

MODIFICATION OF 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



Prepared For:



M. Collins and Sons Holdings Pty Ltd

APPENDIX I



Prepared By:

February 2018



TRAFFIC AND TRANSPORT OVERVIEW

SPRING FARM QUARRY

186 MACARTHUR ROAD, SPRING FARM

Compiled by – M Collins & Sons Holdings Pty Ltd

23 FEBRUARY, 2018

Introduction -Traffic and Transport

All products are dispatched by truck from the quarry via Macarthur Road to the Camden Bypass and then to markets in the Macarthur area and Sydney.

The weights of laden trucks leaving the quarry are recorded on the weighbridge and the details are entered electronically into the Company's computer system at that point. The existing consent sets limits on laden truck movements to public roads of 36 movements per day when averaged over any working week Monday to Saturday (6 days) or a maximum of 80 on any working day.

The proposed modification does not seek to modify the existing traffic volumes or transport routes. The truck movements along a short distance (approximately 250 metres) of Macarthur Road from the quarry entrance to the intersection with Springs Road comprise the majority of movements along this length of Macarthur Road. Once trucks pass through the intersection of Springs Road they travel a further 600 metres before turning onto the Camden By-Pass.

Traffic Movements during the 2017 Period

The records from the weighbridge have been analysed over every working week for truck movements over the 2017 year in order to assess the total number of truck movements weekly and the maximum movements per day. During the 2017 year there were 51 weeks the quarry had truck movements along Macarthur Road as the Quarry was closed due to the Christmas –New Year period that was week 52.

□ Weekly Total Number of Truck movements

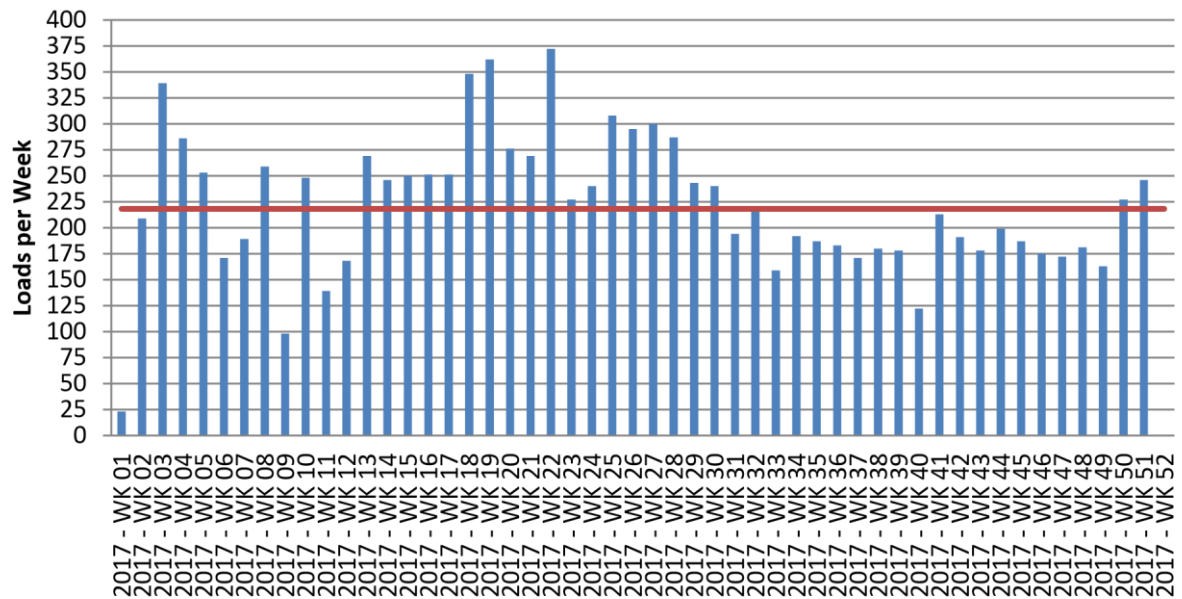
A review of the weekly total number of trucks that were dispatched from the quarry was completed in order to calculate the average number per working week Monday to Saturday(over 6 days) to compare with the average number of 36 per day that equates to 216 total number (over 6 days)

The weekly total number of trucks has been shown in a graph for the 2017 year . The results show that there was a spike in the weekly average truck movements between week 13 (commencing 27 March ,2017) to week 30 (ending 29 July,2017). This was caused as a result of a major customer depending upon our quarry to supply additional truckloads of product due to unexpected sand supply issues at plants that we did not service. As a consequence the existing plants that we supplied consumed on average an additional 25 truck movements per week during the spike period.

