled 371 MGL.

#### 11.3.4 Site water use

MCS Pty Ltd currently utilise an annual total of 271 ML and a breakdown of the various water uses is outlined in Table 7. Industrial extraction uses include the water required by the sand wash-plant and for dust suppression purposes. Environmental uses include water utilised for establishment of re-vegetated areas. Agricultural use water is currently utilised by quarrying operations.

| <b>Table 7: Summary of annual water uses and volumes</b> |                                    |
|--|------------------------------------|
| <b>Aspect</b>  | <b>Available Volume (ML/annum)</b> |
| Industrial (extraction) usage                            | 230                                |
| Environmental and rehabilitation usage                   | 41                                 |
| Agriculture  | 50*                                |
| <b>Total</b>   | <b>321</b>                         |

\* Included for completeness for all approved activities to their permissible extent. It is noted that whilst still approved, agricultural activities are not currently undertaken within the Quarry area. As a result, 116ML of potential water source is therefore not currently employed, effectively providing further conservative redundancy to the site water balance.

The annual average usage is not anticipated to change as part of the extraction as the scale of the overall operation is not proposed to change. Water currently utilised on the existing MCS Pty Ltd site for a specific purpose (such as rehabilitation establishment) will be diverted to the adjacent site when it is no longer needed (such as when rehabilitation works are complete). Given that a total of 370.3 ML per annum of water is available (Table 6) and the annual requirement is 321ML (Table 7), ample water sources are therefore available for the proposed operations.

#### 11.3.5 Water management, storage and access

Water is usually pumped directly from the Nepean River with two centrifugal pumps directly to the relevant area for use. Water from the groundwater bore will be pumped directly to the relevant area for use via a standard bore pump that is installed. Water may also be pumped from sediment basins with a fire-fighter pump and recycled onsite site on an as needed basis, such as for dust suppression purposes. Typically water is transported in a water cart but may be pumped locally via sprinklers.

During the reporting period, MCS did not pump any water available from the water licenses due to the floods filling extraction holes on the land. MCS was able to reuse all flood water onsite instead of river water by pumping from the extraction holes into low areas for reuse.

### 11.3.6 Evaporation Loses Environmental and Rehabilitation

As indicated in Table 7.41 ML is allocated for environmental and Rehabilitation purposes on Lots 32 and 22. Dust suppression is conducted on haul roads, processing areas and establishment of new plantings in rehabilitation areas. The site water cart has a 15,000 litre tank capacity and enables a maximum of four loads per day to be delivered to each of Lots 32 and 22 or 15.84ML. This is within the allocated offsite water use and accordingly annual evaporation losses from environmental (dust suppression) and rehabilitation are applied equivalently at 16ML.

### 11.3.7 Exported Water in Saleable Product

Materials extracted from Lots 22 and 32 have no application of water other than environmental factors (rain). The amount of water leaving the site via sold material products is variable and is based on climatic conditions and operational throughput. Estimates on this water loss is based on recorded average material moisture content and tonnages leaving the site. Key products exported from the site with contained water include sand and soil.

Materials which remain onsite (eg overburden) or which are imported and on-sold (eg VENM/ENM) are not applicable (no site water transferred offsite) and subsequently is excluded. Estimated water exported from the site in material products during 2022 operations and for maximum approved throughput scenarios is presented in Table 8. Conservatively *maximum* acceptable commercial product moisture limits have been applied to *all* throughput tonnages throughout the year (no change from month to month with climate). The maximum production rates of 300,000 tonnes per annum has been assumed for sand/soil as per actual recorded portions in 2022 throughputs (i.e. approximately 1/1 sand to soil ratio). From Table 8 it can be seen that, conservatively, up to ~20.2ML/year of water may be exported within product materials from the site.

| Table 8: Estimated Water Volumes Exported in Sold Product |                                  |                     |                                  |             |                          |                                  |                 |
|---|----------------------------------|---------------------|----------------------------------|-------------|--------------------------|----------------------------------|-----------------|
| Saleable Product  | Typical Maximum Moisture Content | Approved Operations |                                  |             | 2022 Operations          |                                  |                 |
|   |                                  | Maximum Throughput  | Estimated Exported Water Content |             | Extracted Tonnage (2021) | Estimated Exported Water Content |                 |
| Type  | (%)                              | Tonnes/Yr           | Tonnes/yr                        | ML/yr       | Tonnes/yr                | Tonnes/yr                        | ML/yr           |
| Sand  | 5                                | 150,000             | 7,500                            | 7.5         | 52761.2                  | 2638.06                          | 2.63806         |
| Soil  | 8                                | 150,000             | 12,000                           | 12.00       | 23924.2                  | 1913.936                         | 1.913936        |
|   | <b>Totals</b>                    | <b>300,000</b>      | <b>19,500</b>                    | <b>19.5</b> | <b>76,685.4</b>          | <b>4551.996</b>                  | <b>4.551996</b> |

### 11.3.8 Reporting Procedures

Water use records for water pumped from the Nepean River and groundwater are maintained onsite and are made available to the NSW Department of Industries, as requested, as per water license conditions.

### 11.3.9 Measures to minimise water use

Water use is to be minimised by the following measures:

- Avoid over-application of water;
- Monitoring of the application of water to minimise run-off;
- Minimise the area of exposed surfaces; and
- Apply water on an as-needed basis.

### 11.3.10 Conclusion

With regard to site water balance it is concluded that:

- Ample water is available the proposed operations
- Provision of the water for this facility is consistent with the objectives of the Water Management Act (2000).

## 12.0 COMPLAINTS

### 12.1 OVERVIEW

To address Schedule 5 of the NSW Department of Planning and Environment Notice of Modification (DA 75/256 Mod 4) dated 2 August 2018 and Modification 5 ( DA 75/256 Mod 5) the complaint status for a number of environmental factors were assessed during the 2022 AEMR period. Details are provided in the following sections.

### 12.2 NOISE

Noise from the premises must not exceed an LA10 (15 minute) noise emission criterion of 55 dB(A). Noise from the premises is to be measured or computed at any point within one metre of the boundary of any residential premises or other noise sensitive areas (such as schools, hospitals) in the vicinity of the premises to determine compliance. 5dB(A) must be added if the noise is tonal or impulsive in character.

To comply with the above requirements, Koikas Acoustics Pty Ltd was commissioned to undertake a noise testing program during August 2017 in order to demonstrate that noise arising from the quarry operations does satisfy the above criteria and furthermore, that this compliance can be maintained for a further two years.

The results of this testing program (Statement of Compliance) confirmed that noise levels generated by typical quarry operations at the nearest residential receiver were inaudible and therefore satisfied the nominated noise criterion. Furthermore, it was noted that advancement of these quarrying operations over the next two years will also satisfy the nominated criterion.

During the 2022 AEMR Reporting period MCS Holdings received received one Noise and Vibration complaint, details of which are summarised in Table 9.

| Table 9: Noise Complaint |                     |   |
|--------------------------|---------------------|---|
| Date                     | Complaint matter    | Outcome   |
| 24/6/2022                | Noise and Vibration | Appendix 7 provides complaint details and outcome |

### 12.3 DUST

No dust complaints were received during the 2022 AEMR period.

### 12.4 ODOUR

Section 129 of the Protection of the Environment Operations Act 1997, provides that the licensee must not cause or permit the emission of any offensive odour from the premises but provides a defence if the emission is identified in the relevant environment protection licence as a potentially offensive odour and the odour was emitted in accordance with the conditions of a licence directed at minimising odour.

No odour related complaints were received during the 2022 AEMR period.

## 12.5 RUN-OFF

No run-off related complaints were received during the 2022 AEMR period.

During the 2022 AEMR Reporting Period, MCS Holdings received two (2) enquires from EPA related to run off, a summary of which is outlined ion Table 10.

| <b>Table 10: Site Run-Off Issues</b> |                         |   |
|--------------------------------------|-------------------------|---|
| <b>Date</b>                          | <b>Complaint matter</b> | <b>Outcome</b>                                    |
| 5/8/2022                             | Discharge Enquiry       | Appendix 8 provides complaint details and outcome |
| 23/9/2022                            | Trench Digging Enquiry  | Appendix 9 provides complaint details and outcome |

### 13.0 COMPLIANCE WITH CONDITIONS OF CONSENT

In direct response to the submission of the 2018 AEMR, the NSW Department of Planning and Environment advised that “the report generally satisfies the requirements of the Consent” but it was requested we include the summary table that highlights the compliance statistics for all conditions of the approval for the relevant reporting period in accordance with ‘Appendix A – Compliance Table Example of the Compliance Reporting Post Approval Requirements 2018 (“CRPAR”) available from the Departments website at the following link: [www.planning.nsw.gov.au](http://www.planning.nsw.gov.au)

This summary table is produced as Table 11 below.

| Approval ID    | Condition  | Evidence   | Findings and Recommendation  | Compliance    |
|----------------|--|--|--|---------------|
| S2.1           | Obligation to Minimise Harm To the Environment The Applicant must implement all practicable measures to prevent and/or minimise any harm to the environment that may result from the establishment, operation, or rehabilitation of the development.   | Use of the following:<br>Wheel wash<br>• Water cart<br>• Water/Sedimentation basins<br>• Bunding<br>• Revegetation<br>• Dust suppression sprinklers<br>• Fenced areas to protection habitat.<br>Documentation: Refer to all evidence collected within this table | Spring Farm Quarry (SFQ) continues to be compliant with its obligation to minimise environmental harm to the environment. The Environmental Management Plan and associated management plans are current and implemented to manage environmental aspects and impacts, including sediment and erosion control, dust (air quality), protection of critical habitat and revegetation/rehabilitation. | Compliant     |
| S2.2<br>S2. 2A | Terms of Consent The Applicant must carry out the development generally in accordance with the: (a) EIS, SEE (Mod 1), EA (Mod 3), EA (Mod 4) and MR (Mod 5). (b) Statement of Commitments The Applicant must carry out the development in accordance with the conditions of this consent.  | Refer to all evidence collected within this table.   | SFQ is compliant with the terms of approval within this table. Compliance against the conditions of DA 75/256 Mod 5 is assessed in this checklist, along with the statement of commitments and the current Control Activity Approval.  | Compliant     |
| S 2.3          | If there is any inconsistency between the above documents, the most recent document must prevail to the extent of the inconsistency. However, the conditions of this Consent must prevail to the extent of any inconsistency.  | Nil  | No inconsistency evidenced   | Not Triggered |
| S2.4           | The Applicant must comply with any reasonable requirement/s of the Secretary arising from the Department’s assessment of: a) any reports, strategies, plans, programs, reviews, audits or correspondence that are submitted in accordance with the conditions of this consent; b) any reviews, reports or audits undertaken or commissioned by the Department regarding compliance with the conditions of this consent; and c) the implementation of any actions or measures contained in these documents. | NSW DPIE correspondence included in current AEMR dated 16 <sup>th</sup> May, 20123 attached as Appendix 10.  | SFQ has responded to all reasonable requirements of the Secretary in relation to matters of this consent.  | Compliant     |
| S2.5           | Limits on Consent Extraction and processing operations may take place until 30 June 2023. Note: Under this consent, the Applicant is required to rehabilitate the site to the satisfaction of the Secretary. Consequently this consent will continue to apply in all other respects other than the right to conduct extraction and processing operations until the site has been rehabilitated to a satisfactory standard.   | Nil  | The requirements of this condition have not yet been triggered.  | Not Triggered |

|      |  |  |  |           |
|------|--|--|--|-----------|
| S2.6 | Operation of Plant and Equipment The Applicant must ensure that all plant and equipment used at the site is: (a) maintained in a proper and efficient condition; and (b) operated in a proper and efficient manner.  | Documentation: • Plant maintenance folder and plant maintenance contractor, Fitters Plant Reports for plant onsite   | Plant and equipment utilised on Lot 22 and Lot 32 is limited to excavators, mobile screening plant and truck and dog vehicles to transport soil, as well as a water cart when required for dust suppression. The plant used on Lot 22 and Lot 32, is the same as is operated on Lot 1, DP587631. A plant maintenance folder is maintained for all Quarry plant. Fitters Plant Report, including regular scheduled maintenance and repairs for all quarrying equipment. | Complaint |
| S2.7 | Contributions The Applicant must pay an annual contribution of \$6,500 (adjusted annually by reference to the Consumer Price Index) to Council for the maintenance of Macarthur Road, between the main site entrance and the intersection with Springs Road.   | 2022 Annual Environmental Management Report (AEMR) Section 5.0 and Appendix 4. Camden Council Tax Invoice.   | Details of contributions paid are maintained in the AEMR. M.Collins has paid the relevant contributions within the audit period.   | Complaint |
| S2.8 | Inspection of Site The Applicant must permit access to the site to Council officers or any other public authority at reasonable times for the purposes of inspecting site operations and environmental monitoring.   | SFQ Staff and Management have provided access to regulatory officers as and when they require or request access.   | Access to regulatory officers as and when they require access.   | Compliant |
| S3.1 | GENERAL EXTRACTION AND PROCESSING PROVISIONS Operating Conditions The Applicant must not excavate outside the extraction areas or the limits of extraction.  | SFQ Site inspection demarcation and bund walls and roads mark boundary lines for separation of approved activities.  | Keatley Surveyors are engaged to provide survey and detailed plans for extractive and rehabilitation purposes, such as depth to batter and finished design level. All extraction has been within approved extraction zone.   | Compliant |
| S3.2 | The Applicant must not open, excavate or work an area exceeding 2 hectares at any one time without the written consent of Council.   | 2022 Annual Environmental Management Report (AEMR) Section 6.0. Correspondence from Collins Group to Camden Council (08/09/2009) requesting approval to open five (5) hectares of land within Lot 22 DP8333317). Correspondence from Camden Council (email dated 10/09/2009) approving five (5) hectare extraction area. | Near map is utilised for the identification of open, excavation or work areas. The 2022 AEMR Section 6.  | Compliant |
| S3.3 | The Applicant must not: (a) stockpile extractive material on the site, with the exception of topsoil stockpiles and proposed noise and/or visual mitigation bunds; or (b) process any extractive material on the site, with the exception of mobile screening. | SFQ Site inspection shows:<br>a) Topsoil only being stockpiled as processed for sale and,<br>b) Use of mobile screening plant only to undertake processing   | Only mobile screening stockpiles, in accordance with this clause. All stockpiling and processing otherwise occurs on LOT 1, outside of this condition of consent.  | Compliant |
| S3.4 | The Applicant must not import fill to the site for any purpose without written approval from Council   | SFQ Site inspection shows: no material has been imported during the 2022 year in accordance with this condition  | MCS reported that no fill has been imported to the site for any purpose.   | Compliant |

|      |  |  |   |           |
|------|--|--|---|-----------|
| S3.5 | NOISE Operational Noise The Applicant must ensure that site operations, including processing and transportation, are conducted in such a way as to minimise noise emissions from the site.   | Site Inspection observations: • Designated and purposefully designed haul routes utilised. • Majority of operations below natural ground level. Plant not is use turned off. Noise and bund mitigation strategies implemented.   | Operations are generally below natural ground level and resulting earth bund helps to minimise noise impact from the development during excavating phases. Plant and equipment are maintained. Haul routes are designated and adequately constructed for ease of driving plant on site. Noise mitigation walls are implemented.   | Compliant |
| S3.6 | The Applicant must ensure that noise generated by the development does not exceed the noise impact assessment criteria as specified in the EPL.  | Proposed Modification NO.5 Spring Farm Quarry Consent (DA 75/256) Lot 22 (No. 186) DP 833317 and Part Lot 32 (No. 172) (DP 635271) Macarthur Road, Spring Farm – Environmental Assessment Report, Prepared by Pascoe Planning Solutions, August 2020. Acoustic Report, Spring Farm Quarry, prepared by Koikas Acoustics Pty Ltd, 17 August 2020 (V3). Submitted as Appendix H of Mod 5 Environmental Assessment). (Compliance and Foreshadowed Compliance). Complaints register reported in this AEMR registers one compliant received in the report period. Appendix 7. | Koikas Acoustics Pty Ltd were engaged to undertake noise modelling as part of the Environmental Assessment for Mod 5. As reported in the Environmental Assessment, Koikas Acoustics Pty Ltd certified that noise emissions from the existing quarry will meet the nominated noise criteria for all lots adjoining the Spring Farm Quarry. One noise complaints was reported and resolved within 2022 but it is generally considered that SFQ is compliant with this condition. Despite the noise complaint received and reported it is in compliance with the noise impact criteria within the EPL. | Compliant |
| S3.7 | Operating Hours The Applicant must only operate the development: (a) between the hours of 7:00am and 5:00pm Monday to Friday; (b) between 8:00am and 1:00pm Saturday; and (c) at no time on Sundays or Public Holidays Notes: This condition does not apply to: maintenance which is inaudible at receiver locations or for delivery of material if that delivery is required by police or other authorities for safety reasons, and/or the operation or personnel or equipment are endangered. In such circumstances, notification is to be provided to EPA and the affected residents as soon as possible, or within a reasonable period in the case of emergency. | SFQ Operating procedures, Workers are instructed (verbally) of the operating hours.  | Zero complaints reported regarding operating hours and no instruction from regulatory authorities' relating to out of hours works.  | Compliant |
| S3.8 | AIR QUALITY Impact Assessment Criteria The Applicant must ensure that all reasonable and feasible avoidance and mitigation measures are employed so that particulate matter emissions generated by the development do not cause exceedances of the criteria in Tables 1, 2 and 3 at any residence on privately-owned land.   | Dust Monitoring: AEMR 2022 Section 10 and mitigation strategies. No Dust complaints received during reporting period.  | Monthly results summarised in AEMR Section 10. Records maintained in the "monthly report folder" Whilst some exceedances have been reported within the report period, these have been attributed to site extractive activities directly affecting the close proximity monitoring location. On the basis that MSC implements a range of dust suppression controls, the operations appear compliant with the requirements of this condition to maintain and exceed exceedances with impact on residences within close proximity.  | Compliant |



|            |   |  |   |               |
|------------|---|--|---|---------------|
| S3.8A      | The air quality criteria in Tables 1, 2 and 3 do not apply if the Applicant has an agreement with the owner/s of the relevant residence to exceed the air quality criteria, and the Applicant has advised the Department in writing of the terms of this agreement.   | No Agreement is in place.  | No Agreement is in place  | Not triggered |
| S3.9       | Operating Conditions The Applicant must ensure that any visible air pollution generated by the development is assessed regularly, and that quarrying operations are relocated, modified and/or stopped as required to minimise air quality impacts on privately owned land.   | Site inspection observation, following controls observed:<br>Water Cart • Vegetated buffer/screens. • Revegetation * bund walls and haul road dust suppression water lines.  | SFQ Management visually monitors dust generation daily and implements a range of control measures to minimise dust, including: - Sprinklers - Water cart - Bunding and barriers with low work area. - Vegetation screening maintained. - Modifying/ceasing activities on dry, windy days. | Compliant     |
| S3.10      | Air Quality Monitoring The Applicant must prepare and implement an Air Quality Monitoring Program for the development to the satisfaction of the Secretary. This program must: (a) be submitted to the Secretary for approval within 3 months of the date of this Consent; (b) be prepared in consultation with EPA; and (c) include details of how the air quality performance of the development would be monitored, and include a protocol for evaluating compliance with the relevant air quality criteria in this Consent. | Air Quality Monitoring Program approved within the Air Quality Management Plan 2021 approved by the Secretary AS PER LETTER DATED 24/5/2022. Monitoring results implemented are reported within section 10 of AEMR.    | Approval letter dated 24/5/2022   | Compliant     |
| S3.10 cont | The Applicant must implement the Air Quality Monitoring Program as approved by the Secretary  | Implementation • Air quality monitoring results reported within Section 10 AEMR  | Implementation of Air Quality Monitoring is reported within Section 10 AEMR.  | Compliant     |
| S3.11      | WATER Discharges The Applicant must not discharge any water from the quarry or its associated operations except in accordance with an EPL.  | Visual site inspection undertaken on a daily basis by SFQ management to ensure no discharge occurs.  | The SFQ management have not reported any water discharge within the report period. A complaint noted in Section 12.5 appendix 8 was in relation to naturally occurring run off not discharge.   | Compliant     |
| S3.12      | Water Management and Monitoring The Applicant must prepare and implement a Water Management Plan for the development to the satisfaction of the Secretary. This plan must: (a) be submitted to the Secretary within 3 months of the date of this Consent; (b) be prepared in consultation with Council and EPA and DPIE Water; and (c) include a: – site water balance – Erosion and Sediment Control Plan; – Groundwater Monitoring Program; and – Flood Emergency Procedures Plan   | Water Management and Monitoring Program approved within the Water Management Plan 2021 approved by the Secretary AS PER LETTER DATED 24/5/2022. Monitoring results implemented are reported within section 11 of AEMR. | Approval letter dated 24/5/2022   | Compliant     |
| S3.12 cont | The Applicant must implement the Water Management Plan as approved by the Secretary.  | Monthly Water Monitoring reports, by Harvest Scientific Services, as available on the SFQ website. 2022 AEMR Section 11.   | Monthly water groundwater monitoring for EC, pH and below ground level depths, as well as physical controls such as a bund of top soil around extraction areas, grass swale drains, and functional sediment basins, including within extraction areas and the terminal sediment basin.    | Compliant     |
| S3.13      | The Site Water Balance must:<br>(a) include details of: - sources and security of water supply; - water use on site; - water management on site, including the location and capacity of water storages on site and the means of access; - any off-site water transfers; and - reporting procedures; and - investigate and describe measures to 15minimise water use by the development.   | Water Management Plan (incl. Groundwater Assessment) and Erosion and Sediment Control Plan, prepared by Harvest Scientific Services, dated 25 October 2021. Site Water Balance Section 11 within AEMR 2022.            | Water Management Plan (incl. Groundwater Assessment) and Erosion and Sediment Control Plan, prepared by Harvest Scientific Services, dated 25 October 2021. Site Water Balance Section 11 within AEMR 2022.   | Compliant     |

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| <p>S3.14</p> | <p>The Erosion and Sediment Control Plan (ESCP) must: (a) be consistent with the requirements of Managing Urban Stormwater: Soils and Construction, 2004 (Landcom); (b) identify activities that could cause soil erosion and generate sediment; (c) describe measures to minimize soil erosion and the potential for the transport of sediment to downstream waters, including during flood events; (d) describe the location, function, and capacity of erosion and sediment control structures; (e) demonstrate that the design capacity of basins will not be compromised by storage of operational water; and (f) describe what measures would be implemented to maintain (and if necessary decommission) the structures over time.</p> | <p>Water Management Plan (incl. Groundwater Assessment) and Erosion and Sediment Control Plan, prepared by Harvest Scientific Services, dated 25 October 2021.</p>   | <p>The ESCP is compliant with the requirements of this condition. a) WMP Section 6.1 outlines the Managing Urban Stormwater: Soils and Construction, 2004 (Landcom) and Managing Urban Stormwater: Soils and Construction, Volume 2E Mines and quarries (DECC) 2008 as input requirements into the development of the WMP. b) WMP S.6.3 outlines potential sources of soil erosion. c) Soil erosion controls are described within the Sediment Erosion Control Plan (WMP Figure 3), as well as within WMP S6.4, including perimeter bunds, sediment basins, grassed swales and sequence of works. Controls to are outlined in WMP S.7. d) Refer to c) above. e) Site water use is described in WMP S4.4. Sufficient water is available such that extraction based sediment basins are not required for storage of operational water. f) Site monitoring and maintenance is described in WMP S.6.4.7.</p> | <p>Compliant</p> |
| <p>S3.15</p> | <p>The Groundwater Monitoring Program must include: (a) baseline data on groundwater levels, flows and quality in the vicinity; (b) groundwater assessment criteria, including trigger levels for investigating any potentially adverse groundwater impacts; and c) a program to monitor any observed groundwater inflows to the quarry pit.</p>   | <p>Secretary approval of Water Management Plan, letter dated 24/5/2022 Water Management (Including Groundwater Management) and Erosion Sediment Control Plan has been established and implemented Monthly monitoring report<br/> <ul style="list-style-type: none"> <li>• Groundwater cumulative results spreadsheet. Triggers are &gt;800µS/cm and Depth &gt;10m and are recorded in the Harvest Scientific monitoring reports.</li> </ul> </p> | <p>The Groundwater Monitoring Program was approved in the Water Management Plan 2021 by the Secretary and has been subsequently monitored and reported on a monthly basis. a) Baseline data is provided in WMP S5.1.5 including Table 5. Summary of long term groundwater monitoring. b) Groundwater assessment criteria is outlined in WMP Table 7, whilst trigger values are described in WMP Table 8. c) Groundwater inflow are to be monitored daily, as outlined in d) WMP Table 7.</p>   | <p>Compliant</p> |
| <p>S3.16</p> | <p>The Flood Emergency Procedures Plan must be put in place for floods above the 1% AEP flood event up to the PMF and: (a) address both the site and the adjacent stockpiling and blending site; (b) include procedures to be carried out in advance of a major flood event to minimize damage to plant equipment, operating staff and the environment; and c) include procedures to be followed after a major flood event to repair any damage and return the site to productive operations, including reinstatement of all pollution control devices and rehabilitation.</p>   | <p>• Flood Emergency Procedures Plan is contained within the Water Management (Including Groundwater Management) and Erosion Sediment Control Plan (WMP), as<br/> <ul style="list-style-type: none"> <li>a) WNP Section 7 – Flood Emergency Procedures Plan. b) WNP Section 7 – Flood Emergency Procedures Plan. c) WNP Section 7 – Flood Emergency Procedures Plan.</li> <li>b) Emergency Flood Procedure training records</li> </ul> </p>      | <p>The Flood Emergency Procedures Plan maintained within the Water Management (Including Groundwater Management) and Erosion Sediment Control Plan, as approved by the Secretary. The Flood Emergency Procedures Plan were tested in 2022. The Flood Emergency Procedures Plan includes procedures to be taken both before and after a major flood event. Overall the Flood Emergency Procedures Plan.</p>   | <p>Compliant</p> |

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| S3.16a     | The Applicant must ensure that, in order to limit potential scour and erosion during flood events, all topsoil stockpiles and earthen bunds which are to be in place for any period longer than 3 months are oriented parallel to potential flood flows and are promptly and effectively spray-seed hydro-mulched with an appropriate fast-growing native grass mix, to the satisfaction of the Secretary.  | Site inspection observations. No non-compliance was identified against the requirements of this condition within the 2022 flood events.   | Based on visual inspection during the flood events in 2022.  | Compliant |
| S3.17      | <b>LANDSCAPE MANAGEMENT</b><br>Landscape Management Plan The Applicant must prepare and implement a detailed Landscape Management Plan for the development to the satisfaction of the Secretary. This Plan must: (a) be prepared in consultation with Council, DPI (Agriculture NSW) and MEG by suitably qualified expert/s whose appointment/s have been approved by the Secretary<br>b) be submitted to the Secretary for approval within 6 months of the date of this Consent; and c) include a Rehabilitation Management Plan.  | Landscape Management Plan approved by the Secretary as per letter dated 4/3/2022  | Approval letter 4/3/2022 from Secretary to MCS.  | Compliant |
| S3.17 cont | The Applicant must implement the Landscape Management Plan as approved by the Secretary.  | AEMR Section 7 and 8 Aptical Bushfire and Planning  | Implementation of the Rehabilitation Management Plan is discussed in section 7 and section 8 AEMR. | Compliant |
| S3.18      | Rehabilitation Management Plan The Applicant must prepare and implement a Rehabilitation Plan for the development. This plan must include: (a) the rehabilitation objectives for the site; (b) a description of the short, medium, and long term measures that would be implemented to rehabilitate the site, including reestablishing high order agricultural land suitability and land use establishing healthy native vegetation and habitat for native fauna or other future land use acceptable to Council and proposed rehabilitation timeframes and timelines; (c) performance and completion criteria for the rehabilitation of the site, including appropriate high order agricultural land suitability objectives with reference to the NSW Agricultural Land Suitability Classification system; (d) a detailed description of the measures that would be implemented including the procedures for: - progressively rehabilitating disturbed areas; - protecting areas outside the disturbance areas; protecting the Nepean River and drainage lines on the site to ensure no net loss of water quality and aquatic habitat; - managing impacts on fauna; - landscaping the site to minimize visual impacts; - conserving and reusing topsoil; - achieving a free draining final landform; - ensuring compatibility of the final land form with surrounding land uses; - erosion and sediment control; - identifying any proposed types and methods of agriculture; - collecting and propagating seed for rehabilitation works; - salvaging and reusing material from the site for habitat enhancement; - controlling weeds and feral pests; - controlling access; and - bushfire management; (e) a program to monitor the effectiveness of these measures, and progress against the performance and completion criteria (see (c) above); (f) a description of the potential risks to | No changes to the Rehabilitation Management Plan until consent completes 30 June 2023 Landscape Management Plan (LMP) (including Quarry Closure, Rehabilitation and Post Extraction Land-use), prepared by Harvest Scientific Services, dated 22 July 2021. a) LMP Figure 3 – Final landform and rehabilitation management plan, and LMP s.4 – Quarry Closure. b) LMP s.5 – Restoration program. c) LMP s5.12 Table 11: Performance Completion Criteria. d) LMP - s.5 – Restoration program. - s.5.6.1 Site Protection. - s.5.7 – s.4 – Quarry Closure and s.5..5.7 Final Landform. Also Appendix 6 – Design Final Surface Contours. - s.5 – Restoration program. - s.5.7 – Erosion Control. Also S.5.7.1 soil preparation. - S.6 Post extraction land-use and agricultural classification. - S.5.11.1 Improving habitat value. - S.5.11 Bush regeneration and weed control – General principles. - S.5.6.1 Site protection – Fencing. - S.5.5.4 Bushfire Management. e) Table 11 – Performance | A rehabilitation management plan has been prepared and implemented on site.                        | Compliant |

