Queensland Government

Department of
State Development, Manufacturing, Infrastructure and Planning

Our reference: SDA-0717-040928
Your reference: MCU17/0142

27 April 2018

Chief Executive Officer
Sunshine Coast Regional Council
Locked Bag 72
SUNSHINE COAST MAIL CENTRE QLD 4560

Attention: Leanne Simpson

Dear Ms Simpson

Concurrence agency response—with conditions
26, 40, 50 and 66 Cooney Road, 586 and 602 Bli Bli Road, Bli Bli (Lot 1 on RP202997, Lot 1 and 2 on RP208600, Lot 1 on CG2584, Lot 4 on RP803104 and Lot 3 on SP193049)
(Given under section 285 of the *Sustainable Planning Act 2009*)

The referral agency material for the development application described below was received by the Department of Infrastructure, Local Government and Planning under section 272 of the *Sustainable Planning Act 2009* on 21 July 2017.

Applicant details	
Applicant name:	Sunshine Coast Regional Council
Applicant contact details:	Locked Bag 72 SUNSHINE COAST MC QLD 4560 Alex.Patissier@sunshinecoast.qld.gov.au

Site details	
Street address:	26, 40, 50 and 66 Cooney Road, 586 and 602 Bli Bli Road, Bli Bli
Lot on plan:	Lot 1 on RP202997, Lot 1 and 2 on RP208600, Lot 1 on CG2584, Lot 4 on RP803104 and Lot 3 on SP193049
Local government area:	Sunshine Coast Regional Council

Application details	
Proposed development:	Preliminary Approval for Material Change of Use including to vary the planning scheme under section 242 of the Sustainable Planning Act 2009 (Environmental Facility, Extractive industry, High Impact Industry, Shop, Transport Depot and Utility Installation, in accordance with the Sunshine Coast Waste Precinct Plan of Development)

SEQ North Region
Level 3, Mike Ahern Building
12 First Avenue
PO Box 1129 Maroochydore QLD 4558

SDA-0717-040928

Development Permit for Material Change of Use (Utility Installation – Major Utility (Refuse disposal involving a landfill and ancillary activity), Extractive Industry, Undefined Use (Landfill gas power generation plant) including ERA60 (1)(d) – Waste disposal for operating a facility disposing of, in a calendar year, more than 200,000 tonnes of waste (regulated waste and any combination of general waste, limited regulated waste) ERA16(2)(b) – Extracting, other than by dredging, in a year, more than 100,000 tonnes but not more than 1,000,000 tonnes of material, ERA16(3)(b) – Screening, in a year, more than 100,000 tonnes but not more than 1,000,000 tonnes of material, ERA 33 – Crushing, grinding, milling or screening more than 500 tonnes of material in a year)

Referral triggers

The development application was referred to the department under the following provisions of the *Sustainable Planning Regulation 2009*:

Referral trigger	Schedule 7, Table 2, Item 1 – Environmentally relevant activities
	Schedule 7, Table 3, Item 1 – State-controlled road
	Schedule 7, Table 3, Item 2 – Development impacting on State transport infrastructure
	Schedule 7, Table 3, Item 10 – Clearing vegetation

Conditions

Under section 287(1)(a) of the *Sustainable Planning Act 2009*, the conditions set out in Attachment 1 must be attached to any development approval.

Reasons for imposing conditions

Under section 289(1) of the *Sustainable Planning Act 2009*, the department must set out the reasons for the decision to impose conditions. These reasons are set out in Attachment 2.

Further advice

The department offers advice about the application to the applicant—see Attachment 3.

Approved plans and specifications

The department requires that the following plans and specifications set out below and in Attachment 4 must be attached to any development approval.

Drawing/Report Title	Prepared by	Date	Reference no.	Version/Issue
Aspect of development: material change of use				
Landfill Engineering Report Proposed Infrastructure and Site Access	ATC Williams	05 June 2017	003	C
Landfill Engineering Report Stage 1 Platform	ATC Williams	05 June 2017	005	C
Landfill Engineering Report Stage 1 Landform and Stage 2 Platform	ATC Williams	05 June 2017	006	C
Landfill Engineering Report Stage 2 Landform and Stage 3 Platform	ATC Williams	05 June 2017	007	C

Landfill Engineering Report Stage 3 Landform and Stage 4 Platform	ATC Williams	05 June 2017	008	C
Landfill Engineering Report Stage 4 Landform and Stage 5 Platform	ATC Williams	05 June 2017	009	C
Landfill Engineering Report Stage 5 Landform (Final Landform)	ATC Williams	05 June 2017	010	C
Landfill Engineering Report Monitoring Plan	ATC Williams	05 June 2017	201	C
Proposed Leachate & Landfill Gas Management Area	Mark Rigby & Associates	June 2017	MRA 17-001 Figure 1	Final
Nambour Landfill Expansion Traffic Impact Assessment, Figure 3.1, Appendix A	Projex Partners	24 May 2017	103-189	B
Technical Agency Response (Vegetation) Plan	Department of Natural Resources, Mines and Energy (DNRME)	12 January 2018	TARP SDA-0717-040928	-, as amended in red

A copy of this response has been sent to the applicant for their information.

For further information, please contact Candace Mitchell, A/Senior Planning Officer, SARA SEQ North on 5352 9708, or email SEQNorthSARA@dilgp.qld.gov.au who will be pleased to assist.

Yours sincerely

Garth Nolan
Manager (Planning)

cc: Sunshine Coast Regional Council, Alex.Patissier@sunshinecoast.qld.gov.au
enc: Attachment 1—Conditions to be imposed
Attachment 2—Reasons for decision to impose conditions
Attachment 3—Further advice
Attachment 4—Approved Plans and Specifications

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Attachment 1—Conditions to be imposed

No.	Conditions	Condition timing
Development Permit for Material Change of Use		
7.2.1 – Environmentally relevant activities—Pursuant to section 255D of the *Sustainable Planning Act 2009*, the chief executive administering the Act nominates the Director-General of the Department of Environment and Science to be the assessing authority for the development to which this development approval relates for the administration and enforcement of any matter relating to the following condition(s):		
1.	Development authorised under this approval for the approved activities is limited to the area shown in the following plans/drawings: • Landfill Engineering Report Proposed Infrastructure and Site Access prepared by ATC Williams dated 05 June 2017, plan reference number 003 and version C; • Landfill Engineering Report Stage 1 Platform prepared by ATC Williams dated 05 June 2017, plan reference number 005 and version C; • Landfill Engineering Report Stage 1 Landform and Stage 2 Platform prepared by ATC Williams dated 05 June 2017, plan reference number 006 and version C; • Landfill Engineering Report Stage 2 Landform and Stage 3 Platform prepared by ATC Williams dated 05 June 2017, plan reference number 007 and version C; • Landfill Engineering Report Stage 3 Landform and Stage 4 Platform prepared by ATC Williams dated 05 June 2017, plan reference number 008 and version C; • Landfill Engineering Report Stage 4 Landform and Stage 5 Platform prepared by ATC Williams dated 05 June 2017, plan reference number 009 and version C; • Landfill Engineering Report Stage 5 Landform (Final Landform) prepared by ATC Williams dated 05 June 2017, plan reference number 010 and version C; • Landfill Engineering Report Monitoring Plan prepared by ATC Williams dated 05 June 2017, plan reference number 201 and version C; and • Proposed Leachate & Landfill Gas Management Area prepared by Mark Rigby & Associates dated June 2017, plan reference number MRA 17-001 Figure 1, Final revision.	At all times
2.	Enter into an agreed delivery arrangement to deliver an environmental offset in accordance with the *Environmental Offsets Act 2014* to counterbalance the significant residual impacts on the matters of state environmental significance being: • 1.3 hectares of wetland of high ecological significance (HES); • 4.8 hectares of protected wildlife habitat (tusked frogs – *Adelotus brevis*); and • 3.5 hectares of protected wildlife habitat (Richmond Birdwing butterfly - *Ornithoptera richmondia*).	Prior to commencing any works that impact on the matter of state environmental significant
7.3.1 – State-controlled road and 7.3.2 – Development impacting on State transport infrastructure—Pursuant to section 255D of the *Sustainable Planning Act 2009*, the chief executive administering		

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No.	Conditions	Condition timing
the Act nominates the Director-General of the Department of Transport and Main Roads to be the assessing authority for the development to which this development approval relates for the administration and enforcement of any matter relating to the following condition(s):		
3.	(a) Road works comprising signalisation of the Bli Bli Road / Cooney Road intersection, must be provided generally in accordance with the layout shown in figure 3.1, page 6, Assessment of Bli Bli and Cooney Road Intersection, by Bitzios Consulting, in Appendix A of Nambour Landfill Expansion Traffic Impact Assessment, prepared by Projex Partners, dated 24 May 2017, Project No. 103-189; in particular: • Left slip lanes on both the ingress and egress between Bli Bli Road and Cooney Road. (b) The road works must be designed and constructed in accordance with the Department of Transport and Main Roads *Road Panning and Design Manual*.	Prior to the expansion of the landfill use commencing
4.	(a) Stormwater management of the development must ensure no worsening or actionable nuisance to the state-controlled road. (b) Any works on the land must not: i. create any new discharge points for stormwater runoff onto the state-controlled road; ii. interfere with and/or cause damage to the existing stormwater drainage on the state-controlled road; iii. surcharge any existing culvert or drain on the state-controlled road; and iv. reduce the quality of stormwater discharge onto the state-controlled road. (c) RPEQ certification must be provided to the development assessment team via North.Coast.IDAS@tmr.qld.gov.au within the Department of Transport and Main Roads, confirming that the development has been designed and constructed in accordance with parts (a) and (b) of this condition.	(a) At all times (b) At all times (c) Prior to the commencement of use
7.3.10 – Clearing vegetation—Pursuant to section 255D of the *Sustainable Planning Act 2009*, the chief executive administering the Act nominates the Director-General of the Department of Natural Resources, Mines and Energy to be the assessing authority for the development to which this development approval relates for the administration and enforcement of any matter relating to the following condition(s):		
5.	All regulated vegetation can be cleared on the site except for the areas identified as Area A1 and A2 on the attached Technical Agency Response (Vegetation) Plan (TARP), reference no. TARP SDA-0717-040928, dated 12 January 2018.	At all times
6.	No clearing of vegetation is to occur within the areas identified as Area A1 and A2 on the attached Technical Agency Response (Vegetation) Plan (TARP), reference no. TARP SDA-0717-040928, dated 12 January 2018.	At all times
7.	No built structure is to be established, constructed or located within the areas identified as A1 and A2 on the attached Technical Agency Response (Vegetation) Plan (TARP), reference no. TARP SDA-0717-040928, dated 12 January 2018.	At all times

No.	Conditions	Condition timing
8.	Any person(s) engaged or employed to carry out the clearing of vegetation under this development approval must be provided with a full copy of this development approval, and must be made aware of the full extent of clearing authorised by this development approval.	At all times

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Attachment 2—Reasons for imposing conditions

The reasons for this decision are:

- To ensure the development is carried out in the location and to the extent specified on the plans of development submitted with the application
- To ensure a conservation outcome is achieved where a significant residual impact is occurring on a prescribed environmental matter
- To ensure the road works on, or associated with, the state-controlled road network are undertaken in accordance with applicable standards
- To ensure that the impacts of stormwater events associated with development are minimised and managed to avoid creating any adverse impacts on the state transport corridor
- To ensure no vegetation clearing, as identified on the Technical Agency Response (Vegetation) Plan (TARP), occurs as a result of the material change of use
- To restrict any built structures from being located within the areas identified on the Technical Agency Response (Vegetation) Plan (TARP)
- To ensure compliance with the development approval is achieved

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Attachment 3—Further advice

General advice	
1.	Clearing of vegetation has the potential to disturb the roots of the trees of proposed retained vegetation thereby resulting in the death of trees not approved to be cleared under this development approval. It is recommended clearing and excavation activities be undertaken in accordance with the 'Australian Standards for the Protection of Trees on Development Sites (AS4970-2009)' to avoid any consequential unauthorised clearing.
2.	Under section 33 of the *Transport Infrastructure Act 1994, w*ritten approval is required from the Department of Transport and Main Roads to carry out road works on a state-controlled road. Please contact the Department of Transport and Main Roads via North.Coast.IDAS@tmr.qld.gov.au (or phone 5451 0755), (please quote TMR17-022002) to make an application for road works approval. This approval must be obtained prior to commencing any works on the state-controlled road reserve. The approval process may require the approval of engineering designs of the proposed works, certified by a Registered Professional Engineer of Queensland (RPEQ). The road works approval process takes time – please contact Transport and Main Roads well in advance to ensure that gaining approval does not delay construction. The applicant is requested to submit the certification of completion from TMR once works are complete and prior to commencement of use as evidence of compliance with condition 3.