Once that extraordinary demand ceased the number of truck loads per working week reduced to be consistently below 216 loads per week (six days multiplied by the daily average of 36 loads)

The rainfall through this period of unexpected demand was also much lower than the typical rainfall normally occurring. As a result sales demand was stronger from 1st April,2017 through to 31 December,2017 .The Quarry movements are significantly impacted by wet weather days due to work ceasing on projects until the sites dry out and work conditions return to normal. In order to prevent a reoccurrence of increased truck movements at Spring Farm Quarry the Company commenced sourcing material from another quarry in July 2017 .

Collins Construction Materials Pty Limited - Weighbridge Transactions Number of Loads per Week Jan 1 - Dec 31, 2017



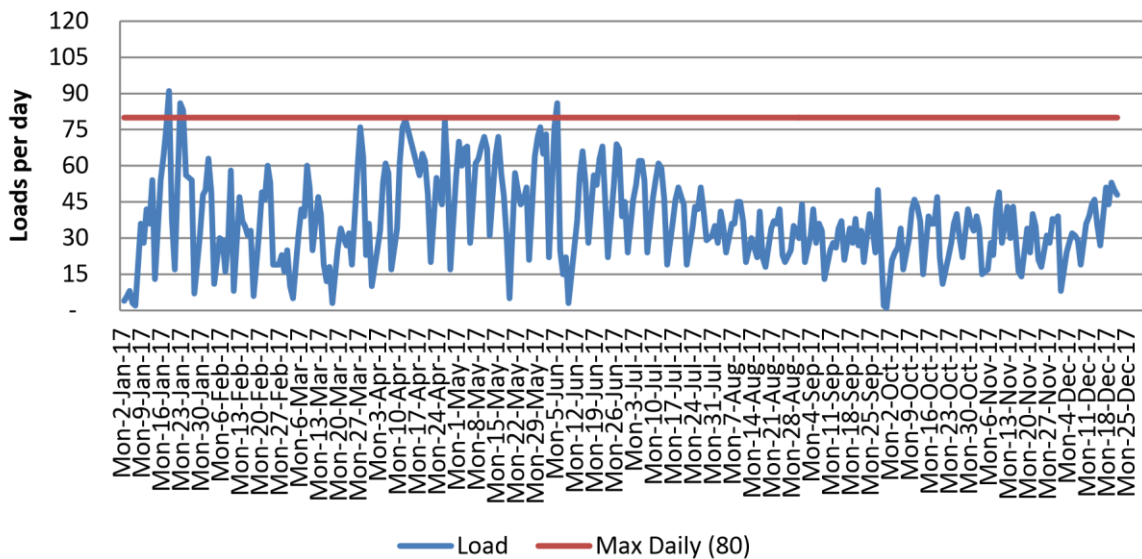
□ **Maximum total number of daily laden truck movements that were dispatched**

The existing consent sets limits on the maximum number of laden truck movements onto a public road from the quarry at 80 trucks per day. From the data extracted at the weighbridge the number of loads each day was identified in each week to ascertain when the maximum of 80 or more occurred during the 2017 calendar year.

This is shown below in a graph

There were four (4) days when the maximum of 80 loads were exceeded that occurred due to exceptional circumstances required by our customers. It is important to note that no exceedances have occurred since July 2017 when the Company commenced sourcing material outside of the Spring Farm Quarry.

Collins Construction Materials Pty Limited - Weighbridge Transactions Number of Loads per Day Jan 1 - Dec 31, 2017



Traffic Movements along Macarthur Road from the Quarry entrance to Camden By-Pass

There is no change proposed for the designated truck access route to and from the site via Macarthur Road to the Camden By-Pass. The existing section of Macarthur Road between the Quarry entrance and the corner of Macarthur and Springs Road is subject to low levels of traffic and caters for the existing traffic volumes without difficulty. The alignment of Macarthur Road is generally straight and level to the Camden ByPass with a 60 km/hr speed limit with a sealed pavement.

Macarthur Road is an undivided two lane local collector road running from Camden Valley Way to Springs Road that includes a short section in the vicinity of the Camden ByPass where it is a four lane divided road. South of Springs Road, Macarthur Road is a local road.

