

**DRURY QUARRY –
SUTTON BLOCK
EXPANSION**

QUARRY MANAGEMENT PLAN – SUTTON BLOCK

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Green highlighted text – Applicant's amendments in response to Council's requested changes as at 17 September 2025.

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1. INTRODUCTION

This Quarry Management Plan (QMP) outlines the practices and procedures to be adopted at the Sutton Block to ensure compliance with key operational requirements as required under Condition 61 – 62 of Consent ***.

In the event of any conflict in meaning or ambiguity between the terms and conditions of the resource consents and the provisions in the QMP, the resource consents take precedence.

1.1. Drury Quarry - Sutton Block

The Sutton Block Quarry is located at #####. Refer to the Site Plan attached as **Appendix A**.

1.2. General activities

Construction, operation and management of the Sutton Block will generally involve the following works:

- Earthworks, overburden removal, stockpiling, establishment and removal of bunds.
- Vegetation removal and planting.
- Stream works.
- Construction and operation of internal road infrastructure.
- Establishment of supporting infrastructure.
- Aggregate extraction, processing and distribution.
- Operational stormwater, dust, noise and vibration, groundwater, surface water and traffic control management.

2. STAGING PLANS

The Sutton Block pit will be generally developed in stages, with the expansion of the pit being incremental, deepening and widening as resource is extracted.

Indicative staging plans have been prepared and attached as Appendix B. These show five indicative stages and order of quarry development.

Note that the drawings provided in Appendix B in QMP Version 1.0 are based on preliminary design and will be updated as the pit design progresses.

2.1. Planned Overburden Removal and Rock Extraction for the following 12 months.

Stage 1 of the Sutton Block development will take approximately three years to complete.

Refer to the Erosion and Sediment Control Plans (ESCP) attached as Appendix B to the 'Erosion and Sediment Control Assessment Report Drury Quarry – Sutton Block', prepared by SouthernSkies Environmental Ltd., dated 7 March 2025. (attached as Appendix C in QMP)

2.2. Areas of Expected Quarry Operation for the following 12 months

Refer to Stage 1 plans attached as Appendix B.

Note, Sections 2.1 and 2.2 will need to be updated as required to reflect the quarry expansion plans.

3. HOURS OF OPERATION

Hours of operation for the proposed Sutton Block pit will be fluid and are impacted by various factors such as demand and staffing requirements. The Sutton Block pit will operate in some capacity 24 hours a day. Night-time activities are scaled down compared with daytime, to ensure night-time works do not exceed 45 dB LAeq at the nearest dwelling.

Table 3.1 below sets out the general peak hours of operation for key existing facilities. Note, these are the general peak hours as activities may occur 24 hours a day while complying with noise limits and any applicable consent conditions.

Table 3.1: General peak hours of operation

Activity	Current peak times of operation
Sales	Monday – Friday: 5am – 5pm Saturday: 6am – 12pm
Production (primary plant)	Monday – Friday: 7am – 9pm Saturday: 7am – 2pm
Production (tertiary plant)	Monday – Friday: 5.30am – 9pm Saturday: 7am – 2pm
Sealing chip	Monday – Friday: 5.00am/7.00am – 9pm / 2am (varies a lot) Saturday: 7am – 2pm
Portable processing plants	Monday – Friday: 6.00 am – 5pm (upper benches) Monday – Friday: 6.00 am – 5pm, 5pm – 3am (in pit) Saturday: 6am – 3pm
Asphalt Plant	Monday – Friday: 5.30am / 7am – 5pm / 7pm (operates longer at times) Saturday: 7am – 2pm

4. MANAGEMENT, MONITORING AND REPORTING

4.1. Erosion and Sediment Control – Site Establishment (construction works)

Refer to ESCP attached as **Appendix B** for general site preparation and overburden removal, including the establishment of the northern bund and temporary overburden stockpile.

4.2. Erosion and Sediment Control – Operational Earthworks (overburden removal)

All earthworks must be undertaken in accordance with the certified ESCP required under Condition **20-21** of Consent *******.

Prior to bulk earthworks commencing, an 'As Built Certification Statement', signed by a Suitably Qualified Experienced Person(s) (SQEP confirming that erosion and sediment controls have been constructed in accordance with the certified ESCP must be provided to Auckland Council.