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|            | successful rehabilitation and/or revegetation, and a description of the contingency measures that would be implemented to mitigate these risks; and (g) details of who would be responsible for monitoring, reviewing, and implementing the plan.  | Completion Criteria and s.5.13 Monitoring and reporting. f) S5.12 _ Bush regeneration program. g) S1.4 Project Team. Erosion Control. Also S.5.7.1 soil preparation. - s.5.6.2 – Native and feral animal protection. - s.5.5 – Landscaping.   |   |               |
| S3.18 Cont | The Applicant must implement the Rehabilitation Management Plan as approved by the Secretary.  | Rehabilitation and Revegetation Works – Spring Farm Quarry Progress Report prepared by Apical Bushfire and Planning, • Weed Management Plan, AEMR 2022  | Rehabilitation and maintenance (weed management) activities conducted ongoing and Rehabilitation works carried out by Apical Bushfire and Planning reported within Section 7 AEMR 2022 noting the impact of flood affect on plans for the 2022 year.  | Compliant     |
| S3.19      | HERITAGE Archaeology Should the Applicant discover material suspected of being Aboriginal relics or skeletal remains, work in that area must cease and the Applicant must advise Heritage NSW and proceed in accordance with Heritage NSW instructions.  | No archaeology items have reportedly been identified. Condition not triggered.  | Nil   | Not Triggered |
| S3.20      | VISUAL Visual Amenity The Applicant must establish and maintain perimeter plantings in order to minimize the visual impacts of the development, to the satisfaction of Council.  | Site inspection: Perimeter plantings and tree line screens have remained in place and will be removed only as part of the agreed final stage of quarry closure plan.  | Tree lines will be maintained for as long as practicable and/or indefinitely.   | Compliant     |
| S3.21      | WASTE MANAGEMENT Waste Minimisation The Applicant must minimise the amount of waste generated by the development to the satisfaction of Council.   | Waste in a minor aspect of the quarry operations. The SFQ Management Team have received no feedback to indicate dissatisfaction with this current management strategies. Waste bins and recycling bins are observable.  | Waste Minimisation is managed as part of daily process noting that not a large amount is generated.   | Compliant     |
| S3.22      | Waste Disposal The Applicant must store and manage waste and byproducts generated by the development to the satisfaction of Council.   | Facility Operating Procedure No. 7 Waste Control.   | Waste in a minor aspect of the quarry operations. There is no feedback received from Council to indicate dissatisfaction with this current management strategies. Waste bins and recycling bins are observable.   | Compliant     |
| S3.22A     | The Applicant must prepare and implement a Waste Management Plan for the project in consultation with Council and to the satisfaction of the Secretary. The plan must: (a) be prepared by a suitably qualified person/s with expertise in asbestos risk management; (b) be submitted to the Secretary for approval prior to commencing earthworks on Lot 32; and (c) include a: - description of the measures and controls that would be implemented to manage asbestos within site; - validation protocol to be implemented to ensure that remaining soils and extractive materials products are asbestos free; unexpected findings protocol in the event of encountering asbestos contaminated soils not previously identified in the EA (Mod 3); and - incident protocols in the event of exposure to asbestos. The Applicant must implement the Waste Management Plan as approved by the Secretary | Environmental Management Plan 2022 Approved by the Secretary, prepared by Harvest Scientific 31 January 2022. Waste Management Policy (S.5.0 of EMP). • Facility Operating Procedure No. 7 Waste Control. • Facility Operating Procedure No. 8 Receipt of Excavated Natural Material (ENM). • Facility Operating Procedure No. 9 Receipt of Virgin Excavated Natural Material (VENM). | Waste management processes have been prepared and implemented on site as part of the EMP, approved by the Secretary (dated 07 February 2022). It was recommended in the 2022 IEA that MCS prepare a Waste Management Plan independent of, the Environmental Management Plan 2022 to further improve compliant to this consent condition. MCS has commenced this process and is waiting on consultation back from Camden Council before submitting to the Secretary to approval. In consideration of this, MCS views this condition consent item as generally compliant. | Compliant     |

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| S3.23 | EMERGENCY AND HAZARDS MANAGEMENT Dangerous Goods The Applicant must ensure that the storage, handling, and transport of dangerous goods are conducted in accordance with the relevant Australian Standards, particularly AS1940 and AS1596, and the Dangerous Goods Code.   | Site inspection and daily checks.  | Dangerous Goods are not being stored on site (Lot 22/Lot 32).  | Compliant     |
| S3.24 | Safety The Applicant must secure the development to ensure public safety to the satisfaction of Council.  | Site inspection and daily checks   | No reportable or safety incidences of note were recorded in 2022 reporting period.   | Compliant     |
| S3.25 | Bushfire Management The Applicant must:<br>(a) ensure that the development is suitably equipped to respond to any fires on-site; and; (b) assist the Fire Service and emergency services as much as possible if there is a fire on site.  | Site inspection. • Procedure 73 – Emergency Response Plan  | The site maintained firefighting equipment including extinguishers, water hoses and water carts<br>MCS continues to maintained and update an Emergency Response Plan, which includes procedures for responding to bushfire emergency | Compliant     |
| S3.26 | PRODUCTION DATA The Applicant must: (a) provide annual production data to the DPI using the standard form for that purpose; and (b) include a copy of this data in the AEMR.  | Extractive Materials Return form 2022- (Period ending June 2022) appendix 3 AEMR AEMR 2022 Section 4 | Production data records are outlined in section 4 AEMR and Evidence of completion of Extractive Materials Return forms annually.   | Compliant     |
| S4.1  | NOTIFICATION OF LANDOWNERS If the results of monitoring required in Schedule 3 identify that impacts generated by the development are greater than the relevant impact assessment criteria, then the Applicant must notify the Secretary and the affected landowners and tenants accordingly, and provide quarterly monitoring results to each of these parties until the results show that the development is complying with the relevant criteria.  | Not applicable – not yet triggered.  | Nil  | Not Triggered |
| S4.2  | INDEPENDENT REVIEW<br>If a landowner of privately owned land considers that the operations of the quarry are exceeding the impact assessment criteria in Schedule 3, then he/she may ask the Applicant in writing for an independent review of the impacts of the development on his/her land. If the Secretary is satisfied that an independent review is warranted, the Applicant must within 3 months of the Secretary advising that an independent review is warranted: (a) consult with the landowner to determine his/her concerns; (b) commission a suitably qualified, experienced and independent person, whose appointment has been approved by the Secretary, to conduct monitoring on the land, to determine whether the development is complying with the relevant criteria in Schedule 3, and identify the source(s) and scale of any impact on the land, and the development's contribution to this impact; and give the Secretary and landowner a copy of the independent review. | No request has been received.  | No such request has been received to date.   | Not Triggered |
| S4.3  | If the independent review determines that the quarrying operations are complying with the relevant criteria in Schedule 3, then the Applicant may discontinue the independent review with the approval of the Secretary.  | No requirement has arisen.   | Not applicable.  | Not Triggered |
| S4.4  | If the independent review determines that the quarrying operations are not complying with the relevant criteria in Schedule 3, and that the quarry is primarily responsible for this non-   | No requirement has arisen.   | Not Applicable   | Not Triggered |



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|      | <p>compliance, then the Applicant must: (a) implement all reasonable and feasible measures, in consultation with the landowner, to ensure that the development complies with the relevant criteria; and (b) conduct further monitoring to determine whether these measures ensure compliance; or (c) secure a written agreement with the landowner to allow exceedances of the relevant criteria in Schedule 3, to the satisfaction of the Secretary. If the additional monitoring referred to above subsequently determines that the quarrying operations are complying with the relevant criteria in Schedule 3, then the Applicant may discontinue the independent review with the approval of the Secretary. If the Applicant is unable to finalise an agreement with the landowner, then the Applicant or landowner may refer the matter to the Secretary for resolution. If the matter cannot be resolved within 21 days, the Secretary must refer the matter to an Independent Dispute Resolution Process (see Appendix 3).</p>   |  |   |                      |
| S4.5 | <p>If the landowner disputes the results of the independent review, either the Applicant or the landowner may refer the matter to the Secretary for resolution. If the matter cannot be resolved within 21 days, the Secretary must refer the matter to an Independent Dispute Resolution Process (see Appendix 3).</p>  | <p>No requirement has arisen.</p>  | <p>Not Applicable</p>   | <p>Not Triggered</p> |
| S5.1 | <p><b>ENVIRONMENTAL MANAGEMENT PLAN</b> The Applicant must prepare and implement an updated Environmental Management Plan for the development to the satisfaction of the Secretary. This plan must be submitted to the Secretary for approval 3 months after the date of this consent and: (a) provide the overall environmental management approach for the development; (b) identify the statutory requirements that apply to the development; (c) describe in general how the environmental performance of the development would be monitored and managed; (d) describe the procedures that would be implemented to: . keep the local community and relevant agencies informed about the construction, operation and environmental performance of the development; . receive, handle, respond to, and record complaints; . resolve any disputes that may arise during the life of the development; . respond to any non-compliance manage cumulative impacts; and . respond to emergencies, including flood-related emergencies; and (e) describe the role, responsibility, authority, and accountability of the key personnel involved in the environmental management of the development. The Applicant must implement the Environmental Management Strategy as approved by the Secretary</p> | <p>Environmental Management Plan 2022 Approved by the Secretary, prepared by Harvest Scientific 31 January 2022.<br/>Approval letter 7 /2/ 2022<br/>Evidence of Implementation • Groundwater monitoring data • Air quality monitoring data • Sediment erosion controls observed on site. • Extraction areas consistent with EMP. • Rehabilitation, revegetation and weed management reports.</p> | <p>Approval letter dated 7/2/2022</p>   | <p>Compliant</p>     |
| S5.2 | <p><b>ENVIRONMENTAL MONITORING PROGRAM</b> The Applicant must prepare an Environmental Monitoring Program for the development to the satisfaction of the Secretary. This program must be submitted to the Secretary concurrently with the submission of the various monitoring programs and consolidate the various monitoring requirements in</p>   | <p>Environmental Management Plan, Spring Farm Sand and Soil Extraction and Processing Operation (DA75/256), prepared by Harvest Scientific 31 January 2022.</p>  | <p>The environmental monitoring program is outlined in S.10.3 of the approved EMP. The monitoring program consolidates the various monitoring requirements for water quality, air quality, noise, sediment control, rehabilitation works, weed management and general</p> | <p>Compliant</p>     |

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|      | Schedule 3 of this Consent into a single document.   |  | environmental management reporting.   |               |
| S5.3 | REPORTING AND AUDITING Incident Notification The applicant must immediately notify the Department and any other relevant agencies immediately after it becomes aware of an incident. The notification must be in writing via the Major Projects Website and identify the development (including the development application number and name) and set out the location and nature of the incident.  | Notification of the 3 incidents reported within the AEMR 2022 occurred as follows: Noise and Vibration compliant received EPA 24/6/2022 and response notification occurred on 6/7/2022 TO EPA. Notification to DPIE on Discharge Enquiry received on 29 <sup>th</sup> July 2022 and response submitted on 5/8/2022 Trench Digging enquiry received on 23/9/2022 and response submitted on 26/9/2022. | Record breach on noise compliant discussed with DPIE last year as per correspondence dated PA 75/256 record Breach  | Non Compliant |
| S5.4 | Within seven days of becoming aware of a noncompliance, the Applicant must notify the Department of the non-compliance. The notification must be in writing via the Major Projects Website and identify the development (including the development application number and name), set out the condition of this consent that the development is non-compliant with, the way in which it does not comply and the reasons for the non-compliance (if known) and what actions have been, or will be, undertaken to address the non-compliance. Note: A non-compliance which has been notified as an incident does not need to also be notified as a non-compliance.  | Not aware of any non compliances   | The SFQ Compliance team reported that they are not aware of any non-compliance with the requirements of their consent   | Not Triggered |
| S5.4 | Annual Review By the end of March each year, the Applicant must review the environmental performance of the project to the satisfaction of the Secretary. This review must: (a) describe the development (including rehabilitation) that was carried out in the previous calendar year, and the development that is proposed to be carried out over the current calendar year; (b) include a comprehensive review of the monitoring results and complaints records of the project over the previous calendar year, which includes a comparison of these results against: . the relevant statutory requirements, limits or performance measures/criteria; . the monitoring results of previous years; and . the relevant predictions in the documents listed in Condition 2(a) of Schedule 2; (c) identify any non-compliance over the last year, and describe what actions were (or are being) taken to ensure compliance; (d) identify any trends in the monitoring data over the life of the project; (e) identify any discrepancies between the predicted and actual impacts of the project, and analyse the potential cause of any significant discrepancies; and (f) describe what measures will be implemented over the current calendar year to improve the environmental performance of the project. | 2022 AEMR, submitted to the Secretary via Major Projects Portal 29 <sup>th</sup> March 2023.   | Annual reviews were submitted to the Secretary, in accordance with the requirements of this condition. The AEMRs adequately address the details of environmental performance in accordance with the requirements of this condition. | Compliant     |
| S5.5 | INDEPENDENT ENVIRONMENTAL AUDIT Within 12 months of the date of the consent, and every 3 years thereafter, unless the Secretary directs  | J2M Systems conducted the Independent Environmental Audit  | The IEA 2022 report was submitted on 20 <sup>th</sup> July 2022.  | Compliant     |



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|       | otherwise, the Applicant must commission and pay the full cost of an Independent Environmental Audit of the development. This audit must: (a) be conducted by a suitably qualified, experienced, and independent person(s) whose appointment has been approved by the Secretary; (b) include consultation with the relevant agencies; (c) assess the environmental performance of the development, and its effects on the surrounding environment; (d) assess whether the development is complying with the relevant standards, performance measures and statutory requirements; and review the adequacy of any strategy/plan/program required under this Consent, and, if necessary, recommend measures or actions to improve the environmental performance of the development, and/or any strategy/plan/program required under this Consent. | (IEA) for 2019 and 2022 in accordance with the requirements of this condition.   |   |               |
| S5.6  | Within 6 weeks of completion of each Independent Environmental Audit, the Applicant must submit a copy of the audit report to the Secretary, with a response to any of the recommendations in the audit report.  | The draft IEA was prepared on the 24 <sup>th</sup> June 2022, and submitted on 20 <sup>th</sup> July 2022. Due to flooding the site visit and finalisation delayed the submission as communicated with DPIE. | MCS issued the Independent Environmental Audit Report within the 6 week required period.  | Compliant     |
| S5.7  | Revision of Strategies, Plans & Programs Within three months of: (a) the submission of an incident report under Condition 3 above; (b) the submission of an Annual Review under Condition 4 above; (c) the submission of an audit report under Condition 5 above, or (d) any modification of the conditions of this Consent (unless the conditions require otherwise), the Applicant must review, and if necessary revise, the strategies, plans, and programs required under this Consent to the satisfaction of the Secretary. Note: This is to ensure the strategies, plans and programs are updated on a regular basis, and incorporate any recommended measures to improve the environmental performance of the project.  | Was not required with the 2022 reporting period.   | Not triggered   | Not Triggered |
| S 5.8 | ACCESS TO INFORMATION Within 1 month of the approval of any plan/strategy/program required under this Consent (or any subsequent revision of these plans/strategies/programs), or the completion of the audits or AEMR required under this Consent, the Applicant must: (a) provide a copy of the relevant document/s to the relevant agencies and to members of the general public upon request; and (b) ensure that a copy of the relevant document/s is made publicly available on its website  | The website is used to publish all information including management plans, monthly monitoring, AEMR, pollution incident and approved letters.  | The website is used to publish all information including management plans, monthly monitoring, AEMR, pollution incident and approved letters. | Compliant     |
| S5.9  | During the development, the Applicant must: (a) make a summary of monitoring results required under this Consent publicly available on its website; and (b) update these results on a regular basis (at least every 3 months).   | Environmental Monitoring data records are available on the website and are updated regularly. This includes all approved plans and approval letters.   | Monitoring records are available on the website and are updated regularly.  | Complaint     |
| End   |  |  |   |               |

## 14.0 LIMITATIONS OF THIS REPORT

This report has been prepared subject to a number of limitations. These include:

- The application of conditions of approval or impacts of unanticipated future events could modify the outcomes described in this document. In particular, the occurrence of earthquakes of any magnitude, extreme rainfall events or the effects of climate change have not been considered but should they occur, may have a significant impact on the site. The client agrees that such events are possible but nevertheless accepts the risk that they pose;
- The findings contained in this report are the result of discrete/specific methodologies used in accordance with normal practices and standards. To the best of our knowledge, they represent a reasonable interpretation of the general condition of the site in question. Under no circumstances, however, can it be considered that these findings represent the actual state of the site/sites at all points;
- In preparing this report, Harvest Scientific Services has relied upon information and documentation provided by the client and/or third parties. Harvest Scientific Services did not attempt to independently verify the accuracy or completeness of that information. To the extent that the conclusions and recommendations in this report are based in whole or in part on such information, they are contingent on its validity. Harvest Scientific Services assume no responsibility for any consequences arising from any information or condition that was concealed, withheld, misrepresented, or otherwise not fully disclosed or available to Harvest Scientific Services Pty Ltd; and
- This report is not to be relied upon for any purpose other than that defined in this report.

Prepared by:



Mart Rampe BSc (Applied Geology)

Director and Principal Environmental Scientist

26/5/2023

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**APPENDIX 1: INDUSTRY AND INVESTMENT RETURN FOR EXTRACTIVE MATERIALS**

# Extractive Materials Return

## 2021-2022



# Regional NSW

Form S1 – Period Ending 30 June 2022

Quote RIMS ID in all correspondence

|   |   |
|---|---|
| Quarry Id: 6339 Rims ID: 400233<br>Operators Name: COLLINS CONSTRUCTION MATERIALS PTY LIMITED<br>Address: PO BOX 378, NARELLAN NSW 2567<br>Email: matt@mcollins.com.au<br>Quarry Name: Springfarm Quarry/ Nesbitt Quarry<br>Quarry Address: 214 Macarthur Road, Elderslie | Inquiries please telephone:<br>(02) 4063 6713<br>Completed or Nil Returns<br>Email –<br>mineral.royalty@regional.nsw.gov.au<br>Postal Address (see below) |
|   | <i>Please amend name, postal address and location of mine or quarry if incorrect or incomplete.</i>   |

The return should be completed and forwarded to **Senior Advisory Officer, RESOURCE ECONOMICS, STRATEGY, PERFORMANCE & INDUSTRY DEVELOPMENT, DEPARTMENT OF REGIONAL NSW, PO BOX 344 HUNTER REGION MAIL CENTRE NSW 2310 on or before 31 October 2022.** If completion of the return is unavoidably delayed, an application for extension of time should be requested **before** the due date. If no work was done during the year, a **NIL** return must be forwarded.

The return should relate to the **above quarrying establishment** and should cover the operations of quarrying and treatment (such as crushing, screening, washing etc.) carried out at or near the quarry. A return is required even if the operations are solely of a developmental nature and whether the area being worked is held under a mining title or otherwise.

Director, Performance

Please complete all the following information to assist in identifying the location of the Quarry

Typical Geology ALLUVIAL FLOOD PLAIN

Nearest Town to Quarry CAMDEN

Local Council Name CAMDEN

Deposited Plan and Lot Number/s of Quarry DP833317 - LOT 1, DP587631 -LOT 22, DP635271 - LOT 32

Email Address of Operator matt@mcollins.com.au

Name of Owner or Licensee COLLINS CONSTRUCTION MATERIALS PTY LIMITED

Postal Address of Licensee PO BOX 378, NARELLAN NSW 2567

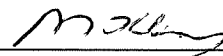
Licence/Lease Number/s (if any)

From Mining, Exploration & Geoscience (NSW Mineral Resources) \_\_\_\_\_

From Crown Lands or other NSW Department \_\_\_\_\_

If any output was obtained from land NOT held under licence from the above Departments, state the Name/s and Address/es of the Owners of the land \_\_\_\_\_

To the best of my knowledge, information entered in this return is correct and no blank spaces left where figures should have been inserted.

- SIGNATURE of PROPRIETOR or MANAGER  DATE 2-11-2022
- CONTACT PERSON for this return Matthew Collins
- NAME (Block letters) MATTHEW COLLINS Telephone (02) 9774 1544

# Extractive Materials Return

## 2021-2022



Regional  
NSW

Form S1 – Period Ending 30 June 2022

Sales During 2021-2022

Production information may be published in aggregated form for statistical reporting. However, production data for individual operations is kept strictly confidential.

| Product   | Description  | Quantity Tonnes |
|---|--|-----------------|
| <b>Virgin Materials</b>                               |  |                 |
| <b>Crushed Coarse Aggregates</b>                      |  |                 |
| Over 75mm   |  |                 |
| Over 30mm to 75mm                                     |  |                 |
| 5mm to 30mm   |  |                 |
| Under 5mm   |  |                 |
| Natural Sand  |  |                 |
| Manufactured Sand                                     |  |                 |
| Prepared Road Base & Sub Base                         |  |                 |
| Other Unprocessed Materials                           |  |                 |
| <b>Recycled Materials</b>                             |  |                 |
| <b>Crushed Coarse Aggregates</b>                      |  |                 |
| Over 75mm   |  |                 |
| Over 30mm to 75mm                                     |  |                 |
| 5mm to 30mm   |  |                 |
| Under 5mm   |  |                 |
| Natural Sand  |  |                 |
| Manufactured Sand                                     |  |                 |
| Prepared Road Base & Sub Base                         |  |                 |
| Other Unprocessed Materials                           |  |                 |
| <b>River Gravel</b>                                   |  |                 |
| Over 30mm   |  |                 |
| 5mm to 30mm   |  |                 |
| Under 5mm   |  |                 |
| <b>Construction Sand</b>                              | Excluding Industrial                                       | 122,105         |
| <b>Industrial Sand</b>                                |  |                 |
| Foundry, Moulding                                     |  |                 |
| Glass   |  |                 |
| Other (Specify)                                       |  |                 |
| <b>Dimension Stone</b>                                | Building, Ornamental, Monumental                           |                 |
| Quarried in Blocks                                    |  |                 |
| Quarried in Slabs                                     |  |                 |
| <b>Decorative Aggregate</b>                           | Including Terrazzo   |                 |
| <b>Loam</b>   | Soil for Topdressing, Garden soil, Horticultural purposes) | 31,761          |
| <b>TOTAL SITE PRODUCTION</b>                          |  | 153,866         |
| <b>Gross Value (\$) of all Sales</b>                  |  |                 |
| <b>Type of Material</b>                               |  |                 |
| <b>Number of Full-Time Equivalent (FTE) Employees</b> | Employees 6  | Contractors 5   |

Please Note: A return for clay-based products can be obtained by contacting the inquiry number.



---

**APPENDIX 2: WEIGH BRIDGE TRANSACTIONS**

**M Collins & Son - weigh-bridge Transactions**  
**Transactions by Product Report**

Printed On 22/02/2023 6:58:17 AM

Page no 1

Transactions Dated Between : 1/1/2022 and 31/12/2022  
 Products Between and ZZZZZZZZZZZZZZZZZZZ  
 Companies between and ZZZZZZZZZZZ  
 Trucks Between and ZZZZZZZZZZZ  
 Batches Between and ZZZZZZZZZZZZZZZZZZZ  
 Orders Between and ZZZZZZZZZZZZZZZZZZZ  
 Warehouses between and ZZZZZZZ

Transaction types included :- Deliveries Only ( Summary )

| Product                              | Loads | Units     | Receipts | Units Recvd. | Deliveries | Units Deliv. |
|--------------------------------------|-------|-----------|----------|--------------|------------|--------------|
| 01-102 COLLINS - CONSTRUCTION SAND   |       | 131902.88 | 0        | 0.00         | 3965       | 131902.88    |
| 05-001 COLLINS - SCREENED SOIL       | 279   | 7502.66   | 0        | 0.00         | 279        | 7502.66      |
| 05-003 COLLINS - TURF UNDERLAY       | 5     | 181.12    | 0        | 0.00         | 5          | 181.12       |
| 05-062 COLLINS - 80/20 ROOTZONE      | 275   | 7523.70   | 0        | 0.00         | 275        | 7523.70      |
| 05-076 TURF BLEND {MIR}              | 11    | 418.26    | 0        | 0.00         | 11         | 418.26       |
| 06-150 COLLINS - LAWN BUILDER {T}    | 1     | 31.48     | 0        | 0.00         | 1          | 31.48        |
| 06-151 COLLINS - LAWN BUILDER {MIR}  | 19    | 675.42    | 0        | 0.00         | 19         | 675.42       |
| 06-160 COLLINS - LAWN BUILDER (S&S)  | 4     | 129.10    | 0        | 0.00         | 4          | 129.10       |
| 06-900 COLLINS - LANDSCAPE MIX       | 24    | 679.84    | 0        | 0.00         | 24         | 679.84       |
| 07-003 COLLINS - 90/10 SPORTSMIX     | 16    | 416.24    | 0        | 0.00         | 16         | 416.24       |
| 07-007 COLLINS - 80/20 SPORTSMIX     | 18    | 550.16    | 0        | 0.00         | 18         | 550.16       |
| 07-015 COLLINS - BEDDING MIX         | 47    | 1944.50   | 0        | 0.00         | 47         | 1944.50      |
| 07-016 COLLINS - 70/30 SPORTS MIX    | 112   | 3490.80   | 0        | 0.00         | 112        | 3490.80      |
| 10-010 COLLINS - CRUSHED WICKET SOIL |       | 164.00    | 0        | 0.00         | 10         | 164.00       |
| 19-012 CARTAGE PER LOAD CLAY         | 831   | 1554.00   | 0        | 0.00         | 831        | 1554.00      |

**Transactions Listed 5617 Total of 157164.16 Units**

**APPENDIX 3: TOTAL SITE PRODUCTION – COUNCIL CONTRIBUTION**



camden council

# TAX INVOICE

To:  
M Collins & Sons Holdings Pty Ltd  
PO Box 378  
NARELLAN NSW 2567

Debtor Acc. 1392.10  
Date: 22/04/2022

| DATE | INVOICE NO. | DESCRIPTION | AMOUNT |
|------|-------------|-------------|--------|
|------|-------------|-------------|--------|

|            |       |  |          |
|------------|-------|--|----------|
| 22/04/2022 | 69155 | Macarthur Road Maintenance<br>GST \$844.66<br>Annual Contribution Levy as per<br>condition of development consent modified<br>by Department of Planning - Spring Farm<br>Quarry Extension<br>Extraction Commencement Date 18/12/2008<br>Extraction and Processing Operations extended<br>Period 18/12/2021 to 18/12/2022 | 9,291.24 |
|------------|-------|--|----------|

DUE DATE: 22/05/2022

Total Value non-taxable supply(s) 0.00  
Total GST Payable 844.66  
Total Value taxable supply(s) excluding GST 8,446.58





Please detach the section below and send with cheque payment

|              |                 |
|--------------|-----------------|
| <b>TOTAL</b> | <b>9,291.24</b> |
|--------------|-----------------|

M Collins & Sons Holdings Pty Ltd  
PO Box 378  
NARELLAN NSW 2567

DUE DATE: 22/05/2022  
ACCOUNT No. 1392.10  
AMOUNT DUE: 9,291.24  
TAX INVOICE: 69155

### Payment Options:

|   |  |
|---|--|
|  <p><b>In Person</b><br/>Payments can be made Monday to Friday at Oran Park Office, 70 Central Ave, Oran Park between 8.30am and 5.00pm OR at Camden Library, 40 John St, Camden and Narellan Library, Cnr Queen &amp; Elyard Sts, Narellan Between 9.30am and 5.00pm Monday to Friday</p> |  <p><b>Biller Code: 717405</b><br/><b>Reference: 1392109</b><br/><b>Telephone and Internet Banking - BPAY</b><br/>Contact your bank or financial institution to make this payment from your cheque, savings, debit or transaction account. For more information visit <a href="http://www.bpay.com.au">www.bpay.com.au</a>.</p> |
|  <p><b>By Credit Card</b><br/>Go to Council's secure payment portal at <a href="https://eservice.camden.nsw.gov.au/eservice/mpPaymentInit.do">https://eservice.camden.nsw.gov.au/eservice/mpPaymentInit.do</a><br/>* Merchant service fees apply to credit card payments.</p>               |  <p><b>By Mail</b><br/>Send this tear off with your cheque or money order to:<br/>Camden Council, PO Box 183, Camden NSW 2570.</p>  |



COLLINS CONSTRUCTION MATERIALS PTY LTD  
NARELLAN NSW 2567

ABN: 28 000 621 871

TELEPHONE - 02 9774 1544  
FAX -

THE COUNCIL OF CAMDEN EFT REMITTANCE  
P.O. BOX 183, ADVICE  
CAMDEN NSW 2570

FAX: 4645 5136

Page: 1

| DATE        | REFERENCE | INVOICE       | WITHELD | AMOUNT PAID |
|-------------|-----------|---------------|---------|-------------|
| 26 APR 2022 | 64939     | 7085.79       | 0.00    | 7085.79     |
| 22 APR 2022 | 69155     | 9291.24       | 0.00    | 9291.24     |
|             |           | Total Payment |         | 16377.03    |

**APPENDIX 4: REHABILITATION AND REVEGATION WORKS PROGRESS REPORT**



**Rehabilitation and  
Revegetation Works –  
Springfarm Quarry  
Progress Report LMP  
(December 2022)**



**COLLINS**

**Client:** M Collins and Sons Holdings Pty Ltd (MCS)

**Location:** Lot 22 DP833317 and Lot 32 DP 635271 - 186 Spring Farm, Camden Local Government Area (LGA). Springfarm Quarry Operations located at Macarthur Road, Elderslie

**Development consent:** (DA 75/256) Section 4.55(1A) of the Environmental Planning and Assessment Act 1979

**Project type:** Site Revegetation & Environmental Restoration Outcomes at Collins Construction Materials Pty Limited – Location Springfarm Quarry, Elderslie for the year 2022

Controlled activity approval under section 92 of the Water Management Act 2000 – (Modification 5 application) – Approved 23 April 2021

**Reference number:** 10CX122891

**Prepared by:** Apical Bushfire and Planning

**Date:** 1/03/2023

## Referenced Documents

D. Anderson 2021: Apical Bushfire and Planning P/L; Weed Management Plan 2021-2022 prepared for, Collins Construction Materials Pty Ltd

NSW NATURAL RESOURCES ACCESS REGISTER APPROVAL 10CX 1228891 (December 2018)

Notice of Modification (Modification Approval 5.) (23 April 2021)  
Section 4.55(1A) of the Environmental Planning and Assessment Act 1979

D. Anderson 2021: Apical Bushfire and Planning P/L; Natural Restoration Progress Report March 2021, Collins Construction Materials Pty Ltd

D. Anderson 2018; Bowantz Bushfire & Environmental. Bush Regeneration and Ecological Restoration Report, Lot 32 DP 635271 & Lot 22 DP 833317, M Collins and Sons (Holdings Pty Ltd).