The Camden ByPass is a multi lane divided State road bypassing Camden and Narellan and running between Narellan Road, Narellan and Remembrance Drive, South Camden. The four lane divided section of the Camden ByPass is speed zoned to 100 km/hr and the two lane section west of Macarthur Road on/off ramps and the eastern section from Macarthur Road ramps to Liz Kernohan Drive is zoned at 80 km/hr. The on / off ramps at Macarthur Road are zoned at 60 km/hr.

Anticipated Developments on the access roads to Spring Farm Quarry

Camden Council is currently progressing upgrade works at the corner of Macarthur and Springs Road that involves the construction of a “hybrid type” of roundabout that will improve the safety and visual line of sight for heavy vehicles and cars using the intersection. The current arrangement is a “Y” configuration where vehicles travelling north in Macarthur Road are obliged to give way to the vehicles travelling west along Springs Road. Vehicles travelling south in Macarthur Road when they are crossing the Springs Road intersection must give way to vehicles travelling west on Springs Road at the junction with Macarthur Road.

The proposed works will be within the existing road footprint and will provide a traffic facility that will improve the safety at the corner of Springs Road through clearer visibility for the Macarthur Road traffic travelling north to see approaching vehicles from the east in Springs Road. The improved alignment will also be beneficial for vehicles travelling south in Macarthur Road continuing across Springs Road as the current line of sight requires caution to safely cross into Macarthur Road south of Springs Road.

Camden Council has also decided to underground the power through the intersection that eliminates three electricity poles that are currently located adjacent to the street. The removal of these poles eliminates a further hazard and constraint that is a positive benefit to the community. The Council has allocated funding in the 2017/2018 budget to carry out the works as approved and these works will result in improvement to the safety of the roadway for all road users.

The upgrading will not diminish the current Performance Based Standard (PBS) rating that applies to Macarthur road from the Camden-By Pass intersection to the Collins Quarry entrance in Macarthur Road. The PBS rating relates to the Roads and Maritime Services (RMS) approval of network routes for eligible PBS vehicles operating in NSW under an access permit issued by the National Heavy Vehicle Regulator who currently manage National Heavy Vehicle Accreditations Scheme and Performance Based Standards Scheme design and vehicles approval nationally. This encourages the use of PBS vehicles that are heavily regulated and accredited to use the Spring Farm Quarry and its associated road network.

VEHICLE LOG
Weighbridge Transactions
Dated between 1/1/2017 and 31/12/2017

Load Type	DELIV
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Date	Count
Tue-3-Jan-17	4
Wed-4-Jan-17	6
Thu-5-Jan-17	8
Fri-6-Jan-17	3
Sat-7-Jan-17	2
Mon-9-Jan-17	36
Tue-10-Jan-17	28
Wed-11-Jan-17	42
Thu-12-Jan-17	36
Fri-13-Jan-17	54
Sat-14-Jan-17	13
Mon-16-Jan-17	54
Tue-17-Jan-17	64
Wed-18-Jan-17	75
Thu-19-Jan-17	91
Fri-20-Jan-17	38
Sat-21-Jan-17	17
Mon-23-Jan-17	86
Tue-24-Jan-17	83
Wed-25-Jan-17	56
Fri-27-Jan-17	54
Sat-28-Jan-17	7
Mon-30-Jan-17	32
Tue-31-Jan-17	48
Wed-1-Feb-17	50
Thu-2-Feb-17	63

Fri-3-Feb-17	49
Sat-4-Feb-17	11
Mon-6-Feb-17	30
Tue-7-Feb-17	29
Wed-8-Feb-17	16
Thu-9-Feb-17	30
Fri-10-Feb-17	58
Sat-11-Feb-17	8
Mon-13-Feb-17	47
Tue-14-Feb-17	37
Wed-15-Feb-17	35

