

## AGENDA WORKS AND SERVICES COMMITTEE 21 NOVEMBER 2016

MEMBERSHIP:

Mr M Kneipp (Administrator).

The meeting is scheduled to commence at 5.30pm.

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WSC16/23	REPORT OF THE WORKS AND SERVICES COMMITTEE - MEETING 17 OCTOBER 2016 (ID16/2115)  The Committee had before it the report of the Works and Services Committee meeting held 17 October 2016.	3
WSC16/24	BUILDING SUMMARY - OCTOBER 2016 (ID16/2099)  The Committee had before it the report dated 2 November 2016 from the Director Environmental Services regarding Building Summary - October 2016.	16
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## WSC16/27 LANDFILL GAS CAPTURE SYSTEM AT WHYLANDRA WASTE AND RECYCLING CENTRE - ANNUAL PROGRESS REPORT (ID16/2120)

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The Committee had before it the report dated 14 November 2016 from the Manager Civil Infrastructure and Solid Waste regarding Landfill Gas Capture System at Whylandra Waste and Recycling Centre - Annual Progress Report.



## Report of the Works and Services Committee - Meeting 17 October 2016

**AUTHOR:** Administrative Officer - Governance

**REPORT DATE:** 8 November 2016

The Committee had before it the report of the Works and Services Committee meeting held 17 October 2016.

#### **MOTION**

That the report of the Works and Services Committee meeting held on 17 October 2016, be adopted.



## REPORT WORKS AND SERVICES COMMITTEE 17 OCTOBER 2016

#### PRESENT:

Mr M Kneipp (Administrator).

#### **ALSO IN ATTENDANCE:**

The Interim General Manager (D Dwyer), the Director Organisational Services (J Bassingthwaighte), the Manager Governance and Risk, the Administrative Officer, the Director Corporate Development, the Corporate Communications Supervisor (K Matts), the Director Technical Services, the Manager Technical Support, the Manager Fleet Management Services, the Director Environmental Services, the Manager City Strategy Services (S Jennings), the Trainee Strategic Planner, the Director Community Services (J Watts), the Director Parks and Landcare Services and the Transition Project Leader.

Mr M Kneipp (Administrator) assumed chairmanship of the meeting.

The proceedings of the meeting commenced at 5.39pm.

## WSC16/8 REPORT OF THE WORKS AND SERVICES COMMITTEE - MEETING 19 SEPTEMBER 2016 (ID16/1877)

The Committee had before it the report of the Works and Services Committee meeting held 19 September 2016.

Moved by Mr M Kneipp (Administrator)

#### **MOTION**

The Committee recommends that the report of the Works and Services Committee meeting held on 19 September 2016, be adopted.

#### WSC16/9 BUILDING SUMMARY - SEPTEMBER 2016 (ID16/1860)

The Committee had before it the report dated 11 October 2016 from the Director Environmental Services regarding Building Summary - September 2016.

Moved by Mr M Kneipp (Administrator)

#### **MOTION**

The Committee recommends that the information contained in the Report of the Director Environmental Services, dated 11 October 2016 be noted.

**CARRIED** 

#### WSC16/10 LEASES/LICENCES AT WATER AND SEWER SITES (ID16/1861)

The Committee had before it the report dated 6 October 2016 from the Director Technical Services regarding Leases/Licences at Water and Sewer Sites.

Moved by Mr M Kneipp (Administrator)

#### **MOTION**

#### The Committee recommends:

- 1. That Council resolve to renew the licence for Essential Energy on Part Lot 3, DP: 547696, be renewed for an annual fee of \$6,038 with a 3% increase on each anniversary of the commencement date for a duration of 5 years.
- 2. That any necessary documents be executed under the Common Seal of the Council.

**CARRIED** 

#### WSC16/11 QUARTERLY PLANT REPORT (ID16/1678)

The Committee had before it the report dated 5 October 2016 from the Manager Fleet Management Services regarding Quarterly Plant Report.

Moved by Mr M Kneipp (Administrator)

#### MOTION

The Committee recommends that the information contained within the report of the Manager Fleet Management Services dated 5 October 2016 be noted.

## WSC16/12 MOGRIGUY AND WESTELLA ROADS - CRITERIUM AND ROAD RACES 2017 DUBBO CYCLE CLUB SEASON (ID16/1879)

The Committee had before it the report dated 10 October 2016 from the Manager Technical Support regarding Mogriguy and Westella Roads - Criterium and Road Races 2017 Dubbo Cycle Club Season.

Moved by Mr M Kneipp (Administrator)

#### MOTION

#### The Committee recommends:

- That the application of the Dubbo Cycle Club Inc Racing Season 2017 between 1
  January 2017 and 23 December 2017, be approved and undertaken in accordance
  with the Event and Traffic Management Plan as conditioned by the NSW Police
  Service and the following conditions of Dubbo Regional Council:
  - a. Criterium Implementation of a temporary road closure of Tighe and Gills Streets and part of Allen Road, on Monday or Friday afternoons between 5.00pm and 8.30pm or alternate Saturday afternoons between 1.00pm and 5.00pm or Sunday mornings between 7.30am and 2.00pm or Sunday afternoons between 2.00pm and 5.00pm during daylight saving hours.
  - b. Sheraton Road The southern section of Sheraton Road for Junior Racing commencing at the 60/100km/h speed signs (south of St John's College), south for a distance of 1.9km and return on Sundays between 1.00pm and 4.30pm.
  - c. Burroway Road Commencing 500m west of the Newell Highway at Brocklehurst for 18km to 200metres east of Rawsonville Bridge Road intersection and return on Saturdays between 1.00pm and 5.00pm or Sundays between 8.00am and 2.00pm.
  - d. Mogriguy Road -Time trial course commencing 650m north of the Mendooran Road intersection for a distance of 10.5km to Mogriguy Village. Long course commencing 650metres north of the Mendooran Road intersection for 19km with turnaround being 5.1km north of the Coolbaggie Road intersection and return on Saturdays between 1.00pm and 5.00pm or Sundays between 8.00am and 2.00pm.
  - e. Wongarbon Wongarbon/Westella Roads Short course, commencing in Barbigal Street 100metres north of Derribong Street for a distance of 15km and return on Saturdays between 1.00pm and 5.00pm or Sundays between 8.00am and 2.00pm. Long course along Westella Road and Ballimore/Geurie Road for 25km to a turnaround 550metres south of the Golden Highway and return on Saturdays between 1.00pm and 5.00pm or Sundays between 8.00am and 2.00pm.
  - f. Benolong Road Sprint Course from a distance of 300metres east of the Wambangalang Creek Bridge for 9km to 50metres west of the Nubingerie Road intersection, on Saturdays between 1.00pm and 5.00pm or Sundays between 8.00am and 2.00pm.
  - g. South Geurie Arthurville Road Short course, commencing 400metres south of

the bridge over the Macquarie River for a distance of 15km to a turnaround 600metres north-east of intersection of Hermitage Road, on Saturdays between 1.00pm and 5.00pm or Sundays between 8.00am and 2.00pm.

- h. South Geurie Arthurville Road Middle course, commencing 400metres south of the bridge over the Macquarie River for a distance of 21km with the turnaround point being 3.2km on Suntop Road east of the intersection with Arthurville Road, on Saturdays between 1.00pm and 5.00pm or Sundays between 8.00am and 2.00pm.
- i. South Geurie Arthurville Road Long course commencing 400metres south of the bridge over the Macquarie River for a distance of 30km to a turnaround 3.8km on Suntop Road west of the intersection of Renshaw-McGirr Way, on Saturdays between 1.00pm and 5.00pm or Sundays between 8.00am and 2.00pm.
- j. South Geurie Terrabella Road Time Trial course, commencing 2.1km west of the intersection of Terrabella and Arthurville Roads for a 6.4km distance to a turnaround being 1.3km east of the bridge over Little River, on Saturdays between 1.00pm and 5.00pm or Sundays between 8.00am and 2.00pm.
- k. South Geurie Arthurville Road Strada long loop, commencing 400 metres south of the bridge over the Macquarie River on Arthurville Road for a distance of 50.3km incorporating River Road 10.6km, Zaias Lane 3km, Bennetts Road 6.5km, Suntop Road 9km, Arthurville Road 2.2km, Hermitage Road 11.9km, Terrabella Road 0.35km, Arthurville Road 2.9km to the finish line, on Saturdays between 1.00pm and 5.00pm or Sundays between 8.00am and 2.00pm.
- I. South Geurie Arthurville Road Strada short loop, commencing 400metres south of the bridge over the Macquarie River on Arthurville Road for a distance of 42km incorporating Arthurville Road 4.3km, River Road 10.6km, Zaias Lane 8.1km, Arthurville Road 4.5km, Hermitage Road 11.9km, Terrabella Road 0.35km, Arthurville Road 2.9km to the finish, on Saturdays between 1.00pm and 5.00pm and on Sundays between 8.00am and 2.00pm.
- m. North Geurie Comobella Road, commencing 0.25km north from the intersection of Paxton and Fitzroy Streets for 13km to a turnaround 0.15km west of Cobbora Road, on Saturdays between 1.00pm and 5.00pm or Sundays between 8.00am and 2.00pm.
- n. The approval for use of the Roads will alternate between locations in accordance with the nominated block dates.
- 2. Dubbo Cycle Club racing events held on a Saturday afternoon will be undertaken so as not to clash with the Orana Veterans Cycle Club events.
- 3. Dubbo Cycle Club shall provide a calendar of proposed race events at two (2) monthly intervals before commencement of the first event.
- 4. Dubbo Cycle Club shall, following the uptake of development within the newly released Industrial Subdivision off Yarrandale Road north of Purvis Lane incorporating Allen Road and Tighe and Gill Streets, liaise with the developer/business regarding any impacts or impediments that the criterium may have on operational functions or access and advise Council accordingly on such consultation and outcomes or contingencies developed to assist with the ongoing business and criterium activities.
- 5. Submission of Traffic Control Plans to Council for approval to be submitted a minimum of three (3) weeks prior to the first event. All traffic control measures

- contained in the plan are to be in accordance with Australian Standard AS1742.3 and the Road and Maritime Services NSW Guidelines for Bicycle Road Races and the Guide to Traffic Control at Worksites prepared by an accredited person.
- 6. All traffic control including the placement and removal of barricades and/or regulation of traffic is to be carried out by Traffic Controllers appropriately trained in accordance with the requirements of Australian Standard AS1742.3 and the Roads and Maritime Services accreditation requirements for Traffic Control Planners or Controllers as required. In this respect there is a requirement that Traffic Controllers and not marshals are to be provided at the start/finish and turnaround to stop all traffic whilst riders are:
- Starting and finishing within a 60km/h or less speed zone.
- Assembled on the road carriageway immediately prior to a mass or staggered start.
- Undertaking the turn-around movement.
- Sprint to the finish line.
- 7. The NSW Police Service consent and conditions for bicycle races permit under the NSW Road Transport Act 2013 Section 115 is required.
- 8. Council's Administration Officer must sight a copy of the Public Liability Insurance Policy for a minimum amount of \$20 million on which Dubbo Regional Council and NSW Police Service are specifically noted to be indemnified against any action resulting from the cycle race.
- 9. The applicant is to submit to Council all the appropriate documentation required accepting the above conditions before final approval is granted.
- 10. Approval is for a 12 month period commencing at the time final authorisation of all documentation is granted.

