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Tasmanian Government

Mr Scott Hennessey
Parliamentary Standing Committee for Public Works
Committee Secretary
By email: Scott.Hennessey@parliament.tas.gov.au

HUON LINK ROAD

Dear Mr Hennessy,

I refer to your email of the 25 October 2022 requesting further information in relation to the *Parliamentary Standing Committee for Public Works* hearing of the 17 October 2022.

I note that there are nine questions raised and respond as follows:

Q1. Forecast traffic volume on the Huon Link Road and the forecast drop in traffic volume on Main Road, Huonville, once the Huon Link Road is operational.

The Link Road is modelled based on AM/PM peak periods and extrapolated out for full day volumes. The results on this modelling indicated post completion the vehicles per day is 4062 in 2025 and increasing to 6407 vehicles per day in the year 2045.

Traffic volumes on Main Street are forecast to increase between 2019 and 2029 both to the north and the south of the town centre irrespective of the presence of the Link Road. This is because the link road does not primarily service traffic using the key north-south Huon Highway route through the town centre. This traffic is likely to continue to use the town centre route rather than use the link road.

Despite this, the increase in traffic on Main Street is less substantial between 2019 and 2029 when the Link Road is included in the modelling.

The variation of traffic volumes on Main Street for the two hour AM/PM peak periods between the base models and the Link Road models are shown in the Chart 1 below.

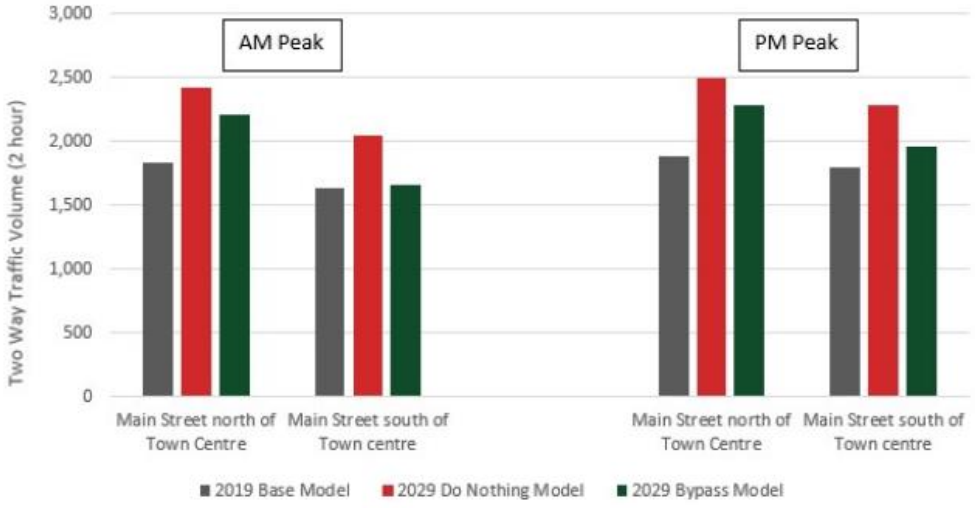

Chart 1: Main Street Traffic Volume comparisons

Q2. Travel time gains for traffic using the Huon Link Road, rather than the current route, at a.m. and p.m. peak periods.

The journey times for each of the routes through the model for peak one hour periods (i.e. 0800-0900 and 1630-1730) are shown in Chart 2 and 3 below. The journey times are the average of all vehicles undertaking each specified route in the one hour period of time and measured at timing point locations are shown in Image 1 below.

