

13 August 2021

P1795 Remondis Tomago RFI August 2021

REMONDIS Australia Pty Ltd

C/o - Jackson Environment and Planning Pty Ltd  
Suite 102, Level 1, 25-29 Berry Street  
North Sydney NSW 2060

**Attn: Mark Jackson**

Dear Mark,

**Proposed resource recovery facility, 21D School Drive, Tomago NSW  
Response to TfNSW RFI dated 23<sup>rd</sup> July 2021**

We have reviewed the letter provided by TfNSW dated 23<sup>rd</sup> July 2021 responding to the Response to Submissions (RtS) prepared by Jackson Environment and Planning dated 8<sup>th</sup> June 2021 and the issues raised by TfNSW from that RtS. Having assessed the comments provided by TfNSW and having discussed these comments in more detail with the officer from TfNSW, Masa Kimura on Wednesday 4<sup>th</sup> August we provide the following additional advice.

*That the traffic volumes collected are not relevant to understanding the existing traffic environment. The traffic counts for the Tomago Road and McIntyre Road intersection were undertaken on 6 July 2021, which was within the NSW school holiday period. It is considered that the surveyed traffic volumes would unlikely represent typical Tomago Road peak hour traffic volumes.*

The surveys at Tomago Road and McIntyre Road were actually collected on the 6<sup>th</sup> July 2020, not 2021. Notwithstanding this, the date in 2020 was the Monday on the first day of the school holidays in NSW. The surveys were completed at this time, as it was considered that the traffic flows at this location would not be greatly impacted by school traffic. There are no schools within this location that would influence traffic demands associated with school drop off / pick up. Covid restrictions at that time reduced the extent of holiday travel and as such it was considered at that time that the traffic demands at that time were reflective of normal traffic demands in that location.

A further traffic survey has been completed by Seca Solution at this intersection on Thursday 5<sup>th</sup> August 2021. This survey was completed on the Thursday afternoon prior to the commencement of the current lockdown that occurred that day from 5.00 PM. The survey was completed for the corresponding peak hour previously identified in the survey from July 2020. The two sets of survey results are provided below:

Figure 2-10 - PM peak traffic demands, intersection of McIntyre Road and Tomago Road

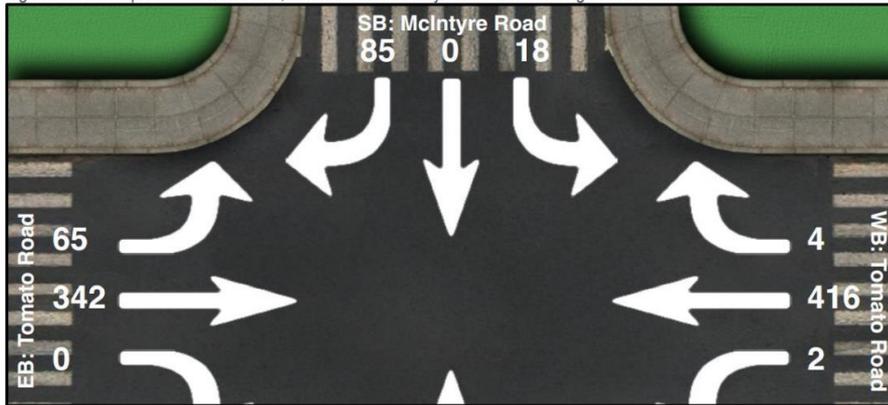


Figure 1 – Figure 2-10 from Seca Solution TIA showing survey results for July 2020 (school holidays)

**Location:** McIntyre Road at Tomago Road, Tomago  
**GPS Coordinates:** Lat=-32.831453, Lon=151.725576  
**Date:** 2021-08-05  
**Day of week:** Thursday  
**Weather:** Sunny  
**Analyst:** KS

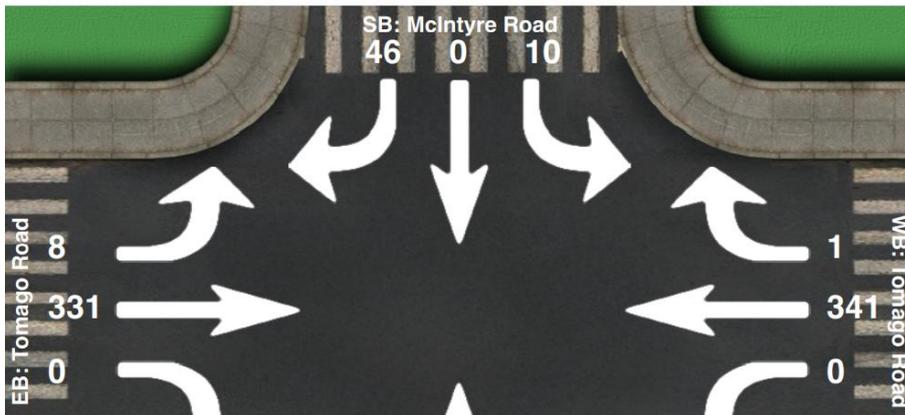


Figure 2 – Seca Solution survey results for 5<sup>th</sup> August 2021

The above results show the following characteristics:

- The eastbound traffic flow remains consistent along Tomago Road between the two survey results
- The westbound traffic flow in August 2021 is 19% lower than that surveyed in July 2020
- The 2-way traffic flow on McIntyre Road in 2020 was 172 vehicles whilst in 2021 the 2-way flow was 65.