**CARRIED** 

#### WSC16/13 DUBBO TRIATHLON RACES 2016/2017 (ID16/1881)

The Committee had before it the report dated 10 October 2016 from the Manager Technical Support regarding Dubbo Triathlon Races 2016/2017.

Moved by Mr M Kneipp (Administrator)

#### **MOTION**

#### The Committee recommends:

- That the application of the Dubbo Triathlon Club be approved for the 2016/2017 season as conditioned by the NSW Police Service and the following conditions of Dubbo Regional Council.
- 2. Approval shall be for the use of Bligh Street from Ollie Robins Oval south to Macquarie Street, Macquarie Street from Bligh Street to Hennessy Road, Old Dubbo Road from Hennessy Road south for a distance of 9 kilometres to the turnaround and return on the nominated days between 6.30am to 11.30am during the racing season from 16 October 2016 to 12 March 2017 16 October 2016, 23 October 2016, 20 November 2016, 18 December 2016, 15 January 2017, 19 February 2017 and 12 March 2017.

- 3. Approval for a temporary road closure of Bligh Street for the 4 junior triathlon events south of Wingewarra Street to Macquarie Street between 7.30am to 9.00am.
- 4. Submission of a traffic management plan to Council for approval to be submitted a minimum of three (3) weeks prior to the first event. All traffic control measures contained in the plan are to be in accordance with Australian Standard AS 1742.3 and the Roads and Maritime Services and NSW Guidelines for Bicycle Road Races and The Guide to Traffic Control at Worksites, prepared by an accredited person.
- 5. All Traffic Control including the placement and removal of barricades and/or regulation of traffic is to be carried out by traffic controllers appropriately trained in accordance with the requirements of Australian Standard AS 1742.3 and the Roads and Traffic Authority Accreditation Requirements for Traffic Control Planners or Controllers as required.
- 6. All competitors shall comply with the Australian Road Rules, for the cycle route.
- 7. All traffic advisory signs ("cyclists on road") shall be placed in accordance with the approved traffic control plan.
- 8. The NSW Police Force consent and conditions for bicycle races permit under the NSW Roads Transport Act 2013, Section 115.
- 9. Council's Administrative Officer must sight a copy of the Public Liability Insurance Policy for a minimum amount of \$20 million on which Dubbo City Council, NSW Police Service and Roads and Maritime Services (RMS) is specifically noted to be indemnified against any action resulting from the Triathlon Races.
- 10. The applicant shall provide to the Managers of Dubbo Square and Poplars Caravan Park details of the Clubs 2016/2017 Race Season Schedule of Events nominating the Junior Events and the temporary road closure days and pre-event advice on any changes that may be required in addition to post event feedback with the developments and Council.
- 11. The applicant is to submit to Council all the appropriate documentation required accepting the above terms and conditions before a final approval is granted.

**CARRIED** 

## WSC16/14 PROPOSED ROUNDABOUT IMPROVEMENTS AT THE INTERSECTION OF ST ANDREWS DRIVE AND CYPRESS POINT DRIVE, DUBBO (ID16/1882)

The Committee had before it the report dated 10 October 2016 from the Manager Technical Support regarding Proposed Roundabout Improvements at the Intersection of St Andrews Drive and Cypress Point Drive, DUBBO.

Moved by Mr M Kneipp (Administrator)

#### **MOTION**

The Committee recommends that Council approval be granted for the proposed traffic management improvements to the roundabout at the intersection of St Andrews Drive and Cypress Point Drive, Dubbo in accordance with Council's Plan TM 7073, with the inclusion of an additional kerb side island on the north western corner exit of the roundabout as attached to the report of the Manager Technical Support dated 10 October 2016.

#### WSC16/15 NORTH STREET DUBBO PEDESTRIAN REFUGE ISLAND (ID16/1883)

The Committee had before it the report dated 10 October 2016 from the Manager Technical Support regarding North Street Dubbo Pedestrian Refuge Island.

Moved by Mr M Kneipp (Administrator)

#### **MOTION**

The Committee recommends that a pedestrian refuge island with associated traffic management at the intersection of North Street and Minore Road, Dubbo be implemented in accordance with Council's Plan TM 7005 as attached to the report of the Manager Technical Support dated 10 October 2016.

**CARRIED** 

#### WSC16/16 DUBBO REGIONAL COUNCIL'S RURAL BIODIVERSITY REPORT (ID16/1880)

The Committee had before it the report dated 10 October 2016 from the Manager Landcare Services regarding Dubbo Regional Council's Rural Biodiversity Report.

Moved by Mr M Kneipp (Administrator)

#### **MOTION**

#### The Committee recommends:

- 1. That the draft Dubbo Regional Council's Rural Reserves Biodiversity Report be noted.
- That the draft Dubbo Regional Council's Rural Reserves Biodiversity Report be placed on public exhibition for a minimum 28 days to seek submissions from the public regarding the proposed adoption of the plan.
- 3. That following consideration of submissions received during the Public Exhibition period, a further report be prepared for Council.

**CARRIED** 

At this juncture the meeting adjourned, the time being 5.49pm.

The meeting recommenced at 6.01pm.

#### WSC16/17 TENDER FOR SUPPLY OF WATER TREATMENT CHEMICALS (ID16/1867)

The Committee had before it the report dated 6 October 2016 from the Director Technical Services regarding Tender for Supply of Water Treatment Chemicals.

Moved by Mr M Kneipp (Administrator)

#### **MOTION**

The Committee recommends that members of the press and public be excluded from the meeting during consideration of this item, the reason being that the matter concerned information that would, if disclosed, prejudice the commercial position of the person who supplied it (Section 10A(2)(d)(i)).

**CARRIED** 

Moved by Mr M Kneipp (Administrator)

#### **MOTION**

#### The Committee recommends:

- That Council accepts the following tenders for a period from 1 November 2016 to 31 October 2018:
  - Separable Part A from Redox Pty Ltd in the amount of \$167,040, excluding GST for the supply and delivery of 96 tonnes of Powder Activated Carbon.
  - Separable Part B from Redox Pty Ltd in the amount of \$476,160, excluding GST for the supply and delivery of 960 tonnes of Soda Ash.
  - Separable Part C from Boral Pty Ltd, in the amount of \$441,000, excluding GST for the supply and delivery of 1,764 tonnes of Quick Lime.
  - Separable Part D from Redox Pty Ltd in the amount of \$143,400, excluding GST, for the supply and delivery of 120 tonnes of Hydrofluorosilicic Acid.
  - Separable Part E from Ixom Pty Ltd in the amount of \$194,610 excluding GST, for the supply and delivery of 78 tonnes of Chlorine Gas.
  - Separable Part F from Ixom Pty Ltd in the amount of \$328,500, excluding GST for the supply and delivery of 900 tonnes of Ferric Chloride.
- 2. That any necessary documents be executed under the Common Seal of the Council.
- 3. That the documents and considerations in regard to this matter remain confidential to Council.

## WSC16/18 REPLACEMENT OF PLANT NUMBERS 154 AND 162 WITH TWO 10,400 GVM 4X2 DUAL CAB TABLE TOP TRUCKS WITH CRANES (ID16/1854)

The Committee had before it the report dated 5 October 2016 from the Manager Fleet Management Services regarding Replacement of Plant Numbers 154 and 162 with Two 10,400 GVM 4x2 Dual Cab Table Top Trucks with Cranes.

Moved by Mr M Kneipp (Administrator)

#### **MOTION**

The Committee recommends that members of the press and public be excluded from the meeting during consideration of this item, the reason being that the matter concerned information that would, if disclosed, prejudice the commercial position of the person who supplied it (Section 10A(2)(d)(i)).

**CARRIED** 

Moved by Mr M Kneipp (Administrator)

#### MOTION

#### The Committee recommends:

- That the tender from Tracserv for the supply of two Isuzu FRR110-260, 10,400 GVM 4x2 dual cab table top trucks with cranes for a total purchase price of \$303,612.75 ex GST, be accepted.
- 2. That the offer from Pickles Auction for the outright purchase of plant 154, an Isuzu FRR500 single cab truck and plant 162 an Isuzu FRR600 crew cab truck for a total outright purchase price of \$91,000.00 ex GST, be approved
- 3. That the documents and considerations in regard to this matter remain confidential to Council.

## WSC16/19 REPLACEMENT OF PLANT NUMBER 1166, A CASE FOUR WHEEL DRIVE FRONT END LOADER (ID16/1851)

The Committee had before it the report dated 6 October 2016 from the Manager Fleet Management Services regarding Replacement of Plant Number 1166, a Case Four Wheel Drive Front End Loader.