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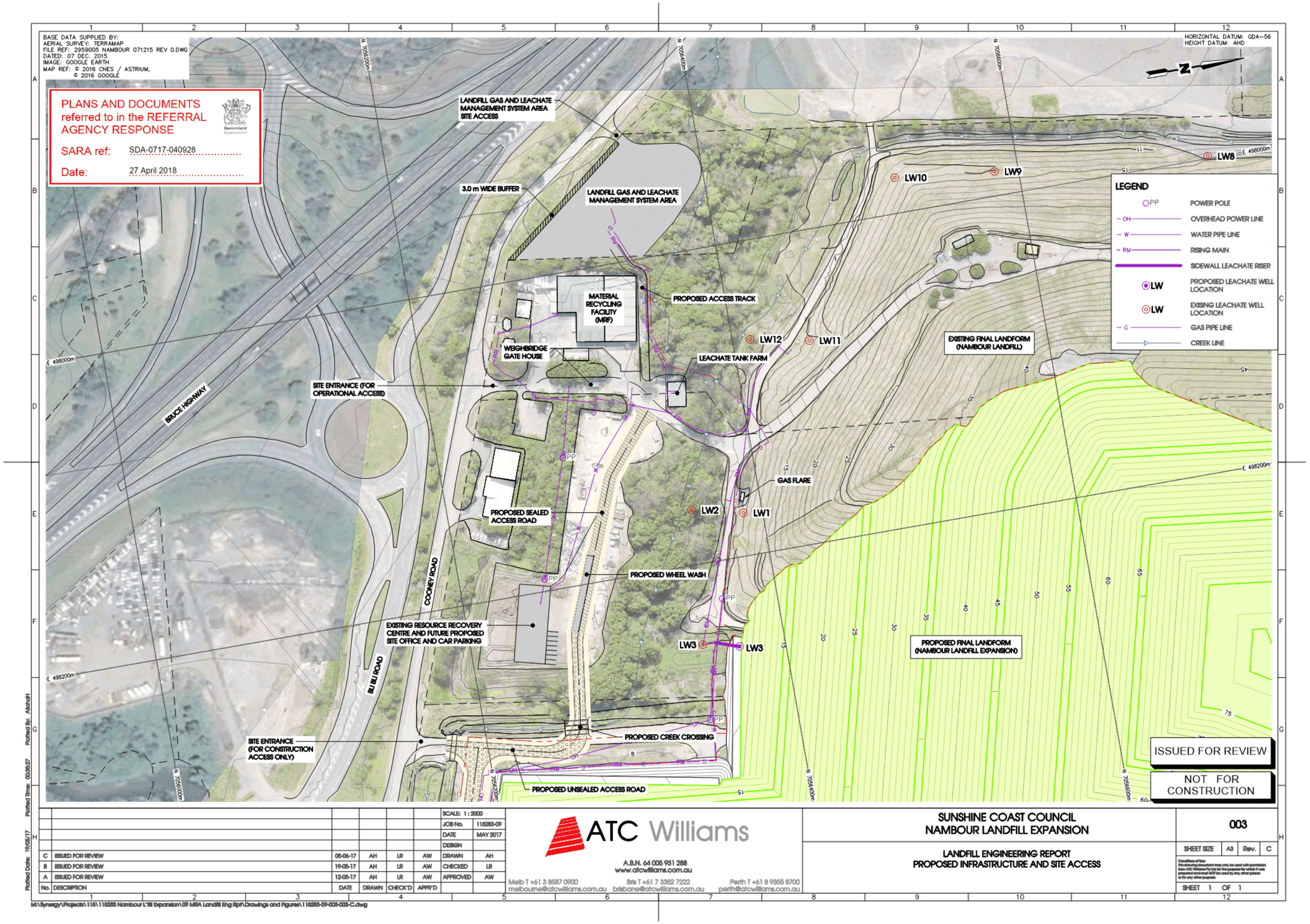
Attachment 4—Approved plans and specifications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Date: 27 April 2018
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LANDFILL GAS AND LEACHATE MANAGEMENT SYSTEM AREA
MATERIAL RECYCLING FACILITY (MRF)
PROPOSED ACCESS TRACK
WEIGHBRIDGE GATE HOUSE
LEACHATE TANK FARM
SITE ENTRANCE (FOR OPERATIONAL ACCESS)
BRUCE HIGHWAY
EXISTING FINAL LANDFORM (NAMBOUR LANDFILL)
GAS FLARE
PROPOSED SEALED ACCESS ROAD
COONEY ROAD
PROPOSED WHEEL WASH
EXISTING RESOURCE RECOVERY CENTRE AND FUTURE PROPOSED SITE OFFICE AND CAR PARKING
BLI BLI ROAD
PROPOSED FINAL LANDFORM (NAMBOUR LANDFILL EXPANSION)
SITE ENTRANCE (FOR CONSTRUCTION ACCESS ONLY)
PROPOSED CREEK CROSSING
PROPOSED UNSEALED ACCESS ROAD
LW1
LW2
LW3
LW8
LW9
LW10
LW11
LW12
LEGEND
POWER POLE
OVERHEAD POWER LINE
WATER PIPE LINE
RISING MAIN
SIDEWALL LEACHATE RISER
PROPOSED LEACHATE WELL LOCATION
EXISING LEACHATE WELL LOCATION
GAS PIPE LINE
CREEK LINE
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NOT FOR CONSTRUCTION
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JOB No. 116283-09
DATE MAY 2017
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B ISSUED FOR REVIEW 19-05-17 AH LR AW
A ISSUED FOR REVIEW 12-05-17 AH LR AW
ATC Williams
A.B.N. 64 005 931 288
www.atcwilliams.com.au
Melb T +61 3 8587 0900 melbourne@atcwilliams.com.au
Bris T +61 7 3352 7222 brisbane@atcwilliams.com.au
Perth T +61 8 9355 8700 perth@atcwilliams.com.au
SUNSHINE COAST COUNCIL
NAMBOUR LANDFILL EXPANSION
003
LANDFILL ENGINEERING REPORT
PROPOSED INFRASTRUCTURE AND SITE ACCESS
SHEET SIZE A3 Rev. C
SHEET 1 OF 1
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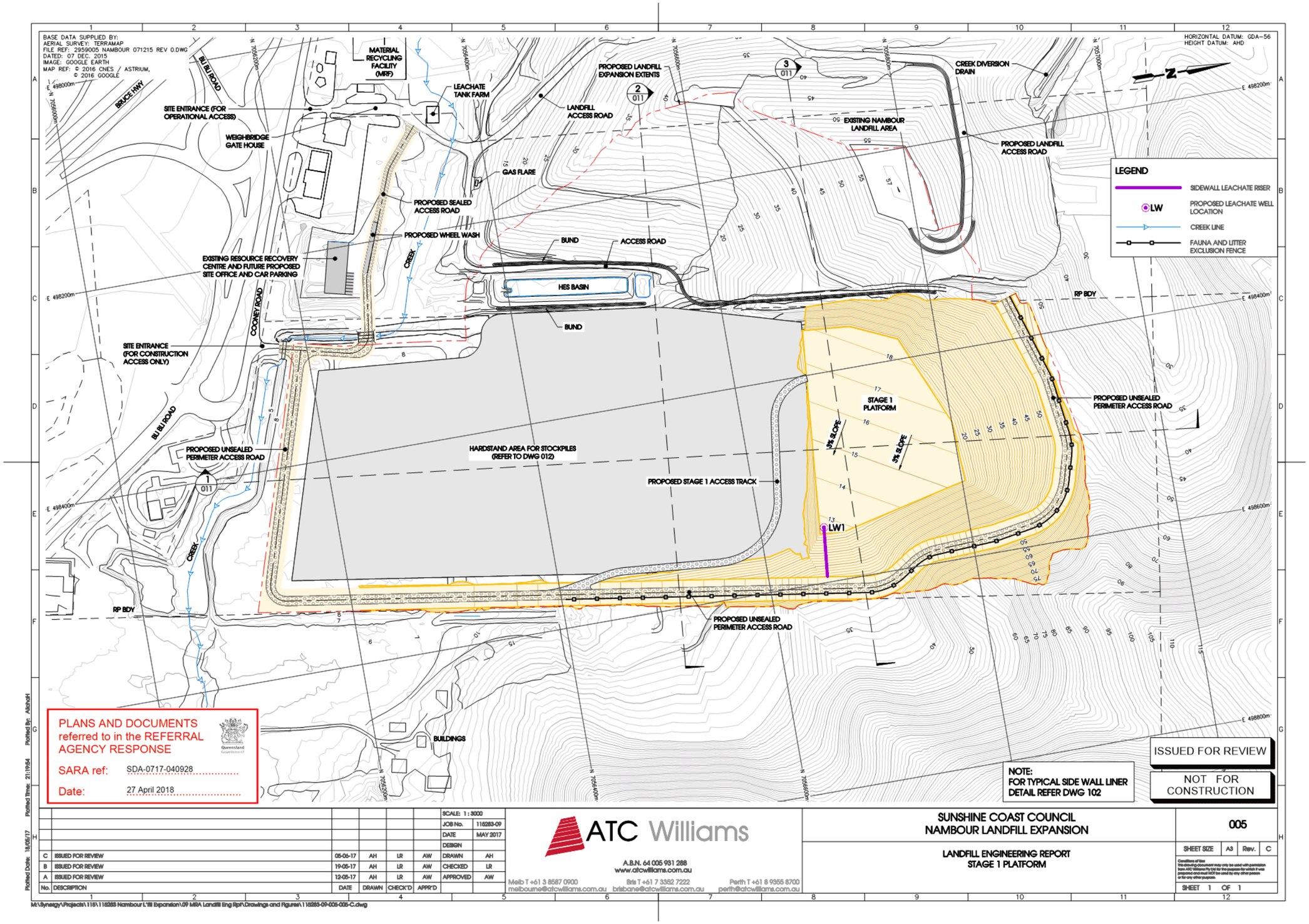
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HEIGHT DATUM: AHD
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BLI BLI ROAD
MATERIAL RECYCLING FACILITY (MRF)
SITE ENTRANCE (FOR OPERATIONAL ACCESS)
WEIGHBRIDGE GATE HOUSE
LEACHATE TANK FARM
LANDFILL ACCESS ROAD
PROPOSED LANDFILL EXPANSION EXTENTS
CREEK DIVERSION DRAIN
EXISTING NAMBOUR LANDFILL AREA
PROPOSED LANDFILL ACCESS ROAD
GAS FLARE
PROPOSED SEALED ACCESS ROAD
PROPOSED WHEEL WASH
EXISTING RESOURCE RECOVERY CENTRE AND FUTURE PROPOSED SITE OFFICE AND CAR PARKING
CREEK
BUND
ACCESS ROAD
HES BASIN
COONEY ROAD
SITE ENTRANCE (FOR CONSTRUCTION ACCESS ONLY)
RP BDY
PROPOSED UNSEALED PERIMETER ACCESS ROAD
STAGE 1 PLATFORM
3% SLOPE
HARDSTAND AREA FOR STOCKPILES (REFER TO DWG 012)
PROPOSED STAGE 1 ACCESS TRACK
LW1
BUILDINGS
LEGEND
SIDEWALL LEACHATE RISER
LW PROPOSED LEACHATE WELL LOCATION
CREEK LINE
FAUNA AND LITTER EXCLUSION FENCE
NOTE:
FOR TYPICAL SIDE WALL LINER DETAIL REFER DWG 102
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NOT FOR CONSTRUCTION
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No. DESCRIPTION DATE DRAWN CHECK'D APPR'D
ATC Williams
A.B.N. 64 005 931 288
www.atcwilliams.com.au
Melb T +61 3 8587 0900 melbourne@atcwilliams.com.au
Bris T +61 7 3352 7222 brisbane@atcwilliams.com.au
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SUNSHINE COAST COUNCIL
NAMBOUR LANDFILL EXPANSION
LANDFILL ENGINEERING REPORT
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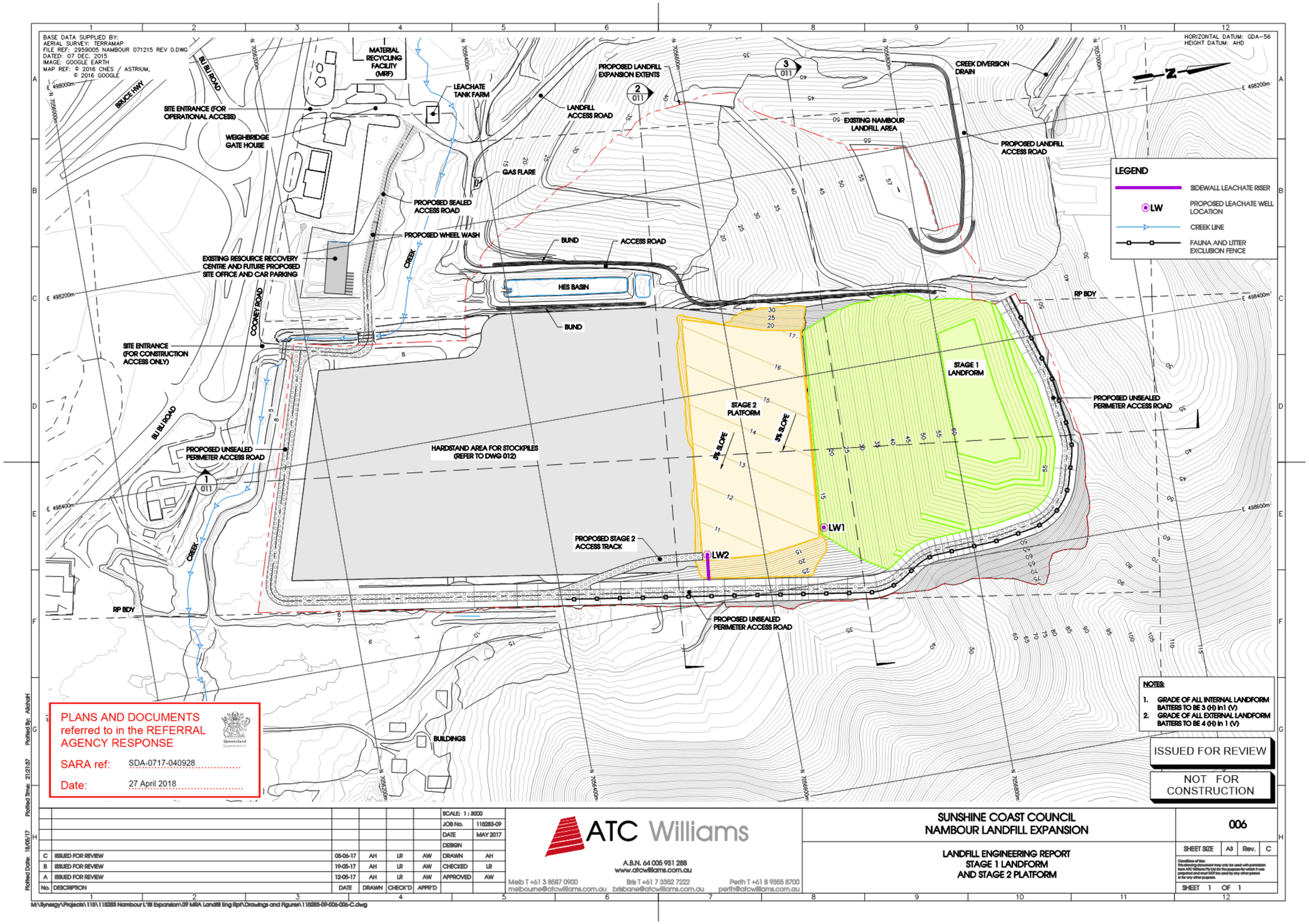
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LEACHATE TANK FARM
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CREEK DIVERSION DRAIN
SITE ENTRANCE (FOR OPERATIONAL ACCESS)
LANDFILL ACCESS ROAD
EXISTING NAMBOUR LANDFILL AREA
WEIGHBRIDGE GATE HOUSE
PROPOSED LANDFILL ACCESS ROAD
GAS FLARE
PROPOSED SEALED ACCESS ROAD
PROPOSED WHEEL WASH
BUND
ACCESS ROAD
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CREEK
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RP BDY
COONEY ROAD
SITE ENTRANCE (FOR CONSTRUCTION ACCESS ONLY)
STAGE 1 LANDFORM
STAGE 2 PLATFORM
3% SLOPE
PROPOSED UNSEALED PERIMETER ACCESS ROAD
HARDSTAND AREA FOR STOCKPILES (REFER TO DWG 012)
LW1
LW2
PROPOSED STAGE 2 ACCESS TRACK
BUILDINGS
LEGEND
SIDEWALL LEACHATE RISER
LW PROPOSED LEACHATE WELL LOCATION
CREEK LINE
FAUNA AND LITTER EXCLUSION FENCE
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2. GRADE OF ALL EXTERNAL LANDFORM BATTERS TO BE 4 (H) in 1 (V)
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A.B.N. 64 005 931 288
www.atcwilliams.com.au
Melb T +61 3 8587 0900 melbourne@atcwilliams.com.au
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SUNSHINE COAST COUNCIL
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LANDFILL ENGINEERING REPORT
STAGE 1 LANDFORM
AND STAGE 2 PLATFORM
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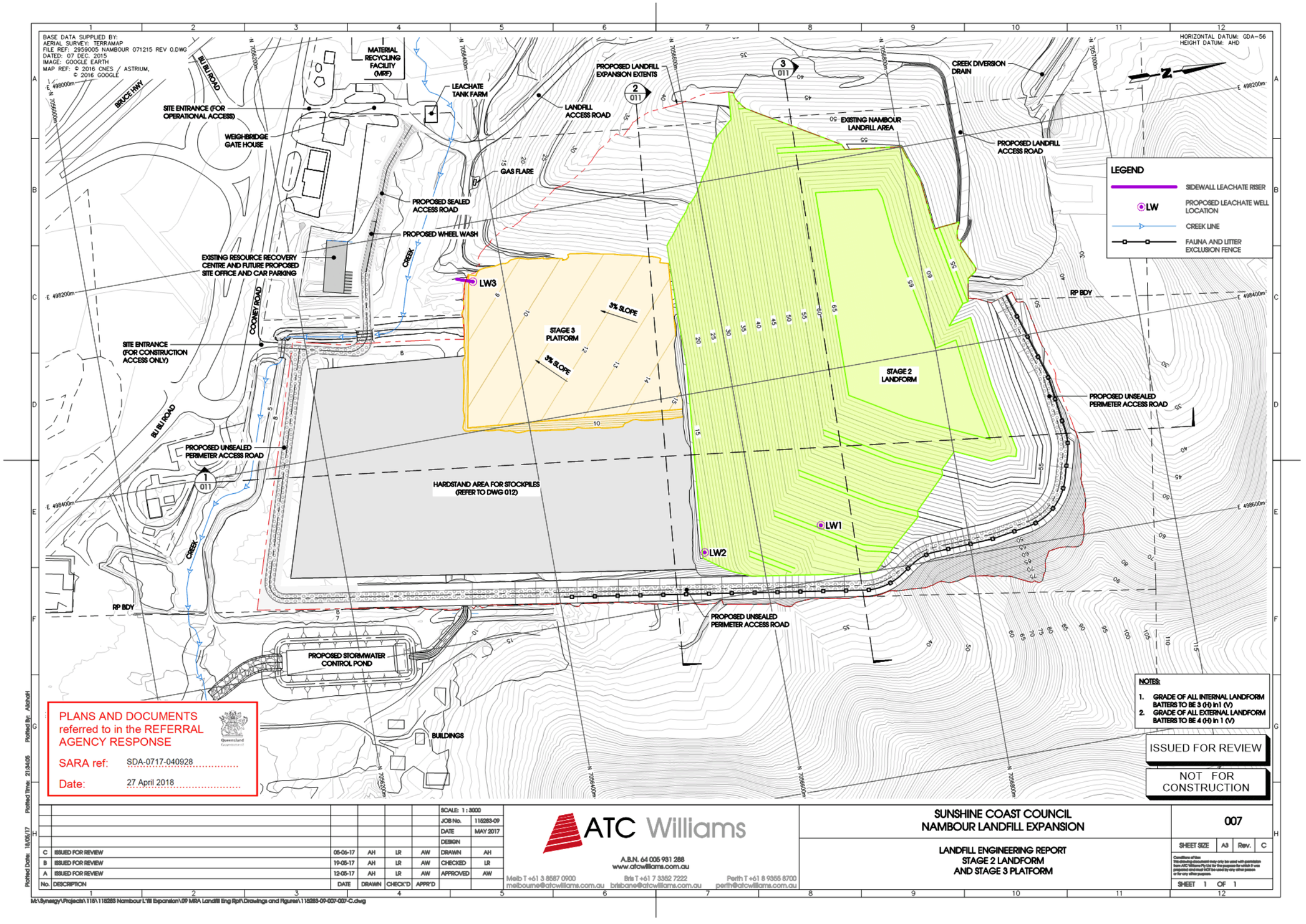
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LW3
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STAGE 3 PLATFORM
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A.B.N. 64 005 931 288
www.atcwilliams.com.au
Melb T +61 3 8587 0900 melbourne@atcwilliams.com.au
Bris T +61 7 3362 7222 brisbane@atcwilliams.com.au
Perth T +61 8 9355 8700 perth@atcwilliams.com.au
SUNSHINE COAST COUNCIL
NAMBOUR LANDFILL EXPANSION
LANDFILL ENGINEERING REPORT
STAGE 2 LANDFORM
AND STAGE 3 PLATFORM
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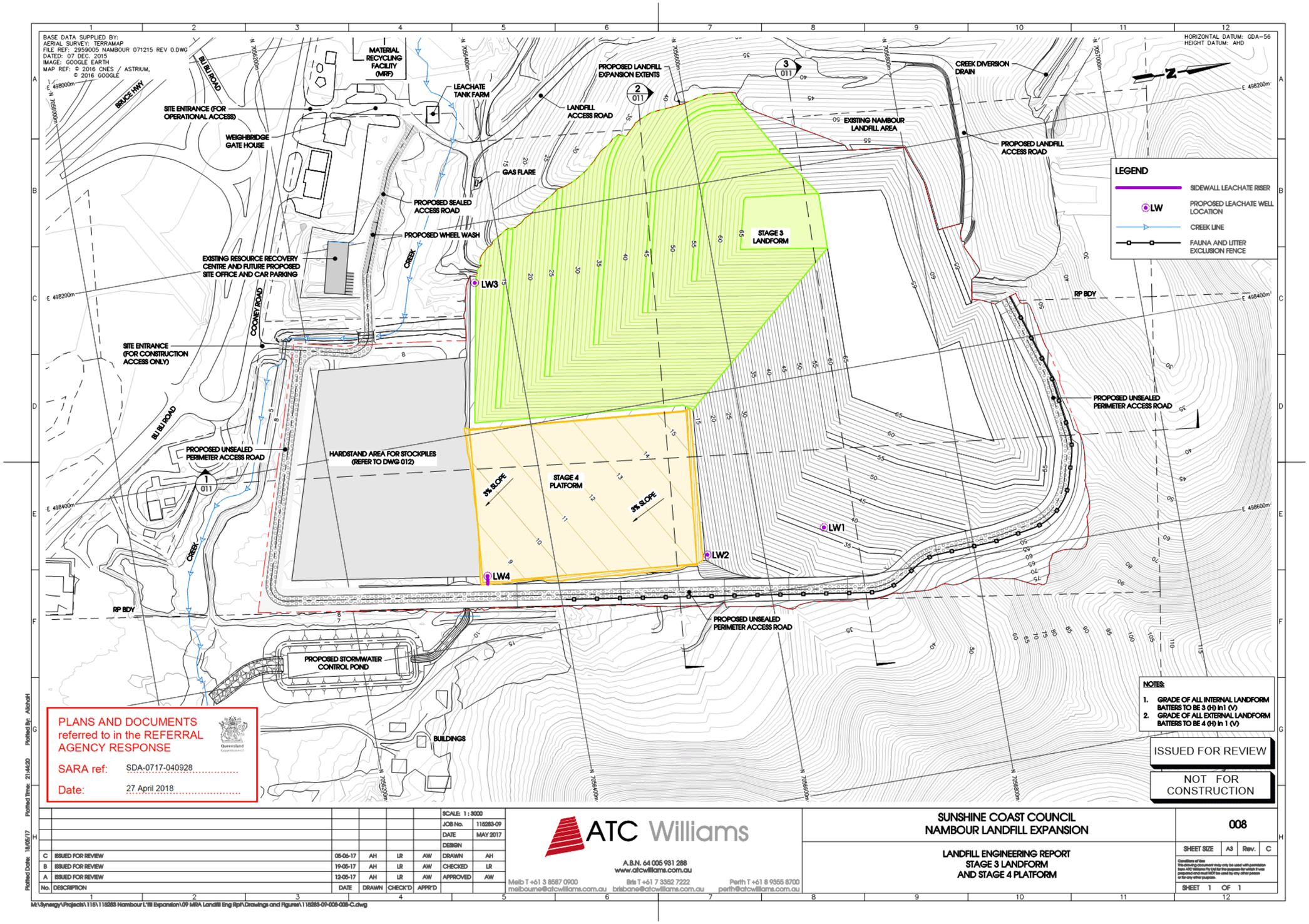
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MAP REF: © 2016 CNES / ASTRIUM, © 2016 GOOGLE
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HEIGHT DATUM: AHD
BRUCE HWY
BLI BLI ROAD
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LW4
CREEK DIVERSION DRAIN
EXISTING NAMBOUR LANDFILL AREA
PROPOSED LANDFILL ACCESS ROAD
RP BDY
PROPOSED UNSEALED PERIMETER ACCESS ROAD
PROPOSED STORMWATER CONTROL POND
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LEGEND
SIDEWALL LEACHATE RISER
PROPOSED LEACHATE WELL LOCATION
CREEK LINE
FAUNA AND LITTER EXCLUSION FENCE
NOTES:
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2. GRADE OF ALL EXTERNAL LANDFORM BATTERS TO BE 4 (H) in 1 (V)
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NOT FOR CONSTRUCTION
PLANS AND DOCUMENTS referred to in the REFERRAL AGENCY RESPONSE
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Date: 27 April 2018
SCALE: 1 : 3000
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DATE MAY 2017
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www.atcwilliams.com.au
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Bris T +61 7 3362 7222 brisbane@atcwilliams.com.au
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SUNSHINE COAST COUNCIL
NAMBOUR LANDFILL EXPANSION
LANDFILL ENGINEERING REPORT
STAGE 3 LANDFORM
AND STAGE 4 PLATFORM
008
SHEET SIZE A3 Rev. C
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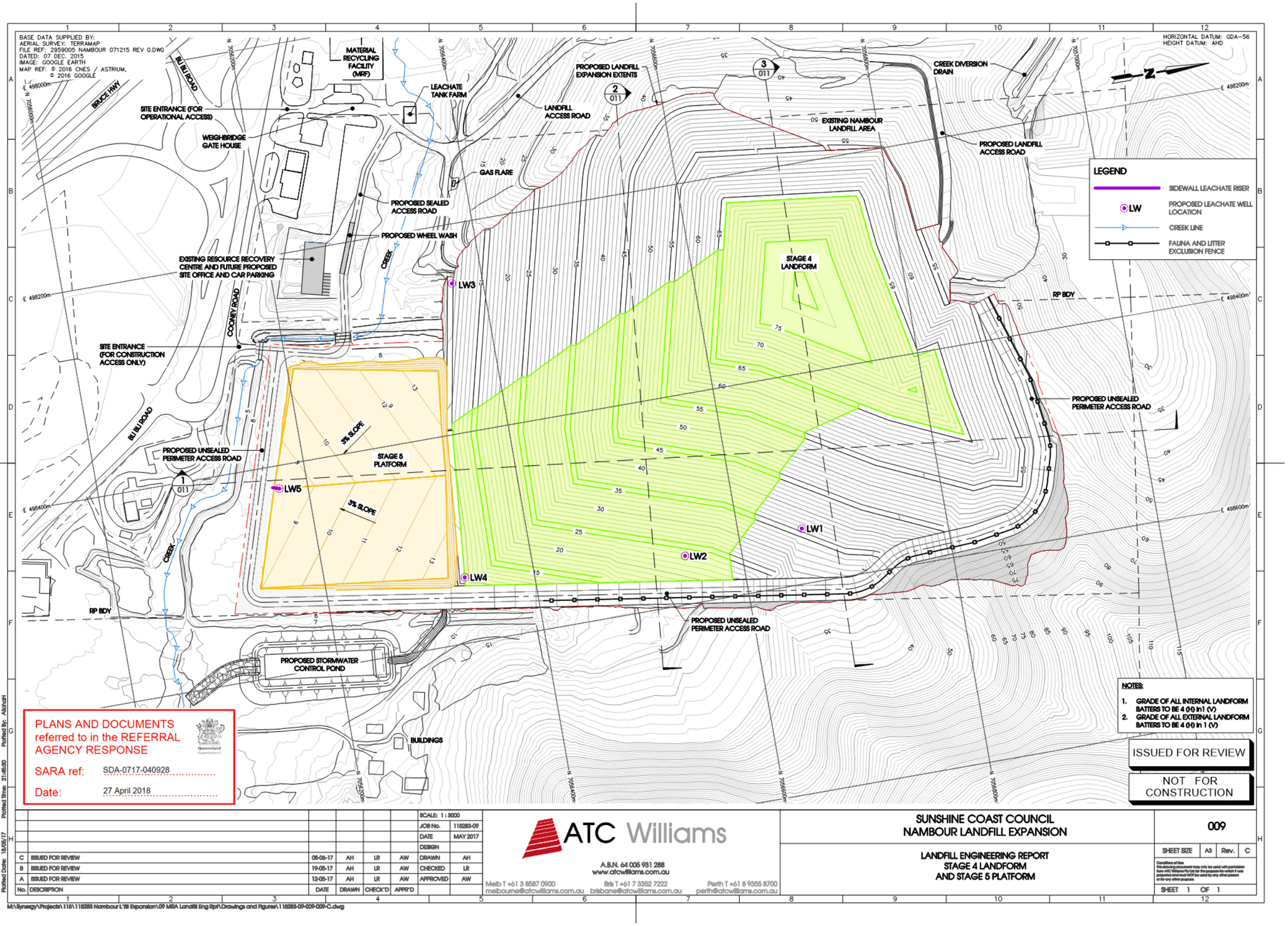
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IMAGE: GOOGLE EARTH
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HEIGHT DATUM: AHD
BRUCE HWY
BLI BLI ROAD
MATERIAL RECYCLING FACILITY (MRF)
SITE ENTRANCE (FOR OPERATIONAL ACCESS)
WEIGHBRIDGE GATE HOUSE
LEACHATE TANK FARM
LANDFILL ACCESS ROAD
PROPOSED LANDFILL EXPANSION EXTENTS
GAS FLARE
PROPOSED SEALED ACCESS ROAD
PROPOSED WHEEL WASH
EXISTING RESOURCE RECOVERY CENTRE AND FUTURE PROPOSED SITE OFFICE AND CAR PARKING
CREEK
COONEY ROAD
SITE ENTRANCE (FOR CONSTRUCTION ACCESS ONLY)
PROPOSED UNSEALED PERIMETER ACCESS ROAD
STAGE 5 PLATFORM
3% SLOPE
STAGE 4 LANDFORM
EXISTING NAMBOUR LANDFILL AREA
CREEK DIVERSION DRAIN
PROPOSED LANDFILL ACCESS ROAD
RP BDY
LW1
LW2
LW3
LW4
LW5
PROPOSED STORMWATER CONTROL POND
BUILDINGS
LEGEND
SIDEWALL LEACHATE RISER
PROPOSED LEACHATE WELL LOCATION
CREEK LINE
FAUNA AND LITTER EXCLUSION FENCE
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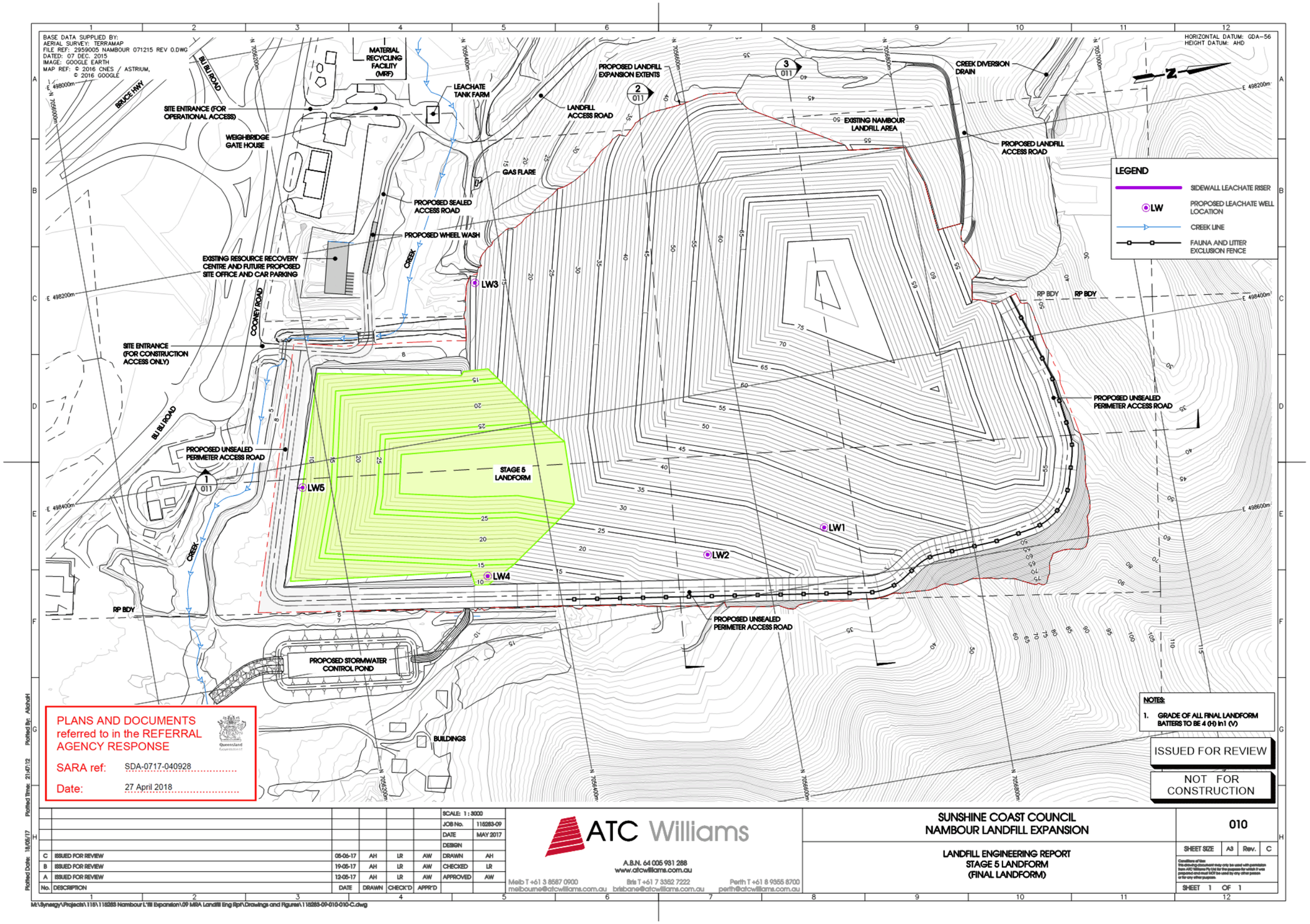
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IMAGE: GOOGLE EARTH
MAP REF: © 2016 CNES / ASTRIUM, © 2016 GOOGLE
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HEIGHT DATUM: AHD
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BLI BLI ROAD
MATERIAL RECYCLING FACILITY (MRF)
SITE ENTRANCE (FOR OPERATIONAL ACCESS)
WEIGHBRIDGE GATE HOUSE
LEACHATE TANK FARM
LANDFILL ACCESS ROAD
PROPOSED LANDFILL EXPANSION EXTENTS
CREEK DIVERSION DRAIN
EXISTING NAMBOUR LANDFILL AREA
PROPOSED LANDFILL ACCESS ROAD
GAS FLARE
PROPOSED SEALED ACCESS ROAD
PROPOSED WHEEL WASH
EXISTING RESOURCE RECOVERY CENTRE AND FUTURE PROPOSED SITE OFFICE AND CAR PARKING
COONEY ROAD
SITE ENTRANCE (FOR CONSTRUCTION ACCESS ONLY)
PROPOSED UNSEALED PERIMETER ACCESS ROAD
STAGE 5 LANDFORM
PROPOSED STORMWATER CONTROL POND
BUILDINGS
RP BDY
CREEK
LW1
LW2
LW3
LW4
LW5
LEGEND
SIDEWALL LEACHATE RISER
LW PROPOSED LEACHATE WELL LOCATION
CREEK LINE
FAUNA AND LITTER EXCLUSION FENCE
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SUNSHINE COAST COUNCIL
NAMBOUR LANDFILL EXPANSION
LANDFILL ENGINEERING REPORT
STAGE 5 LANDFORM
(FINAL LANDFORM)
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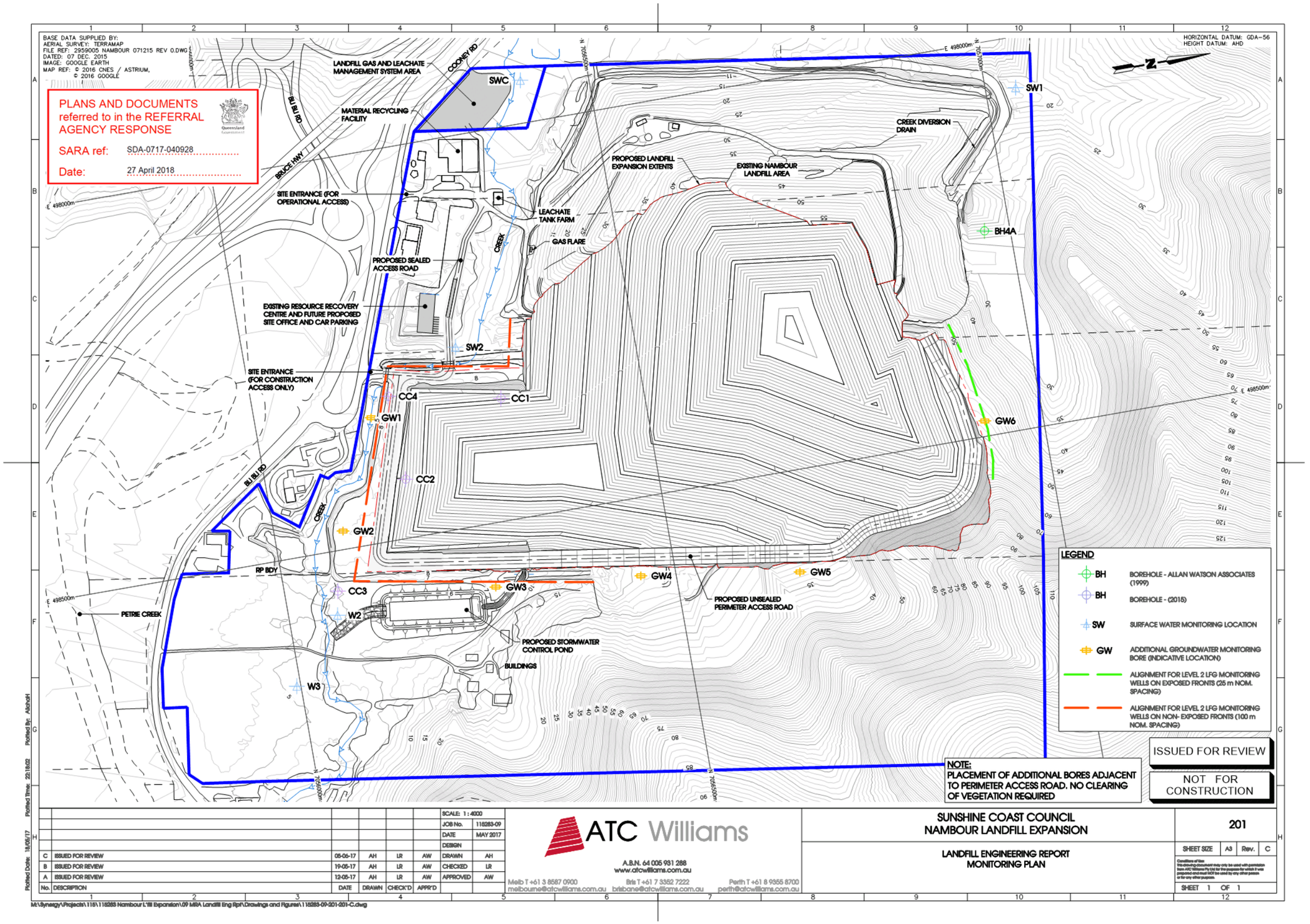
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HEIGHT DATUM: AHD
PLANS AND DOCUMENTS referred to in the REFERRAL AGENCY RESPONSE
SARA ref: SDA-0717-040928
Date: 27 April 2018
LANDFILL GAS AND LEACHATE MANAGEMENT SYSTEM AREA
COONEY RD
SWC
SW1
MATERIAL RECYCLING FACILITY
BLI BLI RD
BRUCE HWY
CREEK DIVERSION DRAIN
PROPOSED LANDFILL EXPANSION EXTENTS
EXISTING NAMBOUR LANDFILL AREA
SITE ENTRANCE (FOR OPERATIONAL ACCESS)
LEACHATE TANK FARM
GAS FLARE
BH4A
CREEK
PROPOSED SEALED ACCESS ROAD
EXISTING RESOURCE RECOVERY CENTRE AND FUTURE PROPOSED SITE OFFICE AND CAR PARKING
SW2
SITE ENTRANCE (FOR CONSTRUCTION ACCESS ONLY)
CC4
CC1
GW1
GW6
CC2
GW2
RP BDY
CC3
GW3
GW4
GW5
PROPOSED UNSEALED PERIMETER ACCESS ROAD
PETRIE CREEK
W2
PROPOSED STORMWATER CONTROL POND
BUILDINGS
W3
LEGEND
BH BOREHOLE - ALLAN WATSON ASSOCIATES (1999)
BH BOREHOLE - (2015)
SW SURFACE WATER MONITORING LOCATION
GW ADDITIONAL GROUNDWATER MONITORING BORE (INDICATIVE LOCATION)
ALIGNMENT FOR LEVEL 2 LFG MONITORING WELLS ON EXPOSED FRONTS (25 m NOM. SPACING)
ALIGNMENT FOR LEVEL 2 LFG MONITORING WELLS ON NON- EXPOSED FRONTS (100 m NOM. SPACING)
NOTE:
PLACEMENT OF ADDITIONAL BORES ADJACENT TO PERIMETER ACCESS ROAD. NO CLEARING OF VEGETATION REQUIRED
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NOT FOR CONSTRUCTION
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APPROVED AW
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A.B.N. 64 005 931 288
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NAMBOUR LANDFILL EXPANSION
LANDFILL ENGINEERING REPORT
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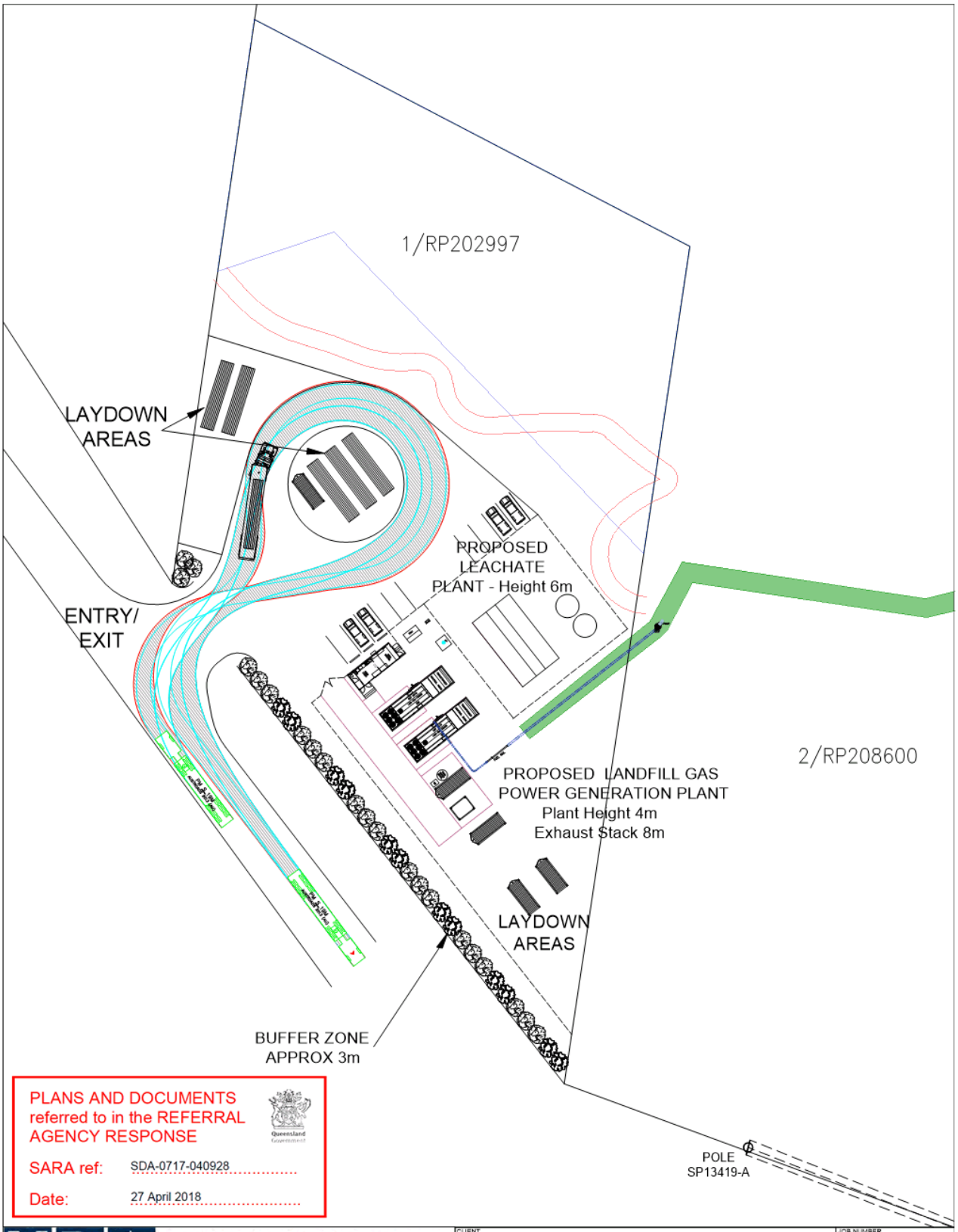
1/RP202997
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ENTRY/ EXIT
2/RP208600
PROPOSED LANDFILL GAS POWER GENERATION PLANT
Plant Height 4m
Exhaust Stack 8m
LAYDOWN AREAS
BUFFER ZONE APPROX 3m
POLE SP13419-A
PLANS AND DOCUMENTS referred to in the REFERRAL AGENCY RESPONSE
SARA ref: SDA-0717-040928
Date: 27 April 2018
MARK RIGBY & ASSOCIATES
excellence in environmental management
solutions • balance • growth
Suite 1, 37 Commerce Drive, Robina
PO Box 480 Robina QLD, 4226
PH (07) 5578 7040
FAX (07) 7758 7313
MOB 0417 797 486
CLIENT SUNSHINE COAST COUNCIL
JOB NUMBER MRA 17- 001
PROJECT NAMBOUR LANDFILL EXPANSION MCU DEVELOPMENT APPLICATION
DRAWING FIGURE 1
TITLE PROPOSED LEACHATE & LANDFILL GAS MANAGEMENT AREA
DESIGNED SI
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CHECKED AR
APPROVED MR
DATE JUNE 2017
SCALE NTS
LEVEL DATUM
SHEET SIZE A4
CAD FILE
ISSUE
REV FINAL