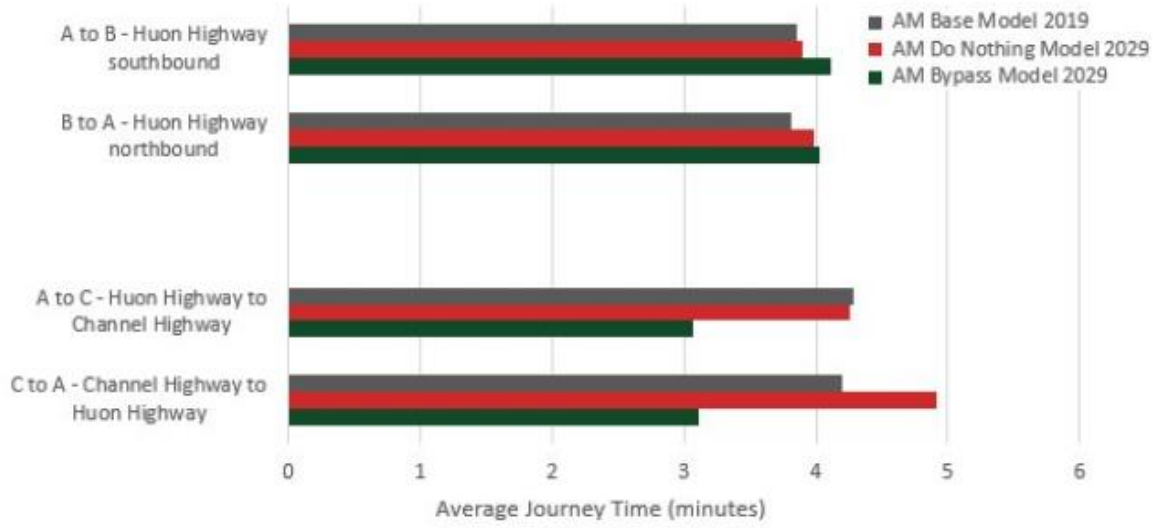

Chart 2: AM Peak hour average journey time analysis

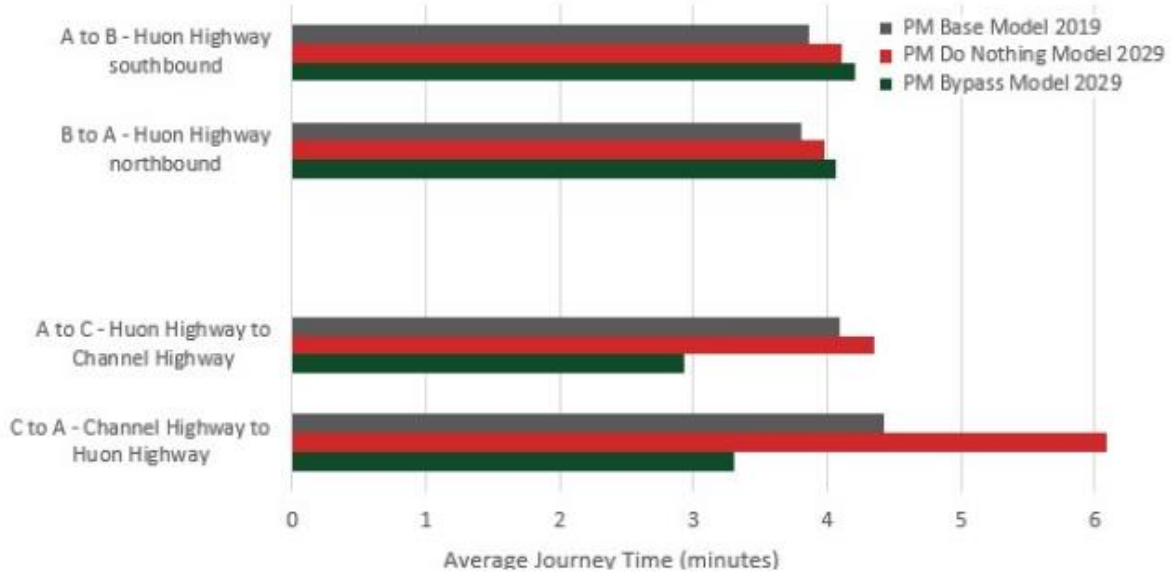

Chart 3: PM Peak hour average journey time analysis

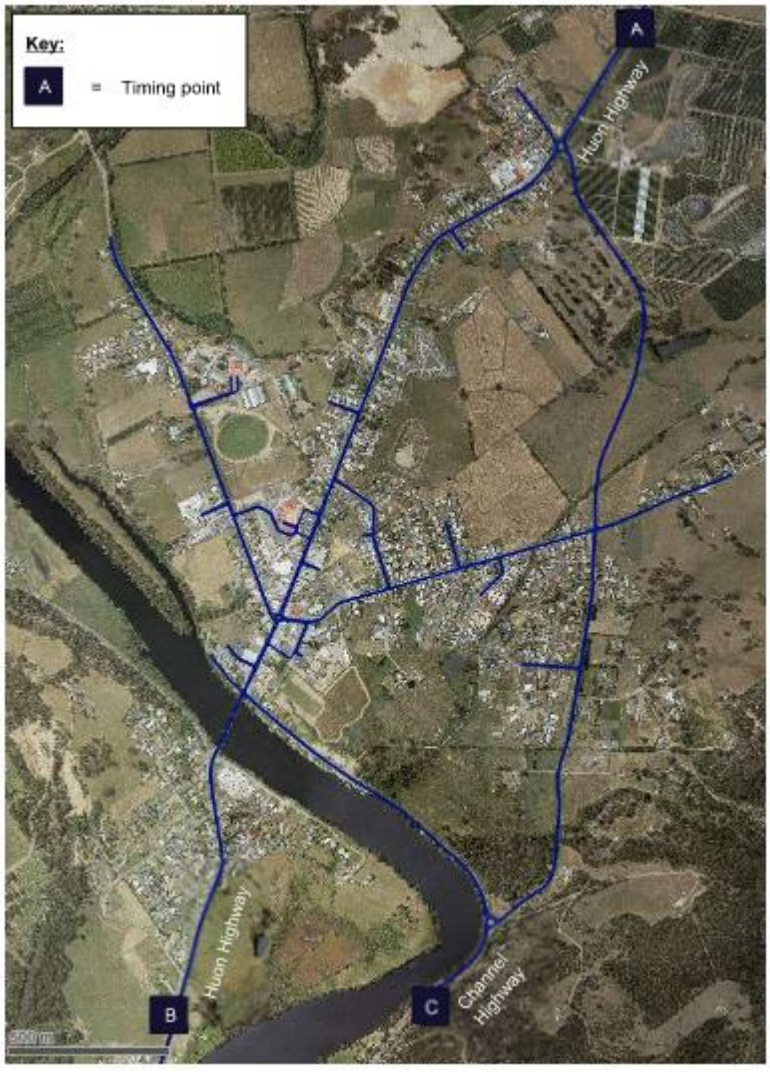

Image 1: Timing point locations

Q3. Forecast population growth used in the traffic modelling done for the period 2019-29 (as referenced in DoSG submission section 2.1, page 7, sub-section entitled Problems With Existing Link)

The model is based on traffic growth and not population growth of the area as shown in table 1 below.

Highway Site	Annual Growth Rate	10 Year Growth
Huon Highway (north of Huonville)	+2.3%	+25.5%
Huon Highway (south of Huonville)	+3.5%	+41.1%

Table 1: Growth Rates

4. Provide an updated, corrected Overall Project Cost Summary Table (see Section 3.1, page 10, of DoSG submission)

The updated table is included below to rectify the transposition error of the base cost estimate.

	P50 ($m AUD)	P90 ($m AUD)
Base Cost Estimate	$16,924,594	$16,924,594
Contingency	$2,424,162	$4,272,005
Total Project Cost Estimate	$19,348,756	$21,196,598
Escalation	$715,904	$784,274
Total Outturn Cost Estimate	$20,064,660	$21,980,873
** *NOTE: The above cost estimate is only an estimate and the Department reserves the right to maintain access to the full allocated budget of $29.2M. The above estimate is subject to change dependant on multiple factors including market volatility at time of tender ; finalisation of designs. The Department is confident that the overall project cost will be significantly less than the allocated budget however it is prudent to retain the budget until designs are completed and the tenders closed.*		

Q5. Provide the benefit-cost ratio for the project (as referenced in the DoSG submission in Section 4.1, page 11).

The Benefit Cost Ratio of standard benefits for the project at the 4% Discount rate is 2.08 and 1.52 for the 7% discount rate at the P90 project total outturn cost estimate at Preliminary Design Estimate phase of the project when the BCR was undertaken.