Viewing the above survey results, the traffic flows from July 2020 are still considered valid with the traffic flows on Tomago Road being similar eastbound and in fact higher westbound in 2020, which would have a greater impact on the critical right turn out traffic movement from McIntyre Road.

Thus, it is considered that the Sidra modelling completed is valid and represents typical traffic demands at this location, both on Tomago Road and McIntyre Road.

*The TIA describes a 24 hour operation however there is a lack of evidence to demonstrate how the operational traffic peak is different to the Tomago Road traffic peak. All intersections affected by the proposal must be modelled during the network AM and PM peak, as well as the development peak.*

The existing traffic patterns for the industrial development in the Tomago Road including Old Punt Road area and towards the project site sees a high portion of traffic turning right into Tomago Road off the Pacific Highway in the AM peak, with typically high demand between 6-7 AM for this right turn based on the traffic surveys completed by Seca Solution. At this time, the traffic demand for the left turn out of Tomago Road at this time is much lower and there is considerable spare capacity. This traffic patterns continues along Tomago Road towards the subject site, with high inbound traffic demands associated with workers. At the roundabout at Tomago Road and Old Punt Road, the traffic is dominated by traffic turning left into Old Punt Road off Tomago Road or straight through this roundabout towards the subject site along Tomago Road – in the AM peak the eastbound movement here is 1,198 which is opposed by 375 vehicles in the opposite direction (31%). For the subject site, there will be no inbound truck movements at this time and the majority of trucks associated with the project have left the site before 6 AM.

For the morning peak on the local road network between 6-7 AM, the development could generate in the order of 15 outbound trucks leaving the site to drive along Tomago Road to then exit onto the Pacific Highway, which shall have a negligible impact upon the traffic inbound towards the Tomago industrial area at this time.

Similarly, in the PM peak the local peak associated with the Tomago Industrial area is between 4-5 PM based on the Seca Solution surveys, with this traffic again showing significant bias towards the Pacific Highway, resulting in a high left turn demand into Tomago Road off the Pacific Highway and generating significant spare capacity for the opposing traffic movement. This will also occur at the roundabout controlled intersection of Tomago Road and Old Punt Road. At the time of the afternoon peak traffic demands on the road network here, there will be no outbound traffic movements associated with the project with the trucks all returning to the site.

Based on this, it is considered that modelling the intersections for both the peak associated with the project site and the peak on the local road network is not required, as the demands are opposing to the major tidal flow of traffic in this location during the road peak and the peaks associated with the project occurs outside of the peak on the local road network, when traffic demands are much lower and there is substantial spare capacity on the local road network.

Figure 3 – predicted traffic demands and times for the project site

Collection vehicle type - in-bound waste collection vehicles	Approx time of departure from depot	Approx time return to depot
Front lift trucks (30 trucks)	2:00 (10%); 4:00 to 5:00 (90%)	14:00 to 15:00 (10%); 15:00 to 17:00 (90%)
Hook lift trucks (3 with dog trailers which if connected become 19m) (60 trucks)	5:00-6:00	16:00-18:00
Rear lift trucks (9 trucks)	2:00 (33%); 4:00 to 6:00 (67%)	14:00 (33%); 16:00 to 18:00 (67%)
Tanker trucks (1 x tanker dog/trailer to be connected to 1 HRV) (20 trucks)	5:00 to 6:00	16:00 to 18:00
SuperVac trucks (includes transfer of liquids offsite) (9 trucks)	5:00 to 7:00	16:00 to 18:00
Walking floor trucks (6 trucks)	6:00	18:00
Tautliner trucks (includes hazardous waste transfers off-site) (2 trucks)	5:00	18:00
Hiab trucks (4 trucks)	6:00	17:00
Merrell trucks (10 trucks)	5:00 to 6:00	16:00 to 18:00
Workshop truck (1 truck)	5:00	18:00
TOTAL		
Collection vehicle type - out-bound vehicles transporting product and waste off site	<b>Approx. arrival times during day</b>	
Cardboard bale trucks - semi-trailers (10 trucks)	6:00 to 6:00	
Food from depackaging plant and Garden Organics (4 trucks)	8:00 to 5:00	

Note – the truck numbers above are for one-way movements only, with an equivalent number of trucks then being inbound later in the day.