PLANS AND DOCUMENTS referred to in the REFERRAL AGENCY RESPONSE

SARA ref: SDA-0717-040928

Date: 27 April 2018

ProjexPartners
PROJECT MANAGEMENT | ENGINEERING | PLANNING
A MEMBER OF THE PARTNERS GROUP AUSTRALIA

Nambour Landfill Expansion

Traffic Impact Assessment

Project No. 103-189

Sunshine Coast Council

May, 2017

Sunshine Coast Council

Projex Partners Pty Ltd
Level 3
135 Horton Parade
Maroochydore Qld 4558

Our ref: 103-189

THE PARTNERS GROUP AUSTRALIA

ISO 9001 QUALITY JAS-ANZ
WWW.JAS-ANZ.ORG/REGISTER

Prepared by:

Projex Partners Pty Ltd
ACN 153 518 971 ABN 62 153 518 971
Level 3
135 Horton Parade
MAROOCHYDORE QLD 4558

Telephone: 07 5451 1416

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A	18/5/17	ORIGINAL ISSUE	NJ	PM	PM
B	24/5/17	Minor amendments and Appendix A included	NJ	PM	PM

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CONTENTS

Tables

Figures

1. INTRODUCTION

Sunshine Coast Council (SCC) propose to expand the existing Nambour Landfill facility located on Cooney Road, Bli Bli. The Nambour Landfill has been operational since 1989 and has a remaining lifespan of approximately ten to thirteen years. The waste facility currently incorporates the Nambour Landfill, a Resource Recovery Centre (RRC) and a Material Recycling Facility (MRF). Council propose to expand the existing Nambour Landfill onto the adjoining land parcels to the east, including Lot 4 RP 803104 and Lot 1 CG2584 and relocate leachate and gas management infrastructure to Lot 1 RP202997.

The purpose of this report is to assess the adequacy or upgrade requirements of the existing road network associated with the proposed Nambour Landfill expansion, and address the relevant State/Local codes in relation to traffic/transport. Specifically, assessments have been undertaken at the intersection of the Nambour Landfill access with Cooney Rd, the intersection of the proposed landfill gas power station site with Cooney Rd, and at the intersection of Cooney Rd with Bli Bli Rd.

1.1 Development Details

The Nambour Landfill site is located on Cooney Rd, Bli Bli and is adjacent to the Bruce Highway / Bli Bli Rd interchange. Refer locality maps in Figures 1.0 and 1.1. The proposal is for the expansion of the existing Nambour Landfill site to cater for future waste disposal demand for the Sunshine Coast Region, including the planned future closure of the Caloundra Landfill. Upon closure of the Caloundra Landfill it is intended to direct the following waste to Nambour:

- Council Hook trucks are required to transfer waste from the existing Caloundra waste transfer facility to the Nambour Landfill.
- Commercial vehicles previously utilising the Caloundra Landfill facility will be directed to the Nambour Landfill.
- Council Kerbside collection vehicles previously using the Caloundra Landfill will be redirected to the Nambour.

The Caloundra resource recovery centre and transfer station will remain open for use by vehicles other than the redirected commercial vehicles and kerbside collection vehicles.

The Nambour Landfill is planned to be expanded in 2027 and the Caloundra Landfill is planned to be closed 8 years later in 2035.

A landfill gas power generation plant and leachate treatment plant are also proposed to be established on the southern portion of Lot 1 RP202997. Access to this site will be via Cooney Road.

The landfill expansion development site is located within 25m of a state-controlled Rd (Bli Bli Rd and Bruce Hwy) and therefore triggers assessment by the State Assessment and Referral Agency (SARA).

The Nambour landfill expansion involves the excavation of approximately 400,000 tonnes of material. It is intended that this material will remain on site and therefore have no impact on external road network.

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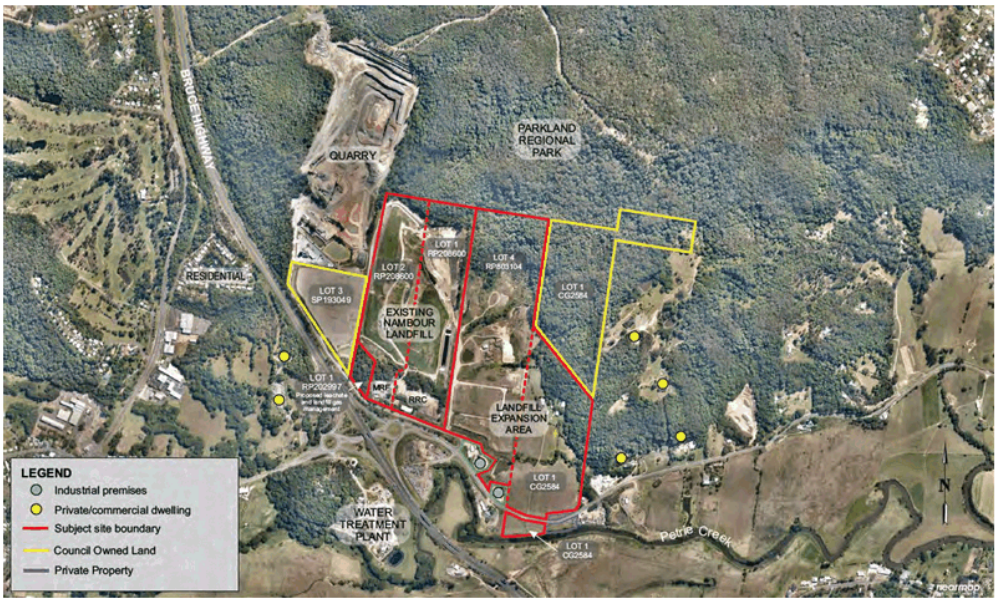

Figure 1.0: Nambour Landfill Expansion Locality Map

Figure 1.1: Locality Map

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1.2 Surrounding road network details

The specifics of the site's surrounding road network are as follows:

- The site access is located on a local government road (Cooney Rd) that intersects Nambour-Bli Bli Rd approximately 300 m away.
- Cooney Rd is a two-way, two-lane road, posted at 60km/h.
- Nambour-Bli Bli Road is a State Controlled Road (SCR) (TMR Road ID 130) and is typically a 2-lane, 2-way road. In the area under assessment (refer highlighted area on Figure 2) the road has been widened to 4 lanes, starting at the Cooney Road intersection and through the Bruce highway/Nambour-Bli Bli Rd interchange roundabouts.
- Nambour-Bli Bli Road is posted at 60km/h at the Cooney Road intersection location and generally 80 km/h elsewhere.
- The intersection of Cooney Rd and Bli Bli Rd is currently un-signalised.
- A number of commercial/industrial activities are located in the vicinity of the proposed development and are serviced by Nambour - Bli Bli Road. The activities are anticipated to generate significant heavy vehicle traffic and are as follows:
    - The existing Nambour Landfill, Resource Recovery Centre (RRC) and a Material Recycling Facility (MRF) off Cooney Road;
    - Holcim Quarries, Cooney Road;
    - Downer Asphalt Plant, Cooney Road;
    - Nambour Sewerage Treatment Plant, Nambour - Bli Bli Road;
    - Claytons Towing Depot, Nambour – Bli Bli Road;
    - BP Depot & JC Hire, Nambour – Bli Bli Road;
    - TMR Material Depot, Nambour - Bli Bli Road;

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2. ASSESSMENT OF NAMBOUR LANDFILL ACCESSES ON COONEY ROAD

2.1 Existing Traffic Volumes

For the purposes of this intersection analysis, the existing traffic volumes accessing the landfill have been obtained from Sunshine Coast Council records of vehicles using the Nambour Landfill from 1st March 2015 until 29th February 2016. Peak hour estimates were calculated based on 16% Annual Average Daily Traffic (AADT) as the highest percentage recommended by Austroads Guide to Traffic Management Part 6; Intersection, Interchanges and Crossings section 2.3.6.