Office of environment and Heritage (Website. Accessed 23/07/20)  
<https://www.environment.nsw.gov.au/threatenedSpeciesApp/profile.aspx?id=10787>

Harvest Scientific Services 2016; Landscape Management Plan Lot 32 DP 635271, Lot 22 DP 833317 Macarthur Road Spring Farm.

NSW Office of Water Controlled Activity Approval; Statement of Approval Number 10ERM2013/0830

Actinotus 2012; Flora and Fauna Assessment for proposed Sand and Soil Extraction at Lot 32 DP 635271 Macarthur Road Spring Farm.

NSW Biosecurity Act 2015, Part 3 Priority Weeds NSW Department of Primary Industries, Greater Sydney Local Land Services.

NSW Water Management Act 2000; Guidelines for Riparian Corridors on Waterfront Land.

NSW Biodiversity Conservation Act 2016; Schedule 1 Threatened Species, Schedule 2 Threatened Ecological Communities & Schedule 4 Key Threatening Processes



# Background

M Collins and Sons Holdings Pty Ltd (MCS) owns and operates the Spring Farm Quarry located at Lot 22 DP833317 and Lot 32 DP 635271 at Spring Farm, in the Camden Local Government Area (LGA).

The site is a major source of products for the Sydney region, comprising a significant resource identified in the Sydney Regional Environmental Plan (No-9 Extractive Industry) (Harvest Scientific Landscape Management Plan 2016). The project site is bound to the east by Macarthur Road, to the west by the Nepean River, the north by the Camden By-Pass Roadway and to the south again by the Nepean River.

In May 2009 (MCS) was granted consent for the continuation of operations on the site by the Department of Planning (Now Department of Planning, Industry and Environment) for the continued extraction and processing of materials. This approval was to allow operations to continue for a further 10-year period until 2019.

Director General Requirements for the modification of continued operations of the site were then issued on 23rd December 2010 and included requirements relating to future quarry closure and environmental rehabilitation of the site (Harvest Scientific Landscape Management Plan 2016).

On the 2<sup>nd</sup> of August 2018, MCS was granted a further modification (Mod 4.) and then (Mod 5) planning approval on the 23<sup>rd</sup> of April 2021 under Section 75W of the Environmental Planning and Assessment Act (1979) NSW to extend current approved activities under Quarry Consent (DA 75/256) Lot 22 (No. 186) DP) 833317 and Part Lot 32 (No. 172) DP 635271.

Quarry operations are approved to undertake the following activities: The extraction, processing, stockpiling and transportation of extractive materials carried out on the site and the associated removal of vegetation, topsoil and overburden.

Land Rehabilitation upon the site in response to quarrying disturbance and as requirement by the Natural Resource Access Regulator (NRAR NSW) is a key responsibility under the active land use consent.

The Natural Resources Access Regulator (NRAR) is the independent regulator that oversees the enforcement of water management laws in NSW is an important component

Over the past 33 years of operation MCS has established long-term environmental restoration and rehabilitation programs which include the provision of focussed land management objectives to support management of the key natural areas (bushland) and biodiversity corridor lands that exist upon the site. Land Management activities for the site are prioritised under the development of annual work plans with function as practical plan to ensure the objective of the overall site Land Management Plan (LMP) are met.

Since the inception of the LMP in 2016 the document has been used to provide MCS with clear performance targets, restoration principles, monitoring and maintenance procedures required for the sustainable management of the site and conservation of surrounding environments.

Weed management and landscape management activities have been undertaken on behalf on MCS at the site since 2008 by various land management contractors guided by engaged land management practitioners and terrestrial ecologists.

More recently Apical Bushfire & Planning (ABP) were awarded the site land management and ecological restoration program to deliver the annual 2021-2022 on-ground works which integrate within the overall strategic Land Management Plan (LMP) objectives for the site.

MCS has adopted focus within the Land Management Plan (LMP) to prioritise both condition management of the retained natural ecosystem and biodiversity corridors and complete the installation of key rehabilitation and revegetation creation zones required to offset the operational works program which will service future land use for the site and support the overall broader landscape resilience and biodiversity services.

As part of the annual land management and ecological restoration program delivery requirement ongoing monitoring, analysis and reporting of the delivery of works and condition of targeted work areas are undertaken and presented within a progress reporting schedule for each annual period.

This report constitutes an annual review of the environmental restoration works plan for the period (Summer 2021 through to Summer 2022)

The reports aim to capture and document the key work outputs (tasks and deliverables) and site condition monitoring relative to the annual works program as well as outlining the impacts of natural flood disasters which have affected the location during 2022 and the flood impact upon the implementation of the overall works plan.

This report aligns with the fourth quarter of the 2022 management period under the delivery of the annual works contract.

| <b>Report Compilation and Review</b> | <b>Name and Position</b>   | <b>Document Revision</b>  | <b>Date</b> |
|--------------------------------------|--|---|-------------|
| Author:                              | Daniel Anderson<br><br>Grad Cert Bushfire Planning,<br>Grad Dip CLM, Master Env-Sc<br>(Planning, Ecology)<br><br>Scientific Licence: SL102408<br>NSW Biodiversity Conservation Act | Final Draft   | 21/12/2022  |
| Author:                              | Daniel Anderson  | Amendments / Updates<br><br>Review by Landholder<br>Representatives | 1/03/2023   |

#### Author Accreditation

Scientific License: SL 102408

#### Qualifications / Accreditations:

- 2020 Biodiversity Assessment Methodology (BAM) Accreditation Training (NSW OEH) Greencap Training
- 2018 Graduate Certificate Planning for Bushfire Protection: University Western Sydney
- 2017 Development Assessment Course (Post Grad): University Technology Sydney
- 2013 Master Environmental Science: University of Wollongong  
Majors – Environmental planning & Fluvial geomorphology.
- 2011 Graduate Certificate Environmental Science: Australian National University.
- 2008 Diploma Conservation and Land Management: NSW Department of Primary Industries TOCAL
- 2003 Certificate III Environmental Practices (TAFE NSW).
- 2001 Trade Certificate Horticulture - Parks & Gardens (TAFE NSW)

# Apical Bushfire & Planning P/L

Apical Bushfire & Planning is an environmental planning consultancy and a land management practitioner, we have been associated with the project site and the land managers M Collins and Sons Holdings Pty Ltd (MCS), via collaborations through the delivery of on-ground works, monitoring and reporting under the LMP upon the site since 2010.

Apical Bushfire Planning P/L has been engaged by MCS to develop land restoration and landscape management planning and task priorities for the site on an annual basis to compliment the overall Landscape Management Plan (LMP) objectives and to maintain and embellish natural bushland areas upon the site under broader habitat and conservation goals.

Our key focus areas of bush fire planning, biodiversity impact assessment and specialised land management tasks such as (bush regeneration, weed management and weed eradication, land restoration and revegetation, ecological planning, and monitoring) allow us to apply integrated knowledge (academic – scientific) and diverse practitioner skills, to deliver land management planning and land management and rehabilitation activities for our clients in order to achieve overall restoration objectives within both the operational and natural landscapes formed to the site..



Revegetation Extension of native vegetation corridors (Apical 2021)



Revegetation Extension of native vegetation corridors (Apical 2021)

# Introduction

This progress report constitutes a review of the completed on-ground works by Apical, M Collins & Sons and other engaged contractors applied to the restoration program derived by the LMP over the annual period (January 2022 – December 2022).

The review will focus upon the key target work zone locations identified within the Land Management Plan (LMP), quantify and document the completion on-ground deliverables (completed tasks) prescribed within the annual works plan and contract delivery period refer document` (2021 – 2022 Land Management / Ecological Restoration Program, On Ground Works) and by relevance for this annual period document the impact of major flooding events along the Nepean River Corridor over the past year which have significantly hindered the delivery of on-ground restoration work activities for the period and imposed significant landform and geomorphic change to the site over the reporting period.

The report will draw upon site data collected by Apical Bushfire & Planning (ABP) and information provided the site managers M Collins & Sons (MCS).

Principal Ecologist (Apical) Daniel Anderson attended and inspected the site focussing upon inspection of the key restoration zones during November 2022 and February 2023 to review:

- the current condition of the work areas
- the overall condition of the natural areas and restoration zones
- measure the losses of revegetation plantings attributed to flood events
- inspect the type, extent and density of invasive plant species (weeds) present across the restoration zones
- inspect and evaluate the potential presence of pest fauna (feral animal) populations across the site and surrounds, post flooding events
- establish suitable restoration / remediation goals for the site over the management period; given the geomorphic and abiotic changes to site post flood events.

Relevant site data and project information retained and presented within the report is provided by:

- Contractor work agreement statements
- Contractor work completion invoices
- Site Works Reports – Apical Bushfire Planning and internal resources provided to the project by site managers M Collins (MCS etc) by the presentation of Daily Work Logs.
- Before and After – site condition photo points
- Photographs, Rainfall Statistics and Media Articles representing the flood events to the Camden area and directly association of the Nepean River.
- Site Maps displaying recent aerial imagery of the site.
- Quantitative audits of the site revegetation zones to account for losses of revegetation units to the flooding events
- Qualitative and Quantitative observation statements by the authors.
- Observations of site change and site conditions – via touring of the site (February 2023)

\*Site visits and progress monitoring have been undertaken biannually during the summer period 2021 and now the summer period 2022 by the authors in representation of (ABP & MCS). The site visits included monitoring reviews, collection of necessary site information such as progress photos, work reports and contractor receipts to ensure an accurate and up to date log of work outputs and to evaluate upon current site conditions at MCS Spring Farm site.

# 2021 – 2022 Land Management / Ecological Restoration Program on Ground Works.

## Planned Objectives

The activities identified for the annual works plan and incorporated into the works contract agreement for the period refer to core fundamental, tasks to be carried out within each of the identified site land management zones over the 12-month program and reflect the broader strategic goals of the weed eradication plan, feral animal control plan and land management plan prepared for the site under the operational conditions.

An increased focus upon revegetation targets is adopted for this annual program, due to difficulties faced during recent seasons at the site to undertake revegetation under drought and extreme heat conditions. This season has provided significantly improved climate conditions to support revegetation which shall be recognised by the work outputs associated with the program.

Whilst revegetation installations were a key priority of the 2022 project season; flooding of the site during the early period of Feb – June of the year 2022 completely removed any possibility to complete programmed revegetation works across the work zones. The site was affected by large flood waters for the majority of the 2022 period.

Weed control is also another activity that will require a greater commitment of resources this season. Improved climate and frequent rainfall which support improved revegetation conditions also promote the growth of weeds and particularly herbaceous and annual weed plants. Weed impacts are noted post the receding of flood water across the site. Increased ground moisture, disturbance of topsoils, increased nutrients from riverine sediment deposition are all factors which contribute to proliferation of weeds.

Many areas of the site were inundated by flood waters for long periods during the year, which has reduced access to areas whereby weed control would have been undertaken. Inundated areas such as the anabranch remnant vegetation corridor and Nepean River riparian corridor produced restricted growth of weeds and invasive plants due to management of landscape inundation and by being flooded out'.

## Climate and Flood Impacts 2022

During Late February and Early March 2022 two rainfall events triggered widespread major riverine flooding along the Nepean River Valley.

The first event that occurred from the 27th of February saturated fluvial soils, filling the river and its dams, inundation of parts of the project area onsite occurred during this event.

A second rainfall event that occurred from the 3rd to the 9th of March caused significantly flooding of the river corridor, causing the river to overflow its banks flooding the adjacent flood plain along the Nepean River Valley causing significant inundation of the project site.

The flood event caused significant damage to the land formation of the river bank and flood plain geomorphology and rendered access to the site impossible for vehicles for months – affecting the majority of the annual works plan period.

Rainfall and flood data collations

Refer Australian Bureau of Meteorology (BoM)

<http://www.bom.gov.au/climate/current/statements/scs76.pdf>

Sydney and New South Wales central and southern coastal regions



Persistent intense rainfall in Sydney and along the central New South Wales coast caused widespread flash flooding and major riverine flooding, particularly in the Hawkesbury-Nepean Valley. The already saturated soils, full reservoirs and swollen rivers meant that the severe thunderstorms and persistent rain in the week of 3 to 9 March quickly led to flash flooding.

The widespread intense rainfall quickly overwhelmed local stormwater and drainage systems, resulting in significant flash flooding across regional and metropolitan Sydney as well as along the New South Wales coast. Severe weather and major flood warnings were issued, and thousands of people were evacuated from the affected areas.

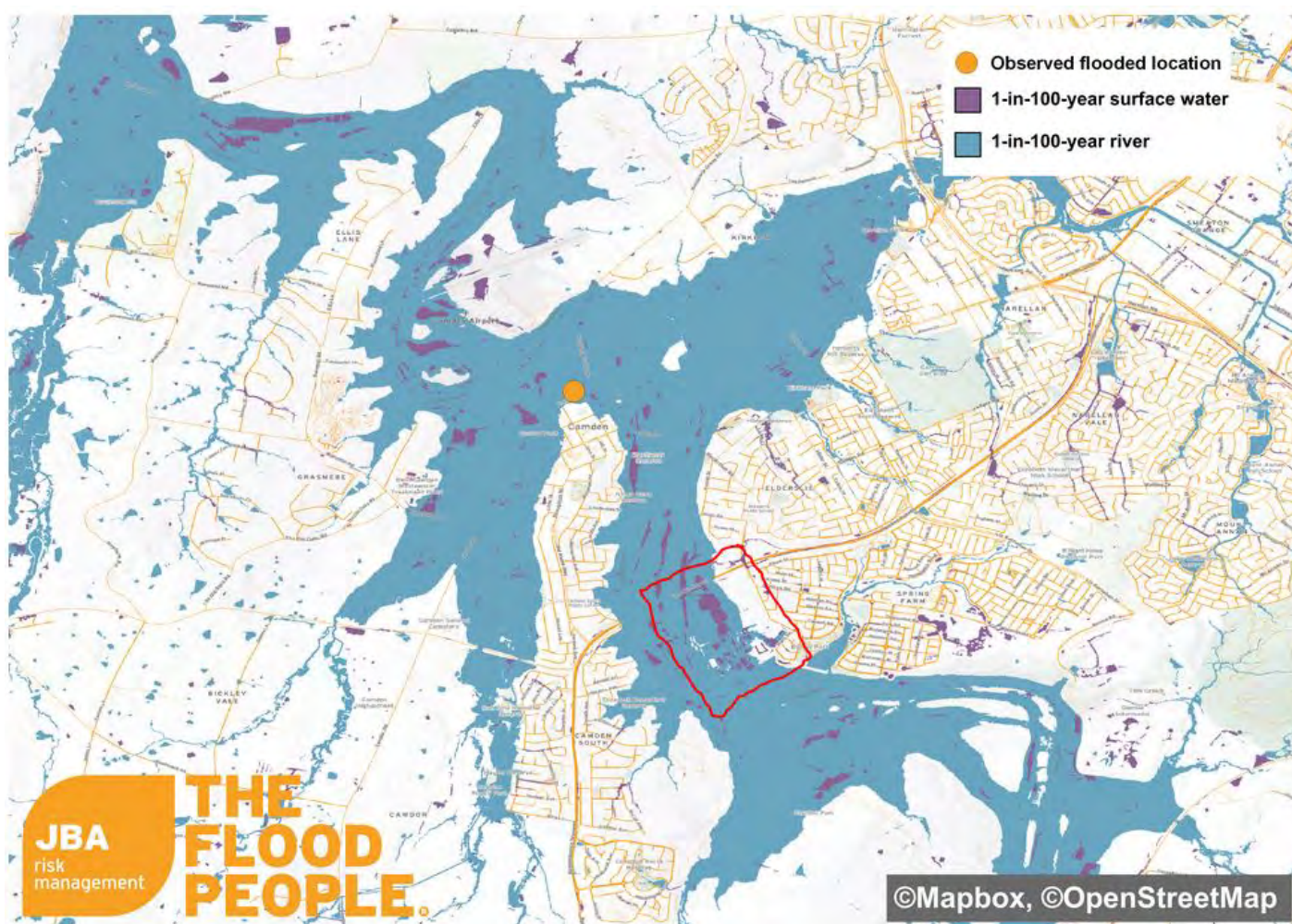
The Hawkesbury-Nepean Valley was impacted by two periods of consecutive heavy rainfall between 27 February and 9 March, with the heaviest falls observed in the Upper Nepean catchment. Moderate to major flooding was recorded along the Upper Nepean, driven by the first period of rain.

A second period of heavy rain followed, resulting in renewed increases of already elevated water levels, and higher second peaks at all locations.

The Hawkesbury River reached major flood levels from North Richmond downstream to the Wisemans Ferry gauge. Warragamba Dam, the largest water storage in the region at over 2 million megalitres, sits at the headwaters of the Hawkesbury River system and was already at 98% of capacity on 22 February. The water in the Hawkesbury River in late February and early March came from heavy rainfall in the catchment, the spilling of Warragamba Dam and from the Nepean River, which also reached major flood levels at both Menangle Bridge and Wallacia Weir.

The Nepean River at Menangle Bridge reached a height of 15.92 metres on 8 March, surpassing the March 2021 flood levels by more than 3 metres.

Insert flood mapping below – note subject area in red box.



Observations show that there has been an increase in the intensity of heavy rainfall events in Australia.

The intensity of short-duration (hourly) extreme rainfall events has increased by around 10 per cent or more in some regions in recent decades, with larger increases typically observed in the north of the country (State of the Climate 2020).

As the climate warms, heavy rainfall events are expected to continue to become more intense.

A warmer atmosphere can hold more water vapour than a cooler atmosphere, and this relationship alone can increase moisture in the atmosphere by 7 per cent per 1 degree Celsius of global warming.

This can cause an increased likelihood of heavy rainfall events. Increased atmospheric moisture can also provide more energy for some processes that generate extreme rainfall events, which further increases the likelihood of heavy rainfall (State of the Climate 2020).

## Revegetation

Proposed revegetation activities were not programmed or undertaken across the target zones after February 2022.

Significant rainfall causing broad scale flooding and inundation of the subject site did not allow for site access to undertake works and in addition caused damage and lead to the loss of many plants installed during the previous works seasons.

An audit of the revegetation zones after the major flooding events was prepared to ascertain the overall loss of previously installed plants which were installed to create increased vegetation buffers and biodiversity corridors to link areas of remnant vegetation (bushland) across the site.

The following audit notes are provided with a retained tree count presented for March 2022 period and also for October 2022 period.

### Audit Results

Area 1 – Buffer to the internal drainage and anabranh corridor – buffer along the turf farm zone

Total trees left standing with guards is 98 with 19 plants dead, leaving 79 plants alive.

13 trees alive without guards some still have a stakes attached.

|                                       |
|---------------------------------------|
| Post March Floods                     |
| Total trees alive is 92 in this area. |

|  |
|--|
| Post Winter / Spring Floods  |
| Total trees alive is 92 with 25 trees with no guards all trees are staked. |

Area 2 Buffer to the internal drainage and anabranh corridor – buffer along the turf farm zone

Total left standing with guards is 17 with 9 plants/ trees dead,

19 staked and un-staked trees with no guards, with 7 of these dead.

|                                       |
|---------------------------------------|
| Post March Floods                     |
| Total trees alive is 20 in this area. |

|  |
|--|
| Post Winter / Spring Floods  |
| Total trees alive is 16 with 2 trees with no guards all trees are staked |

Area 3 Buffer and widening to the internal drainage and anabranh corridor, additional supplementary planting to widening the remnant vegetation corridor and buffer overland water run-off.

Total left standing with guards is 37 with 30 trees/plants still alive and 7 trees dead.  
Staked and un-staked trees with no guards alive is 59

|                                      |
|--------------------------------------|
| Post March Floods                    |
| Total trees alive is 89 in this area |

|  |
|--|
| Post Winter / Spring Floods  |
| Total trees alive is 94 with 68 trees with no guards all are staked, some new trees have come up and are staked. |

Area 4 Revegetation linkage – vegetation corridor creation between the Nepean River Riparian vegetation and the internal anabranh corridor (known as area 5 in the site work plan)

Total left standing with guards is 144, with only 63 trees alive the grass has grown around and in the guards and affected the new tree plantings to not survive.

Staked and un-staked trees with no guards and are alive is 111, they need attention with new guards and some stakes and most important grass cleared away from them.

|  |
|--|
| Post March Floods                      |
| Total trees alive is 174 in this area. |

|                             |
|-----------------------------|
| Post Winter / Spring Floods |
| Not audited – no access     |

Area 5 Revegetation bank stability around the excavated pit zones and to protect the Nepean River riparian form (known as areas 1a), 1b) & 2a) in the site work plan.

Total left standing with guards is 151, with 43 dead trees mainly from thick grass growing in guards and around tree.

Staked and un-staked trees with no guards and are alive is 108, they need urgent attention with new guards and some stakes and repair some soil erosion.

|                                       |
|---------------------------------------|
| Post March Floods                     |
| Total trees alive is 216 in this area |

|                             |
|-----------------------------|
| Post Winter / Spring Floods |
| Not audited – no access     |

#### REVEGETATION AUDIT RESULTS TABLE

| Management Zones   | Planted units | Trees Remaining March | Trees Remaining October | Losses |
|--------------------|---------------|-----------------------|-------------------------|--------|
| Area 1<br>(Zone 7) | 250           | 91                    | 91                      | 159    |
| Area 2<br>(Zone 6) | 400           | 20                    | 16                      | 384    |
| Area 3<br>(Zone 6) | 400           | 89                    | 94                      | 306    |
| Area 4<br>(Zone 4) | 500           | 174                   |                         | 326    |

|  |     |     |  |       |
|--|-----|-----|--|-------|
| Area 5<br>(Zone 1b)                                  | 250 | 216 |  | 34    |
| Total Revegetation Units – Lost due to flood impacts |     |     |  | 1,209 |

## Watering

No watering of site revegetation zones was undertaken during this year's environmental LMP program.

## Priority Maintenance Areas

Monitoring of the revegetation works is completed to ensure weeds are kept under control and any failing plants are replaced as needed. An initial monitoring period of 6-months is proposed with a review of rehabilitation performance at the end of this 6-month period to determine if further maintenance will be necessary. Maintenance includes, where needed, the replacement of failed plants, replacement of tree guards, weed management and pest/disease control. It is expected that the frequency of inspections/maintenance would be monthly with changes to this frequency as needed.

- repairing damaged tree guards
- monitoring survival rates
- installing replacement plants where required
- weeding inside the tree guards
- follow-up spot spraying/ pest & disease control
- Plant losses will be replaced, and any remaining plants will be planted into the existing site as infill plantings to increase the density of the overall revegetation.

Undertake frequent quality assurance assessment inspections and program maintenance activities at monthly intervals.

Site work records detail that inspections of the planting zones, maintenance of the trees and planting areas was undertaken no less than twelve (12) times during the 12 week installation and maintenance period.

## Installation and Monitoring of Nesting Boxes

Nesting Boxes have been installed previously within the natural habitats (Zones 5 and 1a) of the site plan. These habitat elements require continued monitoring to assess whether they are actively supporting local species.

Provide – fauna and habitat observations through the field monitoring processes.

In addition, as part of this annual program; ten (10) new nesting boxes must be installed into the established regenerated bushland (Zones 6 and 7) as part of the ongoing regeneration activities. This work is scheduled for the winter management period.

## Weed Management – Natural Bushland Areas

Unfortunately flooding of the site restricted access to all target weed management areas within the bushland corridors and also across the non-operational zones.

Where site were accessible upon the higher ground and after the receding of flood waters such as later in the year of 2022 – high volume weed spraying was provided by external contractors.

Tasks such as secondary and maintenance weeding of re-emergent invasive spp. and herbaceous weedy annual plants were carried out by ABP under contract during the annual works period within the bushland areas of Zone 2a) & 2b).

The re-emergence of some invasive ascending vines species within this zone is a primary concern within this zone. During our site assessment, carried out most recently in December 2022 our field ecologists noted the presence of several invasive vines species which must be prioritised for eradication to reduce weed pressure on the natural vegetation structure and protect remnant trees within zones 1a), 1b), 2a), 2b), 5 & 6.

Priority weeds for eradication include:

- Dolichandra unguis-catii (Cats Claw Creeper)
- Anredra cordifolia (Madeira Vine)
- Cardiospermum grandiflorum (Balloon Vine)
- Araujia sericifera – Moth Vine
- Eragrostis curvula (African Love Grass)
- Senecio madagascariensis (Fire Weed)
- Ricinus communis (Castor Oil Plant)
- Senecio sissybryophyllum spp
- Conyza bonariensis (Fleabane)
- Bidens Pilosa (Cobblers pegs)
- Sida rhombifolia (Paddy’s lucerne)
- Cestrum parqui (Green cestrum)
- Rapistrum rugosum (Turnipweed)
- Rubus fruticosus var. aggregate (Blackberry)
- Lycium ferocissimum (African Box Thorn)
- Asparagus asparagoides (Bridal creeper)

## Weed Management –Operational Areas

Weed control work undertaken under this reporting period was limited to hi-volume herbicide spraying of annual and herbaceous weeds by agricultural weed spraying contractors on (4) two occasions during the 2022 period.