Moved by Mr M Kneipp (Administrator)

#### MOTION

The Committee recommends that members of the press and public be excluded from the meeting during consideration of this item, the reason being that the matter concerned information that would, if disclosed, prejudice the commercial position of the person who supplied it (Section 10A(2)(d)(i)).

**CARRIED** 

Moved by Mr M Kneipp (Administrator)

#### MOTION

#### The Committee recommends:

- 1. That the tender from Westrac for the supply of a Caterpillar 938K front end loader for the purchase price of \$279,000.00 ex GST, be accepted.
- 2. That the outright purchase offer from Shane Lousick of \$41,007.00 ex GST for plant number 1166, be accepted.
- 3. That the documents and considerations in regard to this matter remain confidential to Council.

**CARRIED** 

## WSC16/20 REPLACEMENT OF PLANT NUMBERS 155, 156, 157 AND 158, FOUR 10,400 GVM 4X2 DUAL CAB TIPPING TRUCKS (ID16/1852)

The Committee had before it the report dated 5 October 2016 from the Manager Fleet Management Services regarding Replacement of Plant Numbers 155, 156, 157 and 158, four 10,400 GVM 4x2 Dual Cab Tipping Trucks.

Moved by Mr M Kneipp (Administrator)

#### MOTION

The Committee recommends that members of the press and public be excluded from the meeting during consideration of this item, the reason being that the matter concerned information that would, if disclosed, prejudice the commercial position of the person who supplied it (Section 10A(2)(d)(i)).

Moved by Mr M Kneipp (Administrator)

#### **MOTION**

#### The Committee recommends:

- 1. That the tender from Tracserv for the supply of four Isuzu FRR110-260 dual cab tipping trucks for a total purchase price of \$513,585.45 ex GST, less the total trade in value of \$198,181.82 ex GST for plant numbers 155, 156, 157 and 158 for a changeover cost of \$315,403.63 ex GST be accepted.
- 2. That the documents and considerations in regard to this matter remain confidential to Council.

**CARRIED** 

## WSC16/21 REPLACEMENT OF PLANT NUMBER 719, A 26 TONNE LANDFILL COMPACTOR (ID16/1853)

The Committee had before it the report dated 6 October 2016 from the Manager Fleet Management Services regarding Replacement of Plant Number 719, a 26 Tonne Landfill Compactor.

Moved by Mr M Kneipp (Administrator)

#### MOTION

The Committee recommends that members of the press and public be excluded from the meeting during consideration of this item, the reason being that the matter concerned information that would, if disclosed, prejudice the commercial position of the person who supplied it (Section 10A(2)(d)(i)).

**CARRIED** 

Moved by Mr M Kneipp (Administrator)

#### MOTION

#### The Committee recommends:

- That the tender from GCM Enviro for the supply of a Tana E260 Landfill Compactor for the purchase price of \$576,000.00 ex GST, less the trade in value of \$120,000.00 ex GST for plant 719, a Tana E260 landfill compactor, for a changeover cost of \$456,000.00 ex GST be accepted.
- 2. That the documents and considerations in regard to this matter remain confidential to Council.

#### WSC16/22 TENDER FOR THE CLEANING OF DUBBO'S CENTRAL BUSINESS DISTRICT 2016-2019 (ID16/1739)

The Committee had before it the report dated 21 September 2016 from the Manager Parks and Landcare Operations regarding Tender for the Cleaning of Dubbo's Central Business District 2016-2019.

Moved by Mr M Kneipp (Administrator)

#### MOTION

The Committee recommends that members of the press and public be excluded from the meeting during consideration of this item, the reason being that the matter concerned information that would, if disclosed, prejudice the commercial position of the person who supplied it (Section 10A(2)(d)(i)).

**CARRIED** 

Moved by Mr M Kneipp (Administrator)

#### MOTION

#### The Committee recommends:

- That the tender of Cleanngo Wheelie Bin Service in the amount of \$49,160 ex GST per year be accepted for a period of 3 years for the cleaning of Dubbo Central Business District.
- 2. That the contract include the option for a maximum one year extension.
- 3. That any necessary documents be executed under the Common Seal of the Council.
- 4. That the documents and considerations in regard to this matter remain confidential to Council.

The meeting closed at 6.08pm.	
CHAIRMAN	



**REPORT:** Building Summary - October 2016

**AUTHOR:** Director Environmental Services

**REPORT DATE:** 2 November 2016

TRIM REFERENCE: ID16/2099

#### **EXECUTIVE SUMMARY**

Information has been prepared on the statistics of the number of dwellings and residential flat buildings approved in the Dubbo Regional Council Local Government Area and statistics for approved Development Applications for the information of Council.

#### FINANCIAL IMPLICATIONS

There are no financial implications arising from this report.

#### **POLICY IMPLICATIONS**

There are no policy implications arising from this report.

#### RECOMMENDATION

That the information contained in this report be noted.

Melissa Watkins
Director Environmental Services

#### **REPORT**

Provided for information are the latest statistics (as at the time of production of this report) for Development Applications for the Dubbo Regional Council.

#### 1. Residential Building Summary

Dwellings and other residential developments approved during October 2016 were as follows:

	<u>Dubbo</u>	Wellington
Dwellings	18	1
Other residential development	4	-
(No. of units)	(7)	(-)

For consistency with land use definitions included in the Dubbo Local Environmental Plan 2011, residential development has been separated into 'Dwellings' and 'Other residential development' includes dual occupancies, secondary dwellings, multi-unit and seniors living housing.

These figures include Development Applications approved by Private Certifying Authorities (Complying Development Certificates).

A summary of residential approvals for the former Dubbo City Council area since 2009-2010 is provided attached as **Appendix 1**.

#### 2. Approved Development Applications

#### Dubbo

The total number of approved Development Applications (including Complying Development Certificates) for October 2016 and a comparison with 2015 figures and the total for the financial years to date for 2016 and 2015 are as follows:

	<u> 1 October 2016 – 31 October 2016</u>	1 July 2016 – 31 October 2016
No. of applications	73	271
Value	\$18,731,038	\$59,733,151
	1 October 2015 – 31 October 2015	1 July 2015 – 31 October 2015
No of amplications		
No. of applications	59	84
Value	\$8,480,155	\$31,009,817

A summary breakdown of the figures for the Dubbo office for October 2016 and 2015 is included in **Appendix 2** and **Appendix 3** and the year-to-date figures are included in **Appendix 4** and **Appendix 5**.

#### Wellington

The total number of determined Development Applications (including Complying Development Certificates) for September 2016 and a comparison with 2015 figures are as follows:

	1 October 2016 – 31 October 2016	1 July 2016 – 31 October 2016
No. of applications	5	25
Value	\$307,060	\$927,613
	<u> 1 October 2015 – 31 October 2015</u>	1 July 2015 – 31 October 2015
No. of applications	9	22
Value	\$284,895	\$934,686

A summary breakdown of the figures for the Wellington office for October 2016 and 2015 is included in **Appendix 6** and **Appendix 7** and the year-to-date figures are included in **Appendix 8** and **Appendix 9**.

The information included in this report is recommended for notation.

#### Appendices:

- 1 Building Summary (Dubbo)
- 2 Approved Development Applications October 2016 (Dubbo)
- 3 Approved Development Applications October 2015 (Dubbo)
- 4 Approved Development Applications 1 July 2016 to 31 October 2016 (Dubbo)
- **5** Approved Development Applications 1 July 2015 to 31 October 2015 (Dubbo)
- 6 Approved Development Applications October 2016 (Wellington)
- 7 Approved Development Applications October 2015 (Wellington)
- 8 Approved Development Applications 1 July 2016 to 31 October 2016 (Wellington)
- **9** Approved Development Applications 1 July 2015 to 31 October 2015 (Wellington)

#### STATISTICAL INFORMATION ON DWELLINGS AND MULTI UNIT HOUSING

	JUL	AUG	SEPT	ОСТ	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	TOTAL
2009/2010													
Dwellings	20	11	16	14	7	3	5	11	11	7	12	11	128
Flat Buildings	-	1	1	1	1	3	-	2	2	-	1	-	12
(No of units)	(-)	(2)	(2)	(2)	(2)	(6)	(-)	(4)	(4)	(-)	(4)	(-)	(26)
2010/2011													
Dwellings	8	15	10	7	2	6	-	6	6	6	7	9	82
Flat Buildings	-	1	0	3	1	-	-	1	1	1	4	-	12
(No of units)	(-)	(2)	(0)	(5)	(2)	(-)	(-)	(2)	(2)	(2)	(7)	(-)	(22)
2011/2012													
Dwellings	6	12	10	6	7	16	4	16	12	8	12	9	118
Flat Buildings	1	1	-	1	2	2	-	-	-	-	-	1	8
(No of units)	(14)	(2)	(-)	(1)	(4)	(3)	(-)	(-)	(-)	(-)	(-)	(16)	(40)
2012/2013													
Dwellings	3	7	14	13	9	3	9	9	13	13	15	13	121
Flat Buildings	4	6	-	-	1	9	-	-	1	-	2	-	23
(No of units)	(8)	(6)	(-)	(-)	(2)	(11)	(-)	(-)	(2)	(-)	(39)	(-)	(68)
2013/2014													
(incl. private certifiers)													
Dwellings	23	17	25	20	14	15	19	10	18	14	19	14	208
Flat Buildings	-	1	1	-	-	1	4	2	1	2	-	3	15
(No of units)	(-)	(2)	(2)	(-)	(-)	(2)	(46)	(1)	(2)	(4)	(-)	(6)	(65)
2014/2015													
(Incl. PCs and redefined land use categories based on LEP definitions)													
Single dwellings	19	34	19	21	13	16	14	12	20	19	15	20	222
Multi unit housing	3	1	6	5	6	12	-	4	2	1	9	5	54
(No of units)	(6)	(2)	(31)	(50)	(6)	(21)	(-)	(87)	(4)	(1)	(25)	(10)	(243)
2015/2016													
(Incl. PCs and redefined land use categories based on LEP definitions)													
Single dwellings	27	20	26	19	21	26	19	14	16	17	17	22	244
Multi unit housing	6	8	8	4	1	3	3	3	3	5	3	8	55
(No of units)	(50)	(98)	(12)	(7)	(2)	(5)	(18)	(4)	(5)	(14)	(6)	(23)	(244)
2016/2017	,,		, , ,	, ,	. ,	,	\ , , ,	l ',	,	, , ,	\ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \	, ,	, , ,
(Incl. PCs and redefined land use categories based on LEP definitions)													
Single dwellings	24	13	17	18									72
Multi unit housing	8	5	7	4									24
(No of units)	(10)	(10)	(13)	(7)									(40)