Other than an adjacent quarry and asphalt plant, there are no other significant traffic generating properties on Cooney Road beyond the landfill. In order to estimate peak hour traffic volumes generated by the quarry and asphalt plant, telephone calls were made to these facilities and estimates were provided by them. The following estimates were provided:

2.1.1 Existing Nambour Landfill Traffic Generation Calculations

See below for an example of how traffic volumes have been calculated

Annually = 2016 vehicle no (taken from SCC records)
= 92,041 vehicles

AADT = 92,041 ÷ 365
= 253 vehicles

Peak hour = 253 x 0.16
= 41 vehicles

Table 2.0 Peak hour traffic estimates: Quarry and Asphalt Plant

	Estimated Traffic Volume	Peak Hour Estimate
Quarry (Holcim)	1 vehicle every minute	60
Asphalt Plant (Downer)	1 vehicle every 2 minutes	30

Existing peak hour turning movements at the intersection of Nambour Landfill and Cooney Road are shown in Figure 2.0.

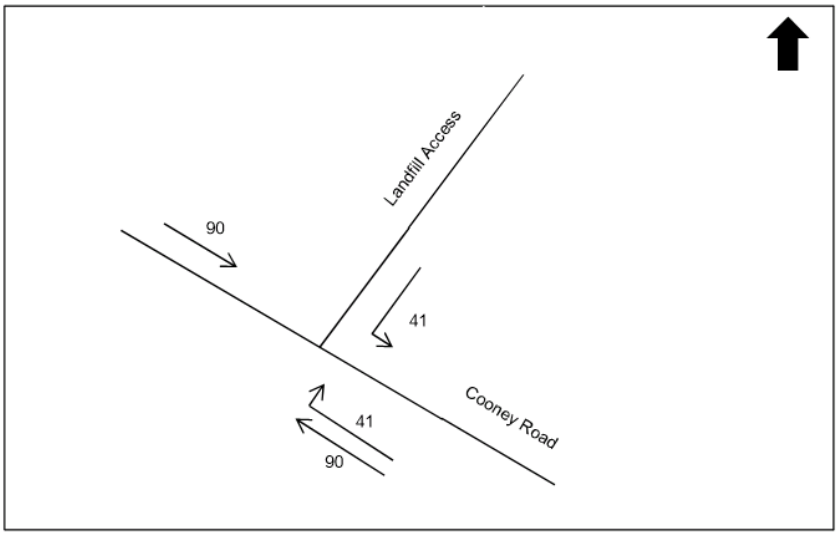

Figure 2.0: Existing Peak Hour Traffic Volumes

2.2 Future traffic generation

- Likely traffic volumes in Cooney Rd were estimated for various timeframes
  - 2027 – The planned opening of Nambour Landfill upgrade
  - 2035 – The forecast year for closure of the Caloundra Landfill.
  - 2045 – 10 year post forecast closure of the of Caloundra Landfill.
- All traffic generated by the closure of Caloundra Landfill (in 2035) has been added directly to the existing turning movements at the Nambour Landfill intersection.
- The additional traffic to the Nambour Landfill site generated by the closure of Caloundra Landfill has been obtained from Sunshine Coast Council records of vehicles using the Caloundra Landfill from 1st March 2015 until 29th February 2016.
- We understand that the estimated peak volumes for the quarry and asphalt plans are current operational maximums and any growth in these facilities will be subject to future development applications. As such, we have not grown the estimated traffic volumes for the quarry and asphalt plant for the timeframes noted above.
- Traffic volumes generated by the landfill gas power station and leachate treatment plant have been assumed to be negligible for the purposes of this analysis.
- Based on Council advice, it has been assumed that all material removed (i.e. approximately 400,000 Tonne) for the landfill expansion will be re-used on site for landfill development works and providing cover material for the ongoing operation of the landfill. If this decision changes it is understood that a separate road impact assessment will be required.
- Compounding Annual Growth Rates (CAGRs) have been taken from the attached Bitzios consulting report. It is understood that these figures have been taken from Resource Innovations Report 25 November 2016 titled "Landfill Airspace Estimation Caloundra & Nambour Landfills". The Resource Innovations report indicates Population forecasting utilised the Queensland government population estimates 2011-2036 at the SA2 statistical level for the Sunshine Coast Council Local Government Area (LGA).
- The following CAGR figures have been adopted for the Nambour Landfill:
  - 1.76% p.a (year 2016 - 2027)
  - 1.00% p.a (year 2027 - 2035).
  - 1.00% (year 2035 - 2045).
- The following CAGR figures have been adopted for the Caloundra Landfill (in line with closure dates):
  - 3.10% (year 2016 – 2035)
  - 2.37% (year 2035 – 2045)

Table 2.1 Peak Hour Traffic Generation – Cooney Road Quarry and Asphalt Plant

	2016	2027	2035	2045
Peak Hour Volume (in)	90	90	90	90
Peak Hour Volume (out)	90	90	90	90
Total	**180**	**180**	**180**	**180**

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Table 2.2 Peak Hour Traffic Generation – Nambour Landfill Access

	2016	2027	2035			2045		
	Current	Nambour CAGR (1.76%)	Nambour CAGR (1.00%)	Caloundra CAGR (3.10%)	Total	Nambour CAGR (1.00%)	Caloundra CAGR (2.37%)	Total
Peak Hour Volume (in)	41	48	53	12	65	58	14	72
Peak Hour Volume (out)	41	48	53	12	65	58	14	72
Total	**82**	**96**			**128**			**144**

2.2.1 Landfill Traffic Generation Calculations

See below for an example of how traffic volumes have been calculated, in this case based on 2035.

Future traffic volumes due to Nambour CAGR (2035):

Peak hour = 2016 peak hour traffic volume x CAGR (2027) x CAGR (2035)
= 41 x $(1+0.0176)^{10}$ x $(1+0.0100)^{9}$
= 53 vehicles

Future direct traffic volumes (kerbside collection and commercial vehicles) due to Caloundra closure (2035):

Annually = 2016 vehicle no x CAGR
= 11,937 x $(1+0.03100)^{19}$
= 21,321 vehicles

AADT = 21,321 ÷ 365
= 59 vehicles

Peak hour = 59 x 0.16
= 10 vehicles

Future waste transfer traffic volumes due to Caloundra closure (2035):

Annually = Caloundra water transfer vehicles x CAGR
= 1977 x $(1+0.03100)^{19}$
= 3,531 vehicles

AADT = 3,531 ÷ 365
= 10 vehicles

Peak hour = 94 x 0.16
= 2 vehicles

Development-generated peak hour traffic is shown in Figure 2.1.

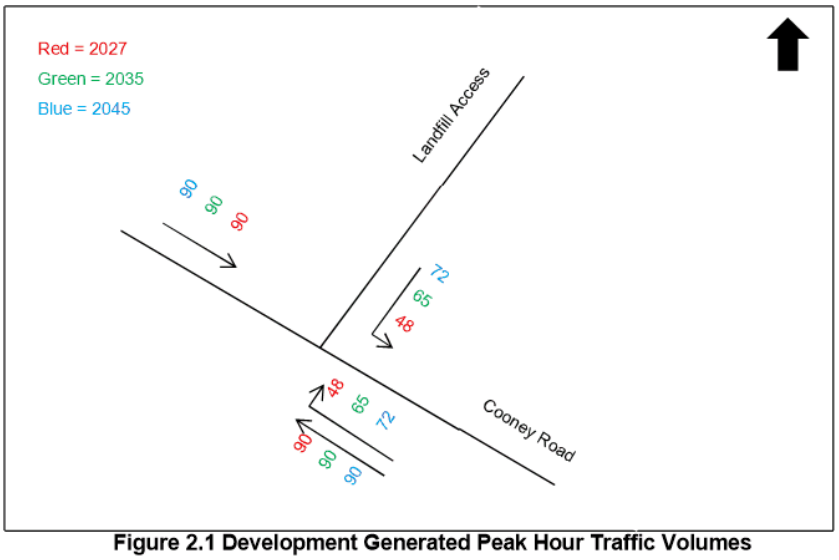


Figure 2.1 Development Generated Peak Hour Traffic Volumes

2.3 Intersection Analysis

An intersection analysis/warrant has been carried out in accordance with Austroads guidelines. Checks have been done for 2016, 2027, 2035 and 2045 traffic volumes. The results are shown in Figure 2.2.

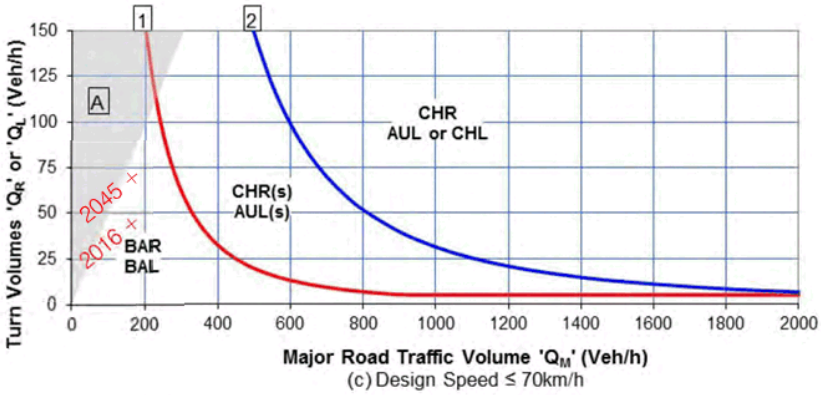


Figure 2.2 Intersection Warrants (from *Supplement to Austroads Guide to Road Design Part 4A: Unsignalised and Signalised Intersections – Figure 4A-1c*)

As demonstrated above, a Basic Right-turn Treatment (BAR) is recommended for access to the landfill site.

The current intersection at the landfill site appears to be a Simple Right (SR) turn arrangement. An unsealed shoulder appears to have been provided, however the longitudinal extent of the shoulder is insufficient to classify the existing intersection as a BAR. Google street view images of the current intersection suggest that vehicles are utilising the unsealed shoulder for right turn movements into the landfill. Refer to Figure 2.3 and 2.4. It is recommended that shoulder sealing be undertaken.

The access to the landfill gas power generation plant and leachate treatment plant (located at the southern portion of Lot 1 RP202997 on Cooney Road) is also recommended for a BAR intersection treatment with shoulder sealing.

This recommendation is based on the peak hour traffic volume estimates for the quarry and asphalt plant (90 vehicles per hour in total). Subject to future, detailed peak hour traffic analysis along Cooney Road and TMR approval, this intersection may be reclassified as a Simple Right (SR) turn arrangement if the peak hour traffic was shown to be less than 75 vehicles per hour. A SR intersection would not require shoulder widening on Cooney Road.

Figure 2.3: Existing landfill intersection (looking west)

Figure 2.4: Existing landfill intersection (looking east)

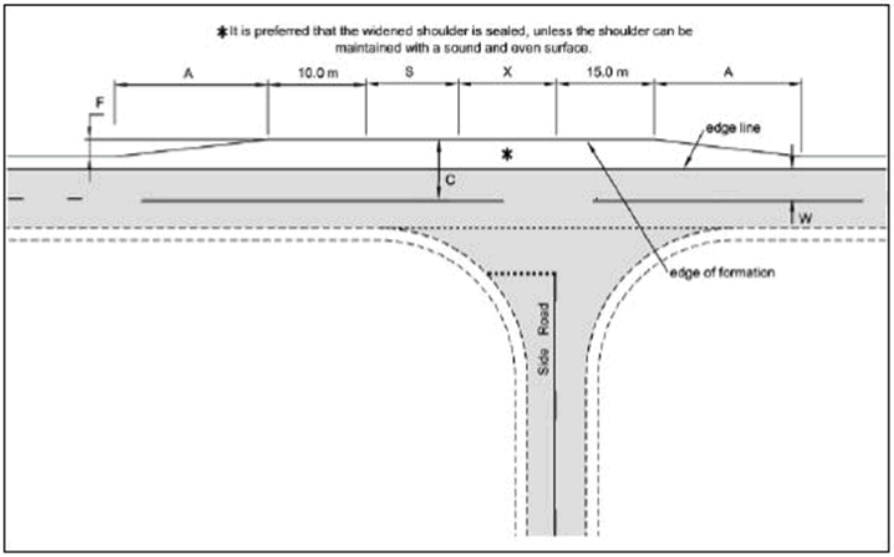


Figure 2.5: Basic Right (BAR) Turn Treatment

2.4 Safety Review

For detailed design, these existing intersections should be assessed for swept path turning manoeuvres of the appropriate design vehicle, which in this instance is considered to be a 19m long semi-trailer. Sight distances standards may also require vegetation clearing, minor earthworks and fence relocations on the approaches to these intersections. No other safety issues were identified, although a full road safety audit is recommended prior to completing detailed design.

ProjexPartners

3. ASSESSMENT OF BLI BLI ROAD AND COONEY ROAD INTERSECTION

Refer to the attached report by Bitzios Consulting (Appendix A).

ProjexPartners

Appendix A

Assessment of Bli Bli Road and Cooney Road Intersection by Bitzios Consulting

BITZIOS consulting

Gold Coast Office
S: Suite 26, 58 Riverwalk Avenue Robina QLD 4226
M: PO Box 5102 Q Super Centre Mermaid Waters QLD 4218
P: (07) 5562 5377
F: (07) 5562 5733
W: www.bitziosconsulting.com.au

Brisbane Office
S: Level 2, 428 Upper Edward Street Spring Hill QLD 4000
M: Level 2, 428 Upper Edward Street Spring Hill QLD 4000
P: (07) 3831 4442
F: (07) 3831 4455
E: admin@bitziosconsulting.com.au

Sydney Office
S: Studio 203, 3 Gladstone Street Newtown NSW 2042
M: Studio 203, 3 Gladstone Street Newtown NSW 2042
P: (02) 9557 6202
F: (02) 9557 6219

Our Reference: P2423.004L
Your Reference:

19 May 2017

The Chief Executive Officer
Sunshine Coast Council
Locked Bag 72,
Sunshine Coast Mail Centre QLD 4560

Attention: **Alex Patissier**
Sent via email: Mark Rigby <mrigby@mraenvironmental.com.au>

Dear Mark

RE: NAMBOUR LANDFILL INTERSECTION ASSESSMENT

1.0 INTRODUCTION

1.1. Background

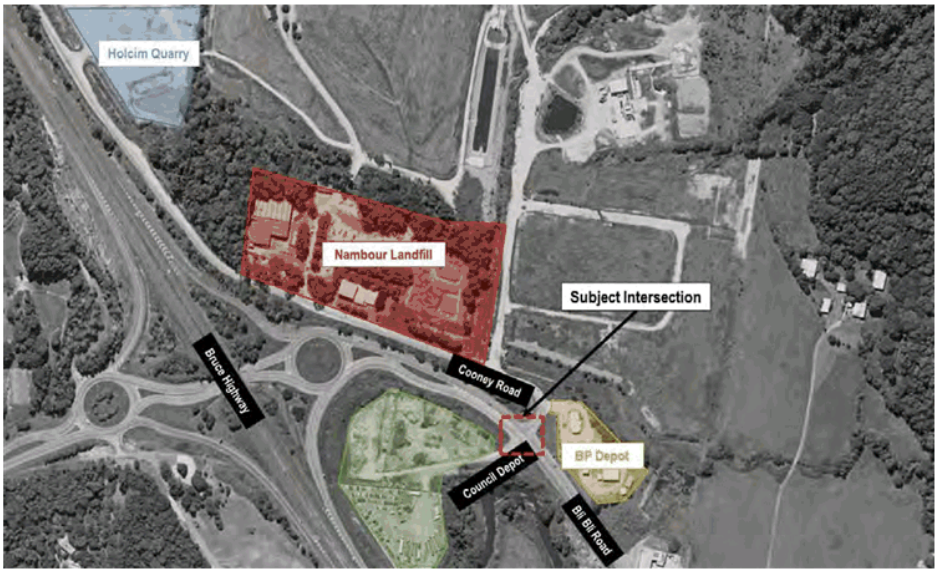
Bitzios Consulting has been commissioned by Sunshine Coast Regional Council to undertake an intersection assessment of the Bli Bli Road / Cooney Road priority controlled intersection to assist in determining the future infrastructure requirements associated with the Nambour Landfill expansion. It is also understood that the existing Caloundra Landfill on Pierce Avenue is being closed in the future (approx. year 2035) and that the demand associated with this Landfill will be transitioned to the Nambour Landfill expansion.

A preliminary meeting including Mark Rigby Associates (MRA), Sunshine Coast Regional Council (SCRC) and Transport and Main Roads (TMR) resulted in TMR requesting the following:

> *'... provide traffic counts for the intersection (particularly left turn in from Bli Bli Rd) and as an outcome Council will need to demonstrate the existing infrastructure is a safe environment to continue the use as a landfill.'*

1.2. Bli Bli Road / Cooney Road Priority Controlled Intersection

The subject intersection is a four-way priority controlled intersection that affords access to the Nambour Landfill, Holcim Quarry and BP Depot in the north via Cooney Road and a Council Depot in the south via an informal driveway access. The intersection is located approximately 250m east of the Bli Bli Road / Bruce Highway interchange (Exit 208) as shown in Figure 1.1.



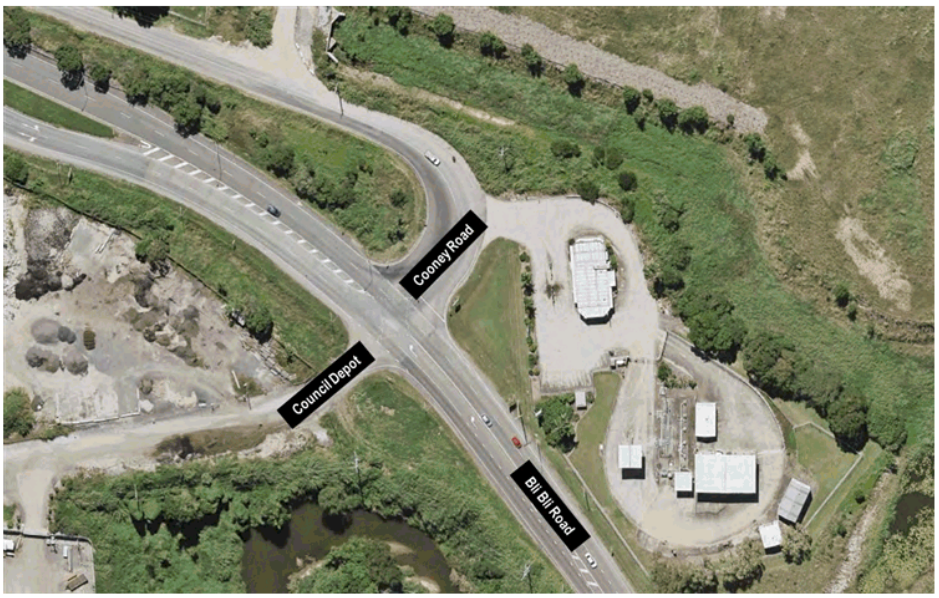
Source: Google Earth (QLD Globe)

Figure 1.1: Subject Site Location

2.0 EXISTING (2016) INTERSECTION ASSESSMENT

2.1. Existing (2016) Intersection Configuration

The existing configuration of the Bli Bli Road / Cooney Road intersection is shown in Figure 2.1. Approximately 135m east of the intersection, Bli Bli Road is a two-way two-lane road.



Source: Google Earth (QLD Globe)

Figure 2.1: Bli Bli Road / Cooney Road Priority Controlled Intersection Configuration

2.2. Existing (2016) Traffic Volumes

Traffic Data and Control (TDC) undertook 12-hour intersection traffic counts on Thursday 28th January 2016 and Saturday 30th January 2016. The results of the intersection Counts are provided within Attachment A.

Given that the commuter/intersection peaks were identified to have significantly greater background traffic volumes, commuter peaks have been considered as the "worst-case" scenarios for assessment. Figure 2.2 shows the AM and PM intersection peak traffic volumes for Thursday commuter peak and Saturday background traffic peak.

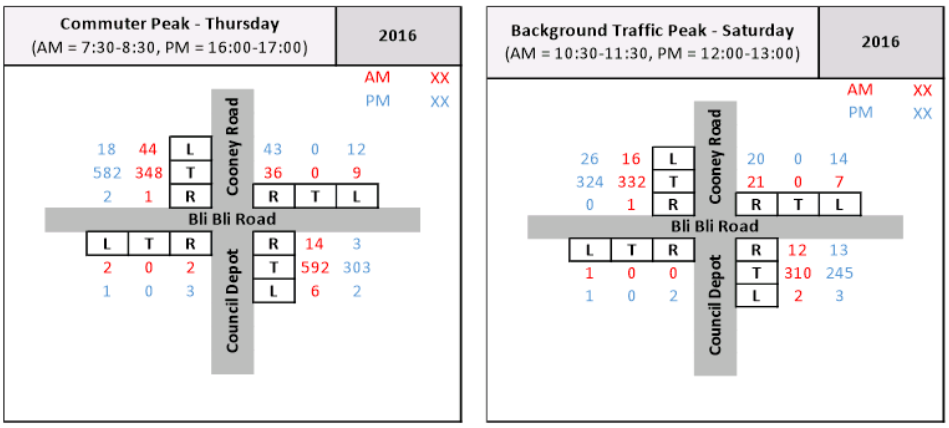


Figure 2.2: Intersection Peak Traffic Volumes

2.3. Existing (2016) Intersection Assessment

The Bli Bli Road / Cooney Road intersection was assessed using SIDRA Intersection Software (version 6.1). The intersection configuration used for the SIDRA modelling is shown in Figure 2.3. Based on the aerial imagery, Cooney Road near the intersection is wide enough to cater for two (2) approach lanes. As such, a 42m left-turn pocket has been included on Cooney Road approach leg.

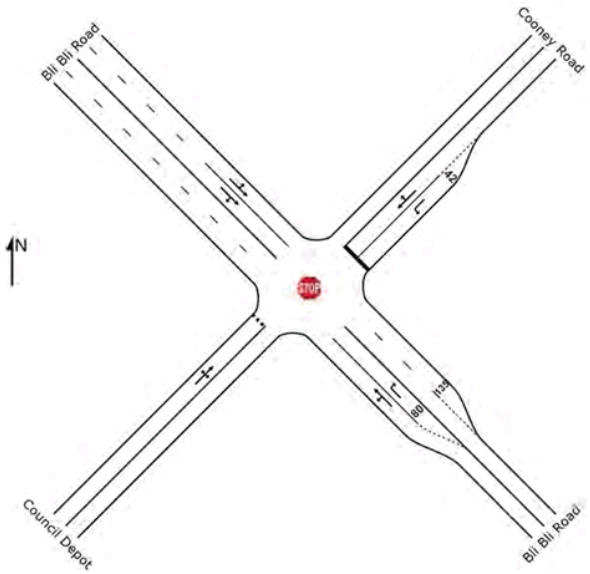


Figure 2.3: Bli Bli Road / Cooney Road Intersection Configuration

Key performance criteria (i.e. degree of saturation (DOS), average delay, Level of Service (LOS) and 95th %ile queue length) outputs from the SIDRA assessment are shown in Table 2.1 below.