Thu-16-Feb-17	31
Fri-17-Feb-17	33
Sat-18-Feb-17	6
Mon-20-Feb-17	32
Tue-21-Feb-17	49
Wed-22-Feb-17	46
Thu-23-Feb-17	60
Fri-24-Feb-17	53
Sat-25-Feb-17	19
Mon-27-Feb-17	19
Tue-28-Feb-17	23
Wed-1-Mar-17	16
Thu-2-Mar-17	25
Fri-3-Mar-17	10
Sat-4-Mar-17	5
Mon-6-Mar-17	31
Tue-7-Mar-17	42
Wed-8-Mar-17	39
Thu-9-Mar-17	60
Fri-10-Mar-17	51
Sat-11-Mar-17	25
Mon-13-Mar-17	47
Tue-14-Mar-17	40
Wed-15-Mar-17	19
Thu-16-Mar-17	12
Fri-17-Mar-17	18
Sat-18-Mar-17	3
Mon-20-Mar-17	26
Tue-21-Mar-17	34
Wed-22-Mar-17	30
Thu-23-Mar-17	27
Fri-24-Mar-17	32
Sat-25-Mar-17	19
Mon-27-Mar-17	60
Tue-28-Mar-17	76
Wed-29-Mar-17	64
Thu-30-Mar-17	23
Fri-31-Mar-17	36
Sat-1-Apr-17	10
Mon-3-Apr-17	25
Tue-4-Apr-17	33

VEHICLE LOG

Wed-5-Apr-17	53
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Thu-6-Apr-17	61
Fri-7-Apr-17	57
Sat-8-Apr-17	17
Mon-10-Apr-17	34
Tue-11-Apr-17	61
Wed-12-Apr-17	76
Thu-13-Apr-17	79
Tue-18-Apr-17	56
Wed-19-Apr-17	65
Thu-20-Apr-17	62
Fri-21-Apr-17	48
Sat-22-Apr-17	20
Mon-24-Apr-17	55
Wed-26-Apr-17	44
Thu-27-Apr-17	79
Fri-28-Apr-17	56
Sat-29-Apr-17	17
Mon-1-May-17	55
Tue-2-May-17	70
Wed-3-May-17	60
Thu-4-May-17	67
Fri-5-May-17	68
Sat-6-May-17	28
Mon-8-May-17	61
Tue-9-May-17	63
Wed-10-May-17	68
Thu-11-May-17	72
Fri-12-May-17	67
Sat-13-May-17	31
Mon-15-May-17	64
Tue-16-May-17	72
Wed-17-May-17	57
Thu-18-May-17	48
Fri-19-May-17	30
Sat-20-May-17	5
Mon-22-May-17	57
Tue-23-May-17	50
Wed-24-May-17	44
Thu-25-May-17	46
Fri-26-May-17	51

Sat-27-May-17	21
Mon-29-May-17	64
Tue-30-May-17	72
Wed-31-May-17	76
Thu-1-Jun-17	65
Fri-2-Jun-17	73
Sat-3-Jun-17	22
Mon-5-Jun-17	76
Tue-6-Jun-17	86
Wed-7-Jun-17	25
Thu-8-Jun-17	15
Fri-9-Jun-17	22
Sat-10-Jun-17	3
Tue-13-Jun-17	37
Wed-14-Jun-17	56
Thu-15-Jun-17	66
Fri-16-Jun-17	53
Sat-17-Jun-17	28
Mon-19-Jun-17	56
Tue-20-Jun-17	52
Wed-21-Jun-17	63
Thu-22-Jun-17	68
Fri-23-Jun-17	47
Sat-24-Jun-17	22
Mon-26-Jun-17	51
Tue-27-Jun-17	69
Wed-28-Jun-17	67
Thu-29-Jun-17	39
Fri-30-Jun-17	45
Sat-1-Jul-17	24
Mon-3-Jul-17	46
Tue-4-Jul-17	52
Wed-5-Jul-17	62
Thu-6-Jul-17	62
Fri-7-Jul-17	54
Sat-8-Jul-17	24
Mon-10-Jul-17	47
Tue-11-Jul-17	55
Wed-12-Jul-17	61
Thu-13-Jul-17	59
Fri-14-Jul-17	46

