A57 LINK ROADS SCHEME

COMPARISONS OF TRAFFIC FLOWS,
ACTUAL AND PREDICTED

NOTES ON THE CHARTS

1. There are two sets of charts
2. The first set shows traffic flows at locations between the M67 and Crowden along the A628.
3. The second set shows traffic flows at locations between the M67 and Snake Pass along the A57
4. Each slide shows the locations along a route and the bars show traffic flows at each location.
5. The bars show AADT (Annual Average Daily Traffic) traffic flows which arise (briefly put) from actual counts or from models based on actual counts or from estimates based on counts or from modelling
6. If you hover the mouse over the end of a bar you will see the number at that data point

7. The traffic flows are from 2015, 2019, 2025-DM, 2025-DS, 2040-DM and 2040-DS, where DM=Do-Minimum and DS= Do-Something

8. On each chart there are 1, 2, 3, 4, or 6 bars for each location. They are always displayed in the order shown above.

9. **At five key locations: Tintwistle, Crowden, Glossop High Street, E&W, and Snake we have no 2015 figures.** On some charts with just 2 bars per location, these 5 locations have only one bar, so it is very obvious that 2015 is missing**. But be aware that on most charts it is <u>not</u> so obvious that they have one bar missing and so you can get tripped up when reading the chart.**

The traffic bars explained

10. **2015:** These flows are always shown in dark blue. These are from Highways England (HE) baseline model, which is based on actual traffic counts.

11. **2019**: These flows are always shown as red and are from the Department for Transport (DfT). With one exception these sites have manual counts carried out every so often. The dates of the most recent manual counts at each site are shown in the green text box on each chart. These counts are updated in subsequent years by calculation and extrapolation.

    a. The exception is the M67 J3/4 figure, which is not estimated on the basis of manual counts. It is an ATC (Automatic Traffic Count).

    b. These 2019 figures are from the DFT website:

    https://roadtraffic.dft.gov.uk/#6/55.254/-6.053/basemap-regions-countpoints

    c It is important to note that all the 2015 figures and the 2019 figure for the M67, which is a critical element of the model, as it feeds the most traffic into and out of the area, are derived from ATC's and so are the most accurate figures on the charts. (see notes 10 and 11a above)

12. **In the chart headings I call 2015 and 2019 baselines – as that is what they are.**

13. **2025-DM:** These are modelled predictions for the opening year of the scheme in a Do-Minimum scenario
14. **2025-DS:** These are modelled predictions for the opening year of the scheme in the scenario that the scheme were to be constructed
15. **2040-DM:** These are modelled predictions for the design year of the scheme in a Do-Minimum scenario
16. **2040-DS:** These are modelled predictions for the design year of the scheme in the scenario that the scheme were to be constructed

NOTES ON THE SIGNIFICANCE OF THE CHARTS

1 **IMPORTANT NOTE: The 2015 bars, and the M67 2019 figure are all derived from ATC's and are therefore the most accurate figures on the charts. So it is legitimate to say that the 2025 and 2040 figures, which are predictions, have to be weighed against what the 2 baselines (2015 and 2019) are telling us.**

2. Bearing that in mind, the fact that the 2025 DM figure for the M67 is massively less than the 2019 DfT figures, and in fact is virtually the same as the 2015 baseline is quite extraordinary. Ditto for Stockport Road.

3. As a thought experiment, let us adopt a hypothesis that HE have a great desire NOT to assess AQ issues in the AQMA's of Tintwistle, Dinting Vale and Glossop.

4. For example, in Tintwistle, what matters is the difference between the DS figure and the DM figure **as a number and not as a percentage.** And the other thing that matters is that **that number is less than 1000**.

5. If you apply, say a 10% increase, to a flow of 10,000 you get a numerical increase of 1000. The modelled figure is actually 9699. Et voila – the increase is now 969. *Sorry folks, but the AQMA will not be assessed.*

6. And if you apply, say a 10% increase, to a flow of 11676 (the DfT 2019 estimate for Tintwistle), which is presumably connected to the (accurate) ATC count back on the M67, then you get a numerical increase of 1167. *Oh dear, the AQMA will have to be assessed*.

7. I am NOT saying that DS is derived from DM in this way. But DM and DS figures are connected because the model which gives rise to them stays the same. What matters is the size of the gap, and whether it shrinks when the 2025 DM flow is dramatically altered downwards.