4.2.1. Erosion and Sediment Control Monitoring

Erosion and sediment controls as outlined in the ESCP will be monitored and maintained in accordance with the Auckland Council Guideline Document 2016/005 *Erosion and Sediment Control Guideline for Land Disturbing Activities in the Auckland Region (GD05)*.

The following inspections and responses must be undertaken and recorded:

- **Weekly inspection:**

Site inspections must be undertaken by the Quarry Manager (or representative) to inspect all ESC measures, identify any maintenance or corrective actions necessary, assign timeframes for completion, and identify any devices that are not performing as anticipated through the ESCPs.

- **Pre-rain event inspection:**

Prior to 15 mm rainfall events that cause surface water runoff, inspections must be made of ESC devices, including chemical treatment systems, to ensure that they are fully functioning in preparation for the forecast event. Any maintenance will be documented and must be undertaken immediately.

- **Post-rain event inspection:**

Following all rainfall events that cause surface water runoff, inspections must be made of all ESC measures to ensure that all controls have performed as expected and to identify any maintenance requirements. All maintenance items must be documented must be undertaken immediately.

Records must be kept detailing the following and included in the Annual Report (refer to Section 5.2):

- The monitoring undertaken;
- The erosion and sediment controls that require maintenance; and
- The time when the maintenance was completed.

Where silt fences are utilised, sediment deposits and/or bulges against the fence that reach 20% of the fence height will be cleared.

Sediment must not exceed 20% of the total volume of the sediment retention ponds and decanting earth bunds.

If there is failure of an erosion and sediment control device that results in a discharge to the receiving environment occurring the consent holder must:

- Repair failure (as appropriate);
- Undertake an immediate visual inspection of affected reaches; and
- Notify the Project Ecologist to undertake an assessment of potential sediment deposition within affected reaches.

4.2.2. Operational site water management

Once the Sutton Block pit is sufficiently established, all site water (surface water and groundwater) will be directed to the Sutton Block pit

From the pit, clean water will be pumped and discharged directly to stream 4 (NT1) and dirty water (water exceeding a set turbidity limit) will be pumped and integrated into the Drury Quarry Water Management system and sent to the Lamella for processing before being discharged to the lower reaches of NT1 stream.

A turbidity-controlled pump at the pit sump will turn off and cease pumping when water exceeds a turbidity limit. The dirty water will then be retained in the Sutton Block pit until it meets the minimum limit before pumping resumes. If water needs to be removed from the pit or the water exceeds the set limit it will be pumped to the Drury water treatment system (lamella) prior to being discharged.

Refer to Sutton Pit Water Management drawing (Drawing No. ESCP-Sutton Blk-H20) attached as Appendix C.

4.3. Construction Noise and Vibration Management

Construction Noise and Vibration will be managed in accordance with the Construction Noise and Vibration Management Plan (CNVMP) (required under Condition 18 – 19 of Consent **).

4.4. Operational Noise

All activities on site must comply with the following noise standards. Noise must be measured and assessed in accordance with New Zealand Standard on Acoustics – Measurement of Environmental Sound (MZS 6801:2008) and New Zealand Standard on Acoustics – Environmental Noise (NZS:6802:2008).

Times	Noise levels
7am-9pm Monday to Friday	LAeq 55dB
7am-4pm Saturday	LAeq 55dB
All other times and on public holidays	LAeq 45dB LAFmax 75dB

4.4.1. Noise Monitoring

One noise monitor to the west (i.e., near MacWhinney Drive) and one to the north-east (i.e. near Sonja or Laurie Drive) of the Sutton Block pit must be established. The purpose of these monitors is to undertake measurements to demonstrate whether the noise levels arising from activities authorised by this consent are compliant with the maximum noise levels permitted by the Auckland Unitary Plan.

4.5. Blast Vibration and Noise

Various blasting techniques will be implemented to reduce noise and vibration effects, including:

- Blast design optimization of blasting MIC, size and shape to reduce vibration levels;

- Blast timing manipulation through the use of electronic detonators;
- Creation of buffer zones or setbacks between blasting operations and sensitive receivers;
- Alterations to blast design to reduce blast gases, excess rock movement and velocity of detonation;
- Alterations to quarry design to change face direction away from neighbouring receivers; and
- Schedule blasting on days with favourable wind and weather conditions.