The proposal does not adequately address the capacity of the intersection to accommodate the proposed traffic. The intersection is currently configured as a Basic Right (BAR) and Auxiliary Left (AUL) type intersection. The intersection has been modelled using Sidra, with the right turn demonstrating failure (Level of Service E) within 10 years of site operation. The site is modelled as an Auxiliary Right (AUR) turn, noting that SIDRA may not be able to accurately model a BAR. Irrespective of the limitations of modelling a BAR in SIDRA, the intersection must be assessed using the warrants for turn treatments, as outlined in Austroads Guide to Traffic Management, Part 6: Intersections Interchanges and Crossings.

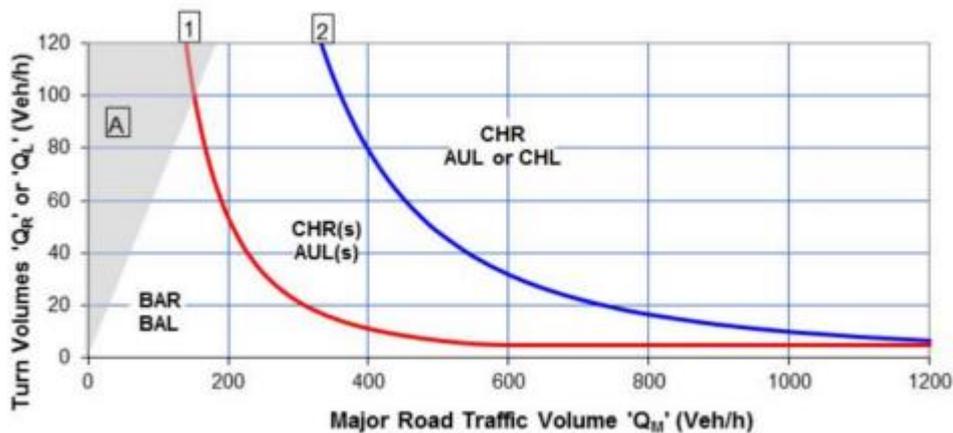
The Sidra modelling does show a potential level of service of E for the right turn out in the future from McIntyre Road, however the queue is relatively low and acceptable. This delay has not allowed for any reduction in the gap acceptance over the standard value of 7 seconds, however applying the 6 second as per the RTA Road Design Guide shows that this right turn would in fact operate at a level of service of B at this time.

Applying the warrants for turn treatments from Austroads Guide to Traffic Management, Part 6: Intersections Interchanges and Crossings to the traffic flows on Tomago Road and McIntyre Road the following is provided:

- For the left turn into McIntyre Road, for the graph below the future left turn in the PM peak shall be 65 vehicles ( $Q_L$ ) and the through traffic movement is 342. An AUL (S) turn lane is required and a 75 metres left turn lane is provided, this it complies with these warrants.
- For the right turn into McIntyre Road, the current right turn demand is 4 in the PM peak ( $Q_r$ ) and the opposing flow is 811 vehicles ( $Q_m$ ). Under the warrants shown below this would indicate that the BAR may be acceptable but is border line for a CHR (S).
- For the right turn demand into McIntyre Road with the future traffic flows associated with the project, these shall increase to 9 vehicles and the opposing demand shall remain at 811. Applying the warrants below, the same results apply i.e. BAR may be acceptable but is border line for a CHR (S).

Based on the above results from the assessment against the warrants, it can be seen that the current layout is adequate for the left turn movements. For the right turn movements, the minor increase in right turn demands in the PM peak (5 trucks) has a minor impact on the warrants and does not justify any upgrade at this location.

For the AM peak, the project shall see no vehicles associated with the operations turning right or left into McIntyre Road off Tomago Road during the peak periods.



(b) 70 km/h < Design Speed < 100 km/h

Figure 4 – Warrants for turn treatments on major roads at unsignalised intersections (Guide to Traffic Management Part 6)

*Noting the conclusions drawn in the TIA that no road work is required, TfNSW maintains the concern raised in correspondence dated 4 February 2021, that queuing from the intersection extending along McIntyre Road from Tomago Road may potentially create queues across School Drive intersection. The effect of this queue suggests that further queues from motorists accessing School Drive along McIntyre Road to Tomago Road will result. The likelihood is further increased when coinciding with peak vehicle volumes in shift changes.*

*A review of the submitted Sidra files has shown the 2030 queue length to be 41 metres in the PM peak, which will block the access to School Drive. It is recommended further analysis be made in regard to this queuing concern.*

This concern was noted in the updated Traffic Impact Assessment and Seca Solution recommended that the intersection is re-aligned so that the priority traffic control allows for traffic on School Drive, with traffic on McIntyre Road north of School Drive giving way to traffic on School Drive to avoid any queue blocking traffic from McIntyre Road turning right into School Drive. Alternatively, a KEEP CLEAR box could be marked on the road surface. These options should be discussed and agreed with Council as the road authority and TfNSW.

If you require any further information, please do not hesitate to contact me.

Yours sincerely,



**Sean Morgan**  
Director