Annual weeds were controlled to limit spread of the weeds into the natural bushland areas and to maintain reasonable site condition under the operational zones, given the flood effects and restricted access across all of the site during 2022.

Invoice To:  
Collins Construcion Materials  
214 Macarthur Road  
Spring Farm NSW 2570

### Tax Invoice

Date: 14/02/2022  
Invoice #: 00004548

Your Order #:

Att: Dave Eckford

Description

Amount

|  |   |
|--|---|
| 214 MACARTHUR ROAD, SPRING FARM<br><br>9th & 10th February 2022<br>Spray areas as directed<br>16.5 hours @ \$160 per hour<br>20 ltr Roundup Biactive & 5lt Spreadwet 600 | <div style="border: 1px solid black; width: 60px; height: 30px; margin: 0 auto;"></div> |
|--|---|

February 2022



214 MACARTHUR ROAD, SPRING FARM

21st - 23rd February 2022  
Slash paddocks as directed

24 hours tractor/slasher @ \$110 per hour  
Float

February 2022

| Description   | Quantity |
|---|----------|
| Invoice to: Collins Construction Materials<br>Order number: CCM09788              | 1.00     |
| 30/6/22   |          |
| Labour x8hrs \$80 p/h = \$640<br>20L glyphix 450<br>4L spread wet 1000 = \$351.95 |          |

June 2022

| Description   | Quantity |
|---|----------|
| 26/27 September 2022<br>Weed spray areas as directed (spring farm quarry) | 1.00     |
| Order CCM 09885   |          |
| 15 hrs @ \$160 p/h + gst  |          |
| Subtotal \$2,400<br>Tax \$240<br>Total \$2,640                            |          |

September 2022

| Description  | Quantity |
|--|----------|
| JBallscapes  | 1.00     |
| Sprayed areas as directed.                                 |          |
| 20/10  |          |
| Materials<br>Glyphosate herbicide 450 25L<br>Spreadwet 20L |          |
| Hours 14 (combined)<br>Jake<br>Jamie                       |          |

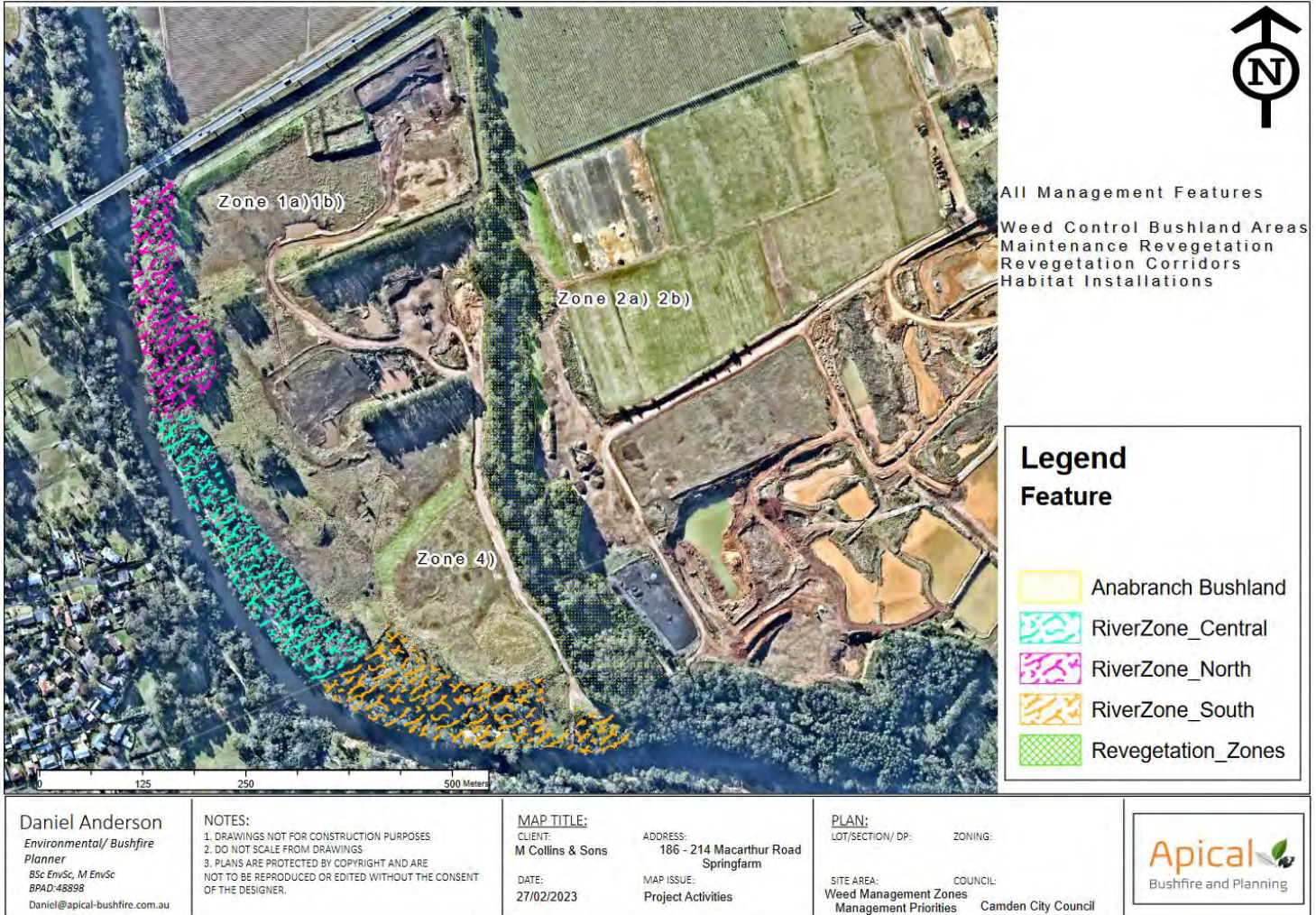
October 2022

Apical Bushfire & Planning – Progress Report Annual 2022  
M Collins & Sons Spring Farm Soil Extraction Site

## Site Management Zones

The below site management zones are prioritised for bush regeneration and weed control under the 2023 works plan to respond to access loss during the previous year and also to limit weed proliferation in areas which retained improve conditions for weeds to expand and migrate.

- Zone 1a) Core Riparian Zone (Extraction Revegetation)
- Zone 1a) Core Riparian Corridor – Nepean River (Native Restoration)
- Zone 2a) Central Anabranch Native Corridor
- Zone 2b) Central Anabranch Native Corridor
- Zone 6) Central Anabranch Native Corridor
- Zone 4) Riparian Connection Corridor (Revegetation)
- Zone 7) Anabranch South (Native Restoration)



Weed Management Priority Zones (LMP – 2023 program / Apical Bushfire Planning)



CURRENT AERIAL IMAGE ZONE 1A). (REVEGETATION – COMPLETE PRIOR TO FLOODING)



CURRENT ZONE 4) CREATE LINKAGE CORRIDOR. (REVEGETATION- COMPLETE PRIOR TO FLOODING)





CURRENT ZONES 2A) - 2B) CREATE BUFFERS AND EXTEND NATIVE VEGETATION ZONES. (REVEGETATION- COMPLETE PRIOR TO FLOODING)







WEED MANAGEMENT INDICATIVE AREAS OF ZONE 1A) & ZONE 5



WEED CONTROL INDICATIVE AREA OF ZONE 4





REMNANT BUSHLAND (RIPARIAN CORRIDOR)



Revegetation Areas (2a) – 2b)

## Project Tasks Zones (As Planned)

| Task  | Program structure  | Targets  | Outcome & Status   |
|---|--|--|--|
| 1. Zone 1A<br>Revegetation area<br>(Extraction<br>Revegetation) | Revegetation of endemic tree species at 1 per 10m2 (200 units) with adequate protection from herbivory.                                    | Achieve >90% survival rate after 12 months.  | Compliance with current controlled activity approval.<br><b>DELIVERED</b><br><br><b>Affected by flooding 2022</b>    |
| 2. Zone 1A-5  | Best practice secondary weed control, protecting establishing native ground covers.  | Achieve and maintain >80% native species ground covers after 12 months. Provide evidence of canopy recruitment and native plant diversity.   | Compliance with the LMP.<br><br><b>Affected by flooding 2022</b>   |
| 3. Zone 2a) & 2b)   | Best practice secondary weed control, protecting establishing native ground covers and supporting native regeneration of overstory species | Achieve and maintain >80% native species ground covers after 12 months. Achieve and maintain >80% native species ground covers after 12 months. Provide evidence of canopy recruitment and native plant diversity. | Compliance with the LMP.<br><b>CURRENTLY BEING MANAGED</b> –<br><br><b>Weed control provided by flood inundation</b> |
| 3. Zone 5) & 6)   | Best practice secondary weed control, protecting establishing native ground covers and supporting native regeneration of overstory species | Achieve and maintain >80% native species ground covers after 12 months. Achieve and maintain >80% native species ground covers after 12 months. Provide evidence of canopy recruitment and native plant diversity. | Compliance with the LMP.<br><br><b>YET TO BE INITIATED THIS PROGRAM</b>  |
| 3. Zone 4 RLZ<br>(Corridor<br>Revegetation)                     | Revegetation of endemic tree species at 1 per 10m2   | Achieve >90% survival rate after 12 months.  | Compliance with current controlled activity approval.  |

|                  |   |   |  |
|------------------|---|---|--|
|                  | (200 units) with adequate protection from herbivory.  |   | <b>DELIVERED</b><br><br>Affected by flooding 2022  |
| <b>4. Zone 4</b> | Broad area priority weed control of <i>Eragrostis curvula</i><br><i>Senecio madagascariensis</i><br><i>Ricinus communis</i> (Castor Oil Plant)<br><i>Senecio sissybryophyllum</i> spp | Achieve >90% reduction of priority species after 12 months  | Compliance with the bio-security act and the LMP<br><br><b>COMPLETED (3 DAYS OF HI-VOLUME TARGET WEED SPRAYING)</b><br><br>Weed control provided by flood inundation |
| <b>5. Zone 7</b> | Best practice secondary weed control, protecting establishing native ground covers. Continued primary removal of invasive priority species  | Achieve >80% native species ground covers after 12 months. Achieve and maintain >80% native species ground covers after 12 months. Provide evidence of canopy recruitment | Compliance with the Bio-Security Act and the LMP<br><br><b>YET TO BE INITIATED THIS PROGRAM</b>  |

#### Reporting Requirements and success rates

Presentation of monthly observations and seasonal delivery reports.

#### Annual Works – Completions (Quantitative)

- Re-vegetation Activities minimum survival rate criteria 85%. All re-vegetation observations less than 85% triggers replacement of vegetation.
  - Re-vegetation (Direct Seeding) Activities minimum survival rate criteria 85%. All re-vegetation observations less than 85% triggers replacement of vegetation.
- Revegetation units and flood damage from the 2022 annual season reported below:

| Management Zones                                     | Planted units | Trees Remaining March | Trees Remaining October | Losses |
|--|---------------|-----------------------|-------------------------|--------|
| Area 1 (Zone 7)                                      | 250           | 91                    | 91                      | 159    |
| Area 2 (Zone 6)                                      | 400           | 20                    | 16                      | 384    |
| Area 3 (Zone 6)                                      | 400           | 89                    | 94                      | 306    |
| Area 4 (Zone 4)                                      | 500           | 174                   |                         | 326    |
| Area 5 (Zone 1b)                                     | 250           | 216                   |                         | 34     |
| Total Revegetation Units – Lost due to flood impacts |               |                       |                         | 1,209  |



- Maintenance of Revegetation Zones to support successful restoration outcomes. Site maintenance was unable to be completed due to site inundation and limited site access due to localised flooding and flood damage.
- Weed Re-Growth cover observations above 15% trigger implementation of appropriate weed control activities. Site weed eradication and weed control was unable to be completed due to site inundation and limited site access due to localised flooding and flood damage. Weed control was provided by spray contractors on three occasions within the spring period – Sept – Dec as site access was restored. Weed spraying to target annual and herbaceous weeds was consolidated to the site operational areas and inter-operational areas

## **Recommended Actions**

### **Revegetation Areas – Zone 1a), 1b), 2a), 2b) & Zone 4**

#### Maintenance – Weed control

An ongoing weed management and weed maintenance program will need to be implemented across the revegetation zones to maintain weed re-growth and continue to encourage natural regeneration and growth of the tube stock plantings. Secondary weed control must be undertaken with use of brush cutting and hand weeding practices due to the recruitment of native plant species in the ground stratum. Actions such as bush cutting competitive grasses, hand removal of herbaceous weeds and spot spraying of selective herbicide will be required.

#### Revegetation – Planting of forestry tube stock units

Supply and install 1,200 replacement tube stock units to the revegetation areas to replace losses derived from the flooding events.

Supply and install additional new forestry tube stock plants to planned vegetation and corridor creation areas. Plant species will be representative of the native plant species list included within the LMP and reflect remnant endemic native vegetation known to occur along the Nepean River Corridor and associated Cumberland Plain Woodland and Cumberland Sandston Transition Forest vegetation classes.

#### Watering

Any planting or new and replacement vegetation will require watering after installation for a period of up to three (3) months. Watering will be required directly after planting and weekly after planting for the first four (4) weeks.

#### Direct Seeding

Continue to provide collected native plant seed to revegetation zones over the autumn and winter months to encourage assisted regeneration. The autumn and winter months provide improved conditions for these activities. Secondary weed control must be undertaken with use of brush cutting and hand weeding practices throughout these zones due to the recruitment of native plant species in the ground stratum. Use of herbicides within these zones over the next 12 months is not advised.

## **Native Bushland – Bush Regeneration Areas**

### Weed management.

Increase resources and focus on bush regeneration activities such as target weed eradication within the natural bushland zones. Apply the following actions to maintain and improve vegetation species diversity and vegetation condition over the autumn and winter period:

Brush cutting as a form of annual weed control and spray preparation.

Spot spray targeted herbicide weed control with backpack sprayers.

Remove ascending vines and invasive plants from the mid-story and tree canopy areas to remove competition and sustain native plant vigour.

### Seed collection

Autumn and winter provide for a good time to collect native plant seed as seed become available on fruiting plants after spring and summer flowering cycles. Undertake seed collection to harvest viable seed for use in revegetation activities over the coming spring period. Seed will be collected and stored in chaff bags in a cool storage area until spring.

## **Habitat & Biodiversity**

### Habitat Boxes – Habitat Retention

Undertake monitoring observations of the current habitat availability and fauna species activity related to the bushland habitat zones during work tasks.

Identify opportunistic locations for the installation of habitat nesting boxes in accordance with known local species populations.

Supply and install ten (10) habitat nesting boxes to support birds, bats and arboreal mammals during the winter period and prior to the spring season.

## **Monitoring & Reporting**

### Progress monitoring, site assessment reporting

Continue to undertake progress monitoring and collect important site management data for presentation within the annual report. Site photos, condition descriptions, project maps and work records will be collected during completion of our field work.



# Conclusive Comments

During Late February and Early March 2022 two rainfall events triggered widespread major riverine flooding along the Nepean River Valley.

The first event that occurred from the 27th of February saturated fluvial soils, filling the river and its dams, inundation of parts of the project area onsite occurred during this event.

A second rainfall event that occurred from the 3rd to the 9th of March caused significantly flooding of the river corridor, causing the river to overflow its banks flooding the adjacent flood plain along the Nepean River Valley causing significant inundation of the project site.

The flood event caused significant damage to the land formation of the river bank and flood plain geomorphology and rendered access to the site impossible for vehicles for months – affecting the majority of the annual works plan period.

Previously completed areas comprised on planting of new native vegetation buffers corridors and infill plantings were considerably affected by the flood events of the 2022 year. Audits of revegetation work areas have identified a loss of up to 1,200 plant units and losses of established vegetation buffer and corridor areas which will require repair and replacement under the coming work plan 2023.

All remnant native forested and woodland areas were inaccessible for the majority of the 2022 season due to flood inundation and limited site access, bush regeneration tasks involving weed management within these areas was not undertaken as planned under the 2022. Habitat nesting boxes which were planned to be installed during the year have not been installed to the site.

Existing feral animal populations previously acknowledged to the site areas such as rabbits and foxes were almost entirely eradicated due to the flooding, whereby rabbit burrows and burrow networks and fox dens and foraging landscapes were completely inundated causing both drowning of the populations and removal of feeding grounds and food source.

Native animal populations such as wallabies and other macropod species were also heavily impacted by the flooding, with a reduction of animal sightings across the site apparent in the aftermath of the (2) major flood events.

The resumption of work activities aligned with the LMP and provided under the scope of the site land management program will aim to recommence works on the existing rehabilitation and restoration targets whilst also aiming to help with landscape recovery after the flooding.

The management of weeds after flood disturbance and the securing of bare soils, fluvial soil deposits and erosional areas will also be a focus for the plan, through revegetation plantings, direct seeding and the management of suitable groundcover.

Ongoing weed management will greatly improve the ability for the key existing natural remnant areas to establish further natural regeneration and reduce the need for repetitive and ongoing weed maintenance and possible supplementary planting revegetation into the future.

The natural remnant corridors and the re-created vegetation linkages designed by the LMP are supporting localised native plant threatened species and localised native threatened fauna species to continue to exist in this landscape.

Arboreal mammals such as possums and gliders are known to exist within the riparian and anabranch corridors along with several reptile species including snakes and lace monitors.

Restoration work such as the creation of vegetation corridor linkages and establishment of vegetation to protect sensitive areas from potential geomorphic instability are critically important to the long term condition value and landform function of the site.

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Author:

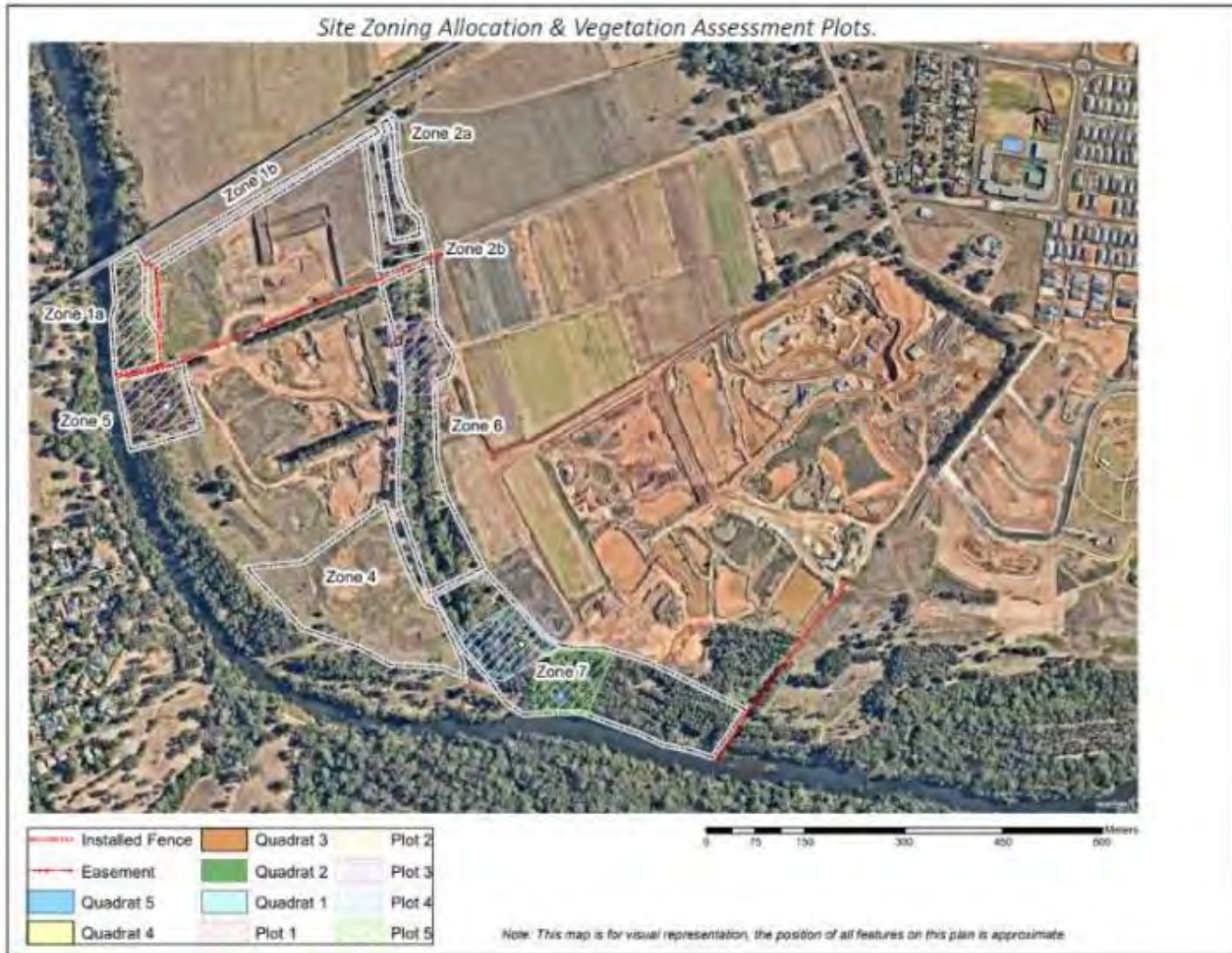
Mr Daniel Anderson  
*BSc EnvSC, MSc EnvSc*



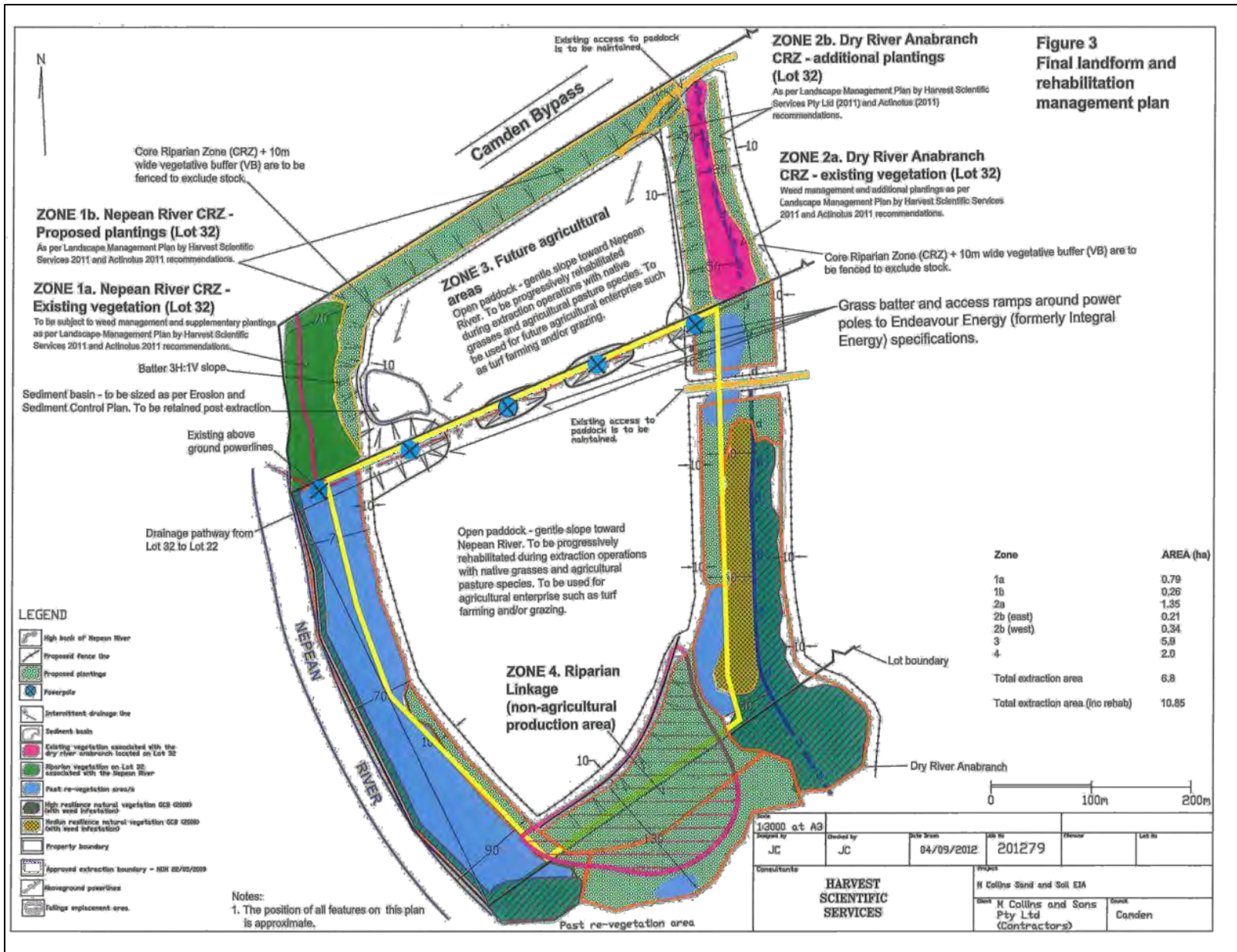
Nepean River Camden – March 2022

# APPENDIX X

APPENDIX A- SITE MAP INDICATING BREAK DOWN OF MANAGEMENT ZONES OF ENVIRONMENTAL IMPORTANCE ON SITE.







MAP IMAGE 2. PLANNING MAP OF SITE OUTLINING THE ENVIRONMENTAL ZONES.





0 137.5 275 550 Meters

Notes:  
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 2. DO NOT SCALE FROM DRAWINGS  
 3. PLANS ARE PROTECTED BY COPYRIGHT AND ARE NOT TO BE REPRODUCED OR EDITED WITHOUT THE CONSENT OF THE DESIGNER

### Flooding Map

|   |                                |
|---|--------------------------------|
| Client:<br>Collins Spring Farm                        | Map Issue:<br>Flooding Map     |
| Address:<br>214 MacArthur Rd,<br>Spring Farm NSW 2570 | Time:<br>24/11/2022<br>1:39 PM |

### Plan

|  |  |
|--|--|
| LGA:<br>Camden                                     | Units:<br>Meters   |
| Lot/DP:<br>Lot 22 DP833317 and<br>Lot 32 DP 635271 | Spatial Reference:<br>WGS 1984 Web<br>Mercator Auxiliary<br>Sphere |



Marco Perry  
 Environmental/Bushfire Planner  
 Bsc EnvSc  
 Marco@apical-bushfire.com.au



Flood images –



Camden Town – Area (Source ABC News)



Subject site and surrounds - Source Nine News ' A Current Affair channel 9





All Management Features  
 Weed Control Bushland Areas  
 Maintenance Revegetation  
 Revegetation Corridors  
 Habitat Installations

**Legend**  
**Feature**

-  Anabranch Bushland
-  RiverZone\_Central
-  RiverZone\_North
-  RiverZone\_South
-  Revegetation\_Zones

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**MAP TITLE:**  
 CLIENT: M Collins & Sons ADDRESS: 186 - 214 Macarthur Road Springfarm  
 DATE: 27/02/2023 MAP ISSUE: Project Activities

**PLAN:**  
 LOT/SECTION/ DP: ZONING:  
 SITE AREA: COUNCIL:  
 Weed Management Zones Management Priorities Camden City Council



**Work plan – Areas 2023**

Apical Bushfire & Planning – Progress Report Annual 2022  
 M Collins & Sons Spring Farm Soil Extraction Site

**APPENDIX 5: REHABILITATION AND REVEGATION WORKS PROGRAM 2023**





27/02/2023

## Annual Environmental Works Plan (LMP)

### Environmental Works Program

**Applicant:** M Collins and Sons Holdings Pty Ltd (MCS)

**Location:** Lot 22 DP833317 and Lot 32 DP 635271 Spring Farm, Camden Local Government Area (LGA).

#### Works formed within:

2022-2023 Land Management / Ecological Restoration Program, On Ground Works.

**Client:** M Collins and Sons Holdings Pty Ltd (MCS) Spring Farm Quarry located at Lot 22 DP833317 and Lot 32 DP 635271 at Spring Farm, in the Camden Local Government Area (LGA).

#### Program - Background

The activities identified for the annual works plan (RFQ) refer to core fundamental, works activities to be carried out within each of the identified site ecological management zones over the coming 12 month program.