Table 2.1: SIDRA Outputs Summary – Bli Bli Road / Cooney Road – Intersection Peaks

Approach	AM Peak				PM Peak			
	DOS	Av. Delay (s)	LOS	95%ile Queue (m)	DOS	Av. Delay (s)	DOS	95%ile Queue (m)
Thursday 28th January 2016								
Bli Bli Road (SE)	0.345	0.3	NA	0.7	0.176	0.2	NA	0.2
Cooney Road (NE)	0.628	87.5	F	21.4	0.491	52.6	F	17.1
Bli Bli Road (NW)	0.136	0.8	NA	0.3	0.203	0.2	NA	0.3
Council Depot (SW)	0.045	34.8	D	1.4	0.040	31.3	D	1.2
Saturday 30th January 2016								
Bli Bli Road (SE)	0.172	0.3	NA	0.4	0.137	0.5	NA	0.4
Cooney Road (NE)	0.090	17.7	C	2.3	0.074	14.5	B	1.9
Bli Bli Road (NW)	0.113	0.3	NA	0.1	0.114	0.4	NA	0.1
Council Depot (SW)	0.009	13.0	B	0.3	0.011	12.8	B	0.3

The SIDRA outputs demonstrate the subject intersection is currently operating satisfactorily from a capacity perspective, with Degree of Saturation (DOS) for each approach below the industry accepted 0.8 (i.e. LOS C) for priority controlled intersections. Queues for each approach are well within acceptable limits as well and do not result in any impacts to surrounding intersections. During the Thursday peak periods the minor approaches (i.e. Cooney Road and Council Depot) exhibit delays in excess of the industry accepted 25 seconds (i.e. LOS C) for priority controlled intersections (as shown in Figure 2.4).

From a road safety perspective delays exceeding 25 seconds at priority controlled intersections can result in drivers taking unnecessary risks and choosing smaller than usual gaps in traffic.

Based on our review of the intersection, there are no acceptable minor mitigation measures available and therefore it is recommended that the intersection be upgraded to either signals or a roundabout so it operates within acceptable performance parameters. A recommended upgrade option is provided within Section 3.0.

Table 5.14.1

Delay (HCM 2000) method for Level of Service definitions based on delay only (for vehicles)

Level of Service	Control delay per vehicle in seconds (d)		
	Signals (*SIDRA standard default for roundabouts*)	"SIDRA Roundabout LOS" method (1)	Sign Control
A	d ≤ 10	d ≤ 10	d ≤ 10
B	10 < d ≤ 20	10 < d ≤ 20	10 < d ≤ 15
C	20 < d ≤ 35	20 < d ≤ 35	15 < d ≤ 25
D	35 < d ≤ **55**	35 < d ≤ **50**	25 < d ≤ **35**
E	**55** < d ≤ 80	**50** < d ≤ 70	**35** < d ≤ 50
F	80 < d	70 < d	50 < d

For Standard Left, Standard Right and New Zealand models in SIDRA INTERSECTION, this is the default *LOS Method* for vehicles.

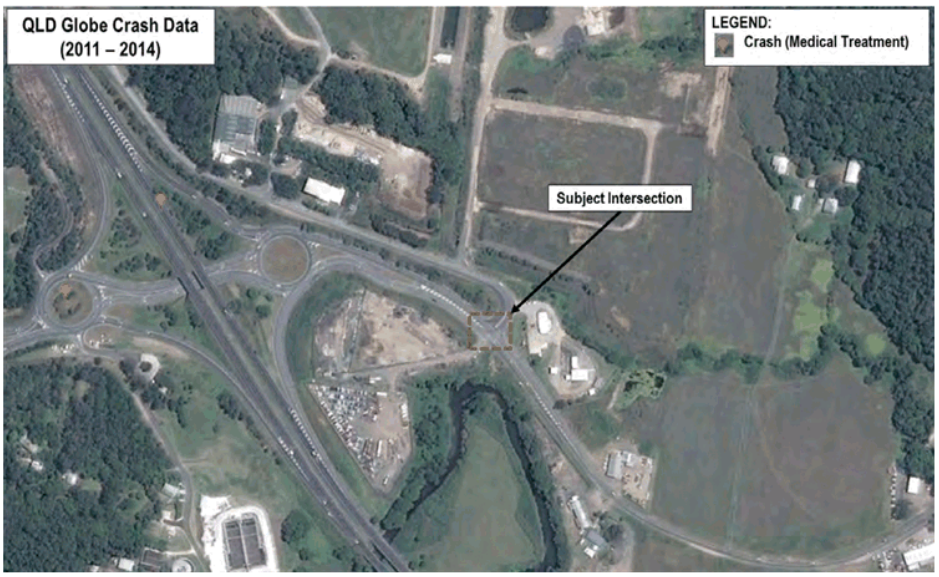
Source: SIDRA Intersection 6.1 User Guide

Figure 2.4: Level of Service (LOS) Definitions Based on Delay

2.4. Crash Analysis

The existing Bli Bli Road / Cooney Road intersection does not provide protection for right-turning into Council Depot from Bli Bli Road. This is considered as a safety issue and could lead to rear end crashes.

Notwithstanding this, a review of the Qld Globe crash data between 2011 and 2014, presented in Figure 2.5 shows that there have been no crashes recorded within close proximity of the intersection in the past five (5) years. Prior to this a number of crashes were recorded at the subject intersection, however they were primarily single vehicle incidents.



Source: Google Earth (QLD Globe)

Figure 2.5: Crash Analysis Data (2011-2014)

3.0 IMPROVED INTERSECTION DESIGN

Based on the above analysis, it is understood that the subject intersection should be upgraded in the next few years to cater for the background traffic growth and additional demand resulting from the Nambour landfill expansion. In order to improve the efficiency and safety of the intersection, improvements would comprise either a roundabout or signalised intersection.

When considering the subject intersection's location within 250m of the Bli Bli Road / Bruce Highway interchange roundabout and the spatial land requirements for a roundabout given design volumes and design speeds, a roundabout is not considered to be the preferred option at this location. On this basis, a signalised intersection has been assessed as a recommended upgrade option.

As previously identified, the existing eastbound right-turn into Council Depot from Bli Bli Road is considered potential rear end crash safety issue. As a result, it is recommended that the intersection upgrade should include a dedicated right-turn pocket to facilitate movements into the Council Depot, which would also provide benefits in future-years when the site could be redeveloped to a more intensive land use.

During the options testing, it was determined that in order to manage the northbound queues on Bli Bli Road, a short (i.e. 30m) stand up lane should be provided, which would facilitate through and left turn movements.

The resultant signalised intersection layout is shown in Figure 3.1 and the proposed signal phasing for the intersection is shown in Figure 3.2.

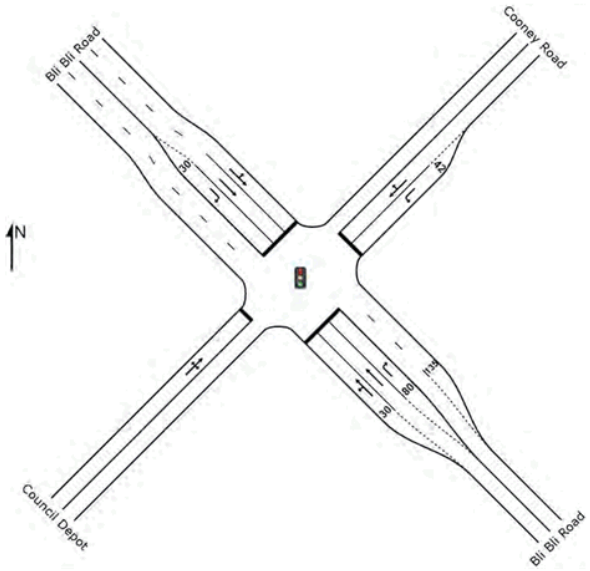


Figure 3.1: Recommended Intersection Upgrade Design

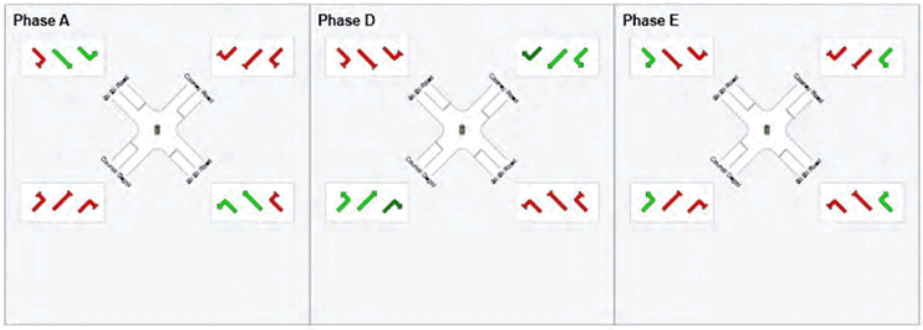


Figure 3.2: Proposed Signal Phasing

4.0 FUTURE-YEAR SCENARIO TESTING

4.1. Scenarios

To ensure that the recommended intersection upgrade will operate satisfactorily in the future and with the additional traffic associated with the closure of the Caloundra Landfill, detailed intersection assessments have been undertaken for the following future-year scenarios:

1. year 2026 (i.e. year of opening of Nambour Landfill upgrade);
2. year 2035 (i.e. year of transition from Caloundra Landfill to Nambour Landfill); and
3. year 2045 (i.e. 10-years post transition).

As determined in Section 2.0, the 'worst-case scenario' for the intersection is the Thursday AM commuter peak period and all further detailed intersection assessments have been undertaken for this period only. The anticipated year of opening is assessed as year 2026 however Bitzios has received advice that this may be year 2027. Irrespective of this, the difference in the analysis, results and conclusions for the year 2026 and 2027 are negligible.

4.2. Future-Year Traffic Volumes

The future background traffic growth for through traffic on Bli Bli Road for all scenarios was calculated by applying the compounding annual growth rate (CAGR) of the population forecasts for the 'Sunshine Coast Total' (provided by MRA and presented in Attachment B). Specifically, the CAGR's applied to the Bli Bli Road through traffic for each future scenario are shown in Table 4.1.

Table 4.1: Compounding Annual Growth Rates for Bli Bli Road (based on Sunshine Coast Total Population Forecasts)

	2016 – 2026	2026 - 2035	2035 – 2045
Population Increase (persons)	82,288	78,163	120,711
CAGR (% p.a.)	2.47%	2.1%	2.37%

Scenario 1 (Year 2026)

For Scenario 1, the Cooney Road two-way traffic volumes have been escalated based on the increase in total waste generation for the Nambour Landfill between 2016 and 2026 (sourced from the airspace forecasts provided within Attachment C). The CAGR was found to be 1.76% p.a.

The resultant traffic volumes used for the detailed intersection assessment of Scenario 1 are shown in Figure 4.1.

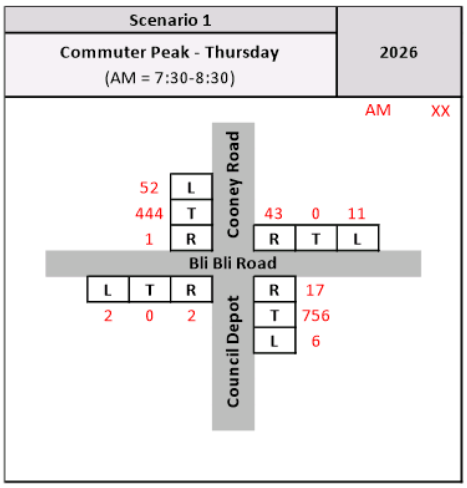


Figure 4.1: 2026 Intersection Volumes (10-years Post-Opening of Nambour Landfill Upgrade)

Scenario 2 (Year 2035)

For Scenario 2, the Cooney Road two-way traffic volumes are a combination of the escalated Nambour Landfill traffic volumes and the diverted Caloundra Landfill traffic volumes.

The Nambour Landfill (i.e. Cooney Road) traffic volumes for year 2035 were calculated using a 1.00% CAGR based on the increase of total waste generation to the Nambour Landfill between year 2026 and year 2035.

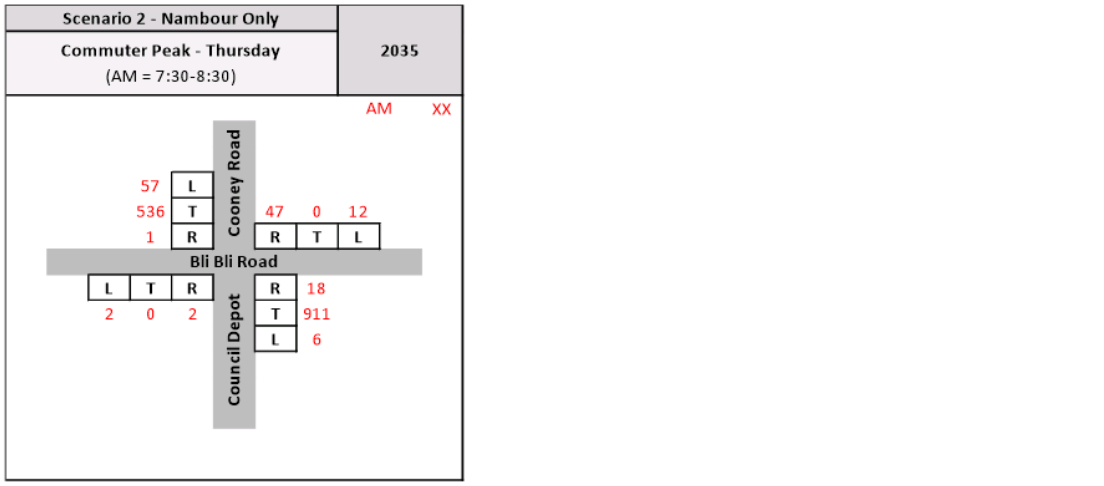


Figure 4.2: 2035 Intersection Volumes (Nambour Landfill Only)

In lieu of existing traffic volume data for the Caloundra Landfill, we have conservatively estimated its total two-way traffic volumes as based on the waste tonnage to vehicle trip ratio of the existing Nambour Landfill.

The intersection survey volumes for Cooney Road are noted to be a combination of the Nambour Landfill, Holcim Quarry and BP Depot. For the purpose of this assessment the total traffic on Cooney Road is assumed to represent the Nambour Landfill traffic volumes which is considered to be very conservative. As a result the Nambour Landfill generates a total of 103 two-way peak hour trips in the Thursday AM peak period and the Nambour Landfill generates in the order of 82,441 tonnes in year 2016 as shown in Table 4.2.

Table 4.2: Average Vehicle Load Size for Nambour Landfill

	Total Peak Hour Trips	Yearly Trips	Yearly Tonnage	Average Vehicle Load
Nambour Landfill	103 veh/h	375,950 veh	82,441 tonnes	0.2 tonnes / veh

The average vehicle load size has been calculated by factoring the existing peak hour trips to yearly trips using a peak to yearly factor of 3,650. The resultant average vehicle load is 0.2 tonnes / vehicle.

The average vehicle load size of the Nambour Landfill was used to estimate the Caloundra Landfill yearly trips to be in the order of 339,805 trips per year which equates to 93 peak hour trips in 2016. As the Caloundra Landfill volumes are only relevant in year 2035, the year 2016 peak hour volumes have been 'growthed-up' using the CAGR of the Caloundra Landfill waste generation between year 2016 and year 2035 of 3.1%. The resultant two-way peak hour volume for the Caloundra Landfill in year 2035 is 167 veh/h. This volume has been distributed to the subject intersection as per the existing Nambour Landfill volumes. Figure 4.3 shows the anticipated volumes associated with the Caloundra Landfill only (calculated volumes) and Figure 4.4 shows the total intersection volumes for Scenario 2 (i.e. Nambour + Caloundra) used for the detailed intersection assessment.

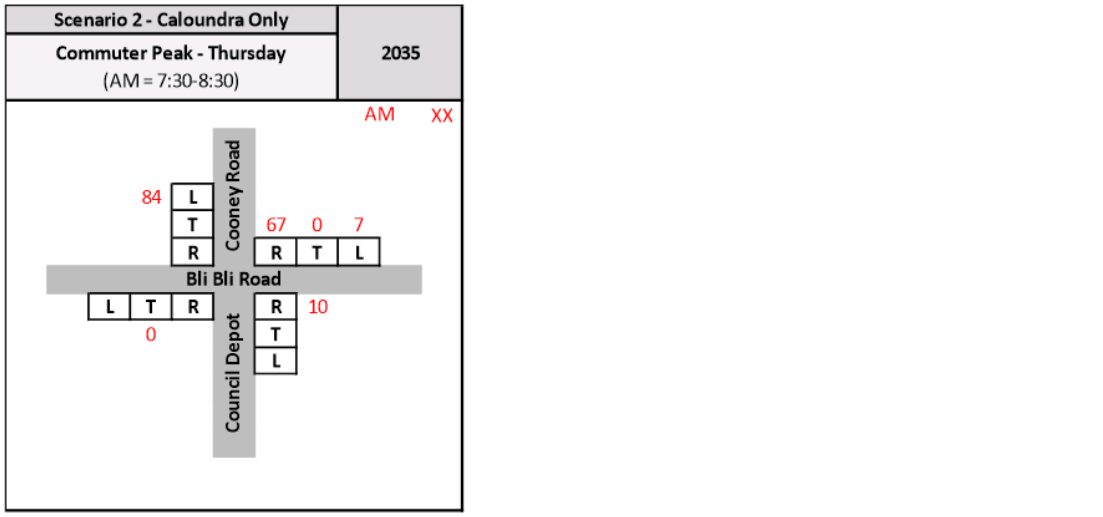


Figure 4.3: 2035 Caloundra Landfill Volumes (Calculated Volumes)

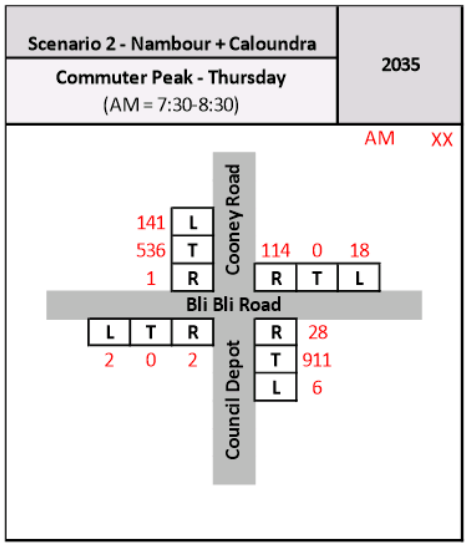


Figure 4.4: 2035 Intersection Volumes (Nambour Landfill + Caloundra Landfill)

Scenario 3 (Year 2045)

For Scenario 3, the Cooney Road two-way traffic volumes have been escalated based on the increase in total waste generation for the Nambour Landfill (including Caloundra demands) between 2035 and 2045. The CAGR was found to be 2.37% p.a.

The resultant traffic volumes used for the detailed intersection assessment of Scenario 3 are shown in Figure 4.5.

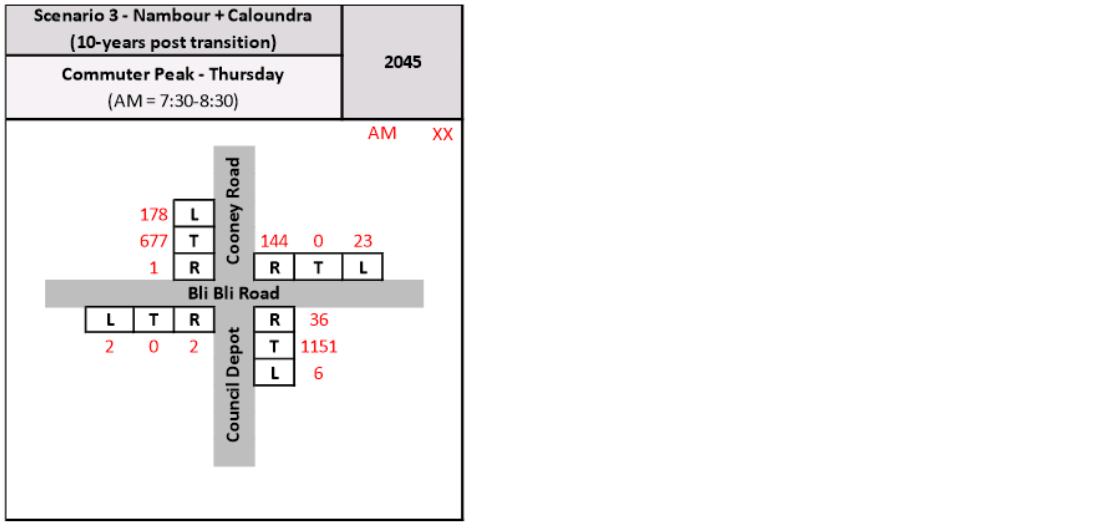


Figure 4.5: 2045 Intersection Volumes (Nambour Landfill + Caloundra Landfill)

4.3. Future-Year Intersection Assessment

The future-year intersection assessment has been undertaken using SIDRA Intersection software (version 6.1) based on the intersection configuration and signal phasing shown in Figure 3.1 and Figure 3.2 respectively. Key performance criteria (i.e. degree of saturation (DOS), average delay, Level of Service (LOS) and 95th %ile queue length) outputs from the SIDRA assessment are shown in Table 4.3 below.

Table 4.3: SIDRA Outputs Summary – Bli Bli Road / Cooney Road – Future-Year Intersection Scenarios

Approach	Thursday AM Peak			
	DOS	Av. Delay (s)	LOS	95%ile Queue (m)
Year 2026				
Bli Bli Road (SE)	0.579	13.1	B	57.5
Cooney Road (NE)	0.244	26.7	C	10.3
Bli Bli Road (NW)	0.418	12.4	B	41.9
Council Depot (SW)	0.025	25.1	C	1.1
Year 2035				
Bli Bli Road (SE)	0.728	13.8	B	80.5
Cooney Road (NE)	0.702	35.9	D	36.1
Bli Bli Road (NW)	0.479	11.7	B	64.5
Council Depot (SW)	0.030	30.7	C	1.4
Year 2045				
Bli Bli Road (SE)	0.898	32.8	C	193.2
Cooney Road (NE)	0.887	62.4	E	82.5
Bli Bli Road (NW)	0.473	10.8	B	104.0
Council Depot (SW)	0.030	46.0	D	2.3

The outputs shown above demonstrate that the upgraded intersection will operate satisfactorily and well within acceptable performance criteria in the year 2035, when the Caloundra Landfill is expected to close.