WORKS AND SERVICES COMMITTEE Page 19



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Print Date: 2/11/2016
Print Time:11:01:19AM

## Approved Development & Complying Development Applications for former Dubbo LGA and Private Certifiers-Period 1/10/2016 - 31/10/2016

Development Type	Number of Applications	Est. \$	New Developments	Est. \$	Additions and Alterations	Est. \$	New Dwellings	New Lots
Dwelling - single	22	7,152,484	18	6,816,484	4	336,000	18	
Dwelling - Secondary/Dual Occ Dwelling	2	477,000	2	477,000			3	
Dwelling - Dual Occupancy, one storey	2	600,000	2	600,000			4	
Garage/Carport/Roofed Outbuildings	23	273,099	20	243,499	3	29,600		
Fences/Unroofed Structures	1	4,000	1	4,000				
Swimming Pool	14	375,455	14	375,455				
Carpark	1	200,000	1	200,000				
Entertainment/Recreational Building	1	200,000			1	200,000		
Home Industry	1	0			1			
Child Care - Centre Based	1	1,530,000	1	1,530,000				
Change of Use - Commercial	1	0	1					
Subdivision - Residential	6	919,000						41
Subdivision - Commercial	1	0						2
Miscellaneous	1	7,000,000	1	7,000,000				
Totals for Development Types	77	18,731,038						

Total Number of Applications for this period: 73

*** Note:	There may be more than one Development Type per Development Application
	Statistics include applications by Private Certifiers

 End	of	Report	



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Print Date: 2/11/2016
Print Time:11:08:52AM

## Approved Development & Complying Development Applications for former Dubbo LGA and Private Certifiers-Period 1/10/2015 - 31/10/2015

Development Type	Number of Applications	Est. \$	New Developments	Est. \$	Additions and Alterations	Est. \$	New Dwellings	New Lots
Dwelling - single	24	5,664,983	19	5,510,283	5	154,700	19	
Dwelling - Secondary/Dual Occ Dwelling	2	610,000	2	610,000			3	
Dwelling - Dual Occupancy, one storey	2	760,000	2	760,000			4	
Garage/Carport/Roofed Outbuildings	18	270,257	16	253,207	2	17,050	1	
Swimming Pool	6	133,665	6	133,665				
Office Building	1	31,500	1	31,500				
Retail Building	1	148,000			1	148,000		
Factory/Production Building	1	270,000	1	270,000				
Health Care Facility - Other	1	540,000			1	540,000		
Signs/Advertising Structure	2	41,750	2	41,750				
Demolition	1	0	1					
Change of Use - Commercial	1	10,000			1	10,000		
Subdivision - Residential	4	0						6
<b>Totals for Development Types</b>	64	8,480,155			· · · ·			_

Total Number of Applications for this period: 59

*** Note:	There may be more than one Development Type per Development Application
	Statistics include applications by Private Certifiers

----- End of Report -----



Civic Administration Building P.O. Box 81 Dubbo NSW 2830 T (02) 6801 4000 F (02) 6801 4259 ABN 53 539 070 928

Print Date: 2/11/2016
Print Time:11:10:26AM

## Approved Development & Complying Development Applications for former Dubbo LGA and Private Certifiers-Period 1/07/2016 - 31/10/2016

Development Type	Number of Applications	Est. \$	New Developments	Est. \$	Additions and Alterations	Est. \$	New Dwellings	New Lots
Dwelling - single	88	26,278,131	71	24,360,231	17	1,917,900	71	
Dwelling- Transportable/Relocatable	1	198,884	1	198,884			1	
Dwelling - Secondary/Dual Occ Dwelling	8	1,642,300	8	1,642,300			12	
Dwelling - Dual Occupancy, one storey	18	5,960,000	18	5,960,000			32	1
Garage/Carport/Roofed Outbuildings	75	1,123,085	72	1,093,485	3	29,600	1	
Fences/Unroofed Structures	2	6,500	2	6,500				
Swimming Pool	27	706,285	27	706,285				
Office Building	3	529,280			3	529,280		
Retail Building	9	3,158,808			9	3,158,808		
Office & Retail Building	1	30,000			1	30,000		
Factory/Production Building	2	3,130,000	2	3,130,000				
Warehouse/storage	8	2,481,000	6	2,151,000	2	330,000		
Carpark	1	200,000	1	200,000				
Infrastructure - Transport, Utilities	1	60,000	1	60,000				
Health Care Facility - Hospital	1	50,000			1	50,000		
Entertainment/Recreational Building	1	200,000			1	200,000		
Signs/Advertising Structure	1	22,500	1	22,500				
Home Industry	3	0	1		2			
Child Care - Centre Based	1	1,530,000	1	1,530,000				
Change of Use - Commercial	6	190,000	3	35,000	3	155,000		
Tourism Development	1	4,250,000	1	4,250,000				
Subdivision - Residential	21	919,000	1					2

### Approved Development & Complying Development Applications for former Dubbo LGA and Private Certifiers-Period 1/07/2016 - 31/10/2016

Development Type	Number of Applications	Est. \$	New Developments	Est. \$	Additions and Alterations	Est. \$	New Dwellings	New Lots
Subdivision - Commercial	2	0	1					6
Subdivision - Industrial	3	12,000			1			2
Subdivision - Rural	1	15,000						2
Miscellaneous	4	7,040,378	4	7,040,378	1			
<b>Totals for Development Types</b>	289	59,733,151						

**Total Number of Applications for this period: 271** 

\*\*\* Note: There may be more than one Development Type per Development Application Statistics include applications by Private Certifiers

----- End of Report -----



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Print Date: 2/11/2016
Print Time:11:12:19AM

## Approved Development & Complying Development Applications for former Dubbo LGA and Private Certifiers-Period 1/07/2015 - 31/07/2015

Development Type	Number of Applications	Est. \$	New Developments	Est. \$	Additions and Alterations	Est. \$	New Dwellings	New Lots
Dwelling - single	32	8,641,933	27	8,233,933	5	408,000	27	
Dwelling - Secondary/Dual Occ Dwelling	1	229,542	1	229,542			1	
Dwelling - Dual Occupancy, one storey	4	1,711,800	4	1,711,800			8	
Medium Density Res - Seniors Living SE	PF 1	8,000,000	1	8,000,000			41	
Garage/Carport/Roofed Outbuildings	20	312,342	20	312,342			1	
Fences/Unroofed Structures	1	10,000			1	10,000		
Swimming Pool	4	75,700	4	75,700				
Retail Building	10	1,672,000			10	1,672,000		
Hotels	1	10,000			1	10,000		
Warehouse/storage	3	5,500,000	3	5,500,000				
Infrastructure - Transport, Utilities	1	40,000	1	40,000				
Signs/Advertising Structure	1	1,500	1	1,500				
Change of Use - Commercial	2	750,000			2	750,000		
Subdivision - Residential	1	16,000	1	16,000				
Subdivision - Commercial	1	0			1			
Subdivision - Industrial	1	0	1					
Miscellaneous	4	4,039,000	4	4,039,000				
<b>Totals for Development Types</b>	88	31,009,817			•			

#### Total Number of Applications for this period: 84

\*\*\* Note: There may be more than one Development Type per Development Application Statistics include applications by Private Certifiers



## Wellington Office Data

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Print Date: 2/11/2016

Print Time: 1:27:54PM

### Approved Development & Complying Development Applications for Certifiers-Period 1/10/2016 - 31/10/2016 (inc Private Certifiers)

Development Type	Number of Applications	Est. S	New Developments	Est. \$	Additions and Alterations	Est. \$	New Dwellings	New Lots
Change Of Use	1	68,000			1	68,000		
Commercial Premises	1	50,000	1	50,000				2
Dwelling	1	153,560	1	153,560			1	1
Garage/Carport/Shed	2	35,500	1	33,500	1	2,000		1
Totals for Development Types	5	307,060						

Total Number of Applications for this period: 5

\*\*\* Note: There may be more than one Development Type per Development Application Statistics include applications by Private Certifiers

----- End of Report -----





Civic Administration Building P.O. Box 81 Dubbo NSW 2830 T (02) 6801 4000 F (02) 6801 4259 ABN 53 539 070 928

> Print Date: 2/11/2016 Print Time: 1:30:25PM

## Wellington Office Statistics for Approved Development & Complying Development Applications for the Period 1/10/2015 - 31/10/2015

Development Type	Number of Applications	Est. \$	New Developments	Est. \$	Additions and Alterations	Est. \$	New Dwellings	New Lots
Change Of Use	1	10,000						
Commercial Premises	1	5,000						
Demolition	1	5,000	1	5,000				
Dwelling	1	205,200	1	205,200			1	1
Garage/Carport/Shed	3	34,895	2	26,895			1	1
Pool/Spa	1	24,800	1	24,800				
Subdivision	1	0				_		
Totals for Development Types	9	284,895					•	

#### Total Number of Applications for this period: 9

\*\*\* Note: There may be more than one Development Type per Application
Application Type(s): 20, 24 (where PCA: Wellington Council, does not include applications by Private Certifiers)