- **Revegetation Zones**
  - Zone 1a) 1b)
  - Zone 2a) 2b)
  - Zone 4
- **Natural Bushland Areas**
  - RiverZone South
  - RiverZone Central
- RiverZone North

The program activities have been determined with a focus on long-term, sustainable rehabilitation of the site in line with both the Landscape Management Plan (2016) & the Bush Regeneration & Ecological Restoration Report (2018). (MCS) invite selected land management service providers to provide fee proposals inclusive of the tasks prescribed within this RFQ document.

**Priority Activities:**

**1. Revegetation (Re-planting / New Planting)**

Maintenance Revegetation Planting Zones:

- Zone 1a) 1b)
- Zone 2a) 2b)
- Zone 4

Repeated site flooding which occurred throughout the 2022 year considerably damaged revegetation areas by killing plants, physically removing plants and plant stakes and guards.

Site revegetation areas were damaged to different levels of impact and require a variant level of replacement planting.

Maintenance of revegetation zones is an apparent requirement for all zones to help further establish any trees / shrubs that survived the flood events, control extending areas of weed infestation and reduce plant competition to the revegetation zones to encourage establishment growth of the desired plants.

Replacement tube stock supply and installation.

**Zone 1a), 1b) Zone 2a), 2b) Replacement Plantings**

|   |  |
|---|--|
| Supply & Install – Long Stem Forestry Tube stock native plants <b>ZONE 1a) 1b)</b>  |  |
| Guarantee 90% establishment rate / & replacements where required  |  |
| Provide replacements where required (as inclusive)  |  |
| Terracotem establishment soil conditioner – Water Crystals – Wooden Stakes – 450mm core flute triangular tree guards and deterrent spray coating. |  |
| Zone A) - 100 units   |  |
| Zone B) – 100 units   |  |
| <b>200 units</b>  |  |

|   |  |
|---|--|
| Supply & Install – Long Stem Forestry Tube stock native plants <b>ZONE 2a)2b)</b>   |  |
| Guarantee 90% establishment rate / & replacements where required  |  |
| Provide replacements where required (as inclusive)  |  |
| Terracotem establishment soil conditioner – Water Crystals – Wooden Stakes – 450mm core flute triangular tree guards and deterrent spray coating. |  |
| Zone 2a) – 75 units   |  |
| Zone 2B) – 75 units   |  |
| <b>150 units</b>  |  |



Supply & Install – Long Stem Forestry Tube stock native plants **ZONE 4)**

Guarantee 90% establishment rate / & replacements where required

Provide replacements where required (as inclusive)

Terracotem establishment soil conditioner – Water Crystals – Wooden Stakes – 450mm core flute triangular tree guards and deterrent spray coating.

Zone 4)

|           |  |
|-----------|--|
| 400 units |  |
|-----------|--|

Revegetation Program





All Management Features  
 Weed Control Bushland Areas  
 Maintenance Revegetation  
 Revegetation Corridors  
 Habitat Installations

**Legend**  
**Feature**

-  Anabrand Bushland
-  RiverZone\_Central
-  RiverZone\_North
-  RiverZone\_South
-  Revegetation\_Zones

**Daniel Anderson**  
 Environmental/ Bushfire  
 Planner  
 BSc EnvSc, M EnvSc  
 BPAD:48898  
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**MAP TITLE:**  
 CLIENT: M Collins & Sons  
 ADDRESS: 186 - 214 Macarthur Road Springfarm  
 DATE: 27/02/2023  
 MAP ISSUE: Project Activities

**PLAN:**  
 LOT/SECTION/ DP: ZONING:  
 SITE AREA: COUNCIL:  
 Weed Management Zones  
 Management Priorities Camden City Council





## 2. Maintenance Revegetation Areas

Maintenance of the selected revegetation areas will be formed by the following activities:

Brush cutting of grasses and annual weeds

Spot spraying of annual and perennial weeds within the revegetation areas

Supplementary replacement tube stock planting

Supplementary direct seeding of collected native plant seed

Watering in drought periods

|   |  |
|---|--|
| Maintenance Revegetation Zones 1a) & 1b)  |  |
| Brush cutting of grasses and annual weeds<br>Spot spraying of annual and perennial weeds within the revegetation areas<br>Supplementary replacement tube stock planting<br>Supplementary direct seeding of collected native plant seed<br>Watering in drought periods | Staff (persons days) = 8 hours<br><br>128 hours (8 days X 2 staff)<br><br>Maintenance Period<br><br>March – September (8 events) |
| Total = \$ + Gst  |  |

|   |  |
|---|--|
| Maintenance Revegetation Zones 2a) & b)   |  |
| Brush cutting of grasses and annual weeds<br>Spot spraying of annual and perennial weeds within the revegetation areas<br>Supplementary replacement tube stock planting<br>Supplementary direct seeding of collected native plant seed<br>Watering in drought periods | Staff (persons days) = 8 hours<br><br>128 hours (6 days X 2 staff)<br><br>Maintenance Period<br><br>March – September (6 events) |
| Total = \$ + Gst  |  |

Maintenance Program Revegetation Zones - \$



|   |  |   |   |  |
|---|--|---|---|--|
| <p><b>Daniel Anderson</b><br/> <i>Environmental/ Bushfire<br/>                 Planner</i><br/>                 BSc EnvSc, M EnvSc<br/>                 BPAD:48898<br/>                 Daniel@apical-bushfire.com.au</p> | <p><b>NOTES:</b></p> <ol style="list-style-type: none"> <li>1. DRAWINGS NOT FOR CONSTRUCTION PURPOSES</li> <li>2. DO NOT SCALE FROM DRAWINGS</li> <li>3. PLANS ARE PROTECTED BY COPYRIGHT AND ARE NOT TO BE REPRODUCED OR EDITED WITHOUT THE CONSENT OF THE DESIGNER.</li> </ol> | <p><b>MAP TITLE:</b><br/>                 CLIENT: M Collins &amp; Sons<br/>                 ADDRESS: 186 - 214 Macarthur Road Springfarm<br/>                 DATE: 27/02/2023<br/>                 MAP ISSUE: Project Activities</p> | <p><b>PLAN:</b><br/>                 LOT/SECTION/ DP:      ZONING:<br/>                 SITE AREA:      COUNCIL:<br/>                 Weed Management Zones<br/>                 Management Priorities      Camden City Council</p> |  |
|---|--|---|---|--|

### 3. Bushland Restoration (Threatened Species & Ecological Zones)

Areas categorised into this management unit include remnant stands of natural bushland which occur to the site.

Remnant bushland areas are formed of Endangered Plant Community – Cumberland Shale Sandstone Transition Forest and have been protected over the life of the extraction period for the project. Ongoing weed management in the form of bush regeneration will be continued under this scope for the 2022-2023 management period.

Extensive flooding events of 2022 have modified the landscape topography, landform and vegetation stability with many areas being influenced by both erosive soil and bank loss and sediment deposition processes driven by influences of the flood events.

Weed control and restorative land management practice such as direct seeding, soil stabilisation and installation of surrogate habitat will be provide under this section of the scope.

Project Work Zones:

RiverZone South

RiverZone Central

RiverZone North

Anabranch Corridor

#### **Weed Control:**

Woody weed control – Cut / Paint Remove

Annual weed control – Remove / Spot Spraying

Ascending Vines Weed Control – Remove, Skirting and Spraying

Invasive Grasses – Brush cut, Spot Spray

#### **Direct Seeding – Natural Regeneration:**

Seed collection seed processing and seed re-distribution within de-stabilised zones to encourage natural regeneration of local flora species.

#### **Installation – Fauna Habitat:**

Supply, install and monitor suitable habitat nesting boxes for known local threatened species (Micro-bat, Arboreal Mammals, and Birds). Locate boxes within the bushland restoration zones.



|   |                                |
|---|--------------------------------|
| RiverZone South (2 Hectares)  |                                |
| Woody weed control – Cut / Paint Remove   | Staff (persons days) = 8 hours |
| Annual weed control – Remove / Spot Spraying  | 160 hours (10 days X 2 staff)  |
| Ascending Vines Weed Control – Remove, Skirting and Spraying  | Maintenance Period             |
| Invasive Grasses – Brush cut, Spot Spray  | March – September (10 events)  |
| Seed collection seed processing and seed re-distribution within de-stabilised zones to encourage natural regeneration of local flora species. |                                |
| Total = \$ + Gst  |                                |

|   |                                |
|---|--------------------------------|
| RiverZone Central (2 Hectares)  |                                |
| Woody weed control – Cut / Paint Remove   | Staff (persons days) = 8 hours |
| Annual weed control – Remove / Spot Spraying  | 160 hours (10 days X 2 staff)  |
| Ascending Vines Weed Control – Remove, Skirting and Spraying  | Maintenance Period             |
| Invasive Grasses – Brush cut, Spot Spray  | March – September (10 events)  |
| Seed collection seed processing and seed re-distribution within de-stabilised zones to encourage natural regeneration of local flora species. |                                |
| Total = \$ + Gst  |                                |

|   |                                |
|---|--------------------------------|
| RiverZone North (1.6 Hectares)  |                                |
| Woody weed control – Cut / Paint Remove   | Staff (persons days) = 8 hours |
| Annual weed control – Remove / Spot Spraying  | 160 hours (10 days X 2 staff)  |
| Ascending Vines Weed Control – Remove, Skirting and Spraying  | Maintenance Period             |
| Invasive Grasses – Brush cut, Spot Spray  | March – September (10 events)  |
| Seed collection seed processing and seed re-distribution within de-stabilised zones to encourage natural regeneration of local flora species. |                                |
| Total = \$ + Gst  |                                |

|  |                                |
|--|--------------------------------|
| Anabranh Corridor  |                                |
| Woody weed control – Cut / Paint Remove                      | Staff (persons days) = 8 hours |
| Annual weed control – Remove / Spot Spraying                 | 240 hours (15 days X 2 staff)  |
| Ascending Vines Weed Control – Remove, Skirting and Spraying | Maintenance Period             |
| Invasive Grasses – Brush cut, Spot Spray                     | March – September (15 events)  |
| Supply and install Habitat Nesting Boxes                     | 8 Habitat Boxes – Installation |
|  | \$ + Gst                       |
| Total = \$ + Gst   |                                |

|   |
|---|
| Bushland Areas – Weed Management & Restorations |
| \$ + Gst  |



All Management Features  
 Weed Control Bushland Areas  
 Maintenance Revegetation  
 Revegetation Corridors  
 Habitat Installations

**Legend  
 Feature**

-  Anabranch Bushland
-  RiverZone\_Central
-  RiverZone\_North
-  RiverZone\_South
-  Revegetation\_Zones

Daniel Anderson  
 Environmental/ Bushfire  
 Planner  
 BSc EnvSc, M EnvSc  
 BPAD:48898  
 Daniel@apical-bushfire.com.au

**NOTES:**  
 1. DRAWINGS NOT FOR CONSTRUCTION PURPOSES  
 2. DO NOT SCALE FROM DRAWINGS  
 3. PLANS ARE PROTECTED BY COPYRIGHT AND ARE NOT TO BE REPRODUCED OR EDITED WITHOUT THE CONSENT OF THE DESIGNER.

**MAP TITLE:**  
 CLIENT: M Collins & Sons ADDRESS: 186 - 214 Macarthur Road Springfarm  
 DATE: 27/02/2023 MAP ISSUE: Project Activities

**PLAN:**  
 LOT/SECTION/ DP: ZONING:  
 SITE AREA: Weed Management Zones COUNCIL: Camden City Council  
 Management Priorities

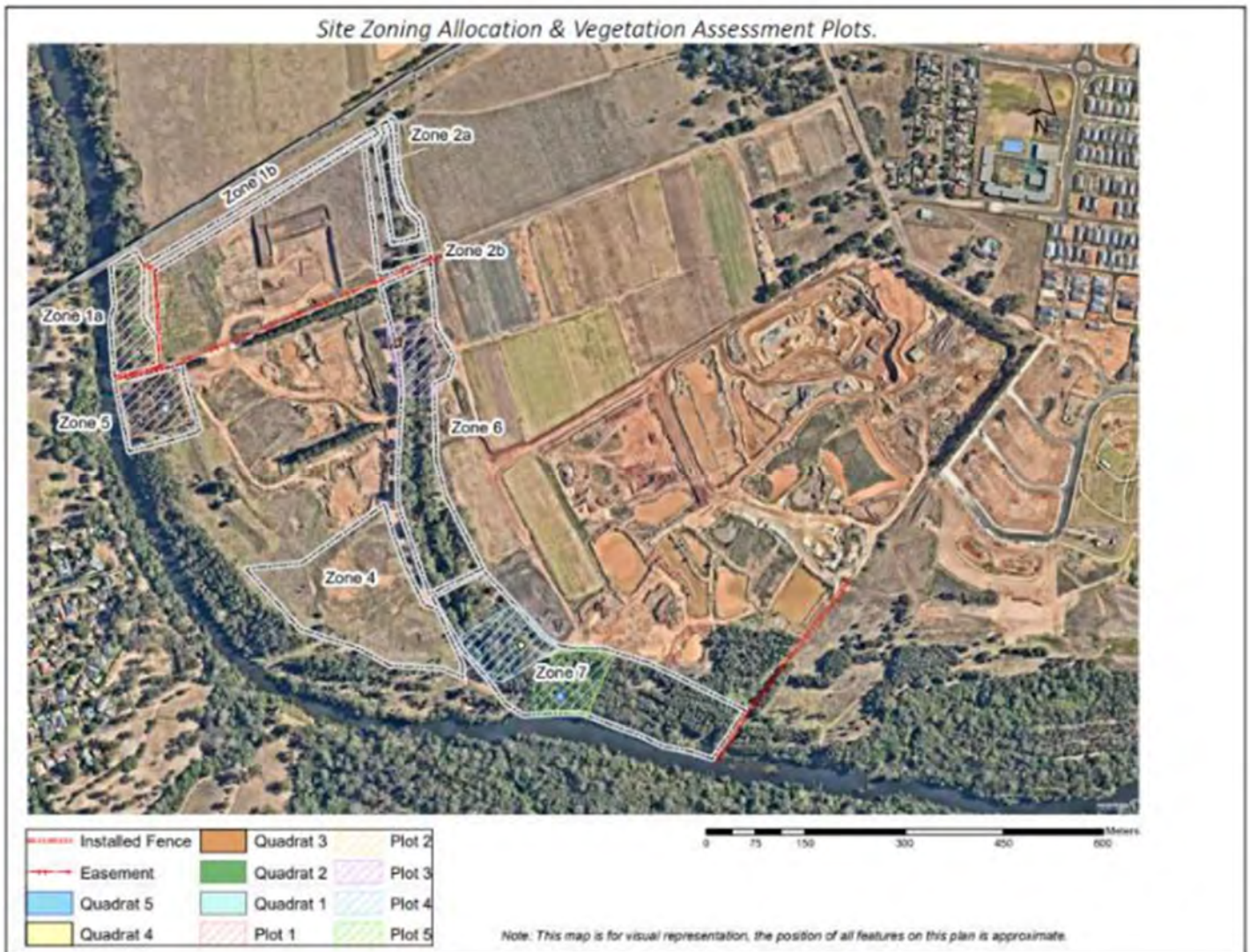




## Annual Work Plan – Totals

| Work Zone - Outcome                             | Fee Proposal  |
|---|---------------|
| Revegetation Program -                          | \$ + Gst      |
| Maintenance Program Revegetation Zones -        | \$ + Gst      |
| Bushland Areas – Weed Management & Restorations | \$ + Gst      |
| Site Works Total                                | \$ + Gst      |
| Site Monitoring and Project Reporting           |               |
| Project specific – hourly rate (\$ p/hr)        | \$ P/hr + Gst |

SITE MAP IMAGE – SHOWING ALL RELATIVE WORK ZONES





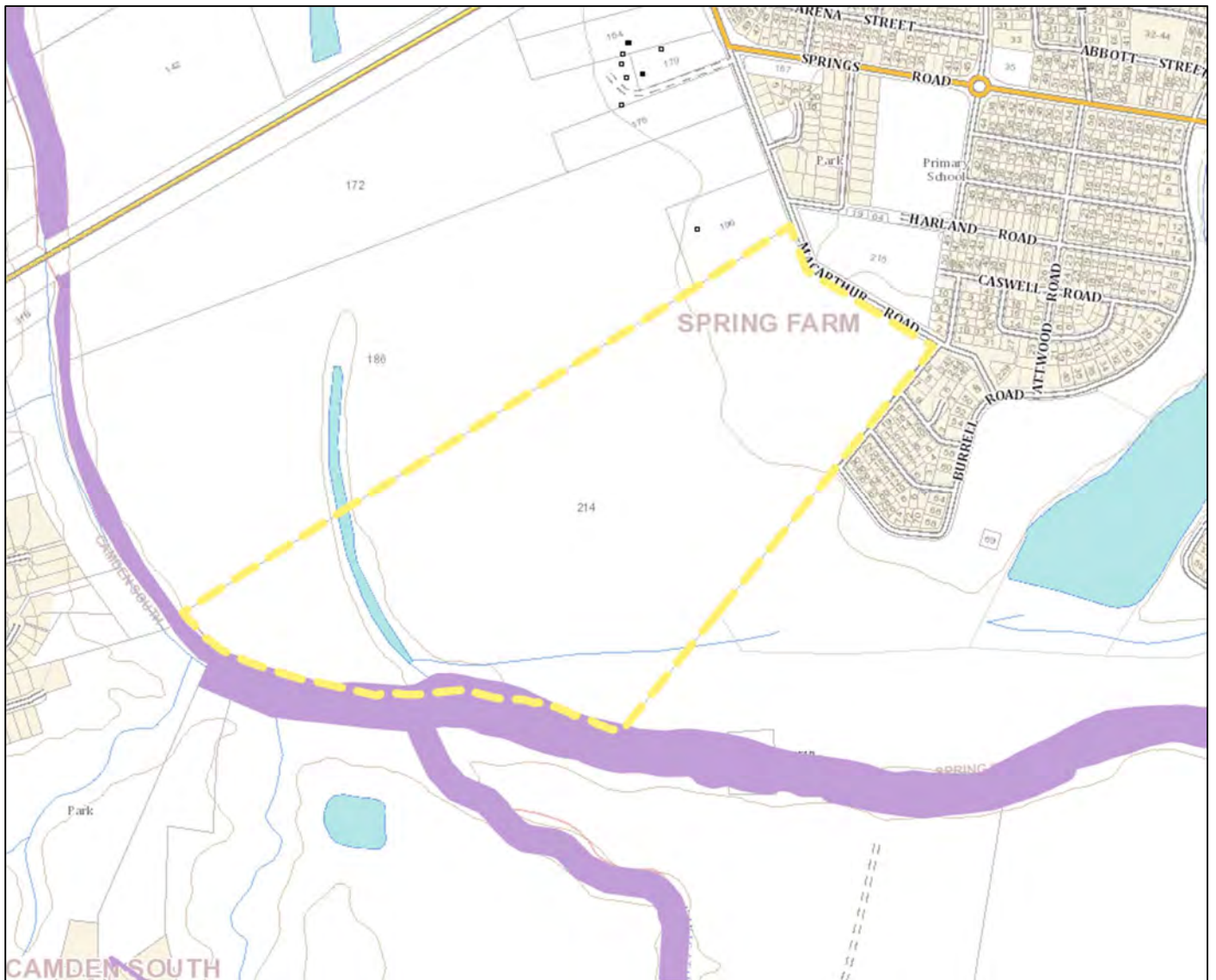
ENVIRONMENTAL PLANNING DATA – SITE

NSW Biodiversity Values Map (Protected Vegetation – NSW Biodiversity Regulation 2017)

186-214 Macarthur Rd, Spring Farm, New South Wales 2570

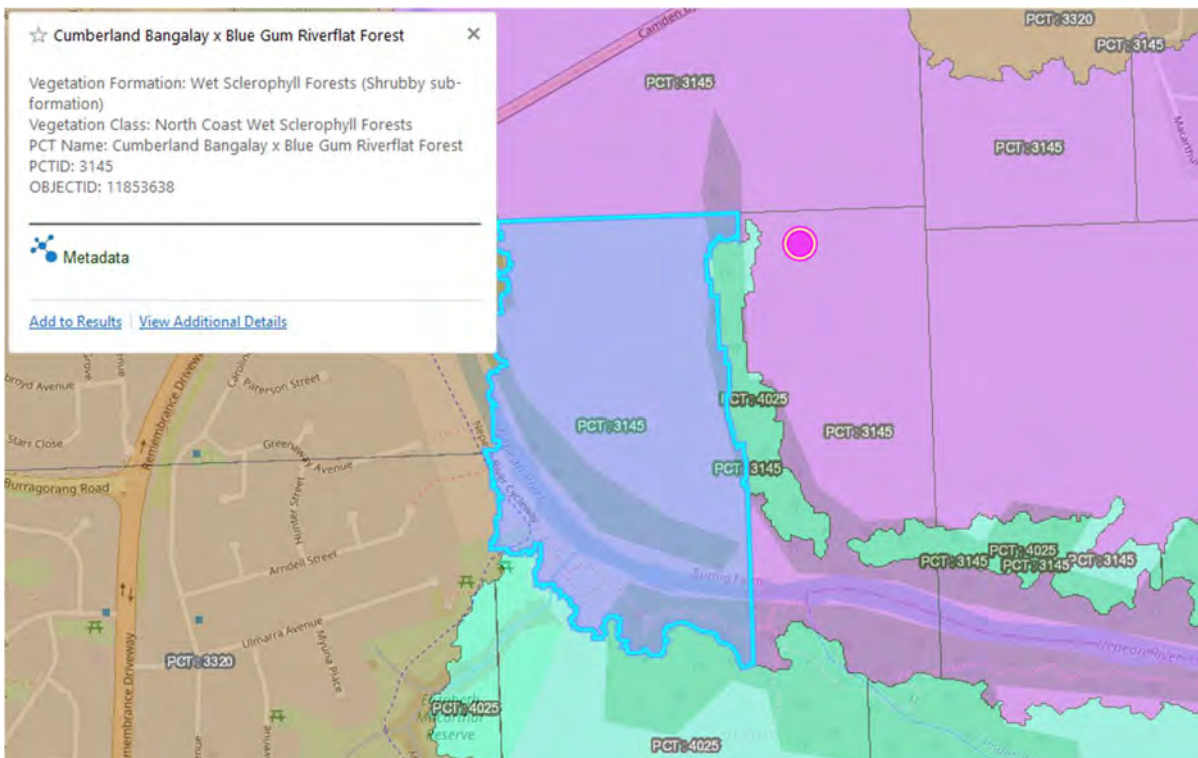
-34.0714133174097, 150.71129209768236

ePlanning biodiversity purple map



(sourced 27/02/23)

## Vegetation Threatened Plant Complexes



Cumberland Bangalay x Blue Gum Riverflat Forest

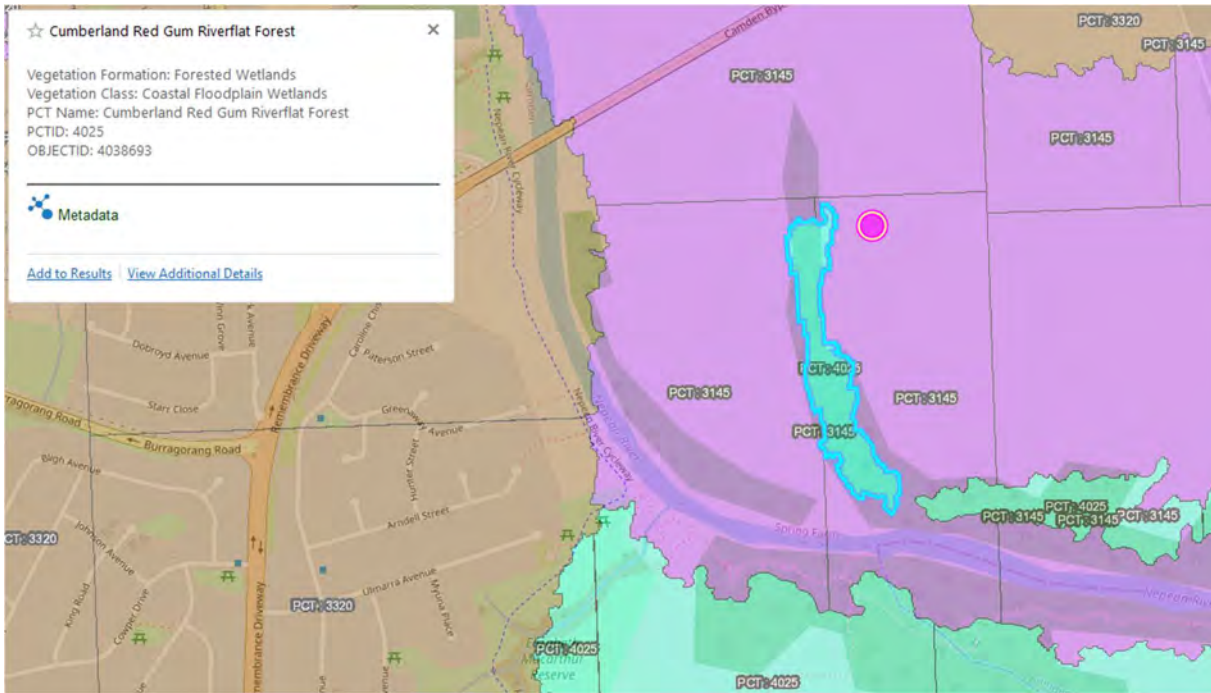
Vegetation Formation: Wet Sclerophyll Forests (Shrubby sub-formation)

Vegetation Class: North Coast Wet Sclerophyll Forests

PCT Name: Cumberland Bangalay x Blue Gum Riverflat Forest

PCTID: 3145

OBJECTID: 11853638



Cumberland Red Gum Riverflat Forest

| Community Name   | Threatened Category   | Presence Text                         |
|--|-----------------------|---------------------------------------|
| <a href="#">Castlereagh Scribbly Gum and Agnes Banks Woodlands of the Sydney Basin Bioregion</a>                   | Endangered            | Community may occur within area       |
| <a href="#">Coastal Swamp Sclerophyll Forest of New South Wales and South East Queensland</a>                      | Endangered            | Community may occur within area       |
| <a href="#">Cooks River/Castlereagh Ironbark Forest of the Sydney Basin Bioregion</a>                              | Critically Endangered | Community may occur within area       |
| <a href="#">Elderslie Banksia Scrub Forest in the Sydney Basin Bioregion</a>                                       | Critically Endangered | Community likely to occur within area |
| <a href="#">River-flat eucalypt forest on coastal floodplains of southern New South Wales and eastern Victoria</a> | Critically Endangered | Community may occur within area       |
| <a href="#">Western Sydney Dry Rainforest and Moist Woodland on Shale</a>  | Critically Endangered | Community may occur within area       |