By 2045, the intersection is shown to still operate within capacity (DOS < 0.9), however lengthy average delays are exhibited on the minor intersection approaches (i.e. Cooney Road and Council Depot). This is considered acceptable based on the uncertainty surrounding traffic growth this far ahead in time and the intersection is considered appropriate to cater for the expected increase in traffic as a result of the Caloundra Landfill closure. In any event, further upgrades to the intersection could be possible if needed in 30 years' time.

5.0 FINDINGS AND RECOMMENDATIONS

In conclusion, the existing Bli Bli Road / Cooney Road priority controlled intersection was found to be operating within capacity, however lengthy delays outside industry accepted levels were identified for the minor approaches to the intersection (i.e. Cooney Road and Council Depot) based on existing 2016 traffic volumes.

However, based on the combination of background traffic growth and additional turning traffic due to the expansion of the landfill (and closure of the Caloundra landfill), the intersection needs to be upgraded and signals are the preferred configuration. A signalised intersection configuration as shown in Figure 3.1 will provide sufficient capacity for at least 25-30 years at the intersection and further options are available to augment additional capacity should this be required.

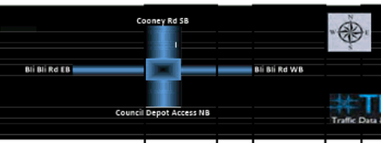
Yours faithfully

Steve Brooke
National Manager
Principal Traffic Engineer
BITZIOS CONSULTING

ATTACHMENT 1

TDC INTERSECTION COUNTS

Site ID	1
Location	Bli Bli Rd & Cooney Rd, Bli Bli
Date	28-Jan-2016
Surveyed Time	6:00 AM to 6:00 PM
Weather	Fine
AM Peak Hour	7:30 AM to 8:30 AM
PM Peak Hour	4:00 PM to 5:00 PM



TDC Traffic Data & Control

TOTALS AND PEAKS

	Cooney Rd SB													Bli Bli Rd WB			Bli Bli Rd WB			Bli Bli Rd WB					Council Depot Access NB									Bli Bli Rd EB									GRAND TOTAL	Cooney Rd SB	Bli Bli Rd WB	Council Depot Access NB	Bli Bli Rd EB
	Left	Left	Left	Through	Through	Through	Right	Right	Right	U-turn	U-turn	U-turn	Cross 1	Left	Left	Left	Through	Through	Through	Right	Right	Right	U-turn	U-turn	U-turn	Cross 1	Left	Left	Left	Through	Through	Through	Right	Right	Right	U-turn	U-turn	U-turn	Cross 1		TOTAL	TOTAL	TOTAL	TOTAL	TOTAL
	Light Vehicles	Trucks	Bicycles on Road	Light Vehicles	Trucks	Bicycles on Road	Light Vehicles	Trucks	Bicycles on Road	Light Vehicles	Trucks	Bicycles on Road	Pedestrians	Light Vehicles	Trucks	Bicycles on Road	Light Vehicles	Trucks	Bicycles on Road	Bicycles on Road	Light Vehicles	Trucks	Bicycles on Road	Light Vehicles	Trucks	Bicycles on Road	Pedestrians	Light Vehicles	Trucks	Bicycles on Road	Light Vehicles	Trucks	Bicycles on Road	Bicycles on Road	Light Vehicles	Trucks	Bicycles on Road	Light Vehicles	Trucks	Bicycles on Road	Pedestrians	TOTALS	All Classes	All Classes	All Classes	All Classes
12 Hour Totals	86	44	0	0	0	0	273	173	0	0	0	0	0	8	12	0	3560	376	2	82	92	0	0	0	0	0	6	15	0	1	0	0	7	9	0	0	0	0	0	139	177	0	3646	368	5	5	13	0	6	0	0	0	9167	578	4092	38	4459
AM Total	14	31	0	0	0	0	122	98	0	0	0	0	0	4	8	0	1862	207	1	46	31	0	0	0	0	0	2	11	0	1	0	0	2	7	0	0	0	0	0	138	105	0	1428	208	1	3	8	0	4	0	0	0	4462	285	2159	23	1995
PM Total	50	13	0	0	0	0	142	76	0	0	0	0	0	4	4	0	1539	161	1	34	20	0	0	0	0	0	4	4	0	0	0	0	5	2	0	0	0	0	0	93	70	0	2163	156	4	2	5	0	2	0	0	0	4554	281	1763	15	2495
AM Peak 1 hr	4	5	0	0	0	0	18	15	0	0	0	0	0	1	5	0	555	37	0	11	3	0	0	0	0	0	1	1	0	0	0	0	0	2	0	0	0	0	0	29	15	0	314	34	0	0	1	0	0	0	0	0	1054	45	612	4	393
PM Peak 1 hr	11	1	0	0	0	0	41	2	0	0	0	0	0	1	1	0	280	23	1	3	0	0	0	0	0	0	0	1	0	0	0	0	2	1	0	0	0	0	0	18	0	0	555	27	3	1	1	0	0	0	0	0	973	55	309	4	605

Time Starting																																																
06:00	0	0	0	0	0	0	1	4	0	0	0	0	0	0	0	0	60	5	0	1	1	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	3	1	0	36	4	0	1	0	0	0	0	0	0	118	5	67	1	45
06:15	0	0	0	0	0	0	1	3	0	0	0	0	0	0	0	0	77	4	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	6	0	50	6	0	1	0	0	1	0	0	0	153	4	82	1	66
06:30	0	3	0	0	0	0	1	6	0	0	0	0	0	0	0	0	86	9	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5	6	0	41	5	0	0	0	0	0	0	0	0	163	10	96	0	57
06:45	0	1	0	0	0	0	0	3	0	0	0	0	0	0	0	0	86	7	1	2	1	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1	0	51	8	0	0	0	0	0	0	0	0	162	4	97	1	60
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07:15	0	3	0	0	0	0	4	3	0	0	0	0	0	0	0	0	127	11	0	2	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	7	0	48	8	0	0	0	0	0	0	0	0	218	10	141	0	67
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08:00	0	0	0	0	0	0	7	6	0	0	0	0	0	0	0	0	149	12	0	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	6	1	0	81	6	0	0	0	0	0	0	0	0	273	13	165	1	94
08:15	2	1	0	0	0	0	4	2	0	0	0	0	0	0	4	0	97	3	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	5	3	0	95	9	0	0	1	0	0	0	0	0	230	9	106	2	113
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09:15	2	2	0	0	0	0	4	6	0	0	0	0	0	0	0	0	63	14	0	3	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	9	0	65	12	0	0	1	0	0	0	0	0	187	14	83	0	90
09:30	0	3	0	0	0	0	2	5	0	0	0	0	0	1	0	0	63	9	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	2	5	0	50	2	0	0	0	0	0	0	0	0	144	10	73	2	59
09:45	2	2	0	0	0	0	5	3	0	0	0	0	0	0	0	0	51	10	0	1	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	15	5	0	62	8	0	0	1	0	0	0	0	0	167	12	64	0	91
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11:30	4	0	0	0	0	0	9	2	0	0	0	0	0	1	0	0	57	11	0	5	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5	3	0	56	10	0	0	1	0	0	0	0	0	166	15	76	0	75
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12:00	2	0	0	0	0	0	9	1	0	0	0	0	0	0	0	0	59	8	0	2	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	8	2	0	55	4	0	0	0	0	0	0	0	0	151	12	70	0	69
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12:30	2	1	0	0	0	0	3	6	0	0	0	0	0	1	0	0	71	5	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	8	3	0	54	5	0	0	0	0	0	0	0	0	162	12	80	0	70
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13:00	0	3	0	0	0	0	5	2	0	0	0	0	0	1	0	0	43	10	0	4	1	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	6	5	0	54	6	0	0	1	0	1	0	0	0	143	10	59	1	73
13:15	3	2	0	0	0	0	9	2	0	0	0	0	0	0	0	0	71	11	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	11	0	65	7	0	0	0	0	0	0	0	0	186	16	84	0	86
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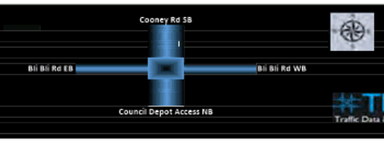
16:15	1	0	0	0	0	0	10	0	0	0	0	0	0	0	0	0	73	4	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	5	0	0	138	8	0	0	0	0	0	0	0	0	241	11	78	1	151
16:30	4	0	0	0	0	0	6	0	0	0	0	0	0	0	1	0	76	7	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	4	0	0	135	7	1	1	0	0	0	0	0	0	244	10	85	1	148
16:45	1	0	0	0	0	0	8	0	0	0	0	0	0	1	0	0	64	6	0	1	0	0	0	0	0	0	0	1	0	0	0	0	1	0	0	0	0	0	0	2	0	0	143	5	2	0	0	0	0	0	0	0	235	9	72	2	152
17:00	3	0	0	0	0	0	7	0	0	0	0	0	0	0	0	0	62	1	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	116	0	0	0	1	0	0	0	0	0	193	10	65	0	118
17:15	3	0	0	0	0	0	3	0	0	0	0	0	0	0	1	0	59	5	0	1	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	110	3	0	0	0	0	0	0	0	0	187	6	66	1	114
17:30	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	66	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	102	3	0	0	0	0	0	0	0	0	173	1	66	1	105
17:45	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	56	3	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	80	2	0	0	0	0	0	0	0	0	144	1	60	0	83

T0677.01 Bli Bli Rd & Cooney Rd Thurs Intersection Report.xlsx

Site ID: 1
Location: Bli Bli Rd & Cooney Rd, Bli Bli
Date: 30-Jan-2016
Surveyed Time: 6:00 AM to 6:00 PM
Weather: Fine
AM Peak Hour: 10:30 AM to 11:30 AM
PM Peak Hour: 12:00 PM to 1:00 PM



TDC Traffic Data & Control

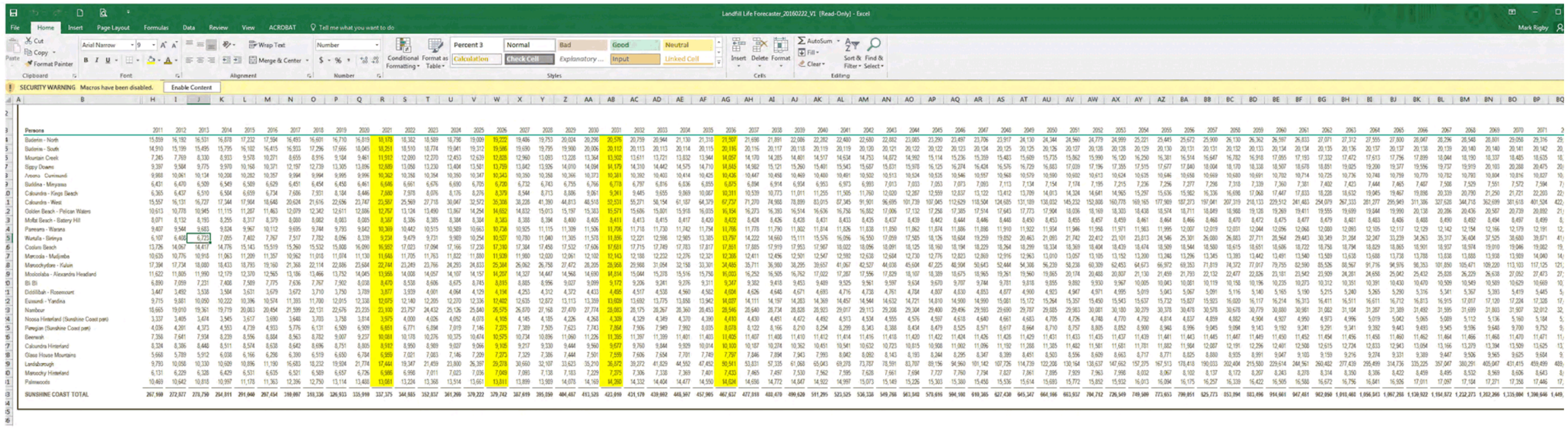
TOTALS AND PEAKS

| | | |

BITZIOS consulting

ATTACHMENT 2

SUNSHINE COAST POPULATION FORECASTS


Landfill Life Forecaster_20160222_V1 [Read-Only] - Excel
SECURITY WARNING Macros have been disabled.
Enable Content

ATTACHMENT 3

AIRSPACE FORECASTS

AIRSPACE FORECAST - BAU

	2015A	2016E	2017E	2018E	2019E	2020E	2021E	2022E	2023E	2024E	2025E	2026E	2027E	2028E	2029E	2030E	2031E
Smaller Landfill: **PIERCE AVENUE**																	
Total Waste to PIERCE AVENUE Landfill (tonnes)	71,548	74,515	78,789	81,265	83,877	86,632	86,258	88,998	91,947	95,127	98,558	102,265	105,271	108,451	111,816	115,379	119,156
Volume waste landfilled (m3)		82,711	87,456	90,206	93,103	96,162	95,746	98,787	102,062	105,591	109,400	113,514	116,851	120,380	124,115	128,071	132,263
Landfill space remaining at year end (m3)	Initial Airspace:	1,977,842	1,890,386	1,800,182	1,707,079	1,610,917	1,515,171	1,416,383	1,314,322	1,208,731	1,099,331	985,817	868,966	748,585	624,470	496,399	364,137
Landfill Life Remaining:	18 Years																
Closure Date:	2033																
Larger Landfill: **NAMBOUR**																	
Total Waste direct to NAMBOUR Landfill (tonnes)	78,151	82,441	84,838	86,709	88,634	90,615	91,762	92,986	94,232	95,501	96,794	98,111	99,261	100,429	101,617	102,824	104,051
Waste Diverted from PIERCE AVENUE (tonnes)		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Waste to NAMBOUR Landfill (tonnes)	78,151	82,441	84,838	86,709	88,634	90,615	91,762	92,986	94,232	95,501	96,794	98,111	99,261	100,429	101,617	102,824	104,051
Volume waste landfilled (m3)		91,509	94,170	96,247	98,383	100,583	101,856	103,214	104,597	106,006	107,441	108,904	110,180	111,477	112,796	114,135	115,497
Landfill space remaining at year end (m3)	Initial Airspace:	5,347,012	5,252,842	5,156,596	5,058,212	4,957,630	4,855,774	4,752,560	4,647,962	4,541,956	4,434,515	4,325,611	4,215,432	4,103,955	3,991,160	3,877,025	3,761,528
Landfill Life Remaining:	30 Years																
Closure Date:	2045																
TOTAL SCC WASTE TO LANDFILL (tonnes)	149,699	156,955	163,627	167,974	172,510	177,247	178,020	181,963	186,179	190,628	195,352	200,376	204,532	208,880	213,433	218,203	223,207
Tonnage of waste per person	0.51	0.53	0.53	0.53	0.53	0.53	0.53	0.53	0.53	0.53	0.53	0.53	0.53	0.53	0.53	0.53	0.53
Net Overflow to new facility (tonnes)		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

	2032E	2033E	2034E	2035E	2036E	2037E	2038E	2039E	2040E	2041E	2042E	2043E	2044E	2045E	2046E	2047E	2048E
Smaller Landfill: **PIERCE AVENUE**																	
Total Waste to PIERCE AVENUE Landfill (tonnes)	122,533	126,080	129,806	133,722	137,839	142,166	146,718	151,506	156,543	161,845	167,426	173,303	179,492	186,011	192,879	200,118	207,747
Volume waste landfilled (m3)	136,011	139,949	144,085	148,432	153,001	157,806	162,857	168,171	173,763	179,648	185,843	192,366	199,236	206,472	214,096	222,130	230,599
Landfill space remaining at year end (m3)	228,125	88,176	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Larger Landfill: **NAMBOUR**																	
Total Waste direct to NAMBOUR Landfill (tonnes)	104,979	105,929	106,902	107,897	108,916	109,960	111,030	112,125	113,248	114,399	115,579	116,789	118,030	119,303	120,609	121,949	123,325
Waste Diverted from PIERCE AVENUE (tonnes)	0	0	50,368	133,722	137,839	142,166	146,718	151,506	156,543	161,845	167,426	173,303	179,492	186,011	192,879	200,118	207,747
Total Waste to NAMBOUR Landfill (tonnes)	104,979	105,929	157,270	241,619	246,755	252,127	257,747	263,631	269,792	276,244	283,006	290,092	297,522	305,314	313,489	322,067	331,071
Volume waste landfilled (m3)	116,527	117,582	174,570	268,198	273,898	279,861	286,100	292,630	299,469	306,631	314,136	322,002	330,249	338,899	347,972	357,494	367,489
Landfill space remaining at year end (m3)	3,645,001	3,527,420	3,352,850	3,084,653	2,810,755	2,530,894	2,244,794	1,952,164	1,652,696	1,346,064	1,031,928	709,925	379,676	40,777	0	0	0
TOTAL SCC WASTE TO LANDFILL (tonnes)	227,512	232,009	236,708	241,619	246,755	252,127	257,747	263,631	269,792	276,244	283,006	290,092	297,522	305,314	313,489	322,067	331,071
Tonnage of waste per person	0.53	0.53	0.53	0.53	0.53	0.53	0.53	0.53	0.53	0.53	0.53	0.53	0.53	0.53	0.53	0.53	0.53
Net Overflow to new facility (tonnes)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	347,972	357,494	367,489

	2049E	2050E	2051E	2052E	2053E	2054E	2055E	2056E	2057E	2058E	2059E	2060E	2061E	2062E	2063E	2064E	2065
Smaller Landfill: **PIERCE AVENUE**																	
Total Waste to PIERCE AVENUE Landfill (tonnes)	215,789	224,270	233,213	242,647	252,599	263,100	274,183	285,880	298,228	311,266	325,034	339,575	354,934	371,161	388,305	406,421	425,56
Volume waste landfilled (m3)	239,526	248,939	258,867	269,338	280,385	292,041	304,343	317,327	331,034	345,506	360,788	376,928	393,977	411,988	431,018	451,127	472,38
Landfill space remaining at year end (m3)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Larger Landfill: **NAMBOUR**																	
Total Waste direct to NAMBOUR Landfill (tonnes)	124,737	126,186	127,676	129,204	130,774	132,388	134,046	135,750	137,501	139,302	141,153	143,058	145,016	147,031	149,103	151,236	153,43
Waste Diverted from PIERCE AVENUE (tonnes)	215,789	224,270	233,213	242,647	252,599	263,100	274,183	285,880	298,228	311,266	325,034	339,575	354,934	371,161	388,305	406,421	425,56
Total Waste to NAMBOUR Landfill (tonnes)	340,526	350,456	360,888	371,850	383,373	395,488	408,228	421,630	435,730	450,568	466,188	482,633	499,950	518,191	537,408	557,657	578,99
Volume waste landfilled (m3)	377,984	389,006	400,586	412,754	425,544	438,992	453,133	468,009	483,660	500,131	517,468	535,722	554,945	575,192	596,523	618,999	642,68
Landfill space remaining at year end (m3)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL SCC WASTE TO LANDFILL (tonnes)	340,526	350,456	360,888	371,850	383,373	395,488	408,228	421,630	435,730	450,568	466,188	482,633	499,950	518,191	537,408	557,657	578,99
Tonnage of waste per person	0.53	0.53	0.53	0.53	0.53	0.53	0.53	0.53	0.53	0.53	0.53	0.53	0.53	0.53	0.53	0.53	0.5
Net Overflow to new facility (tonnes)	377,984	389,006	400,586	412,754	425,544	438,992	453,133	468,009	483,660	500,131	517,468	535,722	554,945	575,192	596,523	618,999	642,68


ProjexPartners

ProjexPartners

Appendix B

Sunshine Coast Council Landfill Records

SUNSHINE COAST COUNCIL
CNR CURRIE AND BURY STREETS NAMBOUR QLD 4560

Tran By Product By Rate Summary (0070)

Print Date &Time: 10/04/2017 - 3:31:35PM
Date is between 1/03/2015 and 29/02/2016 AND Site equals Nambour

Site: Nambour Nambour Landfill

Produc C & D Mixed **Code: C & D MIXED**

Rate	Items	Qty	Net	C/M	$ ex GST	GST	$ inc GST
Large	398	398	159.20	0.00	13,388.72	1,337.28	14,726.00
Medium	2,356	2,363	590.75	0.00	47,260.00	4,726.00	51,986.00
Small	1,305	1,305	65.25	0.00	9,487.35	952.65	10,440.00
Weighed	225	0	186.26	0.00	27,263.18	2,726.26	29,989.44
Totals for product C & D Mixed (C & D MI	**4,284**		**1,001.46**	**0.00**	**97,399.25**	**9,742.19**	**107,141.44**

Produc C & D Recyclable **Code: C & D RECYCLABLE**

Rate	Items	Qty	Net	C/M	$ ex GST	GST	$ inc GST
Concrete Ute/trailer	770	770	385.00	0.00	5,597.90	562.10	6,160.00
Concrete Weighed	523	0	486.69	0.00	7,995.65	799.41	8,795.06
Totals for product C & D Recyclable (C & D	**1,293**		**871.69**	**0.00**	**13,593.55**	**1,361.51**	**14,955.06**

Produc C & I Green **Code: C & I GREEN**

Rate	Items	Qty	Net	C/M	$ ex GST	GST	$ inc GST
Large	1,689	1,690	676.00	0.00	30,724.20	3,075.80	33,800.00
Medium	3,558	3,562	890.50	0.00	48,585.64	4,844.36	53,430.00
Small	835	835	41.75	0.00	3,799.25	375.75	4,175.00
Weighed	403	0	473.22	0.00	21,526.26	2,149.10	23,675.36
Totals for product C & I Green (C & I GRE	**6,485**		**2,081.47**	**0.00**	**104,635.35**	**10,445.01**	**115,080.36**

Produc C & I Landfill **Code: C & I LANDFILL**

Rate	Items	Qty	Net	C/M	$ ex GST	GST	$ inc GST
Large	25	25	10.00	0.00	841.00	84.00	925.00
Medium	7	7	1.75	0.00	140.00	14.00	154.00
Weighed	39	0	39.78	0.00	5,848.64	584.86	6,433.50
Totals for product C & I Landfill (C & I LA	**71**		**51.53**	**0.00**	**6,829.64**	**682.86**	**7,512.50**