Blast Vibration and noise generated from quarrying activities must not exceed the limits set out in German Standard DIN 4150-3 1999: Structural vibration – Part 3 Effects on vibration on structures (or any amendment thereto) Tables J4.4.2.1 and J4.5(A) in the AUSTRALIAN STANDARD AS2187.2:2006 Explosives – Storage and Use, Part 2: Use of Explosives (AS2187.2:2006) when measured at or within the notional boundary of any dwelling, or on the dwelling itself (not including the source site).

4.5.1. Blast Vibration and Noise Monitoring

Vibration monitoring stations must be installed prior to blasting in accordance with consent Condition 94 of Consent ***. All vibration monitoring equipment must be calibrated and comply with AS2187.2:2006 (or any amendment thereto).

The blast vibration and noise levels must be measured according to AS2187.2:2006 (or any amendment thereto).

On-going monitoring of vibration levels will be undertaken throughout the development and operation of the Sutton Block. This monitoring will be used for continued seed wave analysis and calibration, and to adjust blasting parameters to ensure vibration levels are compliant with (AS2187.2:2006).

For each blast, Stevenson must run vibration estimates to update and calibrate the blasting model to maintain accuracy.

Data collected from the monitoring stations must be uploaded at each monitoring location and used for analysis and modelling of future blasts to ensure compliance with consent conditions.

4.6. Dust Management

Dust will be managed in accordance with the Dust Management Plan (DMP) required under Condition 25 – 26 of Consent ***.

In summary, dust management and monitoring measures to be implemented onsite, as necessary include:

- Daily monitoring of weather forecast, and plan work scheduled and dust management responses accordingly.
- Continuous dust monitoring with telemetry at a number of locations around the Sutton Block and Drury pits.
- Ongoing operation of a meteorological monitoring site around both pits.
- Minimise un-stabilised areas.
- Static and tertiary processing plants connected to water source which continually releases water via spray bar.
- Portable water tanks used to wet material feed into plants and equipment.
- Keep exposed surfaces damp with water carts and/or fixed sprinklers when required.
- Controlling vehicle speeds to 30 km/h on site.

- Water supplying the dust suppression equipment is connected to the water management system.

4.6.1. Crushing activities – no crush zone

No crushing activities must occur within 200 m of 359 MacWhinney Drive, within the area demarcated purple on Figure 7 of the 'Sutton Block - Air Quality Assessment' prepared by Pattle Delamore Partners Ltd, dated March 2025 and shown in Figure 1 below.