NSW Bionet Threatened Species Table:5 km site radius search

| BIRDS | Common name<br><i>scientific name</i>  | NSW Status | Comm Status | Number of<br>Records | Distance, direction from site<br>Date of record |  |  |
|-------|--|------------|-------------|----------------------|---|--|--|
| Aves  | Freckled Duck<br><i>Stictonetta naevosa</i>  | V,P        |             | 2                    | 4km NW, 16/10/2019                              |  |  |
|       | White-bellied Sea-Eagle<br><i>Haliaeetus leucogaster</i>                           | V,P        |             | 12                   | 4km NW, 16/10/2019                              |  |  |
|       | Little Eagle<br><i>Hieraaetus morphnoides</i>                                      | V,P        |             | 6                    | 3km SE, 14/9/2008                               |  |  |
|       | Red Knot<br><i>Calidris canutus</i>  | P          | E           | 8                    | 1km E, 9/9/2009                                 |  |  |
|       | Gang-gang Cockatoo<br><i>Callocephalon fimbriatum</i>                              | V,P,3      | E           | 1                    | 3km NW, 3/3/2017                                |  |  |
|       | Little Lorikeet<br><i>Glossopsitta pusilla</i>                                     | V,P        |             | 2                    | 2km N, 21/9/2014                                |  |  |
|       | Swift Parrot<br><i>Lathamus discolor</i>   | E1,P       | CE          | 46                   | 4km NW, 25/8/2016                               |  |  |
|       | Turquoise Parrot<br><i>Neophema pulchella</i>                                      | V,P,3      |             | 1                    | 4km NE, 26/6/2010                               |  |  |
|       | Brown Treecreeper (eastern<br>subspecies)<br><i>Climacteris picumnus victoriae</i> | V,P        |             | 1                    | 3km NE, 4/11/2016                               |  |  |
|       | Powerful Owl<br><i>Ninox strenua</i>   | V,P,3      |             | 6                    | 2km SW, 27/8/2021                               |  |  |
|       | Speckled Warbler<br><i>Chthonicola sagittata</i>                                   | V,P        |             | 2                    | 5km S, 20/2/2006                                |  |  |
|       | Varied Sittella<br><i>Daphoenositta chrysoptera</i>                                | V,P        |             | 3                    | 1km N, 15/12/2001                               |  |  |
|       | Dusky Woodswallow<br><i>Artamus cyanopterus<br/>cyanopterus</i>                    | V,P        |             | 12                   | 3km S, 16/10/2013                               |  |  |
|       | Scarlet Robin<br><i>Petroica boodang</i>   | V,P        |             | 1                    | 5km NW, 19/6/2019                               |  |  |
|       | Diamond Firetail<br><i>Stagonopleura guttata</i>                                   | V,P        |             | 2                    | 5km SE, 1/4/2001                                |  |  |



| MAMMALS    | Common name<br><i>scientific name</i>  | NSW Status | Comm Status | Number of Records | Distance, direction from site<br>Date of record |  |  |
|------------|--|------------|-------------|-------------------|---|--|--|
|            | Koala<br><i>Phascolarctos cinereus</i>   | E1,P       | E           | 1                 | 2km NW, 5/9/2013                                |  |  |
|            | Grey-headed Flying-fox<br><i>Pteropus poliocephalus</i>  | V,P        | V           | 38                | 1km N, 15/12/2001                               |  |  |
|            | Yellow-bellied Sheath-tail-bat<br><i>Saccolaimus flaviventris</i>  | V,P        |             | 2                 | 3km N, 23/3/2016                                |  |  |
|            | Eastern Coastal Free-tailed Bat<br><i>Micronomus norfolkensis</i>  | V,P        |             | 26                | 1km N, 15/12/2001                               |  |  |
|            | Large-eared Pied Bat<br><i>Chalinolobus dwyeri</i>   | V,P        | V           | 5                 | 1km N, 15/12/2001                               |  |  |
|            | Eastern False Pipistrelle<br><i>Falsistrellus tasmaniensis</i>   | V,P        |             | 8                 | 2km E, 1/9/2014                                 |  |  |
|            | Southern Myotis<br><i>Myotis macropus</i>  | V,P        |             | 11                | 2km NE, 23/3/2016                               |  |  |
|            | Greater Broad-nosed Bat<br><i>Scoteanax rueppellii</i>   | V,P        |             | 10                | 1km N 15/12/2001                                |  |  |
|            | Little Bent-winged Bat<br><i>Miniopterus australis</i>   | V,P        |             | 10                | 2km E, 1/9/2014                                 |  |  |
|            | Large Bent-winged Bat<br><i>Miniopterus orianae oceanensis</i>   | V,P        |             | 23                | 1km N, 15/12/2001                               |  |  |
| Gastropoda |  |            |             |                   |   |  |  |
|            | Cumberland Plain Land Snail<br><i>Meridolum corneovirens</i>   | E1         |             | 33                | 1km N 15/12/2001                                |  |  |
| PLANTAE    | Common name<br><i>scientific name</i>  | NSW Status | Comm Status | Number of Records | Distance, direction from site<br>Date of record |  |  |
|            | Marsdenia viridiflora R. Br. subsp. viridiflora population in the Bankstown, Blacktown, Camden, Campbelltown, Fairfield, Holroyd, Liverpool and Penrith local government areas | E2         |             | 7                 | 5km NE, 18/11/2015                              |  |  |

|                 |   |                   |                    |                                    |   |  |  |
|-----------------|---|-------------------|--------------------|------------------------------------|---|--|--|
|                 | <i>Marsdenia viridiflora</i> subsp.<br><i>viridiflora</i> |                   |                    |                                    |   |  |  |
|                 | Matted Bush-pea<br><i>Pultenaea pedunculata</i>           | E1                |                    | 2                                  | 5km N, 11/6/2021  |  |  |
|                 | Camden White Gum<br><i>Eucalyptus benthamii</i>           | V                 | V                  | 223                                | 1km NW, 1/10/2015   |  |  |
|                 | Brown Pomaderris<br><i>Pomaderris brunnea</i>             | E1                | V                  | 27                                 | 2km E, 18/4/2000  |  |  |
|                 | Spiked Rice-flower<br><i>Pimelea spicata</i>              | E1                | E                  | 772                                | 4km NE, 30/7/2003   |  |  |
| <b>AMPHIBIA</b> | <b>Common name</b><br><b>scientific name</b>              | <b>NSW Status</b> | <b>Comm Status</b> | <b>Number of</b><br><b>Records</b> | <b>Distance, direction from site</b><br><b>Date of record</b> |  |  |
|                 |   |                   |                    |                                    |   |  |  |
| <b>REPTALIA</b> | <b>Common name</b><br><b>scientific name</b>              | <b>NSW Status</b> | <b>Comm Status</b> | <b>Number of</b><br><b>Records</b> | <b>Distance, direction from site</b><br><b>Date of record</b> |  |  |
|                 |   |                   |                    |                                    |   |  |  |

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**APPENDIX 6: HIGH VOLUME DUST MONITORING 2022**



**Harvest Scientific Services**  
Environmental and Earth Science Consultants

# **TSP, PM10 and PM2.5 Dust Monitoring Report**

## **Spring Farm Sand and Soil Quarry**

**214 Macarthur Road, SPRING FARM**

**Prepared for:**

**M Collins and Sons Holdings Pty Ltd**

**Job reference: 201590**

**29<sup>th</sup> September 2022**

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Tel: 02 4647 6177 • Mobile: 0408 677 709



# Revisions register

| Date      | Details                           |
|-----------|-----------------------------------|
| 29/9/2022 | Final report after client review. |
|           |                                   |
|           |                                   |
|           |                                   |
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| 5.0 | RESULTS.....                        | 2 |
| 6.0 | CONCLUSIONS .....                   | 3 |
| 7.0 | LIMITATIONS OF THIS REPORT .....    | 4 |

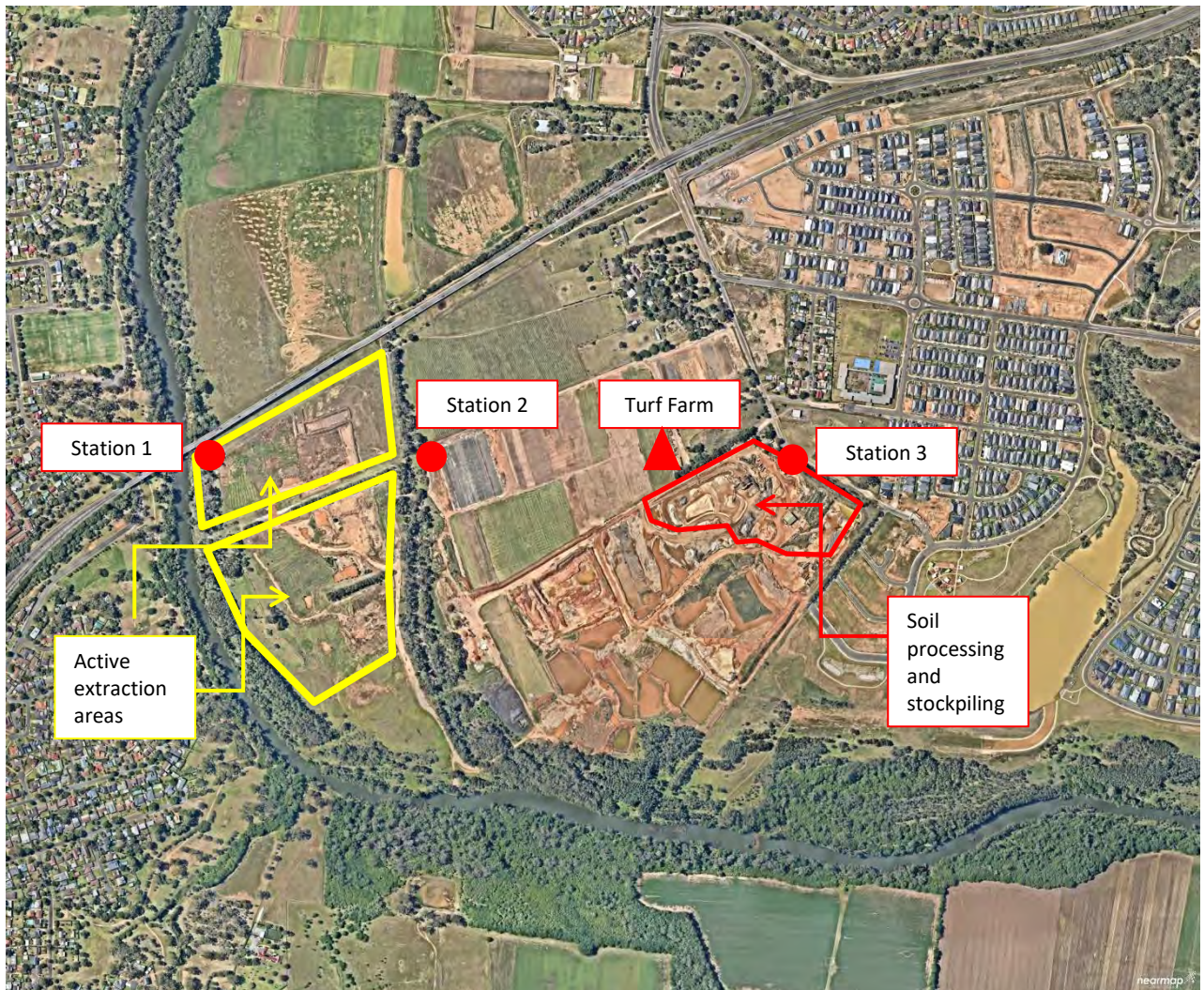
APPENDIX 1: LABORATORY DUST RESULTS  
APPENDIX 2: LABORATORY QUALITY CONTROL

## 1.0 INTRODUCTION

M Collins and Sons Holdings Pty Ltd operate a sand and soil extraction and processing operation at Spring Farm. Under the existing approval, the Company is required to carry out routine dust monitoring as well as 24 hour Total Suspended Particle (TSP) and Fine Particulate (PM 10 and PM 2.5) monitoring on an irregular basis.

The following report describes the sampling results undertaken during August/September 2022 at the Turf Farm Station – see Figure 1 for sampling locations.

## 2.0 SITE AND MONITORING LOCATIONS



**Figure 1:** Aerial photograph of the Spring Farm extraction site and location of monthly dust monitoring points ● (May 2021) and the High Volume sampling site ▲.

## 3.0 LICENCE REQUIREMENTS

Under the Licence conditions for the site the following air quality targets apply:

1. Daily PM 10: 50  $\mu\text{g} / \text{m}^3 / 24 \text{ Hrs}$
2. Daily PM 2.5: 25  $\mu\text{g} / \text{m}^3 / 24 \text{ Hrs}$
3. Daily TSP: 90  $\mu\text{g} / \text{m}^3 / 24 \text{ Hrs}$

#### 4.0 GUIDELINES

This report has been prepared for submission to the NSW EPA with reference to 'Approved Methods for the Sampling and Analysis of Air Pollutants in NSW' (NSW EPA, 2006).

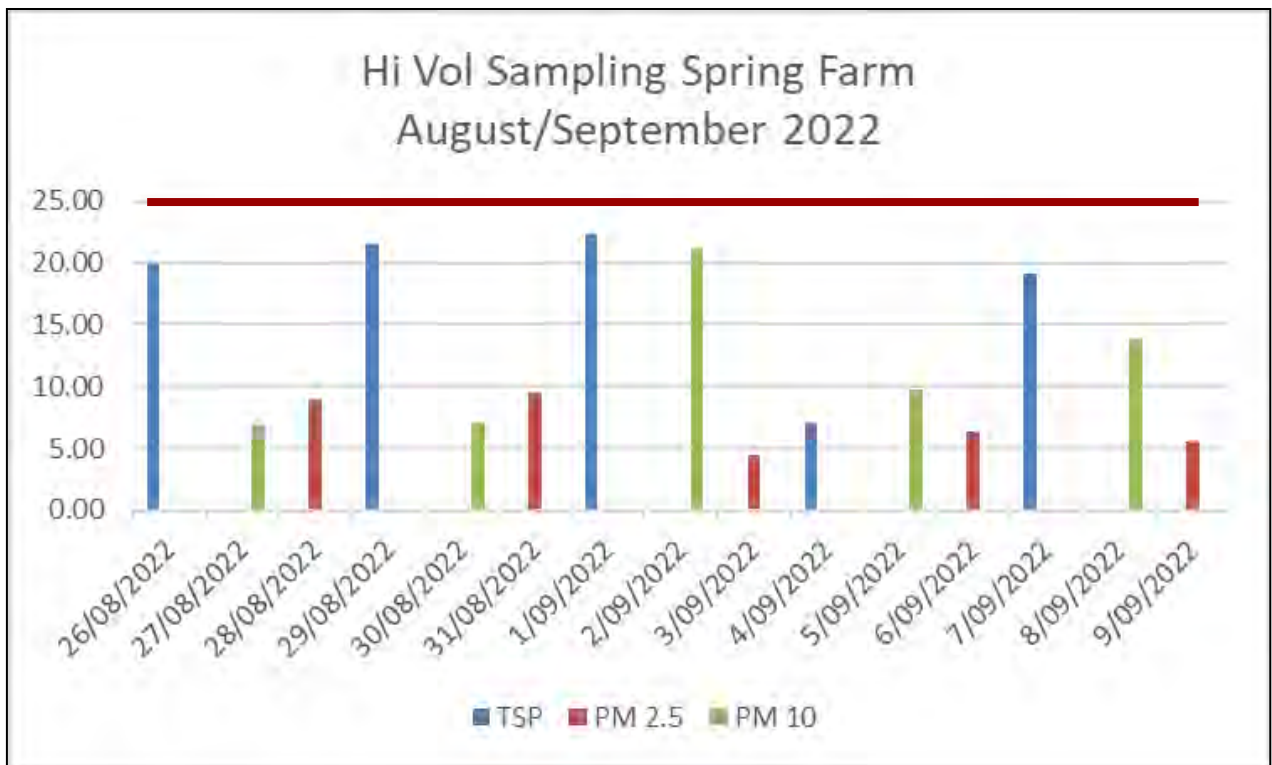
#### 5.0 RESULTS

All TSP and PM 2.5 and PM 10 results recorded no exceedance of the target levels - see Table 1 below. Laboratory results are attached as Appendices 1 and 2.

**Table 1:** Summary of TSP, PM2.5 and PM10

| DATE COLLECTED | STATION 1 |       | TURF FARM |        |       | STATION 3 |       | SAMPLE ID | NOTES         |
|----------------|-----------|-------|-----------|--------|-------|-----------|-------|-----------|---------------|
|                | TSP       | PM 10 | TSP       | PM 2.5 | PM 10 | TSP       | PM 10 |           |               |
| 26/08/2022     |           |       | 20.00     |        |       |           |       | 9885568   | No Exceedance |
| 27/08/2022     |           |       |           |        | 6.90  |           |       | 9885569   | No Exceedance |
| 28/08/2022     |           |       |           | 9.00   |       |           |       | 9885570   | No Exceedance |
| 29/08/2022     |           |       | 21.60     |        |       |           |       | 9885571   | No Exceedance |
| 30/08/2022     |           |       |           |        | 7.10  |           |       | 9885572   | No Exceedance |
| 31/08/2022     |           |       |           | 9.50   |       |           |       | 9885573   | No Exceedance |
| 1/09/2022      |           |       | 22.40     |        |       |           |       | 9885574   | No Exceedance |
| 2/09/2022      |           |       |           |        | 21.20 |           |       | 9885575   | No Exceedance |
| 3/09/2022      |           |       |           | 4.50   |       |           |       | 9885576   | No Exceedance |
| 4/09/2022      |           |       | 7.00      |        |       |           |       | 9885577   | No Exceedance |
| 5/09/2022      |           |       |           |        | 9.80  |           |       | 9885578   | No Exceedance |
| 6/09/2022      |           |       |           | 6.40   |       |           |       | 9885579   | No Exceedance |
| 7/09/2022      |           |       | 19.20     |        |       |           |       | 9885580   | No Exceedance |
| 8/09/2022      |           |       |           |        | 13.80 |           |       | 9885581   | No Exceedance |
| 9/09/2022      |           |       |           | 5.50   |       |           |       | 9885582   | No Exceedance |

A graphical presentation of the data is given in Figure 2.



**Figure 2:** Graphical presentation of data for TSP, PM 2.5 and PM 10. The air quality target for PM 2.5 is indicated as a red horizontal line. Horizontal line targets for PM 10 and TSP are not plotted as they lie outside the vertical scale. The air quality targets for all test results did not exceed licence criteria.



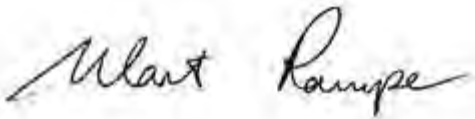
For reference, PM2.5, PM10 and TSP data recorded by Department of Environment and Climate Change at their Camden Station can be seen at the following link - <https://www.dpie.nsw.gov.au/air-quality/search-for-and-download-air-quality-data>.

## 6.0 CONCLUSIONS

The testing period was conducted during the summer season with mild to warm weather conditions being experienced.

Notwithstanding the weather conditions during the monitoring period, there were no exceedances of TSP, PM 2.5 and PM 10 data.

Prepared by:

A handwritten signature in black ink that reads "Mart Rampe". The signature is written in a cursive style with a large initial 'M' and 'R'.

Mart Rampe BSc(Applied Geology)  
Principal

29<sup>th</sup> September, 2022

---

## 7.0 LIMITATIONS OF THIS REPORT

This report has been prepared subject to a number of limitations. These include:

- The application of conditions of approval or impacts of unanticipated future events could modify the outcomes described in this document. In particular, the occurrence of earthquakes of any magnitude, extreme rainfall events or the effects of climate change have not been considered but should they occur, may have a significant impact on the site. The client agrees that such events are possible but nevertheless accepts the risk that they pose;
- The findings contained in this report are the result of discrete/specific methodologies used in accordance with normal practices and standards. To the best of our knowledge, they represent a reasonable interpretation of the general condition of the site in question. Under no circumstances, however, can it be considered that these findings represent the actual state of the site/sites at all points;
- In preparing this report, Harvest Scientific Services relied upon certain information and documentation provided by the client and/or third parties. Harvest Scientific Services not attempt to independently verify the accuracy or completeness of that information. To the extent that the conclusions and recommendations in this report are based in whole or in part on such information, they are contingent on its validity. Harvest Scientific Services assume no responsibility for any consequences arising from any information or condition that was concealed, withheld, misrepresented, or otherwise not fully disclosed or available to Harvest Scientific Services; and
- This report is not to be relied upon for any purpose other than that defined in this report.

**APPENDIX 1: LABORATORY DUST RESULTS**

## CERTIFICATE OF ANALYSIS

**Work Order** : **EN2208595**  
**Client** : **HARVEST GROUP SERVICES PTY LTD**  
**Contact** : MR MART RAMPE  
**Address** : PO BOX 427  
                   NARELLAN NSW, AUSTRALIA 2567  
**Telephone** : +61 46476177  
**Project** : COLLINS SPRING FARM  
**Order number** : HIVOL2019  
**C-O-C number** : ----  
**Sampler** : WAYNE HAWLEY  
**Site** : ----  
**Quote number** : EN/222  
**No. of samples received** : 3  
**No. of samples analysed** : 3

**Page** : 1 of 2  
**Laboratory** : Environmental Division Newcastle  
**Contact** :  
**Address** : 5/585 Maitland Road Mayfield West NSW Australia 2304  
  
**Telephone** : +61 2 4014 2500  
**Date Samples Received** : 02-Sep-2022 12:31  
**Date Analysis Commenced** : 08-Sep-2022  
**Issue Date** : 09-Sep-2022 14:51



This report supersedes any previous report(s) with this reference. Results apply to the sample(s) as submitted, unless the sampling was conducted by ALS. This document shall not be reproduced, except in full.

This Certificate of Analysis contains the following information:

- General Comments
- Analytical Results

**Additional information pertinent to this report will be found in the following separate attachments: Quality Control Report, QA/QC Compliance Assessment to assist with Quality Review and Sample Receipt Notification.**

### Signatories

This document has been electronically signed by the authorized signatories below. Electronic signing is carried out in compliance with procedures specified in 21 CFR Part 11.

| <i>Signatories</i> | <i>Position</i>       | <i>Accreditation Category</i>              |
|--------------------|-----------------------|--|
| Thomas Regan       | Laboratory Technician | Newcastle - Inorganics, Mayfield West, NSW |



## CERTIFICATE OF ANALYSIS

**Work Order** : **EN2208596**  
**Client** : **HARVEST GROUP SERVICES PTY LTD**  
**Contact** : MR MART RAMPE  
**Address** : PO BOX 427  
                   NARELLAN NSW, AUSTRALIA 2567  
**Telephone** : +61 46476177  
**Project** : COLLINS SPRING FARM  
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| <i>Signatories</i> | <i>Position</i>       | <i>Accreditation Category</i>              |
|--------------------|-----------------------|--|
| Thomas Regan       | Laboratory Technician | Newcastle - Inorganics, Mayfield West, NSW |



## General Comments

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Where moisture determination has been performed, results are reported on a dry weight basis.

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 ^ = This result is computed from individual analyte detections at or above the level of reporting  
 ø = ALS is not NATA accredited for these tests.  
 ~ = Indicates an estimated value.

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- NATA accreditation is not held for results reported in  $\mu\text{g}/\text{m}^3$ . Concentration in  $\mu\text{g}/\text{m}^3$  is calculated from air volume data provided by the client.

## Analytical Results

Sub-Matrix: HIGH VOLUME AIR FILTER  
 (Matrix: AIR)

Sample ID

|   |            |     |                          | 9885570           | 9885573           | ----  | ----  | ----  |
|---|------------|-----|--------------------------|-------------------|-------------------|-------|-------|-------|
|   |            |     |                          | 9885570           | 9885573           |       |       |       |
|   |            |     |                          | 28-Aug-2022 07:50 | 31-Aug-2022 08:30 | ----  | ----  | ----  |
| Compound                                  | CAS Number | LOR | Unit                     | EN2208596-001     | EN2208596-002     | ----- | ----- | ----- |
|   |            |     |                          | Result            | Result            | ----  | ----  | ----  |
| <b>EA143: Particulates in Air - HVAFs</b> |            |     |                          |                   |                   |       |       |       |
| ø PM2.5                                   | ----       | 0.1 | $\mu\text{g}/\text{m}^3$ | 9.0               | 9.5               | ----  | ----  | ----  |
| PM2.5 (mass per filter)                   | ----       | 0.1 | mg/filter                | 14.7              | 15.5              | ----  | ----  | ----  |

## CERTIFICATE OF ANALYSIS

**Work Order** : **EN2208597**  
**Client** : **HARVEST GROUP SERVICES PTY LTD**  
**Contact** : MR MART RAMPE  
**Address** : PO BOX 427  
                   NARELLAN NSW, AUSTRALIA 2567  
**Telephone** : +61 46476177  
**Project** : COLLINS SPRING FARM  
**Order number** : HIVOL2019  
**C-O-C number** : ----  
**Sampler** : WAYNE HAWLEY  
**Site** : ----  
**Quote number** : EN/222  
**No. of samples received** : 2  
**No. of samples analysed** : 2

**Page** : 1 of 2  
**Laboratory** : Environmental Division Newcastle  
**Contact** :  
**Address** : 5/585 Maitland Road Mayfield West NSW Australia 2304  
  
**Telephone** : +61 2 4014 2500  
**Date Samples Received** : 02-Sep-2022 12:31  
**Date Analysis Commenced** : 08-Sep-2022  
**Issue Date** : 09-Sep-2022 14:51



This report supersedes any previous report(s) with this reference. Results apply to the sample(s) as submitted, unless the sampling was conducted by ALS. This document shall not be reproduced, except in full.

This Certificate of Analysis contains the following information:

- General Comments
- Analytical Results

**Additional information pertinent to this report will be found in the following separate attachments: Quality Control Report, QA/QC Compliance Assessment to assist with Quality Review and Sample Receipt Notification.**

### Signatories

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| <i>Signatories</i> | <i>Position</i>       | <i>Accreditation Category</i>              |
|--------------------|-----------------------|--|
| Thomas Regan       | Laboratory Technician | Newcastle - Inorganics, Mayfield West, NSW |



## General Comments

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## Analytical Results

Sub-Matrix: HIGH VOLUME AIR FILTER  
 (Matrix: AIR)

Sample ID

|   |            |     |                          | 9885569           | 9885572           | ----  | ----  | ----  |
|---|------------|-----|--------------------------|-------------------|-------------------|-------|-------|-------|
|   |            |     |                          | 9885569           | 9885572           |       |       |       |
|   |            |     |                          | 27-Aug-2022 00:00 | 30-Aug-2022 00:00 | ----  | ----  | ----  |
| Compound                                  | CAS Number | LOR | Unit                     | EN2208597-001     | EN2208597-002     | ----- | ----- | ----- |
|   |            |     |                          | Result            | Result            | ----  | ----  | ----  |
| <b>EA143: Particulates in Air - HVAFs</b> |            |     |                          |                   |                   |       |       |       |
| ø PM10                                    | ----       | 0.1 | $\mu\text{g}/\text{m}^3$ | 6.9               | 7.1               | ----  | ----  | ----  |
| PM10 (mass per filter)                    | ----       | 0.1 | mg/filter                | 11.2              | 11.5              | ----  | ----  | ----  |



## CERTIFICATE OF ANALYSIS

**Work Order** : **EN2208898**  
**Client** : **HARVEST GROUP SERVICES PTY LTD**  
**Contact** : MR MART RAMPE  
**Address** : PO BOX 427  
                   NARELLAN NSW, AUSTRALIA 2567  
**Telephone** : +61 46476177  
**Project** : COLLINS SPRING FARM  
**Order number** : HIVOL2019  
**C-O-C number** : ----  
**Sampler** : WAYNE HAWLEY  
**Site** : ----  
**Quote number** : EN/222  
**No. of samples received** : 2  
**No. of samples analysed** : 2

**Page** : 1 of 2  
**Laboratory** : Environmental Division Newcastle  
**Contact** :  
**Address** : 5/585 Maitland Road Mayfield West NSW Australia 2304  
  
**Telephone** : +61 2 4014 2500  
**Date Samples Received** : 12-Sep-2022 08:45  
**Date Analysis Commenced** : 16-Sep-2022  
**Issue Date** : 19-Sep-2022 13:52



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This Certificate of Analysis contains the following information:

- General Comments
- Analytical Results

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|--------------------|-----------------------|--|
| Thomas Regan       | Laboratory Technician | Newcastle - Inorganics, Mayfield West, NSW |



## General Comments

The analytical procedures used by ALS have been developed from established internationally recognised procedures such as those published by the USEPA, APHA, AS and NEPM. In house developed procedures are fully validated and are often at the client request.

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 LOR = Limit of reporting  
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 ~ = Indicates an estimated value.