VEHICLE LOG

Sat-15-Jul-17	19
Mon-17-Jul-17	36
Tue-18-Jul-17	46
Wed-19-Jul-17	51
Thu-20-Jul-17	47
Fri-21-Jul-17	44
Sat-22-Jul-17	19
Mon-24-Jul-17	34
Tue-25-Jul-17	43
Wed-26-Jul-17	42
Thu-27-Jul-17	51
Fri-28-Jul-17	41
Sat-29-Jul-17	29
Mon-31-Jul-17	31
Tue-1-Aug-17	35
Wed-2-Aug-17	28
Thu-3-Aug-17	41
Fri-4-Aug-17	35
Sat-5-Aug-17	24
Mon-7-Aug-17	36
Tue-8-Aug-17	36
Wed-9-Aug-17	45
Thu-10-Aug-17	45
Fri-11-Aug-17	37
Sat-12-Aug-17	20
Mon-14-Aug-17	30
Tue-15-Aug-17	26
Wed-16-Aug-17	22
Thu-17-Aug-17	41
Fri-18-Aug-17	22
Sat-19-Aug-17	18
Mon-21-Aug-17	34
Tue-22-Aug-17	37
Wed-23-Aug-17	36
Thu-24-Aug-17	42
Fri-25-Aug-17	23
Sat-26-Aug-17	20
Mon-28-Aug-17	25

Tue-29-Aug-17	35
Wed-30-Aug-17	33
Thu-31-Aug-17	30
Fri-1-Sep-17	44
Sat-2-Sep-17	20
Mon-4-Sep-17	31
Tue-5-Sep-17	42
Wed-6-Sep-17	28
Thu-7-Sep-17	36
Fri-8-Sep-17	33
Sat-9-Sep-17	13
Mon-11-Sep-17	25
Tue-12-Sep-17	28
Wed-13-Sep-17	26
Thu-14-Sep-17	34
Fri-15-Sep-17	37
Sat-16-Sep-17	21
Mon-18-Sep-17	34
Tue-19-Sep-17	28
Wed-20-Sep-17	38
Thu-21-Sep-17	27
Fri-22-Sep-17	33
Sat-23-Sep-17	20
Mon-25-Sep-17	40
Tue-26-Sep-17	34
Wed-27-Sep-17	24
Thu-28-Sep-17	50
Fri-29-Sep-17	27
Sat-30-Sep-17	2
Sun-1-Oct-17	1
Tue-3-Oct-17	21
Wed-4-Oct-17	24
Thu-5-Oct-17	26
Fri-6-Oct-17	34
Sat-7-Oct-17	17
Mon-9-Oct-17	30
Tue-10-Oct-17	42
Wed-11-Oct-17	46
Thu-12-Oct-17	43
Fri-13-Oct-17	37

Sat-14-Oct-17	15
Mon-16-Oct-17	39
Tue-17-Oct-17	36
Wed-18-Oct-17	36

VEHICLE LOG

Thu-19-Oct-17	47
Fri-20-Oct-17	22
Sat-21-Oct-17	11
Mon-23-Oct-17	22
Tue-24-Oct-17	28
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Fri-27-Oct-17	30
Sat-28-Oct-17	22
Mon-30-Oct-17	42
Tue-31-Oct-17	36
Wed-1-Nov-17	33
Thu-2-Nov-17	39
Fri-3-Nov-17	34
Sat-4-Nov-17	15
Mon-6-Nov-17	17
Tue-7-Nov-17	28
Wed-8-Nov-17	23
Thu-9-Nov-17	42
Fri-10-Nov-17	49
Sat-11-Nov-17	28
Mon-13-Nov-17	43
Tue-14-Nov-17	30
Wed-15-Nov-17	43
Thu-16-Nov-17	29
Fri-17-Nov-17	16
Sat-18-Nov-17	14
Mon-20-Nov-17	34
Tue-21-Nov-17	24
Wed-22-Nov-17	40
Thu-23-Nov-17	35
Fri-24-Nov-17	21
Sat-25-Nov-17	18
Mon-27-Nov-17	31

Tue-28-Nov-17	28
Wed-29-Nov-17	38
Thu-30-Nov-17	37
Fri-1-Dec-17	39
Sat-2-Dec-17	8
Mon-4-Dec-17	24
Tue-5-Dec-17	28
Wed-6-Dec-17	32
Thu-7-Dec-17	31
Fri-8-Dec-17	29
Sat-9-Dec-17	19
Mon-11-Dec-17	36
Tue-12-Dec-17	39
Wed-13-Dec-17	44
Thu-14-Dec-17	46
Fri-15-Dec-17	35
Sat-16-Dec-17	27
Mon-18-Dec-17	51
Tue-19-Dec-17	44
Wed-20-Dec-17	53
Thu-21-Dec-17	50
Fri-22-Dec-17	48
Grand Total	11333
No of Weeks	52
No of days per week	6
Ave Loads per week	218
Ave loads per day	36