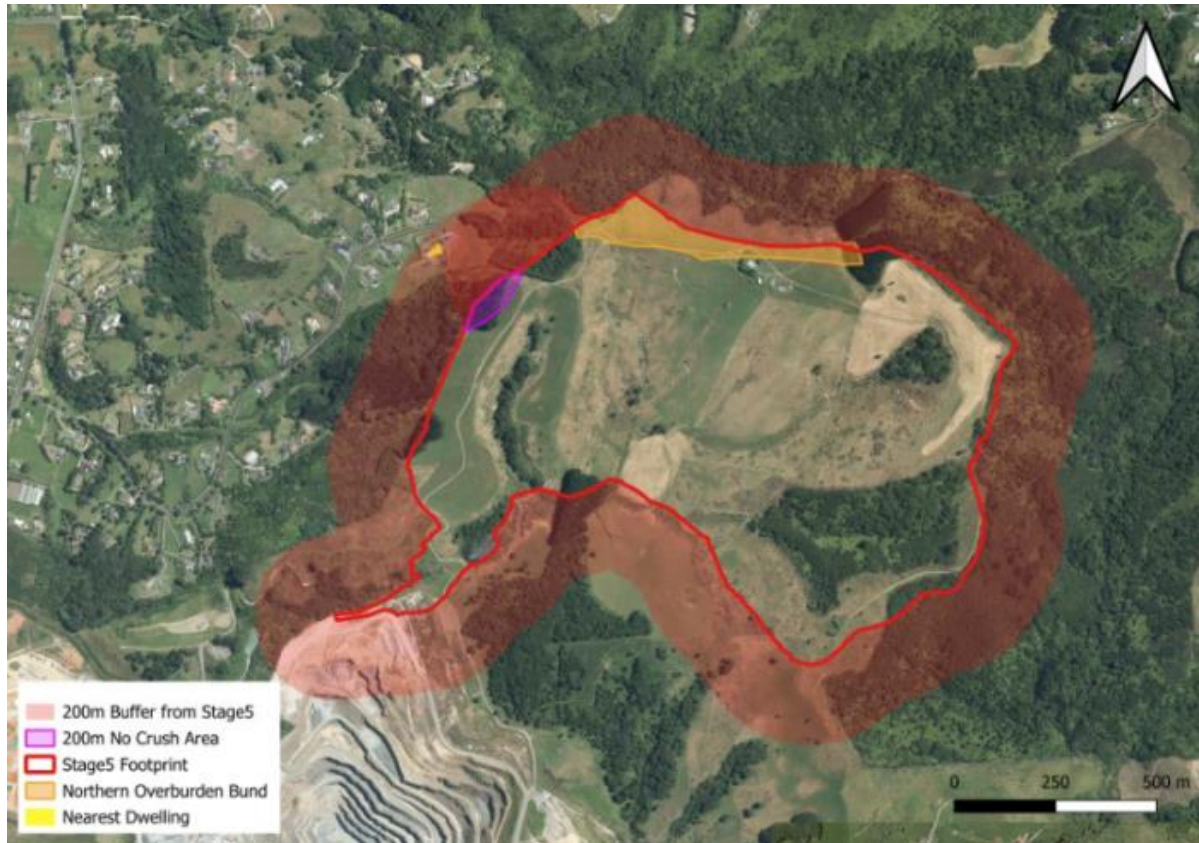


Figure 1: 200 m crushing exclusion area within Sutton Block footprint.

4.7. Lighting

Any lighting, security or other, shall be designed and operated so as not to cause any light spill or disturbance glare for occupiers of any other properties. Any spill or glare onto adjoining sites shall comply with E24.6.1 General Standard of the Auckland Unitary Plan (AUP).

The following methods are to be adopted:

- Lighting limits must be measured and assessed in accordance with Standard AS 4282-1997 Control of the Obtrusive Effects of Outdoor Lighting. Any calculation undertaken for the purposes of these assessing lighting limits must be based on a maintenance factor of 1.0 (i.e. no depreciation);
- Where measurements of any illuminance above background levels from the use of artificial lighting cannot be made because the artificial lighting cannot be turned off, measurements will be made in areas of a similar nature that are not affected by the artificial lighting; and
- All permanent exterior lighting must be downward facing, with zero upward tilt, emits zero direct upward light and is not located on the ridgelines (unless there is no practicable alternative, or it is required for safety reasons).

5. COMPLAINTS PROCEDURE AND REPORTING

5.1. Complaints procedure

If a complaint is received, the following details are to be recorded (includes dust, noise, vibration, light):

- Date, time, and nature of the complaint;
- Complainant's name, address, and phone number (unless the complainant wishes to remain anonymous);
- Weather conditions at the time of the concern or complaint, including wind direction and cloud cover if the complaint relates to noise, dust or air quality;
- The outcome of the investigations of the complaint;
- Measures taken to respond to the complaint (including a record of the response provided to the complainant) or confirmation of no action if deemed appropriate; and
- Any other activity in the area, unrelated to the Project that may have contributed to the complaint, such as construction works, fires or unusually dusty conditions generally.

A copy of the Complaints Register must be kept up to date and made available to the Council upon request as soon as practicable after the request has been made.

5.2. Annual Report

An Annual Report must be provided to Auckland Council Manager by **** date**** of each year, or on an alternative date as agreed with Council, an Annual Monitoring Report.

The purpose of this report is to provide an overview of the monitoring and reporting work undertaken, and any environmental issues that have arisen during Construction Works or Operations.

As a minimum, this report must include:

- Records of inspection and maintenance undertaken associated with ESC monitoring (refer to Section 4.2.1 above);
- Records of noise measurements from noise monitoring stations (refer to Section 4.4.1 above);
- Records of vibration from permanent vibration monitoring stations (refer to Section 4.5.1);
- Any other monitoring data required under conditions of Consent ******* that is not specified in this QMP;
- Any reasons for non-compliance with the conditions of Consent *******;
- Measures taken to address compliance issues; and
- Recommendation on alterations to any monitoring required.

6. CLOSURE AND REHABILITATION

Closure and rehabilitation plans are to be included within five years of confirmed closure of the Sutton Block (as required under Condition 62(e) of Consent ***).

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APPENDIX A: SITE PLAN

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APPENDIX B: STAGING PLANS

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APPENDIX C: Sutton Pit Water Management drawing

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