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## Analytical Results

Sub-Matrix: HIGH VOLUME AIR FILTER  
 (Matrix: AIR)

Sample ID

|  |            |     |                          | 9885577           | 9885580           | ----  | ----  | ----  |
|--|------------|-----|--------------------------|-------------------|-------------------|-------|-------|-------|
|  |            |     |                          | 9885577           | 9885580           |       |       |       |
|  |            |     |                          | 04-Sep-2022 00:00 | 07-Sep-2022 00:00 | ----  | ----  | ----  |
| Compound                                       | CAS Number | LOR | Unit                     | EN2208898-001     | EN2208898-002     | ----- | ----- | ----- |
|  |            |     |                          | Result            | Result            | ----  | ----  | ----  |
| <b>EA143: Particulates in Air - HVAFs</b>      |            |     |                          |                   |                   |       |       |       |
| ø Total Suspended Particulates                 | ----       | 0.1 | $\mu\text{g}/\text{m}^3$ | 7.0               | 19.2              | ----  | ----  | ----  |
| Total Suspended Particulates (mass per filter) | ----       | 0.1 | mg/filter                | 13.1              | 36.0              | ----  | ----  | ----  |

## CERTIFICATE OF ANALYSIS

**Work Order** : **EN2208899**  
**Client** : **HARVEST GROUP SERVICES PTY LTD**  
**Contact** : MR MART RAMPE  
**Address** : PO BOX 427  
                   NARELLAN NSW, AUSTRALIA 2567  
**Telephone** : +61 46476177  
**Project** : COLLINS SPRING FARM  
**Order number** : HIVOL2019  
**C-O-C number** : ----  
**Sampler** : WAYNE HAWLEY  
**Site** : ----  
**Quote number** : EN/222  
**No. of samples received** : 3  
**No. of samples analysed** : 3

**Page** : 1 of 2  
**Laboratory** : Environmental Division Newcastle  
**Contact** :  
**Address** : 5/585 Maitland Road Mayfield West NSW Australia 2304  
  
**Telephone** : +61 2 4014 2500  
**Date Samples Received** : 12-Sep-2022 08:45  
**Date Analysis Commenced** : 16-Sep-2022  
**Issue Date** : 19-Sep-2022 13:52



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- Analytical Results

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|--------------------|-----------------------|--|
| Thomas Regan       | Laboratory Technician | Newcastle - Inorganics, Mayfield West, NSW |



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## Analytical Results

Sub-Matrix: HIGH VOLUME AIR FILTER  
 (Matrix: AIR)

Sample ID

|   |            |     |                          | 9885575           | 9885578           | 9885581           | ----  | ----  |
|---|------------|-----|--------------------------|-------------------|-------------------|-------------------|-------|-------|
|   |            |     |                          | 9885575           | 9885578           | 9885581           |       |       |
| Sampling date / time                      |            |     |                          | 02-Sep-2022 00:00 | 05-Sep-2022 00:00 | 08-Sep-2022 00:00 | ----  | ----  |
| Compound                                  | CAS Number | LOR | Unit                     | EN2208899-001     | EN2208899-002     | EN2208899-003     | ----- | ----- |
|   |            |     |                          | Result            | Result            | Result            | ----  | ----  |
| <b>EA143: Particulates in Air - HVAFs</b> |            |     |                          |                   |                   |                   |       |       |
| ø PM10                                    | ----       | 0.1 | $\mu\text{g}/\text{m}^3$ | 21.2              | 9.8               | 13.8              | ----  | ----  |
| PM10 (mass per filter)                    | ----       | 0.1 | mg/filter                | 34.5              | 15.9              | 22.4              | ----  | ----  |



## CERTIFICATE OF ANALYSIS

**Work Order** : **EN2208900**  
**Client** : **HARVEST GROUP SERVICES PTY LTD**  
**Contact** : MR MART RAMPE  
**Address** : PO BOX 427  
                   NARELLAN NSW, AUSTRALIA 2567  
**Telephone** : +61 46476177  
**Project** : COLLINS SPRING FARM  
**Order number** : HIVOL2019  
**C-O-C number** : ----  
**Sampler** : WAYNE HAWLEY  
**Site** : ----  
**Quote number** : EN/222  
**No. of samples received** : 3  
**No. of samples analysed** : 3

**Page** : 1 of 2  
**Laboratory** : Environmental Division Newcastle  
**Contact** :  
**Address** : 5/585 Maitland Road Mayfield West NSW Australia 2304  
  
**Telephone** : +61 2 4014 2500  
**Date Samples Received** : 12-Sep-2022 08:45  
**Date Analysis Commenced** : 16-Sep-2022  
**Issue Date** : 19-Sep-2022 13:52



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- Analytical Results

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|--------------------|-----------------------|--|
| Thomas Regan       | Laboratory Technician | Newcastle - Inorganics, Mayfield West, NSW |



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- No atmospheric corrections were used in the calculation of the  $\mu\text{g}/\text{m}^3$  results.
- NATA accreditation is not held for results reported in  $\mu\text{g}/\text{m}^3$ . Concentration in  $\mu\text{g}/\text{m}^3$  is calculated from air volume data provided by the client.

## Analytical Results

Sub-Matrix: HIGH VOLUME AIR FILTER  
 (Matrix: AIR)

Sample ID

|   |            |     |                          | 9885576           | 9885579           | 9885582           | ----  | ----  |
|---|------------|-----|--------------------------|-------------------|-------------------|-------------------|-------|-------|
|   |            |     |                          | 9885576           | 9885579           | 9885582           |       |       |
| Sampling date / time                      |            |     |                          | 03-Sep-2022 00:00 | 06-Sep-2022 00:00 | 09-Sep-2022 00:00 | ----  | ----  |
| Compound                                  | CAS Number | LOR | Unit                     | EN2208900-001     | EN2208900-002     | EN2208900-003     | ----- | ----- |
|   |            |     |                          | Result            | Result            | Result            | ----  | ----  |
| <b>EA143: Particulates in Air - HVAFs</b> |            |     |                          |                   |                   |                   |       |       |
| ø PM2.5                                   | ----       | 0.1 | $\mu\text{g}/\text{m}^3$ | 4.5               | 6.4               | 5.5               | ----  | ----  |
| PM2.5 (mass per filter)                   | ----       | 0.1 | mg/filter                | 7.3               | 10.4              | 9.0               | ----  | ----  |



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## Analytical Results

| Sub-Matrix: AIR<br>(Matrix: AIR)               |            | Sample ID            |                          | 9885568       | 9885571       | 9885574       | ----  | ----  |
|--|------------|----------------------|--------------------------|---------------|---------------|---------------|-------|-------|
|  |            | Sampling date / time |                          | 9885568       | 9885571       | 9885574       | ----  | ----  |
| Compound                                       | CAS Number | LOR                  | Unit                     | EN2208595-001 | EN2208595-002 | EN2208595-003 | ----- | ----- |
|  |            |                      |                          | Result        | Result        | Result        | ----  | ----  |
| <b>EA143: Particulates in Air - HVAFs</b>      |            |                      |                          |               |               |               |       |       |
| ø Total Suspended Particulates                 | ----       | 0.1                  | $\mu\text{g}/\text{m}^3$ | 20.0          | 21.6          | 22.4          | ----  | ----  |
| Total Suspended Particulates (mass per filter) | ----       | 0.1                  | mg/filter                | 37.5          | 40.5          | 42.0          | ----  | ----  |

**APPENDIX 2: LABORATORY QUALITY CONTROL**



## QUALITY CONTROL REPORT

|                         |  |                         |  |
|-------------------------|--|-------------------------|--|
| <b>Work Order</b>       | : <b>EN2208595</b>                           | Page                    | : 1 of 3   |
| Client                  | : <b>HARVEST GROUP SERVICES PTY LTD</b>      | Laboratory              | : Environmental Division Newcastle                     |
| Contact                 | : MR MART RAMPE                              | Contact                 | :  |
| Address                 | : PO BOX 427<br>NARELLAN NSW, AUSTRALIA 2567 | Address                 | : 5/585 Maitland Road Mayfield West NSW Australia 2304 |
| Telephone               | : +61 46476177                               | Telephone               | : +61 2 4014 2500                                      |
| Project                 | : COLLINS SPRING FARM                        | Date Samples Received   | : 02-Sep-2022  |
| Order number            | : HIVOL2019                                  | Date Analysis Commenced | : 08-Sep-2022  |
| C-O-C number            | : ----                                       | Issue Date              | : 09-Sep-2022  |
| Sampler                 | : WAYNE HAWLEY                               |                         |  |
| Site                    | : ----                                       |                         |  |
| Quote number            | : EN/222                                     |                         |  |
| No. of samples received | : 3  |                         |  |
| No. of samples analysed | : 3  |                         |  |



This report supersedes any previous report(s) with this reference. Results apply to the sample(s) as submitted, unless the sampling was conducted by ALS. This document shall not be reproduced, except in full.

This Quality Control Report contains the following information:

- Laboratory Duplicate (DUP) Report; Relative Percentage Difference (RPD) and Acceptance Limits
- Method Blank (MB) and Laboratory Control Spike (LCS) Report; Recovery and Acceptance Limits
- Matrix Spike (MS) Report; Recovery and Acceptance Limits

### *Signatories*

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| <i>Signatories</i> | <i>Position</i>       | <i>Accreditation Category</i>              |
|--------------------|-----------------------|--|
| Thomas Regan       | Laboratory Technician | Newcastle - Inorganics, Mayfield West, NSW |

## QA/QC Compliance Assessment to assist with Quality Review

|              |                                  |                         |                                    |
|--------------|----------------------------------|-------------------------|------------------------------------|
| Work Order   | : EN2208595                      | Page                    | : 1 of 4                           |
| Client       | : HARVEST GROUP SERVICES PTY LTD | Laboratory              | : Environmental Division Newcastle |
| Contact      | : MR MART RAMPE                  | Telephone               | : +61 2 4014 2500                  |
| Project      | : COLLINS SPRING FARM            | Date Samples Received   | : 02-Sep-2022                      |
| Site         | : ----                           | Issue Date              | : 09-Sep-2022                      |
| Sampler      | : WAYNE HAWLEY                   | No. of samples received | : 3                                |
| Order number | : HIVOL2019                      | No. of samples analysed | : 3                                |

This report is automatically generated by the ALS LIMS through interpretation of the ALS Quality Control Report and several Quality Assurance parameters measured by ALS. This automated reporting highlights any non-conformances, facilitates faster and more accurate data validation and is designed to assist internal expert and external Auditor review. Many components of this report contribute to the overall DQO assessment and reporting for guideline compliance.

Brief method summaries and references are also provided to assist in traceability.

### Summary of Outliers

#### Outliers : Quality Control Samples

This report highlights outliers flagged in the Quality Control (QC) Report.

- **NO Method Blank value outliers occur.**
- **NO Duplicate outliers occur.**
- **NO Laboratory Control outliers occur.**
- **NO Matrix Spike outliers occur.**
- **For all regular sample matrices, NO surrogate recovery outliers occur.**

#### Outliers : Analysis Holding Time Compliance

- **NO Analysis Holding Time Outliers exist.**

#### Outliers : Frequency of Quality Control Samples

- **NO Quality Control Sample Frequency Outliers exist.**



## Analysis Holding Time Compliance

If samples are identified below as having been analysed or extracted outside of recommended holding times, this should be taken into consideration when interpreting results.

This report summarizes extraction / preparation and analysis times and compares each with ALS recommended holding times (referencing USEPA SW 846, APHA, AS and NEPM) based on the sample container provided. Dates reported represent first date of extraction or analysis and preclude subsequent dilutions and reruns. A listing of breaches (if any) is provided herein.

Holding time for leachate methods (e.g. TCLP) vary according to the analytes reported. Assessment compares the leach date with the shortest analyte holding time for the equivalent soil method. These are: organics 14 days, mercury 28 days & other metals 180 days. A recorded breach does not guarantee a breach for all non-volatile parameters.

Holding times for VOC in soils vary according to analytes of interest. Vinyl Chloride and Styrene holding time is 7 days; others 14 days. A recorded breach does not guarantee a breach for all VOC analytes and should be verified in case the reported breach is a false positive or Vinyl Chloride and Styrene are not key analytes of interest/concern.

Matrix: AIR

Evaluation: \* = Holding time breach ; ✓ = Within holding time.

| Method<br>Container / Client Sample ID(s)                         | Sample Date        | Extraction / Preparation |                    |            | Analysis           |                  |            |
|---|--------------------|--------------------------|--------------------|------------|--------------------|------------------|------------|
|   |                    | Date extracted           | Due for extraction | Evaluation | Date analysed      | Due for analysis | Evaluation |
| <b>EA143: Particulates in Air - HVAFs</b>                         |                    |                          |                    |            |                    |                  |            |
| <b>High Volume Sampler Filter (EA143-MF)</b><br>9885574 - 9885574 | <b>01-Sep-2022</b> | ----                     | ----               | ----       | <b>08-Sep-2022</b> | 21-Sep-2022      | ✓          |
| <b>High Volume Sampler Filter (EA143-MF)</b><br>9885568 - 9885568 | <b>26-Aug-2022</b> | ----                     | ----               | ----       | <b>08-Sep-2022</b> | 15-Sep-2022      | ✓          |
| <b>High Volume Sampler Filter (EA143-MF)</b><br>9885571 - 9885571 | <b>29-Aug-2022</b> | ----                     | ----               | ----       | <b>08-Sep-2022</b> | 18-Sep-2022      | ✓          |



## ***Quality Control Parameter Frequency Compliance***

- **No Quality Control data available for this section.**
-





## Brief Method Summaries

The analytical procedures used by the Environmental Division have been developed from established internationally recognized procedures such as those published by the US EPA, APHA, AS and NEPM. In house developed procedures are employed in the absence of documented standards or by client request. The following report provides brief descriptions of the analytical procedures employed for results reported in the Certificate of Analysis. Sources from which ALS methods have been developed are provided within the Method Descriptions.

| Analytical Methods                                    | Method     | Matrix | Method Descriptions   |
|---|------------|--------|---|
| Total Suspended Particulates (mass per filter)        | EA143-MF   | AIR    | In house: Referenced to AS 3580.9.3, AS 3580.9.6 and AS 3580.9.14: A gravimetric method for the determination of suspended particulate matter in ambient air from High Volume samplers    |
| Total Suspended Particulates (mass per volume of air) | * EA143-MV | AIR    | In house: Referenced to AS 3580.9.3 and AS 3580.9.6 and AS 3580.9.14: A gravimetric method for the determination of suspended particulate matter in ambient air from High Volume samplers |

## QA/QC Compliance Assessment to assist with Quality Review

|              |                                  |                         |                                    |
|--------------|----------------------------------|-------------------------|------------------------------------|
| Work Order   | : EN2208596                      | Page                    | : 1 of 4                           |
| Client       | : HARVEST GROUP SERVICES PTY LTD | Laboratory              | : Environmental Division Newcastle |
| Contact      | : MR MART RAMPE                  | Telephone               | : +61 2 4014 2500                  |
| Project      | : COLLINS SPRING FARM            | Date Samples Received   | : 02-Sep-2022                      |
| Site         | : ----                           | Issue Date              | : 09-Sep-2022                      |
| Sampler      | : WAYNE HAWLEY                   | No. of samples received | : 2                                |
| Order number | : HIVOL2019                      | No. of samples analysed | : 2                                |

This report is automatically generated by the ALS LIMS through interpretation of the ALS Quality Control Report and several Quality Assurance parameters measured by ALS. This automated reporting highlights any non-conformances, facilitates faster and more accurate data validation and is designed to assist internal expert and external Auditor review. Many components of this report contribute to the overall DQO assessment and reporting for guideline compliance.

Brief method summaries and references are also provided to assist in traceability.

### Summary of Outliers

#### Outliers : Quality Control Samples

This report highlights outliers flagged in the Quality Control (QC) Report.

- **NO Method Blank value outliers occur.**
- **NO Duplicate outliers occur.**
- **NO Laboratory Control outliers occur.**
- **NO Matrix Spike outliers occur.**
- **For all regular sample matrices, NO surrogate recovery outliers occur.**

#### Outliers : Analysis Holding Time Compliance

- **NO Analysis Holding Time Outliers exist.**

#### Outliers : Frequency of Quality Control Samples

- **NO Quality Control Sample Frequency Outliers exist.**



## Analysis Holding Time Compliance

If samples are identified below as having been analysed or extracted outside of recommended holding times, this should be taken into consideration when interpreting results.

This report summarizes extraction / preparation and analysis times and compares each with ALS recommended holding times (referencing USEPA SW 846, APHA, AS and NEPM) based on the sample container provided. Dates reported represent first date of extraction or analysis and preclude subsequent dilutions and reruns. A listing of breaches (if any) is provided herein.

Holding time for leachate methods (e.g. TCLP) vary according to the analytes reported. Assessment compares the leach date with the shortest analyte holding time for the equivalent soil method. These are: organics 14 days, mercury 28 days & other metals 180 days. A recorded breach does not guarantee a breach for all non-volatile parameters.

Holding times for VOC in soils vary according to analytes of interest. Vinyl Chloride and Styrene holding time is 7 days; others 14 days. A recorded breach does not guarantee a breach for all VOC analytes and should be verified in case the reported breach is a false positive or Vinyl Chloride and Styrene are not key analytes of interest/concern.

Matrix: AIR

Evaluation: ✖ = Holding time breach ; ✔ = Within holding time.

| Method<br>Container / Client Sample ID(s)                         | Sample Date        | Extraction / Preparation |                    |            | Analysis           |                  |            |
|---|--------------------|--------------------------|--------------------|------------|--------------------|------------------|------------|
|   |                    | Date extracted           | Due for extraction | Evaluation | Date analysed      | Due for analysis | Evaluation |
| <b>EA143: Particulates in Air - HVAFs</b>                         |                    |                          |                    |            |                    |                  |            |
| <b>High Volume Sampler Filter (EA143-MF)</b><br>9885570 - 9885570 | <b>28-Aug-2022</b> | ----                     | ----               | ----       | <b>08-Sep-2022</b> | 17-Sep-2022      | ✔          |
| <b>High Volume Sampler Filter (EA143-MF)</b><br>9885573 - 9885573 | <b>31-Aug-2022</b> | ----                     | ----               | ----       | <b>08-Sep-2022</b> | 20-Sep-2022      | ✔          |



## ***Quality Control Parameter Frequency Compliance***

- **No Quality Control data available for this section.**
-





## Brief Method Summaries

The analytical procedures used by the Environmental Division have been developed from established internationally recognized procedures such as those published by the US EPA, APHA, AS and NEPM. In house developed procedures are employed in the absence of documented standards or by client request. The following report provides brief descriptions of the analytical procedures employed for results reported in the Certificate of Analysis. Sources from which ALS methods have been developed are provided within the Method Descriptions.

| Analytical Methods                                    | Method     | Matrix | Method Descriptions   |
|---|------------|--------|---|
| Total Suspended Particulates (mass per filter)        | EA143-MF   | AIR    | In house: Referenced to AS 3580.9.3, AS 3580.9.6 and AS 3580.9.14: A gravimetric method for the determination of suspended particulate matter in ambient air from High Volume samplers    |
| Total Suspended Particulates (mass per volume of air) | * EA143-MV | AIR    | In house: Referenced to AS 3580.9.3 and AS 3580.9.6 and AS 3580.9.14: A gravimetric method for the determination of suspended particulate matter in ambient air from High Volume samplers |

## QA/QC Compliance Assessment to assist with Quality Review

|              |                                  |                         |                                    |
|--------------|----------------------------------|-------------------------|------------------------------------|
| Work Order   | : EN2208597                      | Page                    | : 1 of 4                           |
| Client       | : HARVEST GROUP SERVICES PTY LTD | Laboratory              | : Environmental Division Newcastle |
| Contact      | : MR MART RAMPE                  | Telephone               | : +61 2 4014 2500                  |
| Project      | : COLLINS SPRING FARM            | Date Samples Received   | : 02-Sep-2022                      |
| Site         | : ----                           | Issue Date              | : 09-Sep-2022                      |
| Sampler      | : WAYNE HAWLEY                   | No. of samples received | : 2                                |
| Order number | : HIVOL2019                      | No. of samples analysed | : 2                                |

This report is automatically generated by the ALS LIMS through interpretation of the ALS Quality Control Report and several Quality Assurance parameters measured by ALS. This automated reporting highlights any non-conformances, facilitates faster and more accurate data validation and is designed to assist internal expert and external Auditor review. Many components of this report contribute to the overall DQO assessment and reporting for guideline compliance.

Brief method summaries and references are also provided to assist in traceability.

### Summary of Outliers

#### Outliers : Quality Control Samples

This report highlights outliers flagged in the Quality Control (QC) Report.

- **NO Method Blank value outliers occur.**
- **NO Duplicate outliers occur.**
- **NO Laboratory Control outliers occur.**
- **NO Matrix Spike outliers occur.**
- **For all regular sample matrices, NO surrogate recovery outliers occur.**

#### Outliers : Analysis Holding Time Compliance

- **NO Analysis Holding Time Outliers exist.**

#### Outliers : Frequency of Quality Control Samples

- **NO Quality Control Sample Frequency Outliers exist.**



## Analysis Holding Time Compliance

If samples are identified below as having been analysed or extracted outside of recommended holding times, this should be taken into consideration when interpreting results.

This report summarizes extraction / preparation and analysis times and compares each with ALS recommended holding times (referencing USEPA SW 846, APHA, AS and NEPM) based on the sample container provided. Dates reported represent first date of extraction or analysis and preclude subsequent dilutions and reruns. A listing of breaches (if any) is provided herein.

Holding time for leachate methods (e.g. TCLP) vary according to the analytes reported. Assessment compares the leach date with the shortest analyte holding time for the equivalent soil method. These are: organics 14 days, mercury 28 days & other metals 180 days. A recorded breach does not guarantee a breach for all non-volatile parameters.

Holding times for VOC in soils vary according to analytes of interest. Vinyl Chloride and Styrene holding time is 7 days; others 14 days. A recorded breach does not guarantee a breach for all VOC analytes and should be verified in case the reported breach is a false positive or Vinyl Chloride and Styrene are not key analytes of interest/concern.

Matrix: AIR

Evaluation: ✖ = Holding time breach ; ✔ = Within holding time.

| Method<br>Container / Client Sample ID(s)                         | Sample Date        | Extraction / Preparation |                    |            | Analysis           |                  |            |
|---|--------------------|--------------------------|--------------------|------------|--------------------|------------------|------------|
|   |                    | Date extracted           | Due for extraction | Evaluation | Date analysed      | Due for analysis | Evaluation |
| <b>EA143: Particulates in Air - HVAFs</b>                         |                    |                          |                    |            |                    |                  |            |
| <b>High Volume Sampler Filter (EA143-MF)</b><br>9885569 - 9885569 | <b>27-Aug-2022</b> | ----                     | ----               | ----       | <b>08-Sep-2022</b> | 16-Sep-2022      | ✔          |
| <b>High Volume Sampler Filter (EA143-MF)</b><br>9885572 - 9885572 | <b>30-Aug-2022</b> | ----                     | ----               | ----       | <b>08-Sep-2022</b> | 19-Sep-2022      | ✔          |



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## ***Quality Control Parameter Frequency Compliance***

- **No Quality Control data available for this section.**





## Brief Method Summaries

The analytical procedures used by the Environmental Division have been developed from established internationally recognized procedures such as those published by the US EPA, APHA, AS and NEPM. In house developed procedures are employed in the absence of documented standards or by client request. The following report provides brief descriptions of the analytical procedures employed for results reported in the Certificate of Analysis. Sources from which ALS methods have been developed are provided within the Method Descriptions.

| <i>Analytical Methods</i>                             | <i>Method</i> | <i>Matrix</i> | <i>Method Descriptions</i>  |
|---|---------------|---------------|---|
| Total Suspended Particulates (mass per filter)        | EA143-MF      | AIR           | In house: Referenced to AS 3580.9.3, AS 3580.9.6 and AS 3580.9.14: A gravimetric method for the determination of suspended particulate matter in ambient air from High Volume samplers    |
| Total Suspended Particulates (mass per volume of air) | * EA143-MV    | AIR           | In house: Referenced to AS 3580.9.3 and AS 3580.9.6 and AS 3580.9.14: A gravimetric method for the determination of suspended particulate matter in ambient air from High Volume samplers |

## QA/QC Compliance Assessment to assist with Quality Review

|              |                                  |                         |                                    |
|--------------|----------------------------------|-------------------------|------------------------------------|
| Work Order   | : EN2208898                      | Page                    | : 1 of 4                           |
| Client       | : HARVEST GROUP SERVICES PTY LTD | Laboratory              | : Environmental Division Newcastle |
| Contact      | : MR MART RAMPE                  | Telephone               | : +61 2 4014 2500                  |
| Project      | : COLLINS SPRING FARM            | Date Samples Received   | : 12-Sep-2022                      |
| Site         | : ----                           | Issue Date              | : 19-Sep-2022                      |
| Sampler      | : WAYNE HAWLEY                   | No. of samples received | : 2                                |
| Order number | : HIVOL2019                      | No. of samples analysed | : 2                                |

This report is automatically generated by the ALS LIMS through interpretation of the ALS Quality Control Report and several Quality Assurance parameters measured by ALS. This automated reporting highlights any non-conformances, facilitates faster and more accurate data validation and is designed to assist internal expert and external Auditor review. Many components of this report contribute to the overall DQO assessment and reporting for guideline compliance.

Brief method summaries and references are also provided to assist in traceability.

### Summary of Outliers

#### Outliers : Quality Control Samples

This report highlights outliers flagged in the Quality Control (QC) Report.

- **NO Method Blank value outliers occur.**
- **NO Duplicate outliers occur.**
- **NO Laboratory Control outliers occur.**
- **NO Matrix Spike outliers occur.**
- **For all regular sample matrices, NO surrogate recovery outliers occur.**

#### Outliers : Analysis Holding Time Compliance

- **NO Analysis Holding Time Outliers exist.**

#### Outliers : Frequency of Quality Control Samples

- **NO Quality Control Sample Frequency Outliers exist.**



## Analysis Holding Time Compliance

If samples are identified below as having been analysed or extracted outside of recommended holding times, this should be taken into consideration when interpreting results.

This report summarizes extraction / preparation and analysis times and compares each with ALS recommended holding times (referencing USEPA SW 846, APHA, AS and NEPM) based on the sample container provided. Dates reported represent first date of extraction or analysis and preclude subsequent dilutions and reruns. A listing of breaches (if any) is provided herein.

Holding time for leachate methods (e.g. TCLP) vary according to the analytes reported. Assessment compares the leach date with the shortest analyte holding time for the equivalent soil method. These are: organics 14 days, mercury 28 days & other metals 180 days. A recorded breach does not guarantee a breach for all non-volatile parameters.

Holding times for VOC in soils vary according to analytes of interest. Vinyl Chloride and Styrene holding time is 7 days; others 14 days. A recorded breach does not guarantee a breach for all VOC analytes and should be verified in case the reported breach is a false positive or Vinyl Chloride and Styrene are not key analytes of interest/concern.

Matrix: AIR

Evaluation: \* = Holding time breach ; ✓ = Within holding time.

| Method<br>Container / Client Sample ID(s)                         | Sample Date        | Extraction / Preparation |                    |            | Analysis           |                  |            |
|---|--------------------|--------------------------|--------------------|------------|--------------------|------------------|------------|
|   |                    | Date extracted           | Due for extraction | Evaluation | Date analysed      | Due for analysis | Evaluation |
| <b>EA143: Particulates in Air - HVAFs</b>                         |                    |                          |                    |            |                    |                  |            |
| <b>High Volume Sampler Filter (EA143-MF)</b><br>9885577 - 9885577 | <b>04-Sep-2022</b> | ----                     | ----               | ----       | <b>16-Sep-2022</b> | 24-Sep-2022      | ✓          |
| <b>High Volume Sampler Filter (EA143-MF)</b><br>9885580 - 9885580 | <b>07-Sep-2022</b> | ----                     | ----               | ----       | <b>16-Sep-2022</b> | 27-Sep-2022      | ✓          |



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## ***Quality Control Parameter Frequency Compliance***

- **No Quality Control data available for this section.**



## Brief Method Summaries

The analytical procedures used by the Environmental Division have been developed from established internationally recognized procedures such as those published by the US EPA, APHA, AS and NEPM. In house developed procedures are employed in the absence of documented standards or by client request. The following report provides brief descriptions of the analytical procedures employed for results reported in the Certificate of Analysis. Sources from which ALS methods have been developed are provided within the Method Descriptions.

| <i>Analytical Methods</i>                             | <i>Method</i> | <i>Matrix</i> | <i>Method Descriptions</i>  |
|---|---------------|---------------|---|
| Total Suspended Particulates (mass per filter)        | EA143-MF      | AIR           | In house: Referenced to AS 3580.9.3, AS 3580.9.6 and AS 3580.9.14: A gravimetric method for the determination of suspended particulate matter in ambient air from High Volume samplers    |
| Total Suspended Particulates (mass per volume of air) | * EA143-MV    | AIR           | In house: Referenced to AS 3580.9.3 and AS 3580.9.6 and AS 3580.9.14: A gravimetric method for the determination of suspended particulate matter in ambient air from High Volume samplers |



## QA/QC Compliance Assessment to assist with Quality Review

|              |                                  |                         |                                    |
|--------------|----------------------------------|-------------------------|------------------------------------|
| Work Order   | : EN2208899                      | Page                    | : 1 of 4                           |
| Client       | : HARVEST GROUP SERVICES PTY LTD | Laboratory              | : Environmental Division Newcastle |
| Contact      | : MR MART RAMPE                  | Telephone               | : +61 2 4014 2500                  |
| Project      | : COLLINS SPRING FARM            | Date Samples Received   | : 12-Sep-2022                      |
| Site         | : ----                           | Issue Date              | : 19-Sep-2022                      |
| Sampler      | : WAYNE HAWLEY                   | No. of samples received | : 3                                |
| Order number | : HIVOL2019                      | No. of samples analysed | : 3                                |

This report is automatically generated by the ALS LIMS through interpretation of the ALS Quality Control Report and several Quality Assurance parameters measured by ALS. This automated reporting highlights any non-conformances, facilitates faster and more accurate data validation and is designed to assist internal expert and external Auditor review. Many components of this report contribute to the overall DQO assessment and reporting for guideline compliance.