----- End of Report -----

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Civic Administration Building P.O. Box 81 Dubbo NSW 2830 T (02) 6801 4000 F (02) 6801 4259 ABN 53 539 070 928

> Print Date: 2/11/2016 Print Time: 1:38:00PM

## Wellington Office Statistics for Approved Development & Complying Development Applications for the Period 1/07/2016 - 31/10/2016

Development Type	Number of Applications	Est. \$	New Developments	Est. \$	Additions and Alterations	Est. \$	New Dwellings	New Lots
Change Of Use	2	71,000			1	68,000		
Commercial Premises	1	50,000	1	50,000				2
Demolition	1	28,600	1	28,600				
Dwelling	3	356,260	3	356,260			3	1
Garage/Carport/Shed	16	397,753	15	395,753	1	2,000		1
Pool/Spa	1	24,000	1	24,000				
Subdivision	3	0	1	_				2
<b>Totals for Development Types</b>	27	927,613						

Total Number of Applications for this period: 25

\*\*\* Note: There may be more than one Development Type per Application
Application Type(s): 20, 24 (where PCA: Wellington Council, does not include applications by Private Certifiers)

----- End of Report -----

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Civic Administration Building P.O. Box 81 Dubbo NSW 2830 T (02) 6801 4000 F (02) 6801 4259 ABN 53 539 070 928

> Print Date: 2/11/2016 Print Time: 1:39:24PM

## Wellington Office Statistics for Approved Development & Complying Development Applications for the Period 1/07/2015 - 31/10/2015

Development Type	Number of Applications	Est. \$	New Developments	Est. \$	Additions and Alterations	Est. \$	New Dwellings	New Lots
Change Of Use	1	10,000						
Commercial Premises	1	5,000						
Demolition	2	10,000	2	10,000				
Dwelling	4	765,691	3	675,691	1	90,000	3	1
Garage/Carport/Shed	8	82,195	7	74,195			1	1
Pool/Spa	2	61,800	2	61,800				
Subdivision	4	0		-		-		
Totals for Development Types	22	934,686						

Total Number of Applications for this period: 22

\*\*\* Note: There may be more than one Development Type per Application
Application Type(s): 20, 24 (where PCA: Wellington Council, does not include applications by Private Certifiers)

----- End of Report -----

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**REPORT:** Excellence Awards Received for Technical Services Division Projects

**AUTHOR:** Director Technical Services

**REPORT DATE:** 4 November 2016

TRIM REFERENCE: ID16/2111

#### **EXECUTIVE SUMMARY**

During October two projects constructed by the Technical Services Division received a total of three Awards for Engineering Excellence from two different professional associations.

The Driftwells Park Restoration Project in Dubbo won a Category in the IPWEA NSW Excellence Awards Program and received a highly commended award in its Category of the Engineers Australia Sydney Division Excellence Awards Program.

The Troy Rail Deviation Project received a highly commended award in its Category in the IPWEA NSW Excellence Awards Program.

The attached photograph illustrates these three Awards.

#### FINANCIAL IMPLICATIONS

There are no financial implications arising from this report.

#### **POLICY IMPLICATIONS**

There are no policy implications arising from this report.

#### RECOMMENDATION

- 1. That the report of the Director Technical Services be noted.
- 2. That the Council staff members involved in the delivery of these successful projects be congratulated.

Stewart McLeod
Director Technical Services

#### **BACKGROUND**

Each year the two most prestigious Engineering Associations relevant to the public works engineering community undertake Excellence Awards Programs in order to recognise the excellence of projects undertaken by practitioners over the previous 12 months. These associations are:

- The Institute of Public Works Engineering Australasia (IPWEA), NSW Division, and
- Engineers Australia, Sydney Division, which represents 80% of NSW including the Dubbo area.

Council entered a number of projects for judging and both Awards evenings were held during October.

#### **REPORT**

Dubbo Regional Council was successful in these two Awards Programs by receiving three different Awards. The successful projects were:

- 1. The Driftwells Park Restoration Project in Dubbo, won Category 1A of the IPWEA Awards, "Design and/or Construction of a Local Government/Public Works Project Up to \$500,000 in Value"; and received a highly commended in the Environment Category of the Engineers Australia Awards.
- 2. The Troy Rail Deviation Project, received a highly commended in Category 8 of the IPWEA Awards, "Multi-Disciplinary Project Management".

#### Driftwells Park Restoration Project

The Driftwells Project located at the corner of Tamworth and Brisbane Streets, Dubbo has been a multi-disciplinary engineering project involving the restoration, and the design and construction of an open public display of two drift wells (one sunk in 1893 and the other sunk in 1909) and associated steam powered machinery. The Drift Wells were the sole source of water for Dubbo's first reticulated water supply opened in 1894.

This project provides public access and the opportunity to safely inspect the interior of these two deep, large diameter brick lined wells which are of historic significance to the Dubbo area. The project includes landscaping which promotes accessibility and passive surveillance whilst demonstrating sustainability.

From Council's point of view this was an excellent example of cross-Divisional co-operation. Whilst the Director Technical Services provided overall direction and championed the project, Mr Ian McAlister from the Parks and Landcare Division was the Project Manager and Ms Karen Hagen from the Community Services Division provided invaluable historical research, wrote the text of the educational signage on site and authored the Award submissions which were ultimately successful.

It was salutary to realise that in being awarded a Highly Commended by Engineers Australia one project that had been overlooked by the Judges in favour of Drift Wells Park was the Barangaroo Headland Redevelopment in Sydney. This high profile multi-million dollar development would normally be expected to over-shadow a small regional project, but the Judges were clearly so impressed by the Drift Wells that they adjudicated as they did.

These two engineering Awards are in addition to the Excellence Award won earlier in the year from Parks and Leisure Australia (NSW/ACT). That Award, previously reported to Council by the Director Parks and Landcare, was in the Category of Parks and Open Space Development with a focus on "reinvigoration of an industrial site".

#### **Troy Rail Deviation Project**

In this project Council's Project team under the leadership of Ian Bailey, the Manager Works Services, and Steve Clayton, Manager Civil Infrastructure and Solid Waste were able to eliminate the only remaining impediment to road trains and B Doubles accessing the important North Dubbo Industrial Estate by the most direct and desirable route. In the past, heavy vehicle movements were severely curtailed by insufficient stacking distance between the Boothenba Road level crossing and the Newell Highway. The inadequate alternative via Purvis Lane was an almost 7 kilometre detour through much more built-up areas, which was costly for transport operators and was escalating the deterioration of Purvis Lane in particular.

In response, the level crossing was moved 110 metres east and a 1 km section of the Dubbo to Coonamble rail line was realigned, enabling the safe queuing of up to three road trains between the highway intersection and the level crossing. The Judges advised they were highly impressed by the lateral thinking and the excellence of execution that went into this solution.

#### **SUMMARY**

Dubbo Regional Council has been successful in winning three Awards for Excellence from two different engineering associations. These are highlighted within the report, which is recommended for notation.

#### Appendices:

1 Photograph of Awards Received



WORKS AND SERVICES COMMITTEE Page 32



# REPORT: B Double Route Extension Showground Road, Renshaw McGirr Way and Suntop Road Wellington

AUTHOR: Manager Technical Support

REPORT DATE: 11 November 2016

TRIM REFERENCE: ID16/2118

#### **EXECUTIVE SUMMARY**

This report deals with an assessment of an application from O'Brien Contracting, Wellington, for an extension of the B-Double Route along Showground Road, Renshaw McGirr Way south from the intersection of Bushrangers Creek Way to Suntop Road and Suntop Road to the property "Glencardie".

Access is required for the transportation of stock and crop product with potentially four (4) B-Double vehicles per week and one (1) vehicle daily during the seasonal period. A technical assessment has been undertaken of the roads in accordance with the Roads and Maritime Services NSW Route Assessment Guide - Freight Route Investigation Levels. A B-Double trial was undertaken on Monday 31 October 2016 attended by two Local Traffic Committee members and technical staff.

Following the trial further discussion was held on the route assessment and trial outcomes. The technical route assessment identified that Showground Road, Renshaw McGirr Way and Suntop Road generally satisfied the road formation and geometric assessment criteria for lowly trafficked roads. Overall the B-Double vehicle traversed the road alignment without any tracking deficiencies. Some safety concerns were raised with the B-Double negotiation and dominance of the pavement area at the Renshaw McGirr Way and Suntop Road intersection, School Bus route and overall vehicle speed. It was also identified that there is a need to upgrade the existing road warning signage along the B-Double route including additional 80 km/h repeater signs along Renshaw McGirr Way.

The Technical Assessment undertaken by Council's Traffic Engineer has determined that the roads are suitable for an extension of the B- Double route with a travel restriction during school bus times and reduced speed limit for B-Double vehicles.

#### FINANCIAL IMPLICATIONS

There are no financial implications arising from this report.

#### **POLICY IMPLICATIONS**

There are no policy implications arising from this report.

#### RECOMMENDATION

- 1. That Council approve an extension of the B-Double Route along Showground Road for a distance of 0.65 km west of Mitchell Highway (Maughan Street), Renshaw McGirr Way for a distance of 8.4 km south of the Showground Road/Bushrangers Creek Way intersection and Suntop Road for a distance of 10.80 km west of Renshaw McGirr Way to the property "Glencardie" and return subject to the following conditions being attached to the B-Double route.
- That there be no B-Double access along Showground Road/Renshaw McGirr Way and Suntop Road during School Bus Service times between 7.00 am – 9.00 am and 3.00 pm – 5.00 pm.
- 3. That a 70 km/h speed limit be applied to B-Doubles along Renshaw McGirr Way outside of the 60 km/h speed zone limit and Suntop Road.
- 4. That a review be undertaken of the B-Double Route to assess the requirements for an upgrade of the road warning signage applicable to the horizontal and vertical alignment, intersections and other traffic facilities as identified, including additional 80 km/h repeater signs along Renshaw McGirr Way.