Q6. The cost to underground TasNetworks infrastructure that needs to be relocated as a result of the project.

The exact cost is unknown at this point as we have not received the "letter of offer" from TasNetworks for these works.

The TasNetwork assets include High Voltage lines and to put all power infrastructure underground would likely require ground mounted HV switches/transformers. Indicative costs could be in the realm of $2-3M mark compared to approximately $500-$750k for the traditional pole relocation approach. The costs cannot be confirmed until TasNetworks complete their design and costs for their infrastructure works.

To underground power services requires upgrading of each house service connection, turrets and cabinets. The added complexity is that portions of the route is High Voltage requiring additional land, and have a 26-36 week lead time associated with them as well as requiring complex decommissioning and commissioning with existing property owners.

Q7. The cost of any potential financial payment to the Huon Valley Council for the loss of listed tree species that are unable to be offset with plantings (as referenced in in the DoSG submission in section 8.3, page 17).

A mix of on-site and financial offsets are proposed for the project. Based on the trees identified in the preliminary assessment, the following estimated offsets have been identified:

For the loss of the 780 m2 (0.078 ha) of Eucalyptus ovata a replacement ratio of 3:1 is required or a financial offset of $10,000 per hectare ($1/m2). As there is no available area of Eucalyptus ovata that can be used to secure a replacement offset, a financial offset is proposed. The cost of this financial offset is expected to be $780.00

For the loss of the 4,900 m2 (0.49 ha) of Eucalyptus obliqua and Eucalyptus amygdalina a replacement ratio of 3:1 is required or a financial offset of $10,000 per hectare ($1/m2). A small replacement offset is possible in land located to the east of the new link road This replacement offset is only 42 % of the total replacement offset required (1.47 ha) and therefore a financial offset for the remaining 8,500 m2 is required. The cost of this financial offset is expected to be $8,500.00

For the removal of the 27 high priority biodiversity value trees the financial offset is estimated to be $13,500.00

For the removal of the 6 moderate priority biodiversity value trees the financial offset is estimated to be $1,500.00

The overall combined cost of the above is estimated to be $24,280.00

Q8. Information on the current status of the Huon Highway Corridor Study, including why it is still in the draft stage, and when it is expected to be released.

The Department is in the process of finalising the Huon Highway Corridor Study, which will be made publicly available in the coming months. While the Corridor Study is not yet publicly available, the Department can confirm that the Huon Link Road project and the benefits it provides are noted as part of the Study.

Q9. Clarification on the number of vehicles, including heavy vehicles, travelling on the Channel Highway, to and from Cygnet, and the Huon Highway, to and from south of Huonville.

State Growth HV traffic data:

- Huon Hwy north of Huonville. HV% = 9.4% (2017), 997 trucks per day
- Channel Hwy east of Huonville. HV% = 10.6% (2021), 431 trucks per day
- Huon Hwy south of Huonville. HV% = 10.7%, (2019), 678 trucks per day

The traffic modelling undertaken for the Link Road project included origin-destination surveys for peak periods. This included cars and HV movements. The OD survey indicated the following truck movements during the AM and PM peak periods:

- Channel Hwy to Huon Hwy north AM 2 trucks, PM 2 trucks
- Huon Hwy north to Channel Hwy AM 1 truck, PM 2 trucks
- Huon Hwy north to Huon Hwy south AM 9 trucks, PM 3 trucks
- Huon Hwy south to Huon Hwy north AM 15 trucks, PM 8 trucks
- Channel Hwy to Huon Hwy south AM 7 trucks, PM 8 trucks
- Huon Hwy south to Channel Hwy AM 4 trucks, PM 2 trucks

It can be seen that the dominant through route was Huon Highway south to north as well as north to south.

Channel Highway through truck movements appear to have a dominant origin/ destination as Huon Hwy to the south of Huonville.

Based on the above, the link road will remove some truck movements from Huonville town centre, but not all. Overall, the trucks that remain on Main Road will have improved travel times due to less traffic using Main Road.

I trust that the above information is of assistance to you.

Yours sincerely

Denise McIntyre
GENERAL MANAGER STATE ROAD

3 November 2022