Brief method summaries and references are also provided to assist in traceability.

### Summary of Outliers

#### Outliers : Quality Control Samples

This report highlights outliers flagged in the Quality Control (QC) Report.

- **NO Method Blank value outliers occur.**
- **NO Duplicate outliers occur.**
- **NO Laboratory Control outliers occur.**
- **NO Matrix Spike outliers occur.**
- **For all regular sample matrices, NO surrogate recovery outliers occur.**

#### Outliers : Analysis Holding Time Compliance

- **NO Analysis Holding Time Outliers exist.**

#### Outliers : Frequency of Quality Control Samples

- **NO Quality Control Sample Frequency Outliers exist.**



## Analysis Holding Time Compliance

If samples are identified below as having been analysed or extracted outside of recommended holding times, this should be taken into consideration when interpreting results.

This report summarizes extraction / preparation and analysis times and compares each with ALS recommended holding times (referencing USEPA SW 846, APHA, AS and NEPM) based on the sample container provided. Dates reported represent first date of extraction or analysis and preclude subsequent dilutions and reruns. A listing of breaches (if any) is provided herein.

Holding time for leachate methods (e.g. TCLP) vary according to the analytes reported. Assessment compares the leach date with the shortest analyte holding time for the equivalent soil method. These are: organics 14 days, mercury 28 days & other metals 180 days. A recorded breach does not guarantee a breach for all non-volatile parameters.

Holding times for VOC in soils vary according to analytes of interest. Vinyl Chloride and Styrene holding time is 7 days; others 14 days. A recorded breach does not guarantee a breach for all VOC analytes and should be verified in case the reported breach is a false positive or Vinyl Chloride and Styrene are not key analytes of interest/concern.

Matrix: AIR

Evaluation: \* = Holding time breach ; ✓ = Within holding time.

| Method<br>Container / Client Sample ID(s)                         | Sample Date        | Extraction / Preparation |                    |            | Analysis           |                  |            |
|---|--------------------|--------------------------|--------------------|------------|--------------------|------------------|------------|
|   |                    | Date extracted           | Due for extraction | Evaluation | Date analysed      | Due for analysis | Evaluation |
| <b>EA143: Particulates in Air - HVAFs</b>                         |                    |                          |                    |            |                    |                  |            |
| <b>High Volume Sampler Filter (EA143-MF)</b><br>9885575 - 9885575 | <b>02-Sep-2022</b> | ----                     | ----               | ----       | <b>16-Sep-2022</b> | 22-Sep-2022      | ✓          |
| <b>High Volume Sampler Filter (EA143-MF)</b><br>9885578 - 9885578 | <b>05-Sep-2022</b> | ----                     | ----               | ----       | <b>16-Sep-2022</b> | 25-Sep-2022      | ✓          |
| <b>High Volume Sampler Filter (EA143-MF)</b><br>9885581 - 9885581 | <b>08-Sep-2022</b> | ----                     | ----               | ----       | <b>16-Sep-2022</b> | 28-Sep-2022      | ✓          |



## ***Quality Control Parameter Frequency Compliance***

- **No Quality Control data available for this section.**
-



## Brief Method Summaries

The analytical procedures used by the Environmental Division have been developed from established internationally recognized procedures such as those published by the US EPA, APHA, AS and NEPM. In house developed procedures are employed in the absence of documented standards or by client request. The following report provides brief descriptions of the analytical procedures employed for results reported in the Certificate of Analysis. Sources from which ALS methods have been developed are provided within the Method Descriptions.

| Analytical Methods                                    | Method     | Matrix | Method Descriptions   |
|---|------------|--------|---|
| Total Suspended Particulates (mass per filter)        | EA143-MF   | AIR    | In house: Referenced to AS 3580.9.3, AS 3580.9.6 and AS 3580.9.14: A gravimetric method for the determination of suspended particulate matter in ambient air from High Volume samplers    |
| Total Suspended Particulates (mass per volume of air) | * EA143-MV | AIR    | In house: Referenced to AS 3580.9.3 and AS 3580.9.6 and AS 3580.9.14: A gravimetric method for the determination of suspended particulate matter in ambient air from High Volume samplers |

## QA/QC Compliance Assessment to assist with Quality Review

|              |                                  |                         |                                    |
|--------------|----------------------------------|-------------------------|------------------------------------|
| Work Order   | : EN2208900                      | Page                    | : 1 of 4                           |
| Client       | : HARVEST GROUP SERVICES PTY LTD | Laboratory              | : Environmental Division Newcastle |
| Contact      | : MR MART RAMPE                  | Telephone               | : +61 2 4014 2500                  |
| Project      | : COLLINS SPRING FARM            | Date Samples Received   | : 12-Sep-2022                      |
| Site         | : ----                           | Issue Date              | : 19-Sep-2022                      |
| Sampler      | : WAYNE HAWLEY                   | No. of samples received | : 3                                |
| Order number | : HIVOL2019                      | No. of samples analysed | : 3                                |

This report is automatically generated by the ALS LIMS through interpretation of the ALS Quality Control Report and several Quality Assurance parameters measured by ALS. This automated reporting highlights any non-conformances, facilitates faster and more accurate data validation and is designed to assist internal expert and external Auditor review. Many components of this report contribute to the overall DQO assessment and reporting for guideline compliance.

Brief method summaries and references are also provided to assist in traceability.

### Summary of Outliers

#### Outliers : Quality Control Samples

This report highlights outliers flagged in the Quality Control (QC) Report.

- **NO Method Blank value outliers occur.**
- **NO Duplicate outliers occur.**
- **NO Laboratory Control outliers occur.**
- **NO Matrix Spike outliers occur.**
- **For all regular sample matrices, NO surrogate recovery outliers occur.**

#### Outliers : Analysis Holding Time Compliance

- **NO Analysis Holding Time Outliers exist.**

#### Outliers : Frequency of Quality Control Samples

- **NO Quality Control Sample Frequency Outliers exist.**





## Analysis Holding Time Compliance

If samples are identified below as having been analysed or extracted outside of recommended holding times, this should be taken into consideration when interpreting results.

This report summarizes extraction / preparation and analysis times and compares each with ALS recommended holding times (referencing USEPA SW 846, APHA, AS and NEPM) based on the sample container provided. Dates reported represent first date of extraction or analysis and preclude subsequent dilutions and reruns. A listing of breaches (if any) is provided herein.

Holding time for leachate methods (e.g. TCLP) vary according to the analytes reported. Assessment compares the leach date with the shortest analyte holding time for the equivalent soil method. These are: organics 14 days, mercury 28 days & other metals 180 days. A recorded breach does not guarantee a breach for all non-volatile parameters.

Holding times for VOC in soils vary according to analytes of interest. Vinyl Chloride and Styrene holding time is 7 days; others 14 days. A recorded breach does not guarantee a breach for all VOC analytes and should be verified in case the reported breach is a false positive or Vinyl Chloride and Styrene are not key analytes of interest/concern.

Matrix: AIR

Evaluation: \* = Holding time breach ; ✓ = Within holding time.

| Method<br>Container / Client Sample ID(s)                         | Sample Date        | Extraction / Preparation |                    |            | Analysis           |                  |            |
|---|--------------------|--------------------------|--------------------|------------|--------------------|------------------|------------|
|   |                    | Date extracted           | Due for extraction | Evaluation | Date analysed      | Due for analysis | Evaluation |
| <b>EA143: Particulates in Air - HVAFs</b>                         |                    |                          |                    |            |                    |                  |            |
| <b>High Volume Sampler Filter (EA143-MF)</b><br>9885576 - 9885576 | <b>03-Sep-2022</b> | ----                     | ----               | ----       | <b>16-Sep-2022</b> | 23-Sep-2022      | ✓          |
| <b>High Volume Sampler Filter (EA143-MF)</b><br>9885579 - 9885579 | <b>06-Sep-2022</b> | ----                     | ----               | ----       | <b>16-Sep-2022</b> | 26-Sep-2022      | ✓          |
| <b>High Volume Sampler Filter (EA143-MF)</b><br>9885582 - 9885582 | <b>09-Sep-2022</b> | ----                     | ----               | ----       | <b>16-Sep-2022</b> | 29-Sep-2022      | ✓          |



## ***Quality Control Parameter Frequency Compliance***

- **No Quality Control data available for this section.**
-



## Brief Method Summaries

The analytical procedures used by the Environmental Division have been developed from established internationally recognized procedures such as those published by the US EPA, APHA, AS and NEPM. In house developed procedures are employed in the absence of documented standards or by client request. The following report provides brief descriptions of the analytical procedures employed for results reported in the Certificate of Analysis. Sources from which ALS methods have been developed are provided within the Method Descriptions.

| Analytical Methods                                    | Method     | Matrix | Method Descriptions   |
|---|------------|--------|---|
| Total Suspended Particulates (mass per filter)        | EA143-MF   | AIR    | In house: Referenced to AS 3580.9.3, AS 3580.9.6 and AS 3580.9.14: A gravimetric method for the determination of suspended particulate matter in ambient air from High Volume samplers    |
| Total Suspended Particulates (mass per volume of air) | * EA143-MV | AIR    | In house: Referenced to AS 3580.9.3 and AS 3580.9.6 and AS 3580.9.14: A gravimetric method for the determination of suspended particulate matter in ambient air from High Volume samplers |



## General Comments

The analytical procedures used by ALS have been developed from established internationally recognised procedures such as those published by the USEPA, APHA, AS and NEPM. In house developed procedures are fully validated and are often at the client request.

Where moisture determination has been performed, results are reported on a dry weight basis.

Where a reported less than (<) result is higher than the LOR, this may be due to primary sample extract/digestate dilution and/or insufficient sample for analysis. Where the LOR of a reported result differs from standard LOR, this may be due to high moisture content, insufficient sample (reduced weight employed) or matrix interference.

Key :  
Anonymous = Refers to samples which are not specifically part of this work order but formed part of the QC process lot  
CAS Number = CAS registry number from database maintained by Chemical Abstracts Services. The Chemical Abstracts Service is a division of the American Chemical Society.  
LOR = Limit of reporting  
RPD = Relative Percentage Difference  
# = Indicates failed QC

## Laboratory Duplicate (DUP) Report

The quality control term Laboratory Duplicate refers to a randomly selected intralaboratory split. Laboratory duplicates provide information regarding method precision and sample heterogeneity. The permitted ranges for the Relative Percent Deviation (RPD) of Laboratory Duplicates are specified in ALS Method QWI-EN/38 and are dependent on the magnitude of results in comparison to the level of reporting: Result < 10 times LOR: No Limit; Result between 10 and 20 times LOR: 0% - 50%; Result > 20 times LOR: 0% - 20%.

- **No Laboratory Duplicate (DUP) Results are required to be reported.**



---

### ***Method Blank (MB) and Laboratory Control Sample (LCS) Report***

The quality control term Method / Laboratory Blank refers to an analyte free matrix to which all reagents are added in the same volumes or proportions as used in standard sample preparation. The purpose of this QC parameter is to monitor potential laboratory contamination. The quality control term Laboratory Control Sample (LCS) refers to a certified reference material, or a known interference free matrix spiked with target analytes. The purpose of this QC parameter is to monitor method precision and accuracy independent of sample matrix. Dynamic Recovery Limits are based on statistical evaluation of processed LCS.

- **No Method Blank (MB) or Laboratory Control Spike (LCS) Results are required to be reported.**

### ***Matrix Spike (MS) Report***

The quality control term Matrix Spike (MS) refers to an intralaboratory split sample spiked with a representative set of target analytes. The purpose of this QC parameter is to monitor potential matrix effects on analyte recoveries. Static Recovery Limits as per laboratory Data Quality Objectives (DQOs). Ideal recovery ranges stated may be waived in the event of sample matrix interference.

- **No Matrix Spike (MS) or Matrix Spike Duplicate (MSD) Results are required to be reported.**
-



**APPENDIX 7: NOISE COMPLAINT**



## Environmental Complaints Form 37

|  |   |
|--|---|
| Applicable Site / Address  | Springfarm Quarry, 214 Macarthur Road, Elderslie  |
| Name of person making the complaint                              | Resident of Wattle Street.<br>Complaint made to Camden Council, sent to EPA   |
| Any personal contact details for the person making the complaint | <p><b><u>Incident Created Date</u></b> : 24/06/22 9:21 AM</p> <p><b><u>Incident Details</u></b><br/>Tier Code: NOISE AND VIBRATION,NOISE</p> <p>Description of Incident: Matter referred To EPA by Camden Council: Council has received a complaint from resident of Wattle St Spring Farm regarding noise from scheduled premises, EPL 4093, at Macarthur Road. A fuel-powered water pump is being run 24 hours a day over the last few days, including last night. The noise is disturbing the resident, being particularly intrusive at night..</p> <p><b><u>Incident Address</u></b><br/>214 MACARTHUR ROAD<br/>SPRING FARM New South Wales 2570<br/>LGA: CAMDEN<br/>Address Description: Nil</p> <p><b><u>Involved Party Details</u></b><br/>M COLLINS &amp; SONS HOLDINGS PTY LTD</p> |
| The date and time of the complaint                               | 24/06/22 9:21 AM  |



|  |  |
|--|--|
|  | Received by M.Collins & Sons Holdings Pty Ltd on Monday 27 <sup>th</sup> June 2022 by email from EPA.  |
| (Complaint method) How was the complaint made, in person, phone, in writing etc. | Complaint was made by resident ( person) to Camden Council. Camden Council then advised EPA. Initial complaint method unknown.<br><br>M.Collins & Sons Holdings Pty Ltd receiver method from EPA was email.  |
| What is the nature of the complaint, noise, dust, smell or other                 | Noise and Vibration  |
| What response was given to the complainant                                       | See attached response  |
| What immediate action was taken, detail below dates                              | Upon receiving the complaint M.Collins & Sons Holdings Pty Ltd Management immediately commenced investigation with Collins Construction Materials Pty Limited Management staff. This process commenced on the 27 <sup>th</sup> June at 9.30am.<br><br>Collins Construction Materials Pty Limited Management staff, who operate the site provided feedback to M.Collins & Sons Holdings Pty Ltd Management on the location of the pump ( see attached map), the reason for the pump being utilised, timing of the pump usage. |
| If no action was taken, detail why no action was taken                           | Action and corrective action following investigation is to ensure that the Pump is only operational during operating hours and that supervising personnel onsite check it is properly switched off by COB 5pm every day.   |
| In what area was the incident noticed from                                       | Wattle Street Resident   |

|   |  |                                  |                                     |
|---|--|----------------------------------|-------------------------------------|
| Last Modified/Reviewed: 2 January 2021                                    | Version: 4   | Form # 37                        | Name: Environmental Complaints Form |
| Approved by: Emma Collins   | Effective Date April 2012                                      | <b>PRINTED COPY UNCONTROLLED</b> |                                     |
| © Copyright M Collins & Sons Holdings Pty Limited ABN 28 000 521 871      | © Copyright M Collins & Sons Pty Limited ABN 32 156 646 641    | Page 2 of 4                      |                                     |
| © Copyright M Collins & Sons (Contractors) Pty Limited ABN 89 156 660 267 | © Copyright Collins Sports Turf Pty Limited ABN 63 156 660 598 |                                  |                                     |
| © Copyright Collins Construction Materials Pty Limited ABN 61 156 660 525 | © Copyright MATCOLL Pty Limited ABN 23 079 488 454             |                                  |                                     |





|  |  |
|--|--|
| When was the incident noticed  | 24 <sup>th</sup> June 2022   |
| Date and time of an investigation, record initial findings, (map, photo, etc). | <p>Investigation occurred on 27<sup>th</sup> June 2022.</p> <p>Findings: the Pump which routinely operates during operating hours, was operating in Area 4 (see attached map) for the period of 20-24<sup>th</sup> June 2022. The investigation into the complaint found that due to personnel reasons the pump was not switched on at commencement of operations and was not switched off at completion of the day (operating hours).</p> <ul style="list-style-type: none"> <li>• Map shows X where the pump is positioned.</li> <li>• Map has dotted line showing where the water is pumped, into a settle pond, silt dam.</li> </ul> <p>The corrective action:</p> <ol style="list-style-type: none"> <li>1. Ensure pump is operational only during operating hours.</li> <li>2. Ensure a supervisor checks the pump is switched off at 5pm every day.</li> <li>3. Ensure any new staff are inducted into the above requirement</li> </ol> |
| Was an authority called? And which one?  | Camden Council, EPA.   |

Additional comments and notes:

See additional Response and map notes.

INTERNAL USE

Person filling out this form, Name: David Eckford

Signature: 



Date: 29.6.22 What manager was it reported to?: Emma Collins

Company and Division:

Collins Construction Materials Pty Limited

|   |   |   |  |
|---|---|---|--|
| Last Modified/Reviewed: 2 January 2021                                    | Version: 4  | Form # 37   | Name: Environmental Complaints Form                            |
| Approved by: Emma Collins   |   | Page 3 of 4   |  |
| Effective Date April 2012   |   | PRINTED COPY UNCONTROLLED                                   |  |
| © Copyright M Collins & Sons Holdings Pty Limited ABN 28 000 521 871      | © Copyright M Collins & Sons (Contractors) Pty Limited ABN 89 156 660 267 | © Copyright M Collins & Sons Pty Limited ABN 32 156 646 641 | © Copyright Collins Sports Turf Pty Limited ABN 63 156 660 598 |
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How was it reported: Verbal and email

Date and time the division manager received it: Monday 27<sup>th</sup> June 2022 9.30am

Records to be keep for 4 years

|   |   |  |                                     |
|---|---|--|-------------------------------------|
| Last Modified/Reviewed: 2 January 2021                                    | Version: 4  | Form # 37  | Name: Environmental Complaints Form |
| Approved by: Emma Collins   | Effective Date April 2012                                   |  | Page 4 of 4                         |
| © Copyright M Collins & Sons Holdings Pty Limited ABN 28 000 521 871      |   | <b>PRINTED COPY UNCONTROLLED</b>                               |                                     |
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Google



29.6.22



29.6.22





Collins Construction Materials Pty Limited

ABN: 61 156 660 525

P.O. Box 378, NARELLAN, NSW, 2567

174 HARTLEY ROAD, SMEATON GRANGE, NSW, 2567

Phone: (02) 9774 1544

Website: [www.mcollins.com.au](http://www.mcollins.com.au)

## COLLINS CONSTRUCTION MATERIALS PTY LIMITED

### M.COLLINS & SONS HOLDINGS PTY LIMITED COMPLAINT INVESTIGATION 27<sup>th</sup> June 2022

#### Context:

M.COLLINS & SONS HOLDINGS PTY LIMITED received an email from EPA on Monday 27<sup>th</sup> June 2022 with details of a complaint received by Camden Council from a local resident at Wattle Street.

Details of investigation between Management from M.COLLINS & SONS HOLDINGS PTY LIMITED (owner) and Collins Construction Materials Pty Limited (operator) Management;

A pump was in operating at location Area 4 (as depicted X on attached map). Water was being pumped to the settling dam / silt pond depicted by the dotted line on the attached map. Pumps are routine equipment utilised by the operation.

Findings: This pump was operated outside of normal operating hours was due to personnel reasons. Between the period of 20<sup>th</sup> – 24<sup>th</sup> June 2022 the pump was not switched on at the commencement of operation and not switched off at completion of the operation. The failure is to operate the pump within operating hours.

#### Corrective Action:

1. All personnel responsible for starting up the pump understand pump operation can only occur during operating hours. This should form part of the induction checklists and be a discussion point for staff handovers on a daily basis where necessary.
2. Operating pumps should be checked at COB to ensure they are switched off by 5pm daily or checked that they have completed the running cycle.
3. Staff toolbox meeting to discuss this complaint and corrective actions noting the importance of operating plant and equipment only within operating hours.

A handwritten signature in black ink, appearing to be a stylized 'D' or similar character.

29/6/22

A large, stylized handwritten signature in black ink, possibly reading 'P. Collins'.

29/6/22

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**APPENDIX 8: WATER DISCHARGE ENQUIRY**



**M. Collins & Sons Holdings Pty Ltd**

ABN: 28 000 521 871

P.O. Box 378, NARELLAN, NSW 2567  
174 HARTLEY ROAD, SMEAON GRANGE, NSW, 2567

Phone: (02) 9774 1544

Website: [www.mcollins.com.au](http://www.mcollins.com.au)

Environmental Protection Authority  
Regulatory Operations Metro South  
4 Parramatta Square  
12 Darcy Street,  
Parramatta, NSW, 2150  
15<sup>th</sup> August 2022

Attn: Marc Cooper  
Environmental Protection Authority

RE: SPRINGFARM QUARRY Discharge enquiry - 214 Macarthur Road Spring Farm

Dear Marc,

We write to address your recent enquiry regarding the discharge of water noted by Camden Council from the Springfarm Quarry site on the 29<sup>th</sup> July 2022. Having investigated the matter it is clear that this was run off, caused by a confluence of events on the particular day noted explaining the volume of water.

Over recent months, the site has experienced significant flooding events which has resulted in both natural pooling of water across the site, including along the river bank and large volumes of water which continue to inundate and underlie quarrying/ extraction areas ( seen in figure 1, attached ). The site has experienced near capacity water levels since February 2022.

As a direct result of flood waters inundating the Springfarm Quarry site and run off from neighbouring local sites the site has experienced notable natural water seepage down to the Nepean River due to gravity and the gradient of the lands which eventually results in natural water discharge within riparian lands and the riparians zones adjoining the river. When Springfarm Quarry water channels and dams are full and the system can not hold any more water seepage causing water to leave the site.

Along the river bank, there is signs of erosion at the point of discharge noted by Camden Council and depicted in figure one.

The freshwater dam ( figure one, attached ), is used to pump back into the Springfarm Quarry Operations (in typical years through the use of a Pump on Nepean river). The Water then recycles its way through the water silt dams, weir and settles back into the freshwater dam as depicted in figure one.

Generally, there is a need for Springfarm quarry to access water for its operations. Water is routinely pumped from the Nepean River up into the Springfarm Quarry water system (inbound) and used for sand plant washing purposes. Water then makes its way back through the water system depicted. There



**M. Collins & Sons Holdings Pty Ltd**

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has been no requirement to access water (pump water inbound from the Nepean River) since March 2022 owing the volumes of water onsite within the system.

Explanation of Camden Councils Incident Reported on 29<sup>th</sup> July 2022:

On Thursday 29<sup>th</sup> July 2022, the date of Camden Councils notification to EPA there was a confluence of events. The combination of the natural flow of discharge that continues to occur as water escapes offsite and the filling and subsequent overflowing of water from the Freshwater dam due to the shutdown of Sandplant one at 2pm. The Sand plant accesses water from the freshwater dam back up into the system drawing water which helps to prevent any dam overflow. The Sand plant mechanical records show that the Plant was switched on at 7am when operations commenced and ran for around 7 hours on this day. When the sand plant is switched off, if the water systems is at capacity, it can cause an overflow of the freshwater dam. As water channels are full, the result would have been that at around this time, there was additional water and therefore volume of water escaping would have increased. The gushing noise heard around that time, would have been a combination of the water escaping from where it naturally pools on the riverbanks and potentially water from the system running back to the freshwater dam, over the weir ( on figure one, attached ) as it was no longer being pumped up into the operations.

MCS findings demonstrate that water discharge was run off as a result of the volumes of water onsite and that there was been no pumping or direct discharging water.

We would be happy to discuss or provide further information should you require.

Kind Regards,

Emma Collins  
Collins Construction Materials Pty Limited  
Compliance, Springfarm Quarry



**APPENDIX 9: TRENCH ENQUIRY**

**From:** Emma Collins <ecollins@mcollins.com.au>  
**Sent:** Monday, 26 September 2022 1:27 PM  
**To:** Anna Timbrell  
**Cc:** Chris.Kelly@epa.nsw.gov.au; Matt Collins  
**Subject:** RE: Environment Line report - Digging a channel to the riverbank at Spring Farm

Dear Anna,

We refer to your email dated 23 September,2023 and provide the following response.

There is no trench that has been excavated at Spring Farm Quarry that connects to the Nepean River.

We have no knowledge of what might have given rise to the report and request on 21 September 2022.

*Regards,*

*Emma Collins*



**COLLINS GROUP**

*1/49 Smeaton Grange Road,  
Smeaton Grange NSW 2567*

*Mobile: 0409 869 094*

*Email: [ecollins@mcollins.com.au](mailto:ecollins@mcollins.com.au)*

*Landline: (02) 9774 1544*

*Web: [www.mcollins.com.au](http://www.mcollins.com.au)*

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**From:** Anna Timbrell <Anna.Timbrell@epa.nsw.gov.au>  
**Sent:** Friday, 23 September 2022 3:03 PM  
**To:** Emma Collins <ecollins@mcollins.com.au>  
**Cc:** Chris Kelly - Wollongong <Chris.Kelly@epa.nsw.gov.au>  
**Subject:** Environment Line report - Digging a channel to the riverbank at Spring Farm

Hi Emma

On Wednesday, 21 September, the EPA's Environment Line received a report of an incident at the Collins sand mine at 214 Macarthur Road, Spring Farm.

The report states that it appears that a channel is being dug through to the riverbank, and there is concern about the impacts to the bank.

Can you provide details of anything that might give rise to a report of this nature.

Could you please provide a response to me by close of business on Monday, 23 September 2022.

Kind regards

**Anna Timbrell**  
Senior Planner  
Regulatory Operations Metro  
NSW Environment Protection Authority  
D 02 9274 6345 | E [anna.timbrell@epa.nsw.gov.au](mailto:anna.timbrell@epa.nsw.gov.au)



[www.epa.nsw.gov.au](http://www.epa.nsw.gov.au) @NSW\_EPA

*The EPA acknowledges the traditional custodians of the land and waters where we work. As part of the world's oldest surviving culture, we pay our respect to Aboriginal elders past, present and emerging.*

Report pollution and environmental incidents 131 555 or +61 2 9995 5555

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PLEASE CONSIDER THE ENVIRONMENT BEFORE PRINTING THIS EMAIL

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**APPENDIX 10: REQUEST FOR ADDITIONAL INFORMATION**

Department of Planning and Environment

Matthew Collins  
M. Collins and Sons Holdings Pty Ltd  
SPRING FARM 214  
MACARTHUR ROAD  
SPRING FARM 2570

16 May 2023

Dear Matthew Collins

**Spring Farm Quarry (DA75/256)  
2022 Annual Environmental Management Report - Request for Additional Information**

Reference is made to the 2022 Annual Environmental Management Report Annual Review (**AR**) for the Spring Farm Quarry, submitted as required by Schedule 5, Condition 4 of DA75/256 (the **consent**) to the Department of Planning and Environment (the **department**) on 29 March 2023 (our ref. PA-20).

The department has reviewed the AR report and considers more information is required to satisfy the requirements of the consent.

Please amend the AR report and submit a clean copy version to the department via the Major Project's portal (also email a copy to [compliance@planning.nsw.gov.au](mailto:compliance@planning.nsw.gov.au)), with the following additional information by Wednesday **31 May 2023**:

- Schedule 2, Condition 2 of the consent states extraction and processing operations may take place until 30 June 2023. This information was not included when describing the development that is proposed to be carried out over the current calendar year. Please update the AR report to reflect this information.
- Schedule 5, Condition 4(c) - the AR report does not identify the project's compliance status and has not described the actions taken to ensure compliance. The compliance table (Table 11) included within the AR report does not meet the requirements of the condition. Please update the report to include a compliance table as reflected in Appendix C of the 2020 Compliance Reporting Post Approval Requirements: <https://www.planning.nsw.gov.au/sites/default/files/2023-02/compliance-reporting-par-202005.pdf>.

Should you wish to discuss the matter further, please contact Astrid Christensen, Compliance Officer on 02 9274 6170 or [compliance@planning.nsw.gov.au](mailto:compliance@planning.nsw.gov.au).

Yours sincerely



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