Mark Stacey
Manager Technical Support

#### **REPORT**

Council had received an application from O'Brien Contracting Wellington requesting an extension of the B-Double route along Showground Road west from the Mitchell Highway (Maughan Street) to the intersection with Bushrangers Creek Way then south along Renshaw McGirr Way to Suntop Road and Suntop Road north west to the property "Glencardie" to run 26 m B-Double vehicles.

O'Brien Contracting Wellington is currently accessed by semi-trailer vehicles to the property along the nominated roads. It has been indicated that up to four (4) B-Doubles per week will access the property for livestock and crop product with one (1) B-Double per day during the peak seasonal period.

An investigation of the B-Double route extension incorporated an on-site investigation, desktop assessment and field trial that considered such matters as vehicle tracking, performance through variable road alignments and intersection movements, speed environment, traffic interaction, property access and overall road safety.

#### Showground Road and Renshaw McGirr Way (see attached Road Survey)

Showground Road is a regional road commencing from the intersection with the Mitchell Highway (Maughan Street) within the township continuing west to the intersection with Renshaw McGirr Way. Renshaw McGirr Way continues the regional link southwest to the Yeoval District and onwards to Parkes. The Mitchell Highway is a B-Double route through the centre of the Wellington CBD and intersects as a cross road with Showground Road.

Showground Road is a bitumen sealed urban road prior to crossing the Bell River Bridge (0.05 km) and continues as a rural formation on straight alignment for a total distance of 0.65 km west to the Renshaw McGirr Way intersection within a 60 km/h speed zone. The seal width is consistent at 9.0 m with 8.0 m kerb to kerb on the Bridge. Renshaw McGirr Way intersects with Showground Road as a T-intersection with widened pavement for articulated vehicles. The proposed B-Double route then turns left (southbound) into Renshaw McGirr Way. Line marking is provided.

Renshaw McGirr Way is a bitumen sealed rural road to the intersection of Suntop Road for a distance of 9.05 km and is within an 80 km/h speed zone. The road alignment and topography is undulating with low speed horizontal and vertical curves traversing the Curra Creek for some 50% of its distance. There has been recent road and curve widening and reseal that has covered the existing line marking. The road centre line is to be re-established. The road is in good condition with no noticeable deficiencies at the time of the road survey. There are several minor road intersections along the route. Advance curve and intersection warning signage requires upgrading with the inclusion of speed advisory plates and curve alignment markers. In addition it was noted that there is a need for additional 80 km/h speed repeater signs along Renshaw McGirr Way.

- Sealed Lane widths (SLW) 3.1 3.5 m on straights (minimum 3.0 m required)
- Sealed Surface Width (SSW) 6.2 9.6 m. Average 6.6 m
- Carriageway Width (W) variable 7.0 9.6 m, Average 8.1 m (minimum 7.0 m and 9 9.5 m on curves)

The trial identified that the B-Double satisfactorily negotiated Showground Road and Renshaw McGirr Way and the T-intersection of both roads to the intersection of Suntop Road. Regardless of there being no centreline (only temporary remarking stickers) through the horizontal and vertical alignment the vehicle maintained good tracking within the travel lanes in each direction. No deficiencies were identified.

#### TRAFFIC DATA (vpd - vehicles per day)

#### **Renshaw McGirr Way**

- 2010/2011 (extrapolated to 2016) 8 km south west of Bushrangers Creek Road November 350 vpd; December 495 vpd; January 570 vpd.
- 2014 May 200 m south of Bushrangers Creek Road 780 vpd (3 9 B-Doubles a week recorded)
- May 2014 200 m south of Curra Creek Road (1 km south of Suntop Road). 253 vpd (3 - 7 B-Doubles recorded)

#### **Suntop Road**

May 2014 – 200 m west of Renshaw McGirr Way 81 vpd.

The traffic data suggests that there is a seasonal increase of light and heavy traffic during the December/January period and most likely attributed to the harvest and holiday period. It is interesting to note the detection of B-Doubles in the 2014 data which similarly occurred in the 2010/2011 data. Higher traffic volumes are experienced closer to Wellington and progressively reduce further south along the route. Traffic Volumes for Renshaw McGirr Way vary along the route from low in the south to moderate in the north. Suntop Road is a very lowly trafficked.

#### **Bus Routes**

Ogdens Coaches have advised that they have school bus services that run along the proposed B Double route. The following times encompass the overall time period where buses are on the route.

• Renshaw McGirr Way 7.30 am – 8.35 am

3.25 pm - 4.35 pm

• Suntop Road 7.35 am – 8.30 am

3.30 pm - 4.25 pm

## CRASH DATA 2013 - 2015 (within in the proposed B-Double route)

## 2013

- 3 November 2013 South in Renshaw McGirr Way at Gould League Place, 1.03 pm, fine, cross traffic, pedal cycle/ 4wd, male 12yrs / female 54yrs, minor injury.
- 10 November 2013 East in Renshaw McGirr Way 2.55 km west of Wellington, 2.30 am, fine, off road on curve, no injury.
- 4 December 2013 North in Renshaw McGirr Way 1 km north of Suntop Road, 8.30 pm, overcast, struck animal on curve, male 26yrs, 80 km/h, minor injury.

## 2014

- 30 July 2014 West in Renshaw McGirr Way 7.6 km west of Showground Road, 8.00 pm, fine, curve, off road right hand bend, male 17yrs,75 km/h, no injury
- 20 August 2014 Renshaw McGirr Way, 8.2 km west of Showground Road, 3.50 pm, fine, head on, male 47yrs eastbound on incorrect side of road/male 71yrs westbound, minor injury.

## 2015

- 20 March 2015 North in Renshaw McGirr Way 300 m north of Gould League Place,
   9.30 pm, fine, off road on straight, male 23yrs, 100 km/h, no injury.
- 1 February 2015 East in Renshaw McGirr Way 1 km east of Curra Creek Road, 10.30 pm, fine, off road on curve, female 28yrs, 100 km/h, moderate injury.

The crash data reveals that within the past 3 years there have been 7 crashes in Renshaw McGirr Way with 5 crashes occurring in the lower road standard section of variable horizontal and vertical curvilinear alignment given cause to the challenging road environment. This section of Renshaw McGirr Way has been recently upgraded with curve widening and resealing. There are no recorded crashes in Suntop Road within the proposed B-Double route.

The intersection of Suntop Road and Renshaw McGirr Way is a T-intersection located over a creek and large box culvert. The intersection is constrained in with limited pavement area. The embankment batters are steep over the culvert and close to the edge of seal around the left turn exit from Suntop Road and on the southern side of Renshaw McGirr Way. There is no barrier protection on the intersection. The 80km/h speed Zone reverts to 100km/h approximately 0.25 km south of the Suntop Road intersection. The trial revealed that the B-Double upon negotiation of the intersection crossed the centrelines of both Renshaw McGirr Way and Suntop Road. This is a common occurrence on lesser standard rural roads. However this area experiences very low traffic volumes and has good sight distance at the intersection to facilitate the vehicle movements.

## Suntop Road (see attached Road Survey)

Suntop Road is a bitumen sealed rural road for a distance of 10.80 km to the property "Glencardie" and is within a 100 km/h speed zone. The road alignment and topography is flat to undulating with large radius horizontal curves and minor vertical curves traversing open grazing and farmland. The road is in good condition with no noticeable deficiencies at the

time of the road survey. Sight distance is predominately good throughout the distance with the exception of a short small radius crest at 4.1 km.

Sealed Lane widths (SLW) 2.8 - 3.5 m on straights (minimum 3.0 m required) Sealed Surface Width (SSW) 5.6 - 7.0 m. Average 5.8 m Carriageway Width (W) variable 6.9 - 7.2 m, Average 7.1 m (minimum 7.0 m and 9 - 9.5 m on curves)

The property "Glencardie" access is located on a straight alignment with good sight distance comprising of a widened grid and adjacent farm gate. The B-Double was able to negotiate to and from the property access on the correct side of the road centre line. The trial revealed that the B-Double vehicle satisfactorily negotiated Suntop Road with no deficiencies identified.

The suitability of the technical assessment and successful field trial support B-Double access.

It is recommended that Council approval be granted for an extension of the B-Double Route along Showground Road for a distance of 0.65 km west of Mitchell Highway (Maughan Street), Renshaw McGirr Way for a distance of 8.4 km south of the Showground Road/Bushrangers Creek Way intersection and Suntop Road for a distance of 10.80 km west of Renshaw McGirr Way to the property "Glencardie" and return subject to the following conditions being attached to the B-Double Route;

- 1. That there be no B-Double access along Showground Road, Renshaw McGirr Way and Suntop Road during School Bus Service times between 7.00 am 9.00 am and 3.00 pm 5.00 pm.
- 2. That a 70 km/h speed limit be applied to B-Doubles along Renshaw McGirr Way outside of the 60 km/h speed zone limit and Suntop Road.
- 3. That a review be undertaken of the B-Double Route to assess the requirements for an upgrade of the road warning signage applicable to the horizontal and vertical alignment, intersections and other traffic facilities as identified, including additional 80 km/h speed repeater signs along Renshaw McGirr Way.

## Appendices:

- 1 Route Investigation, Showground Road, Renshaw McGirr Way and Suntop Road Road Survey.
- 2 Route Assessment Summary Report.