Produc C & I Mixed **Code: C & I MIXED**

Rate	Items	Qty	Net	C/M	$ ex GST	GST	$ inc GST
Large	2,350	2,354	941.60	0.00	79,188.52	7,909.48	87,098.00
Medium	3,597	3,597	899.25	0.00	71,940.00	7,194.00	79,134.00
Small	2,382	2,382	119.10	0.00	17,317.14	1,738.86	19,056.00
Weighed	391	0	308.79	0.00	45,349.15	4,534.88	49,884.03
Totals for product C & I Mixed (C & I MIXI	**8,720**		**2,268.74**	**0.00**	**213,794.81**	**21,377.22**	**235,172.03**

Tran By Product By Rate Summary (0070)

10/04/2017 - 3:31:35PM

Site: Nambour Nambour Landfill

Produc Capping Clay **Code: CAPPING CLAY**

Rate	Items	Qty	Net	C/M	$ ex GST	GST	$ inc GST
Cubic Meter	1	0	0.00	20.00	0.00	0.00	0.00
Weighed	1,044	0	26,571.00	0.00	0.00	0.00	0.00
Totals for product Capping Clay (CAPPING	**1,045**		**26,571.00**	**20.00**	**0.00**	**0.00**	**0.00**

Produc Clean Plasterboard **Code: PLASTERBOARD CLEAN**

Rate	Items	Qty	Net	C/M	$ ex GST	GST	$ inc GST
Large	4	4	1.60	0.00	72.72	7.28	80.00
Medium	21	21	5.25	0.00	286.44	28.56	315.00
Small	14	14	0.70	0.00	63.70	6.30	70.00
Weighed	12	0	10.26	0.00	466.36	46.64	513.00
Totals for product Clean Plasterboard (PLA	**51**		**17.81**	**0.00**	**889.22**	**88.78**	**978.00**

Produc Clean Timber **Code: TIMBER CLEAN**

Rate	Items	Qty	Net	C/M	$ ex GST	GST	$ inc GST
Medium	13	13	3.25	0.00	177.32	17.68	195.00
Small	4	4	0.20	0.00	18.20	1.80	20.00
Weighed	7	0	6.12	0.00	278.19	27.81	306.00
Totals for product Clean Timber (TIMBER	**24**		**9.57**	**0.00**	**473.71**	**47.29**	**521.00**

Produc Cleanfill **Code: CLEANFILL**

Rate	Items	Qty	Net	C/M	$ ex GST	GST	$ inc GST
Special	158	0	1,785.36	0.00	0.00	0.00	0.00
Ute / Trailer	286	286	71.50	0.00	1,558.70	157.30	1,716.00
Weighed	1,537	0	14,203.18	0.00	77,489.12	7,749.04	85,238.16
Totals for product Cleanfill (CLEANFILL)	**1,981**		**16,060.04**	**0.00**	**79,047.82**	**7,906.34**	**86,954.16**

Produc Commercial Recyclables **Code: COMMERCIAL RECYCLABLES**

Rate	Items	Qty	Net	C/M	$ ex GST	GST	$ inc GST
Co mingled	90	0	124.30	0.00	0.00	0.00	0.00
Totals for product Commercial Recyclables (	**90**		**124.30**	**0.00**	**0.00**	**0.00**	**0.00**

Site: Nambour **Nambour Landfill**

Produc Contract Collection **Code: CONTRACT: COLLECTION**

Rate	Items	Qty	Net	C/M	$ ex GST	GST	$ inc GST
Compactors	465	0	2,025.54	0.00	0.00	0.00	0.00
Frontlift	1,749	0	15,440.92	0.00	0.00	0.00	0.00
Landfill Relocation	31	0	187.48	0.00	0.00	0.00	0.00
Public Place	805	0	2,313.98	0.00	0.00	0.00	0.00
Rear Lift	1,075	0	6,783.74	0.00	0.00	0.00	0.00
Side Lift	4,419	0	36,392.74	0.00	0.00	0.00	0.00
Tran: Buderim	1,479	0	9,366.96	0.00	0.00	0.00	0.00
Tran: Kenilworth	21	0	94.39	0.00	0.00	0.00	0.00
Tran: Mapleton	40	0	223.65	0.00	0.00	0.00	0.00
Tran: Yandina	33	0	159.27	0.00	0.00	0.00	0.00
Totals for product Contract Collection (CON	**10,117**		**72,988.67**	**0.00**	**0.00**	**0.00**	**0.00**

Produc Dead Animals **Code: DEAD ANIMALS**

Rate	Items	Qty	Net	C/M	$ ex GST	GST	$ inc GST
Contractor	1	0	0.12	0.00	0.00	0.00	0.00
Large >99kg	4	5	2.50	0.00	377.26	37.74	415.00
Medium 25 to 99kg	10	14	0.70	0.00	184.53	18.47	203.00
Small <25kg	57	269	5.38	0.00	1,100.49	110.01	1,210.50
Totals for product Dead Animals (DEAD AN	**72**		**8.70**	**0.00**	**1,662.28**	**166.22**	**1,828.50**

Produc Declared Vegetation **Code: DECLARED VEGETATION**

Rate	Items	Qty	Net	C/M	$ ex GST	GST	$ inc GST
Large	8	8	3.20	0.00	145.44	14.56	160.00
Medium	5	5	1.25	0.00	68.20	6.80	75.00
Small	4	4	0.20	0.00	18.20	1.80	20.00
Weighed	37	0	34.56	0.00	1,570.90	157.10	1,728.00
Totals for product Declared Vegetation (DE	**54**		**39.21**	**0.00**	**1,802.74**	**180.26**	**1,983.00**

Produc Kilcoy Recyclables **Code: KILCOY RECYCLABLES**

Rate	Items	Qty	Net	C/M	$ ex GST	GST	$ inc GST
Weighed	207	0	373.56	0.00	0.00	0.00	0.00
Totals for product Kilcoy Recyclables (KILC	**207**		**373.56**	**0.00**	**0.00**	**0.00**	**0.00**

Produc MRF Recyclables **Code: MRF RECYCLABLES**

Rate	Items	Qty	Net	C/M	$ ex GST	GST	$ inc GST
AFTER HOURS	41	0	590.30	0.00	0.00	0.00	0.00
ALUMINIUM	13	0	226.52	0.00	0.00	0.00	0.00
COLOURED GLASS	284	0	8,468.64	0.00	0.00	0.00	0.00
FERROUS	27	0	581.48	0.00	0.00	0.00	0.00
MIXED PLASTICS	172	0	3,203.54	0.00	0.00	0.00	0.00
PAPER/CARDBOARD	634	0	12,896.65	0.00	0.00	0.00	0.00
REJC RECYCLABLES	65	0	828.50	0.00	0.00	0.00	0.00
Totals for product MRF Recyclables (MRF I	**1,236**		**26,795.63**	**0.00**	**0.00**	**0.00**	**0.00**

Site: Nambour **Nambour Landfill**

Produc MSW Green **Code: MSW GREEN**

Rate	Items	Qty	Net	C/M	$ ex GST	GST	$ inc GST
Contract	89	0	570.52	0.00	0.00	0.00	0.00
Large	989	991	396.40	0.00	18,016.38	1,803.62	19,820.00
Medium	9,123	9,130	2,282.50	0.00	124,533.13	12,416.87	136,950.00
Small	3,348	3,352	167.60	0.00	15,251.56	1,508.44	16,760.00
Weighed	119	0	102.04	0.00	4,641.76	464.24	5,106.00
Totals for product MSW Green (MSW GRE	**13,668**		**3,519.06**	**0.00**	**162,442.83**	**16,193.17**	**178,636.00**

Produc Municipal Solid Waste **Code: MSW**

Rate	Items	Qty	Net	C/M	$ ex GST	GST	$ inc GST
Large	533	533	213.20	0.00	17,930.12	1,790.88	19,721.00
Mattress non-recycle	6	7	0.18	0.00	0.00	0.00	0.00
Medium	8,663	8,665	2,166.25	0.00	173,300.00	17,330.00	190,630.00
Small	10,883	10,886	544.30	0.00	79,141.25	7,946.75	87,088.00
Weighed	53	0	41.52	0.00	6,077.06	607.66	6,684.72
Totals for product Municipal Solid Waste (M	**20,138**		**2,965.45**	**0.00**	**276,448.43**	**27,675.29**	**304,123.72**

Produc Noosa Recyclables **Code: NOOSA RECYCLABLES**

Rate	Items	Qty	Net	C/M	$ ex GST	GST	$ inc GST
Rear Lift	104	0	493.98	0.00	0.00	0.00	0.00
Side Lift	1,473	0	6,646.79	0.00	0.00	0.00	0.00
Totals for product Noosa Recyclables (NOOS	**1,577**		**7,140.77**	**0.00**	**0.00**	**0.00**	**0.00**

Produc Plasterboard Mixed **Code: PLASTERBOARD MIXED**

Rate	Items	Qty	Net	C/M	$ ex GST	GST	$ inc GST
Medium	1	1	0.25	0.00	13.64	1.36	15.00
Totals for product Plasterboard Mixed (PLA	**1**		**0.25**	**0.00**	**13.64**	**1.36**	**15.00**

Produc Recyclables Incoming **Code: RECYCLABLES INCOMING**

Rate	Items	Qty	Net	C/M	$ ex GST	GST	$ inc GST
Comm Chemicals (20L)	10	17	0.00	0.00	1,159.08	115.92	1,275.00
Commercial Oil	43	50	4,970.00	0.00	970.82	97.18	1,068.00
E-waste	461	1,054	0.00	0.00	0.00	0.00	0.00
Fluorescent Lights	4	31	0.01	0.00	56.37	5.63	62.00
Mattress Foam	474	612	3.06	0.00	1,936.17	193.83	2,130.00
Mattress Rec @ TS	7	18	0.45	0.00	0.00	0.00	0.00
Mattress Spring	2,152	2,918	72.95	0.00	11,817.36	1,182.64	13,000.00
Soil	803	0	9,176.02	0.00	0.00	0.00	0.00
Totals for product Recyclables Incoming (RE	**3,954**		**14,222.49**	**0.00**	**15,939.80**	**1,595.20**	**17,535.00**

Site: Nambour Nambour Landfill

Produc Recyclables Outgoing **Code: RECYCLABLES OUTGOING**

Rate	Items	Qty	Net	C/M	$ ex GST	GST	$ inc GST
Gas Bottles	16	0	7.36	0.00	0.00	0.00	0.00
Mattresses	128	0	84.74	0.00	0.00	0.00	0.00
Totals for product Recyclables Outgoing (RE	**144**		**92.10**	**0.00**	**0.00**	**0.00**	**0.00**

Produc Regulated Outgoing **Code: REGULATED OUTGOING**

Rate	Items	Qty	Net	C/M	$ ex GST	GST	$ inc GST
Chemicals	14	0	13.80	0.00	0.00	0.00	0.00
Oil	23	0	21.62	0.00	0.00	0.00	0.00
Tyre-4WD/L-Truck	8	643	19.29	0.00	0.00	0.00	0.00
Tyre-Car/Motorcycle	10	986	14.79	0.00	0.00	0.00	0.00
Tyre-Tractor<2m	4	9	1.80	0.00	0.00	0.00	0.00
Tyre-Tractor>2m	1	2	0.70	0.00	0.00	0.00	0.00
Tyre-Truck/Bobcat	9	111	8.88	0.00	0.00	0.00	0.00
Totals for product Regulated Outgoing (REC	**69**		**80.88**	**0.00**	**0.00**	**0.00**	**0.00**

Produc Regulated Waste **Code: REGULATED WASTE**

Rate	Items	Qty	Net	C/M	$ ex GST	GST	$ inc GST
Application Fee	30	30	0.00	0.00	4,636.50	463.50	5,100.00
Contaminated Soil	1	0	0.60	0.00	146.36	14.64	161.00
Medium	8	8	2.00	0.00	160.00	16.00	176.00
Other	1	0	1.64	0.00	240.04	24.00	264.04
Small	21	21	1.05	0.00	152.67	15.33	168.00
Totals for product Regulated Waste (REGUI	**61**		**5.29**	**0.00**	**5,335.57**	**533.47**	**5,869.04**

Produc Sales Batteries **Code: SALES: BATTERIES**

Rate	Items	Qty	Net	C/M	$ ex GST	GST	$ inc GST
Batteries	8	0	35.80	0.00	9,700.10	970.01	10,670.11
Totals for product Sales Batteries (SALES: E	**8**		**35.80**	**0.00**	**9,700.10**	**970.01**	**10,670.11**

Produc Sales Cardboard **Code: SALES: BULK CARDBOARD**

Rate	Items	Qty	Net	C/M	$ ex GST	GST	$ inc GST
Cardboard	156	0	196.16	0.00	0.00	0.00	0.00
Totals for product Sales Cardboard (SALES	**156**		**196.16**	**0.00**	**0.00**	**0.00**	**0.00**

Produc Sales Metal **Code: SALES: METAL**

Rate	Items	Qty	Net	C/M	$ ex GST	GST	$ inc GST
Ferrous	116	0	1,674.12	0.00	172,665.67	17,266.55	189,932.22
Non ferrous Mixed	12	0	29.84	0.00	13,647.83	1,364.76	15,012.59
Totals for product Sales Metal (SALES: ME	**128**		**1,703.96**	**0.00**	**186,313.50**	**18,631.31**	**204,944.81**

Site: Nambour Nambour Landfill

Produc Sales Mulch **Code: SALES: MULCH**

Rate	Items	Qty	Net	C/M	$ ex GST	GST	$ inc GST
Free Domestic Coarse	2,075	0	1,299.30	2,165.50	0.00	0.00	0.00
Single Grind <1000m	27	0	358.80	598.00	3,261.78	326.22	3,588.00
Single Grind <100m	153	0	588.30	980.50	8,024.89	802.61	8,827.50
Single Grind >1001m	3	0	147.00	245.00	890.92	89.09	980.01
Totals for product Sales Mulch (SALES: MU	**2,258**		**2,393.40**	**3,989.00**	**12,177.59**	**1,217.92**	**13,395.51**

Produc Sales Shop **Code: SALES: SHOP**

Rate	Items	Qty	Net	C/M	$ ex GST	GST	$ inc GST
Arts/Crafts	8	8	0.00	0.00	7.10	0.70	7.80
Automotive	28	66	0.00	0.00	60.10	6.00	66.10
Books/Magazines	6	5	0.00	0.00	4.54	0.46	5.00
Electrical	10	10	0.00	0.00	9.19	0.91	10.10

Furniture	10	10	0.00	0.00	9.10	0.90	10.00
Gardening/Outdoor	84	89	0.00	0.00	80.48	8.02	88.50
Hardware/Machinary	10	18	0.00	0.00	15.92	1.58	17.50
Home Appliances	20	34	0.00	0.00	31.10	3.10	34.20
Homewares	27	28	0.00	0.00	25.64	2.56	28.20
Renovation/Building	23	24	0.00	0.00	21.83	2.17	24.00
Sports/Leisure	33	40	0.00	0.00	35.94	3.56	39.50
Toys	42	42	0.00	0.00	37.74	3.76	41.50
Totals for product Sales Shop (SALES: SHO	**301**			**0.00**	**338.68**	**33.72**	**372.40**

Produc SCC Recyclables **Code: SCC RECYCLABLES**

Rate	Items	Qty	Net	C/M	$ ex GST	GST	$ inc GST
F/Lift Kunda Park	748	0	3,320.74	0.00	0.00	0.00	0.00
Front Lift	25	0	88.12	0.00	0.00	0.00	0.00
Public Place	453	0	1,427.48	0.00	0.00	0.00	0.00
Rear Lift	177	0	632.82	0.00	0.00	0.00	0.00
Side Lift	5,207	0	27,998.68	0.00	0.00	0.00	0.00
Totals for product SCC Recyclables (SCC Rl	**6,610**		**33,467.84**	**0.00**	**0.00**	**0.00**	**0.00**

Site: Nambour **Nambour Landfill**

Produc Scrap Metal **Code: SCRAP METAL**

Rate	Items	Qty	Net	C/M	$ ex GST	GST	$ inc GST
Fridges etc degassed	222	307	0.00	0.00	0.00	0.00	0.00
Fridges etc. not deg	948	1,073	0.00	0.00	3,300.68	329.32	3,630.00
iolar Kenilworth	4	0	12.14	0.00	535.74	53.56	589.30
iolar Mapleton	7	0	29.56	0.00	1,276.05	127.61	1,403.66
iolar Witta	3	0	17.38	0.00	760.40	76.04	836.44
iolar Yandina	2	0	9.32	0.00	429.93	42.99	472.92
Large	188	188	75.20	0.00	0.00	0.00	0.00
Medium	834	845	211.25	0.00	0.00	0.00	0.00
Small	3,325	3,389	169.45	0.00	0.00	0.00	0.00
Weighed	52	0	28.12	0.00	0.00	0.00	0.00
Totals for product Scrap Metal (SCRAP ME	**5,585**		**552.42**	**0.00**	**6,302.80**	**629.52**	**6,932.32**

Produc Transfer Landfill **Code: TRANSFER LANDFILL**

Rate	Items	Qty	Net	C/M	$ ex GST	GST	$ inc GST
Transfer Station	881	0	6,531.88	0.00	0.00	0.00	0.00
Totals for product Transfer Landfill (TRAN	**881**		**6,531.88**	**0.00**	**0.00**	**0.00**	**0.00**

Produc Tyres **Code: TYRES**

Rate	Items	Qty	Net	C/M	$ ex GST	GST	$ inc GST
4WD / Truck	66	176	5.28	0.00	1,280.03	127.97	1,408.00
Car/Motorcycle	274	773	15.46	0.00	4,215.81	422.19	4,638.00
Tractor < 1m	4	5	1.00	0.00	545.45	54.55	600.00
Tractor > 1m	1	1	0.35	0.00	163.64	16.36	180.00
Truck / Bobcat	18	69	5.52	0.00	940.93	94.07	1,035.00
Tyres Retrieved @ TS	2	7	0.14	0.00	0.00	0.00	0.00
Totals for product Tyres (TYRES)	**365**		**27.75**	**0.00**	**7,145.86**	**715.14**	**7,861.00**

Produc Weight Only **Code: WEIGHT ONLY**

Rate	Items	Qty	Net	C/M	$ ex GST	GST	$ inc GST
Refuse To Pay	24	0	0.00	24.00	0.00	0.00	0.00
Weighed	383	0	6,269.58	0.00	0.00	0.00	0.00
Totals for product Weight Only (WEIGHT C	**407**		**6,269.58**	**24.00**	**0.00**	**0.00**	**0.00**
Totals for site Nambour	**92,041**		**228,468.45**	**4,033.00**	**1,202,287.17**		**120,193.79**	**1,322,480.96**

GRAND TOTALS	**92,041**		**228,468.45**	**4,033.00**	**1,202,287.17**	**120,193.79**	**1,322,480.96**

Report End

SUNSHINE COAST COUNCIL
CNR CURRIE AND BURY STREETS NAMBOUR QLD 4560

Tran By Product By Rate Summary (0070)

Print Date &Time: 10/04/2017 - 3:49:15PM
Date is between 1/03/2015 and 29/02/2016 AND Site equals Caloundra

Site: Caloundra Caloundra Landfill

Produc C & D Landfill				Code: C & D LANDFILL			
Rate	Items	Qty	Net	C/M	$ ex GST	GST	$ inc GST
Large	162	162	64.80	0.00	5,449.68	544.32	5,994.00
Medium	22	22	5.50	0.00	440.00	44.00	484.00
Weighed	703	0	1,761.36	0.00	257,823.89	25,782.23	283,606.12
Totals for product C & D Landfill (C & D L	**887**		**1,831.66**	**0.00**	**263,713.57**	**26,370.55**	**290,084.12**

Produc C & D Mixed				Code: C & D MIXED			
Rate	Items	Qty	Net	C/M	$ ex GST	GST	$ inc GST
Large	404	404	161.60	0.00	13,590.56	1,357.44	14,948.00
Medium	1,028	1,028	257.00	0.00	20,560.00	2,056.00	22,616.00
Reload >2m3	2	2	0.00	0.00	454.54	45.46	500.00
Small	407	407	20.35	0.00	2,958.89	297.11	3,256.00
Weighed	441	0	748.54	0.00	109,651.23	10,964.99	120,616.22
Totals for product C & D Mixed (C & D MI	**2,282**		**1,187.49**	**0.00**	**147,215.22**	**14,721.00**	**161,936.22**

Produc C & D Recyclable				Code: C & D RECYCLABLE			
Rate	Items	Qty	Net	C/M	$ ex GST	GST	$ inc GST
Concrete m3	2	0	2.00	2.00	32.72	3.28	36.00
Concrete Ute/trailer	1,682	1,684	842.00	0.00	12,242.69	1,229.31	13,472.00
Concrete Weighed	3,698	0	11,750.91	0.00	192,582.81	19,258.61	211,841.42
Totals for product C & D Recyclable (C & D	**5,382**		**12,594.91**	**2.00**	**204,858.22**	**20,491.20**	**225,349.42**

Produc C & I Green				Code: C & I GREEN			
Rate	Items	Qty	Net	C/M	$ ex GST	GST	$ inc GST
Large	3,272	3,273	1,309.20	0.00	59,503.14	5,956.86	65,460.00
Medium	4,640	4,650	1,162.50	0.00	63,425.90	6,324.10	69,750.00
Small	1,344	1,344	67.20	0.00	6,115.20	604.80	6,720.00
Weighed	1,273	0	2,128.70	0.00	97,145.21	9,698.98	106,844.19
Totals for product C & I Green (C & I GRE	**10,529**		**4,667.60**	**0.00**	**226,189.45**	**22,584.74**	**248,774.19**

Produc C & I Landfill				Code: C & I LANDFILL			
Rate	Items	Qty	Net	C/M	$ ex GST	GST	$ inc GST
Filtercake	171	0	1,165.94	0.00	170,651.26	17,065.08	187,716.34
Large	512	512	204.80	0.00	17,223.68	1,720.32	18,944.00
Medium	145	145	36.25	0.00	2,900.00	290.00	3,190.00
Weighed	1,447	0	4,176.14	0.00	611,344.40	61,134.56	672,478.96
Totals for product C & I Landfill (C & I LA	**2,275**		**5,583.13**	**0.00**	**802,119.34**	**80,209.96**	**882,329.30**

Tran By Product By Rate Summary (0070)

10/04/2017 - 3:49:15PM

Site: Caloundra Caloundra Landfill

Produc C & I Mixed				Code: C & I MIXED			
Rate	Items	Qty	Net	C/M	$ ex GST	GST	$ inc GST
Cubic metre	1	0	0.50	1.00	92.73	9.27	102.00

Large	2,422	2,424	969.60	0.00	81,543.34	8,144.66	89,688.00
Medium	4,331	4,337	1,084.25	0.00	86,740.00	8,674.00	95,414.00
Shop unsold	428	0	132.00	0.00	0.00	0.00	0.00
Small	2,556	2,568	128.40	0.00	18,669.46	1,874.54	20,544.00
Weighed	1,743	0	1,141.55	0.00	173,512.92	17,348.74	190,861.66
Totals for product C & I Mixed (C & I MIXI	**11,481**		**3,456.30**	**1.00**	**360,558.45**	**36,051.21**	**396,609.66**