**ITEM NO: WSC16/26** 

## **DUBBO REGIONAL COUNCIL ROAD SURVEY**

## SHOWGROUND ROAD - RENSHAW McGIRR WAY AND SUNTOP ROADS, DUBBO,

## **B DOUBLE ROUTE INVESTIGATION**

FEATURE	DISTANCE / CHAINAGE (KM)	SEALED SURFACE WIDTH (SSW)	SHOULDER (M)	CARRIAGE WIDTH (W)	COMMENTS
Intersection Mitchell Highway / (Maughan St) Showground Road	00				Start Route Roundabout B-Double suitable
Bridge abutment east Bell River	0.05	8 m Kerb – kerb		8	4.0 m travel lanes 42 m long
West abutment	0.10				Footpath north side
	0.35	9.6		9.6	Kerb and gutter south side Grass shoulder north side
T-Intersection Showground Road - Renshaw McGirr Way and Bushrangers Creek Way – Left turn into Renshaw McGirr Way	0.65				T – Intersection Light traffic OK B- Double TR east encroachment across centre line
Renshaw McGirr Way 80/60 speed signs	0.85	6.2	1.0 m north/south Grassed	8.2	3.2/3 travel lanes Straight alignment
Culvert / guard rail	1.13	6.7	0.9 west 1.4 east	9.0	Lane Widths 3.1 east 3.6 west
Gould League Place	2.06	7.0	0.9W 0.9E	8.8	Lane Widths 3.5 East 3.4 West
End Straight Right Hand Curve Intersection	2.13	7.1	1.2 S 0.7 N	9.05	Lane Widths 3.5 North 3.6 South
Curves (LH Curve) Straight	3.0	6.8	0.5 N 0.7 S	8.1	Lane Widths 3.4 North 3.2 South
Curves RH Curve Culvert	3.12	6.4	0.3 N 0.3 S	7.0	Lane Widths 3.1 South 3.3 North
Mountain View Place (property Karibu)	3.15	6.5		7.2	Wide northern side sealed road reserve Turn back intersection
Right Hand Curve	3.25				Renshaw McGir Way
Sandy Crest Road On curve	3.59	7	0.3 north 0.3 south	7.6	3.5 traffic lane Re-sealed
Culvert	3.62	6.6	0.5 south 1.0 north	8.1	H/walls close to edge of biturnen
Left hand curve	3.72	6.7	1.2 south 1.0 north	8.9	New seal – Widened OS Curve
Culvert	3.9	6.6	South 0.3 h/wall 0.3	7.5	
Property Currawong 4.03	4.6	6.5	1.1 south 0.5 north		Grassed

**ITEM NO: WSC16/26** 

## **DUBBO REGIONAL COUNCIL ROAD SURVEY**

## SHOWGROUND ROAD - RENSHAW McGIRR WAY AND SUNTOP ROADS, DUBBO,

## **B DOUBLE ROUTE INVESTIGATION**

Culvert	4.95	6.5	0.3 0.3	7.1	
Left hand curve	5.28	7.1	1.0 north 0.6 south	8.7	Lane Widths 3.3 north 3.8 south
Curves	5.6	6.3	0.5 north 0.8 south	7.6	Rock wall south side Guard rail riverbank north side
End curves	7.33	6.3	0.5 north 0.8 south	7.6	
Straight	7.57	6.2	1.3 south 0.8 north	8.1	Stick and stomps Not in centre of road
Right hand curve 55 km/h sign	7.85				
Right Hand Curve	8.05	9.1	0.9 south 0.6 north	10.6	New construction curve, new seal
Intersection Suntop Road	9.05	5.8	0.8 south 0.5 north	7.1	Semi or b-double would cross/use whole intersection to turn
Intersection is built over creek/on culvert Steep unprotected batters Intersection returns Unprotected – evidence of large vehicle tracking along top of embankment					
Suntop Road	00				
	0.5	5.5	0.6 east 1.0 west	7.1	Trees on edge of road
Flat to undulating – consistent formation / sight distance good	1.4	5.8	0.6 0.6	7.0	Trees on edge of road
Intersection Bestwicks Road On crest/curve	3.5	6.0	0.6 south 0.6 north	7.2	
Crest (short/sharp)	4.1	6	0.6 0.6	7.2	
Bennetts Road	6.7	5.6	0.5 north 0.8 south	6.9	
New Seal	9 – 9.48	7.00	0.5 north 0.5 south		
	9.6 – 9.8	5.6			
Causeway	10.38	6		6	Level surface to creek
Property "Glencardie"	10.80	6			Cattle grid access and Widening on south side of road to support articulated vehicles separate gate

# Section 3: Route assessment summary report

## 3.1 Cover Sheet

Vehicle configuration:	26 HML, B-Double
Route:	Showground Road, Renshaw McGirr Way and Suntop Road
Origin Address:	Intersection Mitchell Highway (Maughan Street) Wellington
Destination Address:	Property GlenCardie 1094 Suntop Road, Suntop (Wellington)

A completed application form showing route details is attached.

This is to certify that the investigation levels have been duly considered, checklist has been completed and comments provided as appropriate.

My assessment of the inspected route against the guide is that the route is:

Suitable Not suitable

Person responsi	Person responsible for the route assessment:				
Signature:					
Name:	Dennis Valantine				
Qualification					
Position:	Traffic Engineer				
Organisation	Dubbo Regional Council				
Date:	25 October 2016				

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## 3.2 Route Assessment summary check list

Separate working papers are to contain the detailed assessment that supports this summary check list.

R	oad Name and Section:		
Ref	Assessment characteristic	Data	Comment / information

Ref	Assessment characteristic	Data	Comment / information
2.1.1	General		
	Length of route (km)	0.65km	Showground Road
		8.40 km	Renshaw McGirr Way
		10.80 km	Suntop Road
	Road Class Hierarchy (State Roads)		Showground Road – Regional Road Renshaw McGirr Way Regional Road Suntop Road – Local Road
	Traffic Volumes (AADT)	1 – 500	Showground Road & Renshaw McGirr Way
		500 – 800 50 - 100	Suntop Road
	% Volume of commercial vehicles		
	Volume by types of freight vehicles:		
	Semi-trailers	100%	
	B-doubles		
	Road Trains		
	AB and B-triple combinations		
	Other		

Ref	Assessment characteristic	Pass	inves- tigate	Comment / information
2.2	Legal/regulatory			
2.2.1	Vehicle			
	Check the proposed vehicle against the regulations:	Y		
	Actual legal class and configuration	Y		
	Comparable vehicle			>
2.2.2	Zoning of land			
	Evidence provided that access complies with planning approvals	N/A		Agricultural Property

Ref	Assessment characteristic	Pass	Inves- tigate	Comment / information
2.3	Road safety issues			
2.3.1	At terminals			
2.3.1(a)	Road access within terminals	N/A	***************************************	
	Evidence provided to confirm suitability within terminals.	N/A		Agricultural Property
2.3.1(b)	Road access into or from terminals	Y		Widened Grid road access with side gate.
	Entry and exit complies	Υ		Forward entry/exit movements
2.3.2	Road safety assessment			
	Road Crash Investigation Report Review of desk-top analysis of the road crash history over the previous 5 years.	Y		Within last 3 yrs – 7 crashes in Renshaw McGirr Way with 5 being single vehicle crashes. 5 crashes occurred in the previous lower standard section of horizontal and vertical alignment. This section has been upgraded in the last 12 months.
	Where required, road safety audit report			
	Speed zones	Υ		Showground Road 60km/h Renshaw McGirr Way – 80km/h Suntop Road – 100km/h
	School speed zones	N/A		
	Truck and bus zone	N/A		
2.3.3	Road alignment			
	Is there a comparable vehicle using this route?			No comparable vehicle
	Low speed turns at intersections, roundabouts, traffic management devices	Y		Intersections of Renshaw McGirr Way with Bush Rangers Creek Way and Suntop Road
	Curve geometry at road speed	Υ		Low speed along Renshaw McGirr Way
2.3.4	Road width (cross-section)			
2.3.4(a)	Rural roads			
	For unsealed sections:  Carriageway width (W)			

Ref	Assessment characteristic	Pass	Inves- tigate	Comment / information
	For sealed sections: Sealed surface width (SSW)			Showground Road 6.6– 9.0m
	, ,			Renshaw McGirr Road 6.2 – 9.6m Avg. 6.6m.
	Sealed lane width (SLW)	Y		Suntop Road 506 – 7.0m Avg.5.8m Showground Road 3.5m Renshaw McGirr Way 3.3m
	Carriageway width (W)	Y		Suntop Road 2.9m. Showground Road 8 – 9m
	ounings, view (vv)			Renshaw McGirr Way 7 – 9.6m Avg. 8.1m Suntop Road 6.9 – 7.2m Avg. 7.1m
2.3.4(b)	Urban roads			
	For sealed sections:  Sealed lane width (SLW)  Adjacent lane (SLW)	Y		Showground Road see above 2.3.4(a) Only part within Urban
2.3.5	Structure width (including bridge width)			
	Structure width	Y		Bell River Bridge 0.05km, 8.0m kerb to kerb. Causeway Suntop Road 10.38 km - 6 m wide
	Width ratio ≤ 1.25			
2.3.6	Intersections			
2.3.6(a)	Low speed turns			
	Roadside structures	N/A		
2.3.6(b)	Intersections and turn bays			
	Safe intersections sight distance (SISD)	Υ		Intersection Renshaw McGirr Way with Bushrangers Road and Suntop Road.
	Adequate road length for storage	N		No turn lanes.
2.3.6(c)	Approach visibility (stopping sight distance			
	Stopping Sight Distance (SSD)	Υ		u mananak ika mananak ika ika ika ika ika ika ika ika ika i
2.3.7	Overtaking opportunities			

Ref	Assessment characteristic	Pass	Inves- tigate	Comment / information
	Overtaking opportunities meet the requirements for the route.	Partly Y	>100	Renshaw Mc Girr Way - Minimal Opportunity — No worse than for shorter vehicle types over the 8 km. Suntop Road — Opportunity throughout. Flat terrain — no linemarking.
2.3.8	Traffic facilities			
2.3.8(a)	Signs, lines and markings	N		Renshaw Mc Girr Way – Recent road /curve widening. Reseal – has not been re-linemarked.
	Signposting			Requires upgrading. Additional warning signage and 80km/h speed zone repeater signs
2.3.8(b)	Crash barriers and clear zones	Y		Existing and new Crash and Wire rope barriers. Deficient in some locations ie Intersection Renshaw McGirr Way and Suntop Road. Clear zones – limited in the undulating parts of Renshaw McGirr Way. Some natural clearzones along Suntop
		70200300300700000	undimination (	Road.
2.3.8(c)	Traffic signals			
	Minimum green time (Note locations where adjustment is required)	N/A		
2.3.9	Traffic interaction with other users			
	School bus route has bus stop areas off the road where the bus can safely stop.	Y		School Bus time period 7.30 – 5 pm. Restrict access at those times. No formed stops, predominately at property accesses
	Tourist route	Υ		
	Pedestrians and cyclists	Y		Seasonal cyclist activity. Local cycle clubs/racing.
	Other drivers familiar with RAV	Y		
2.3.10	Local conditions			
	Other local conditions (describe)	Y		Renshaw McGirr Way – low speed. Horizontal and vertical alignment. Suntop Road – flat to undulating alignment

Ref	Assessment characteristic	Pass	Inves- tigate	Comment / information
2.4	Rail-road safety			
2.4.1	Grade Separated Crossings	N/A		
2.4.2	Railway crossings			
2.4.2(a)	Sight distance	N/A		
2.4.2(b)	Alignment and width	N/A		
2.4.2(c)	Queuing on railway crossings at or near intersections	N/A		
2.4.2(d)	Short stacking	N/A		
	Concurrence from rail infrastructure manager	N/A		
2.5	Work, health and safety			
2.5.1	Decoupling operation	N/A		
2.5.2	Driver breaks	N/A		
2.6	Amenity and environment issues			
2.6.1	Existing approved land-use			
2.6.1(a)	Community amenity	Υ		Rural environment, low traffic volumes,
2.6.1(b)	Noise and vibration			
	Road noise: Road surface irregularity	Y	en e	Rural
	Engine and brake noise: Grade > 5% (potential for engine brake noise)	Y		Rural undulating topography
2.6.1(c)	Air quality	Υ		Rural
2.6.1(d)	Vulnerable or endangered flora or fauna	Υ		
2.6.2	Traffic-generating development			
	Associated with DA	N/A		generationes attenti attentis

Ref	Assessment characteristic	Pass	Inves- tigate	Comment / information
2.7	Infrastructure loading			
2.7.2	Bridge structure			
	All bridges & culverts structurally capable	N/A		Refer to separate engineering determination report to be attached (Section 3.3)
2.7.3	Pavement structure			
2.7.3(a)	General and concessional mass			
	Wear relative to 6 axle semi- trailer Pavement condition	Υ		Bitumen chip seal Granular pavement.
2.7.3(b)	Higher mass limits (HML) on axles groups			
	Pavement condition	Y		Good throughout
2.7.4	Floodways and causeways	Y		Causeway in Suntop Road in good condition
2.8	Property damage (public infrastructure or property)			
2.8.1	Low clearance structures and plant			
2.8.1(a)	Structure clearance	N/A		
2.8.1(b)	Overhead cable clearance	N/A		
2.8.2	Tree clearance	Y		No impediments.
2.9	Other significant issues			
	Other issues not covered in the assessment (describe)			Constrained intersection, Renshaw McGirr Way and Suntop Road – built over creek. High embankment. Site evidence of heavy vehicle tracking close to top on embankment. No guard fence.

# Risk Management Approach: Risk management analysis required to resolve issues Attach the risk management analysis at the end of this summary

Access Conditions:

Other issues:	Yes	No
Is a review of the route scheduled?		

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## 3.3 Engineering determination report

Vehicle type			HML Vehic	le \	Y/N	
Asset Manager					_	
Route	From:					
Notice	То:					
			<u> </u>	res	No	
List of all structures, their ass	essments and sign-of	f by structural engineer is	attached			
•						
•						
•						
•						
•						
•						
All structures can support the	proposed vehicle		Ì			

Person responsil	ple for the engineering determination:
Signature:	
Name:	
Position:	
Organisation	
Date:	

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REPORT: Landfill Gas Capture System at Whylandra Waste and Recycling Centre - Annual Progress Report

**AUTHOR:** Manager Civil Infrastructure and Solid Waste

**REPORT DATE:** 14 November 2016

TRIM REFERENCE: ID16/2120

#### **EXECUTIVE SUMMARY**

The third year of the Contract with Landfill Gas Industries (LGI) for extraction and destruction by flaring of landfill gas at the Whylandra Waste and Recycling Centre (WWRC) finished on 4 November 2016.

A further 7 landfill gas extraction wells were installed by LGI in September 2015 bringing the total number of extraction wells to 25 (being the maximum allowed under the Contract) and allowing the flow rate of the landfill gas (consisting of 50% methane) to increase from an average 430 m<sup>3</sup> per hour to 460 m<sup>3</sup> per hour. Over 9 million cubic metres of landfill gas has been destroyed since pumping commenced in December 2012 which would have otherwise entered the atmosphere. This is equivalent to the greenhouse gas emissions reduction that would result from taking 16,563 cars off the road for one year.

## FINANCIAL IMPLICATIONS

There are no financial implications arising from this report.

#### **POLICY IMPLICATIONS**

There are no policy implications arising from this report.

## RECOMMENDATION

That the information regarding the performance of landfill gas destruction at the Whylandra Waste and Recycling Centre be noted.

Stephen Clayton
Manager Civil Infrastructure and Solid Waste

## **REPORT**

Following an initial 3-month landfill gas pumping trial which commenced at the Whylandra Waste depot in December 2012, Landfill Gas Industries (LGI) continued to capture and flare landfill gas (a harmful greenhouse gas) provisionally on a "monthly engagement basis" from March 2013 and then under a 4 year contract with Council from November 2013. With Council's endorsement, the original 4 year Contract with LGI was subsequently extended by 4 years to November 2021 following consideration of a report titled "Proposed Extension of Landfill Gas Extraction Contract Whylandra Waste and Recycling Centre" by Council at its meeting in February 2015.

Since the commencement of the Contract with LGI in November 2013, LGI have supplemented the existing 6 wells installed earlier in 2012 under the initial pumping trial contract with 6 additional wells in July 2014, 6 in May 2015 and 7 in September 2015. This brings the total number of extraction wells to 25, being the maximum number of wells allowed under the current Contract. Furthermore, LGI has indicated its desire to discuss with Council the possibility of the current Contract being extended to allow additional wells and lateral lines to be installed within the next 12 months.

In regard to the performance of the system over the past 12 months, flow rates and cumulative quantity of the landfill gas destroyed are provided at the end of this report. As indicated, the flow rate of the extraction system increased from an average 430 m<sup>3</sup> per hour to 460 m<sup>3</sup> per hour following the installation of the additional wells in September 2015.

The cumulative total of landfill gas destroyed since landfill gas pumping initially commenced at the site in December 2012 to October 2016 was 9,246,336 m³. LGI has claimed 17,213 Australian Carbon Credit Units (ACCU) under the Emission Reduction Fund for reporting period 3 July 2015 to 6 July 2016. It should be noted that 140 m³ of landfill gas is equivalent to 1 tonne of carbon dioxide equivalent or 1 ACCU.

The ongoing benefits of the landfill gas capture system include:

- 78,000 tonnes of carbon emissions abated since the project's inception on 14 December 2012.
- Climate changing greenhouse gas emissions at Council's Whylandra Waste and Recycling Centre are being minimised in line with community expectations.
- The project's contribution to Australia's international carbon reduction targets.

LGI has also advised that operation of the gas extraction system at the Whylandra Waste and Recycling Centre is expected to continue at no cost to Council for the full term of the current Contract expiring November 2021, at which time the existing gas capture system infrastructure will revert to Council's ownership. Council would then have the option of taking over operation of the gas flaring system itself or re-tendering for this service.

## **SUMMARY**

The extraction of landfill gas from the Whylandra landfill has continued over the last 12 months at an average rate of 320,000 cubic metres. The number of gas extraction wells was increased by 7 to 25 in September 2015 (being the maximum number of wells permitted under the current Contract). Council is continuing to pursue environmentally sustainable management practices in operating the landfill gas capture system at the Whylandra Waste and Recycling Centre.

## Appendices:

1 Gas Flow Monitoring Data

## **GAS FLOW MONITORING DATA**

## Landfill Gas Extraction for the Period 31/12/2014 to 25/10/2016

Date	STACK TEMP C	CUMULATIVE FLOW m3	FLOW m3/hr	t CO2-e	Month	Monthly Flow m3
31/12/2014	980	2,702,583	338	19,251	Dec-14	
31/01/2015	858	2,939,617	330	20,939	Jan-15	237,034
28/02/2015	896	3,164,562	335	22,542	Feb-15	224,945
28/03/2015	808	3,392,570	340	24,166	Mar-15	228,008
30/04/2015	949	3,654,696	334	26,033	Apr-15	262,126
30/05/2015		3,932,521	433	28,012	Apr-15	277,825
30/06/2015		4,252,254	419	30,290	Jun-15	319,733
30/07/2015		4,566,054	431	32,525	Jul-15	313,800
31/08/2015	909	4,898,491	438	34,893	Aug-15	332,437
30/09/2015	861	5,202,692	426	37,060	Sep-15	304,201
31/10/2015	934	5,380,637	462	38,327	Oct-15	177,945
26/11/2015	848	5,646,851	411	40,224	Nov-15	266,214
31/01/2016	884	6,229,609	482	44,375	Jan-16	582,758
29/02/2016	826	6,557,473	446	46,710	Feb-16	327,864
31/03/2016	828	6,897,817	432	49,135	Mar-16	340,344
30/04/2016	822	7,225,801	441	51,471	Apr-16	327,984
31/05/2016	863	7,568,748	452	53,914	May-16	342,947
30/06/2016	900	7,908,229	481	56,332	Jun-16	339,481
31/07/2016	901	8,267,168	463	58,889	Jul-16	358,939
31/08/2016	932	8,624,154	457	61,432	Aug-16	356,986
30/09/2016	912	8,967,836	465	63,880	Sep-16	343,682
25/10/2016	893	9,246,336	445	65,864	Oct-16	278,500