Produc Capping Clay **Code: CAPPING CLAY**

Rate	Items	Qty	Net	C/M	$ ex GST	GST	$ inc GST
Weighed	3,387	0	75,789.78	0.00	0.00	0.00	0.00
Totals for product Capping Clay (CAPPING	**3,387**		**75,789.78**	**0.00**	**0.00**	**0.00**	**0.00**

Produc Clean Plasterboard **Code: PLASTERBOARD CLEAN**

Rate	Items	Qty	Net	C/M	$ ex GST	GST	$ inc GST
Large	2	2	0.80	0.00	36.36	3.64	40.00
Medium	14	14	3.50	0.00	190.96	19.04	210.00
Small	1	1	0.05	0.00	4.55	0.45	5.00
Totals for product Clean Plasterboard (PLA	**17**		**4.35**	**0.00**	**231.87**	**23.13**	**255.00**

Produc Clean Timber **Code: TIMBER CLEAN**

Rate	Items	Qty	Net	C/M	$ ex GST	GST	$ inc GST
Large	4	4	1.60	0.00	72.72	7.28	80.00
Medium	20	20	5.00	0.00	272.80	27.20	300.00
Small	8	8	0.40	0.00	36.40	3.60	40.00
Weighed	16	0	15.04	0.00	683.64	68.36	752.00
Totals for product Clean Timber (TIMBER	**48**		**22.04**	**0.00**	**1,065.56**	**106.44**	**1,172.00**

Produc Cleanfill **Code: CLEANFILL**

Rate	Items	Qty	Net	C/M	$ ex GST	GST	$ inc GST
Special	27	0	309.80	0.00	0.00	0.00	0.00
Ute / Trailer	1,073	1,073	268.25	0.00	5,847.85	590.15	6,438.00
Weighed	2,391	0	16,034.92	0.00	87,564.88	8,756.78	96,321.66
Totals for product Cleanfill (CLEANFILL)	**3,491**		**16,612.97**	**0.00**	**93,412.73**	**9,346.93**	**102,759.66**

Site: Caloundra **Caloundra Landfill**

Produc Contract Collection **Code: CONTRACT: COLLECTION**

Rate	Items	Qty	Net	C/M	$ ex GST	GST	$ inc GST
Compactors	346	0	2,004.92	0.00	0.00	0.00	0.00
Frontlift	1,226	0	10,338.96	0.00	0.00	0.00	0.00
Landfill Relocation	3,514	0	46,842.95	0.00	0.00	0.00	0.00
Public Place	1,488	0	4,316.28	0.00	0.00	0.00	0.00
Rear Lift	32	0	85.54	0.00	0.00	0.00	0.00
Side Lift	5,390	0	41,044.04	0.00	0.00	0.00	0.00
Tran: Beerwah	210	0	1,351.98	0.00	0.00	0.00	0.00
Tran: Buderim	7	0	44.74	0.00	0.00	0.00	0.00
Tran: Witta	97	0	598.76	0.00	0.00	0.00	0.00
Totals for product Contract Collection (CON	**12,310**		**106,628.17**	**0.00**	**0.00**	**0.00**	**0.00**

Produc Dead Animals **Code: DEAD ANIMALS**

Rate	Items	Qty	Net	C/M	$ ex GST	GST	$ inc GST
Contractor	6	0	0.46	0.00	0.00	0.00	0.00
Large >99kg	16	16	8.00	0.00	1,207.20	120.80	1,328.00
Medium 25 to 99kg	39	46	2.30	0.00	606.28	60.72	667.00
Small <25kg	119	255	5.10	0.00	1,043.04	104.46	1,147.50
Vet Wildlife	5	0	0.88	0.00	0.00	0.00	0.00
Totals for product Dead Animals (DEAD AN	**185**		**16.74**	**0.00**	**2,856.52**	**285.98**	**3,142.50**

Produc Declared Vegetation **Code: DECLARED VEGETATION**

Rate	Items	Qty	Net	C/M	$ ex GST	GST	$ inc GST

Medium	6	6	1.50	0.00	81.84	8.16	90.00
Small	1	1	0.05	0.00	4.55	0.45	5.00
Weighed	7	0	5.74	0.00	260.91	26.09	287.00
Totals for product Declared Vegetation (DEC	**14**		**7.29**	**0.00**	**347.30**	**34.70**	**382.00**

Produc MSW Green **Code: MSW GREEN**

Rate	Items	Qty	Net	C/M	$ ex GST	GST	$ inc GST
Contract	1,068	0	6,416.48	0.00	0.00	0.00	0.00
Large	1,813	1,818	727.20	0.00	33,051.24	3,308.76	36,360.00
Medium	12,173	12,189	3,047.25	0.00	166,257.81	16,577.19	182,835.00
Small	5,600	5,604	280.20	0.00	25,498.16	2,521.84	28,020.00
Weighed	197	0	179.25	0.00	8,300.86	830.14	9,131.00
Totals for product MSW Green (MSW GRE	**20,851**		**10,650.38**	**0.00**	**233,108.07**	**23,237.93**	**256,346.00**

Site: Caloundra **Caloundra Landfill**

Produc Municipal Solid Waste **Code: MSW**

Rate	Items	Qty	Net	C/M	$ ex GST	GST	$ inc GST
Large	698	698	279.20	0.00	23,480.72	2,345.28	25,826.00
Mattress non-recycle	10	15	0.38	0.00	0.00	0.00	0.00
Medium	11,135	11,139	2,784.75	0.00	222,780.00	22,278.00	245,058.00
Small	18,439	18,491	924.55	0.00	134,430.08	13,497.92	147,928.00
Weighed	73	0	59.47	0.00	8,704.23	870.44	9,574.67
Totals for product Municipal Solid Waste (M	**30,355**		**4,048.35**	**0.00**	**389,395.03**	**38,991.64**	**428,386.67**

Produc Recyclables Incoming **Code: RECYCLABLES INCOMING**

Rate	Items	Qty	Net	C/M	$ ex GST	GST	$ inc GST
Bric a Brac	1	2	0.00	0.00	0.00	0.00	0.00
Comm Chemicals (20L)	8	25	0.00	0.00	1,704.54	170.46	1,875.00
Commercial Oil	11	17	1,700.00	0.00	309.07	30.93	340.00
E-waste	1,140	1,440	0.00	0.00	0.00	0.00	0.00
Fluorescent Lights	10	145	0.03	0.00	263.65	26.35	290.00
Mattress Foam	401	1,150	5.75	0.00	1,708.92	171.08	1,880.00
Mattress Rec @ TS	23	144	3.60	0.00	0.00	0.00	0.00
Mattress Spring	1,125	4,123	103.08	0.00	17,526.22	1,753.78	19,280.00
Shop Recovery	273	0	49.89	0.00	0.00	0.00	0.00
Totals for product Recyclables Incoming (RE	**2,992**		**1,862.34**	**0.00**	**21,512.40**	**2,152.60**	**23,665.00**

Produc Recyclables Outgoing **Code: RECYCLABLES OUTGOING**

Rate	Items	Qty	Net	C/M	$ ex GST	GST	$ inc GST
Foam	2	0	10.60	0.00	0.00	0.00	0.00
Gas Bottles	18	0	7.68	0.00	0.00	0.00	0.00
Totals for product Recyclables Outgoing (RE	**20**		**18.28**	**0.00**	**0.00**	**0.00**	**0.00**

Produc Regulated Outgoing **Code: REGULATED OUTGOING**

Rate	Items	Qty	Net	C/M	$ ex GST	GST	$ inc GST
Chemicals	12	0	5.84	0.00	0.00	0.00	0.00
Oil	42	0	22.00	0.00	0.00	0.00	0.00
Tyre-4WD/L-Truck	12	467	14.01	0.00	0.00	0.00	0.00
Tyre-Car/Motorcycle	13	737	11.06	0.00	0.00	0.00	0.00
Tyre-Tractor<2m	2	5	1.00	0.00	0.00	0.00	0.00
Tyre-Tractor>2m	1	1	0.35	0.00	0.00	0.00	0.00
Tyre-Truck/Bobcat	11	334	26.72	0.00	0.00	0.00	0.00
Totals for product Regulated Outgoing (REC	**93**		**80.98**	**0.00**	**0.00**	**0.00**	**0.00**

Site: Caloundra **Caloundra Landfill**

Produc Regulated Waste **Code: REGULATED WASTE**

Rate	Items	Qty	Net	C/M	$ ex GST	GST	$ inc GST
Application Fee	51	51	0.00	0.00	7,882.05	787.95	8,670.00

Asbestos	3	0	3.84	0.00	562.03	56.21	618.24
Contaminated Soil	21	0	184.00	0.00	26,936.76	2,693.68	29,630.44
Large	7	7	2.80	0.00	235.48	23.52	259.00
Medium	16	16	4.00	0.00	320.00	32.00	352.00
Small	23	23	1.15	0.00	167.21	16.79	184.00
Totals for product Regulated Waste (REGUI	**121**		**195.79**	**0.00**	**36,103.53**	**3,610.15**	**39,713.68**

Produc Sales Batteries **Code: SALES: BATTERIES**

Rate	Items	Qty	Net	C/M	$ ex GST	GST	$ inc GST
Batteries	6	0	37.86	0.00	10,283.80	1,028.37	11,312.17
Totals for product Sales Batteries (SALES: E	**6**		**37.86**	**0.00**	**10,283.80**	**1,028.37**	**11,312.17**

Produc Sales Cardboard **Code: SALES: BULK CARDBOARD**

Rate	Items	Qty	Net	C/M	$ ex GST	GST	$ inc GST
Cardboard	327	0	455.68	0.00	0.00	0.00	0.00
Totals for product Sales Cardboard (SALES	**327**		**455.68**	**0.00**	**0.00**	**0.00**	**0.00**

Produc Sales Concrete **Code: SALES: CONCRETE**

Rate	Items	Qty	Net	C/M	$ ex GST	GST	$ inc GST
~ 40 mm	69	0	1,079.10	981.00	20,511.67	2,051.33	22,563.00
~ 80 mm	30	0	2,404.00	2,404.00	43,709.05	4,370.91	48,079.96
Road base ~20mm	217	0	1,718.50	1,227.50	22,317.90	2,232.09	24,549.99
Totals for product Sales Concrete (SALES: C	**316**		**5,201.60**	**4,612.50**	**86,538.62**	**8,654.33**	**95,192.95**

Produc Sales Metal **Code: SALES: METAL**

Rate	Items	Qty	Net	C/M	$ ex GST	GST	$ inc GST
Ferrous	244	0	2,865.26	0.00	290,936.30	29,093.61	320,029.91
Non ferrous Mixed	48	0	85.27	0.00	39,384.49	3,938.45	43,322.94
Totals for product Sales Metal (SALES: ME	**292**		**2,950.53**	**0.00**	**330,320.79**	**33,032.06**	**363,352.85**

Produc Sales Mulch **Code: SALES: MULCH**

Rate	Items	Qty	Net	C/M	$ ex GST	GST	$ inc GST
ARG Mulch Fines	220	0	5,916.50	5,916.50	0.00	0.00	0.00
Free Domestic Coarse	2,764	0	2,661.00	4,435.00	0.00	0.00	0.00
Mulch Fines	169	0	399.20	499.00	340.91	34.09	375.00
Relocation / Free	10	0	14.40	18.00	0.00	0.00	0.00
Single Grind <1000m	30	0	232.20	387.00	2,110.98	211.02	2,322.00
Single Grind <100m	131	0	764.70	1,274.50	10,430.33	1,043.17	11,473.50
Totals for product Sales Mulch (SALES: MU	**3,324**		**9,988.00**	**12,530.00**	**12,882.22**	**1,288.28**	**14,170.50**

Site: Caloundra **Caloundra Landfill**

Produc Sales Other **Code: SALES: OTHER**

Rate	Items	Qty	Net	C/M	$ ex GST	GST	$ inc GST
ARG Soil Blend	14	0	33.00	55.00	0.00	0.00	0.00
Totals for product Sales Other (SALES: OTI	**14**		**33.00**	**55.00**	**0.00**	**0.00**	**0.00**

Produc Sales Shop **Code: SALES: SHOP**

Rate	Items	Qty	Net	C/M	$ ex GST	GST	$ inc GST
Sports/Leisure	1	0	0.00	0.00	0.09	0.01	0.10
Totals for product Sales Shop (SALES: SHO	**1**			**0.00**	**0.09**	**0.01**	**0.10**

Produc Scrap Metal **Code: SCRAP METAL**

Rate	Items	Qty	Net	C/M	$ ex GST	GST	$ inc GST
Fridges etc degassed	664	797	0.00	0.00	0.00	0.00	0.00
Fridges etc. not deg	1,183	1,308	0.00	0.00	4,828.26	481.74	5,310.00
iolar Beerwah	34	0	173.24	0.00	7,503.46	750.35	8,253.81
iolar Kenilworth	1	0	3.78	0.00	158.45	15.85	174.30
iolar Witta	14	0	70.28	0.00	3,043.62	304.35	3,347.97
iolar Yandina	2	0	7.72	0.00	322.07	32.21	354.28

Large	735	735	294.00	0.00	0.00	0.00	0.00
Medium	1,183	1,183	295.75	0.00	0.00	0.00	0.00
Other White Goods	1	1	0.00	0.00	0.00	0.00	0.00
Small	4,332	4,332	216.60	0.00	0.00	0.00	0.00
Weighed	245	0	185.50	0.00	0.00	0.00	0.00
Totals for product Scrap Metal (SCRAP ME	**8,394**		**1,246.87**	**0.00**	**15,855.86**	**1,584.50**	**17,440.36**

Produc Transfer Landfill			**Code:**	**TRANSFER LANDFILL**			
Rate	**Items**	**Qty**	**Net**	**C/M**	**$ ex GST**	**GST**	**$ inc GST**
Borrow Pit	267	0	2,248.32	0.00	40,878.50	4,087.90	44,966.40
Recovery Pad	251	0	1,680.14	0.00	0.00	0.00	0.00
Transfer Station	1,977	0	6,234.64	0.00	0.00	0.00	0.00
Totals for product Transfer Landfill (TRAN	**2,495**		**10,163.10**	**0.00**	**40,878.50**	**4,087.90**	**44,966.40**

Produc Transfer Resources			**Code:**	**TRANSFER RESOURCES**			
Rate	**Items**	**Qty**	**Net**	**C/M**	**$ ex GST**	**GST**	**$ inc GST**
Ferrous	578	0	230.58	0.00	0.00	0.00	0.00
Ferrous Cal Trailer	120	581	174.30	0.00	0.00	0.00	0.00
Mulch m3	8	0	9.60	16.00	0.00	0.00	0.00
Totals for product Transfer Resources (TRA	**706**		**414.48**	**16.00**	**0.00**	**0.00**	**0.00**

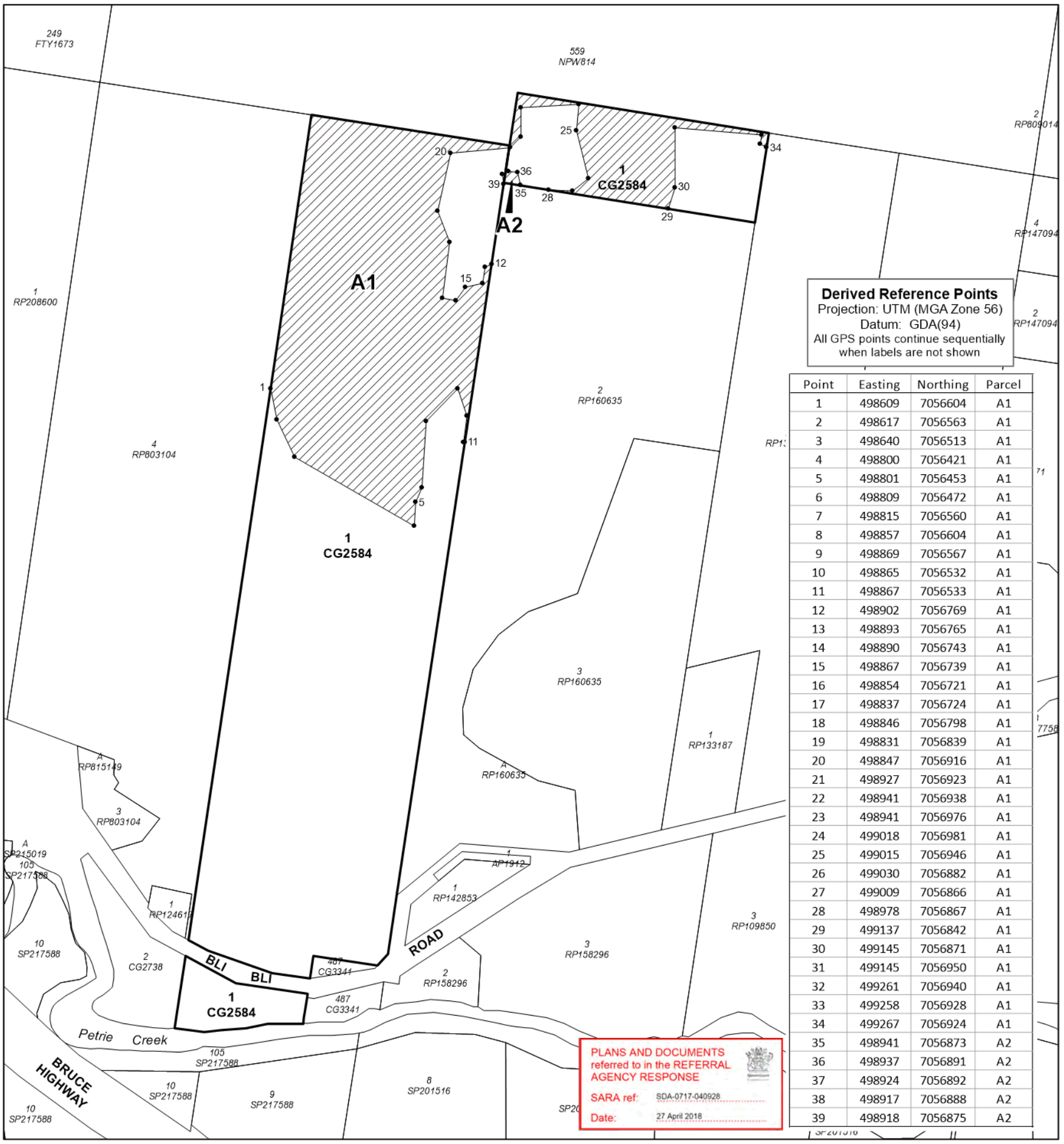
Site: Caloundra Caloundra Landfill

Produc Tyres			**Code:**	**TYRES**			
Rate	**Items**	**Qty**	**Net**	**C/M**	**$ ex GST**	**GST**	**$ inc GST**
4WD / Truck	71	215	6.45	0.00	1,563.64	156.36	1,720.00
Car/Motorcycle	222	720	14.40	0.00	3,926.87	393.13	4,320.00
Tractor < 1m	4	8	1.60	0.00	872.72	87.28	960.00
Truck / Bobcat	31	272	21.76	0.00	3,709.12	370.88	4,080.00
Totals for product Tyres (TYRES)	**328**		**44.21**	**0.00**	**10,072.35**	**1,007.65**	**11,080.00**

Produc Weight Only			**Code:**	**WEIGHT ONLY**			
Rate	**Items**	**Qty**	**Net**	**C/M**	**$ ex GST**	**GST**	**$ inc GST**
Refuse To Pay	19	0	0.00	19.00	0.00	0.00	0.00
Weighed	2,296	0	64,539.71	0.00	0.00	0.00	0.00
Totals for product Weight Only (WEIGHT C	**2,315**		**64,539.71**	**19.00**	**0.00**	**0.00**	**0.00**
Totals for site Caloundra	**125,238**		**340,333.58**	**17,235.50**	**3,289,519.49**		**328,901.26**	**3,618,420.75**

GRAND TOTALS	**125,238**		**340,333.58**	**17,235.50**	**3,289,519.49**	**328,901.26**	**3,618,420.75**

Report End



Derived Reference Points
Projection: UTM (MGA Zone 56)
Datum: GDA(94)
All GPS points continue sequentially when labels are not shown

Point	Easting	Northing	Parcel
1	498609	7056604	A1
2	498617	7056563	A1
3	498640	7056513	A1
4	498800	7056421	A1
5	498801	7056453	A1
6	498809	7056472	A1
7	498815	7056560	A1
8	498857	7056604	A1
9	498869	7056567	A1
10	498865	7056532	A1
11	498867	7056533	A1
12	498902	7056769	A1
13	498893	7056765	A1
14	498890	7056743	A1
15	498867	7056739	A1
16	498854	7056721	A1
17	498837	7056724	A1
18	498846	7056798	A1
19	498831	7056839	A1
20	498847	7056916	A1
21	498927	7056923	A1
22	498941	7056938	A1
23	498941	7056976	A1
24	499018	7056981	A1
25	499015	7056946	A1
26	499030	7056882	A1
27	499009	7056866	A1
28	498978	7056867	A1
29	499137	7056842	A1
30	499145	7056871	A1
31	499145	7056950	A1
32	499261	7056940	A1
33	499258	7056928	A1
34	499267	7056924	A1
35	498941	7056873	A2
36	498937	7056891	A2
37	498924	7056892	A2
38	498917	7056888	A2
39	498918	7056875	A2

PLANS AND DOCUMENTS referred to in the REFERRAL AGENCY RESPONSE
SARA ref: SDA-0717-040928
Date: 27 April 2018

SCALE 1:5000 @ A3 paper size
0 50 100 200 300 400 500 m
Projection: UTM (MGA Zone 56) Datum: GDA94

Note: Derived Reference Points are provided to assist in the location of the Technical Agency Response boundaries. Responsibility for locating these boundaries lies solely with the landholder and delegated contractor(s).

The property boundaries shown on this plan are APPROXIMATE ONLY. They are NOT an accurate representation of the legal boundaries.

Note: This plan must be read in conjunction with Technical Agency Response SDA-0717-040928

LEGEND
- Derived Reference Points for GPS
- Subject Lot(s)
- Area A1 & A2 - Specific conditions apply - conditions 5, 6 and 7

Technical Agency Response (Vegetation) Plan

Plan of all Area A in Lot 1 on CG2584

N

Queensland Government

CENTRE: IPSWICH **LOCALITY OF BLI BLI**	**REGION: SOUTH** **LOCAL GOVT: SUNSHINE COAST**
Map Reference: 9444	Compiled from: DCDB, PVMP & NRMO Notes
File Reference: eLVAS 2017/003572	Prepared by: LMO Date: 12 January 2018

TARP
SDA-0717-040928
Sheet 1 of 1