8. The other thing which matters is whether or not we can have faith in the model itself!

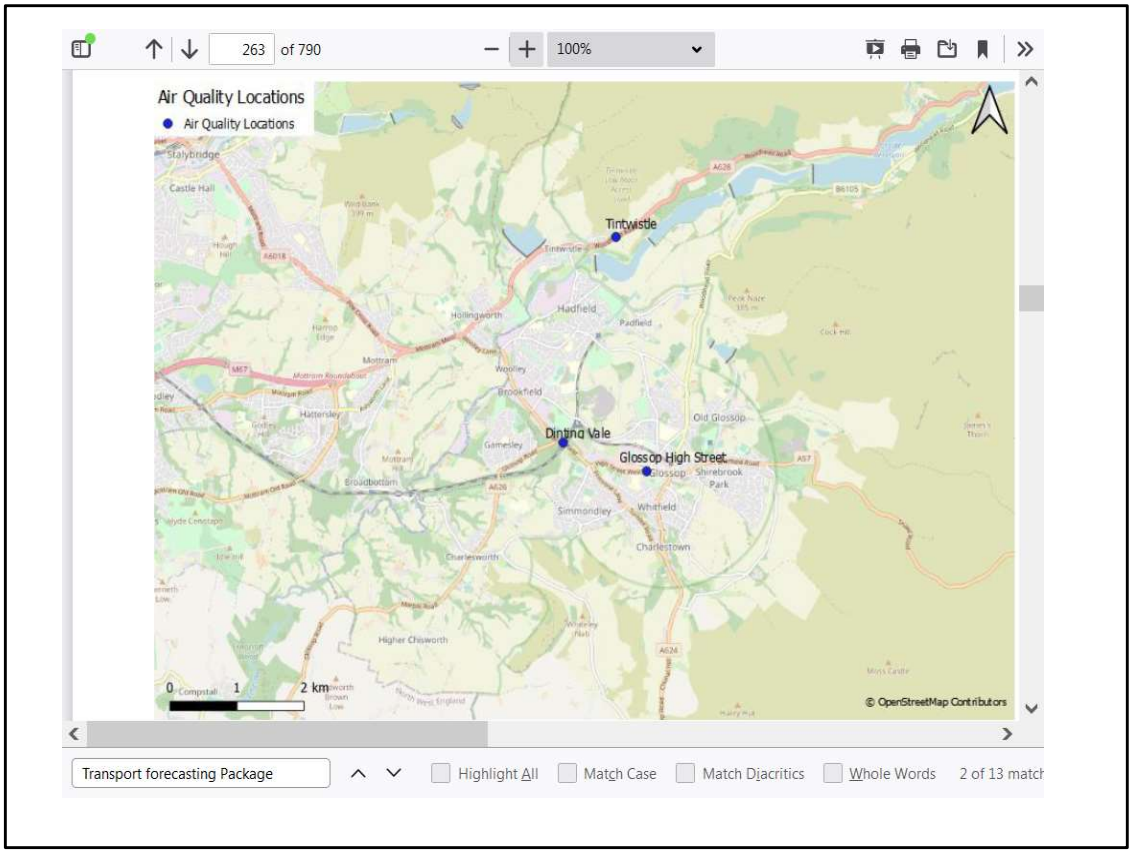
FINAL NOTE ON THE “HYPOTHESIS”

Between 2015 and the time when the work was done for the modelling for 2025 and 2040 **the consultants were changed.**

Here is the description of that switch, from the Stage 3 Combined Modelling and Appraisal Report obtained eventually from HE and made public by CPRE. (Examination library document REP2-090) **:** *(my emphases)*

7.3.1. Initial air quality (AQ) modelling undertaken by Arcadis in July 2018 indicated that an unmitigated TPU scheme could have significant AQ effects and jeopardise the application for development consent. Changes in traffic flow and speed as a result of the scheme were predicted to cause exceedances of the AQ strategy objectives for annual mean nitrogen dioxide (NO2). The primary locations where a negative AQ impact was reported were the village of Tintwistle (A628) and the specific locations on the A57 route through Dinting Vale and Glossop High Street, as shown in Figure 7-1

(Figure 7.1 is the next slide)


263 of 790
100%
Air Quality Locations
Air Quality Locations
Tintwistle
Dinting Vale
Glossop High Street
Hadfield
Padfield
Hollingworth
Mottram
Hattersley
Broadbottom
Simmondley
Whitfield
Charlestown
Old Glossop
Shirebrook Park
Higher Chisworth
Charlesworth
Castle Hall
Stalybridge
0 1 2 km
© OpenStreetMap Contributors
Transport forecasting Package
Highlight All
Match Case
Match Diacritics
Whole Words
2 of 13 match

7.3.2. Atkins was commissioned by Highways England to undertake a review of the work done by consultants Arcadis at PCF Stage 3 for the proposed TPU scheme. The aim of this process was to strengthen the robustness of the modelling, under high levels of scrutiny for the Development Consent Order (DCO).

Following the presentation of the review findings in the summer of 2019, Atkins was commissioned to implement its recommendations and finalise PCF Stage 3.

7.3.3. As such, details of how the base model has been developed during the finalisation of PCF Stage 3 are provided in section 8, resulting model metrics are shown in section 9 and a summary is presented in section 10.

AND NOW THE CHARTS

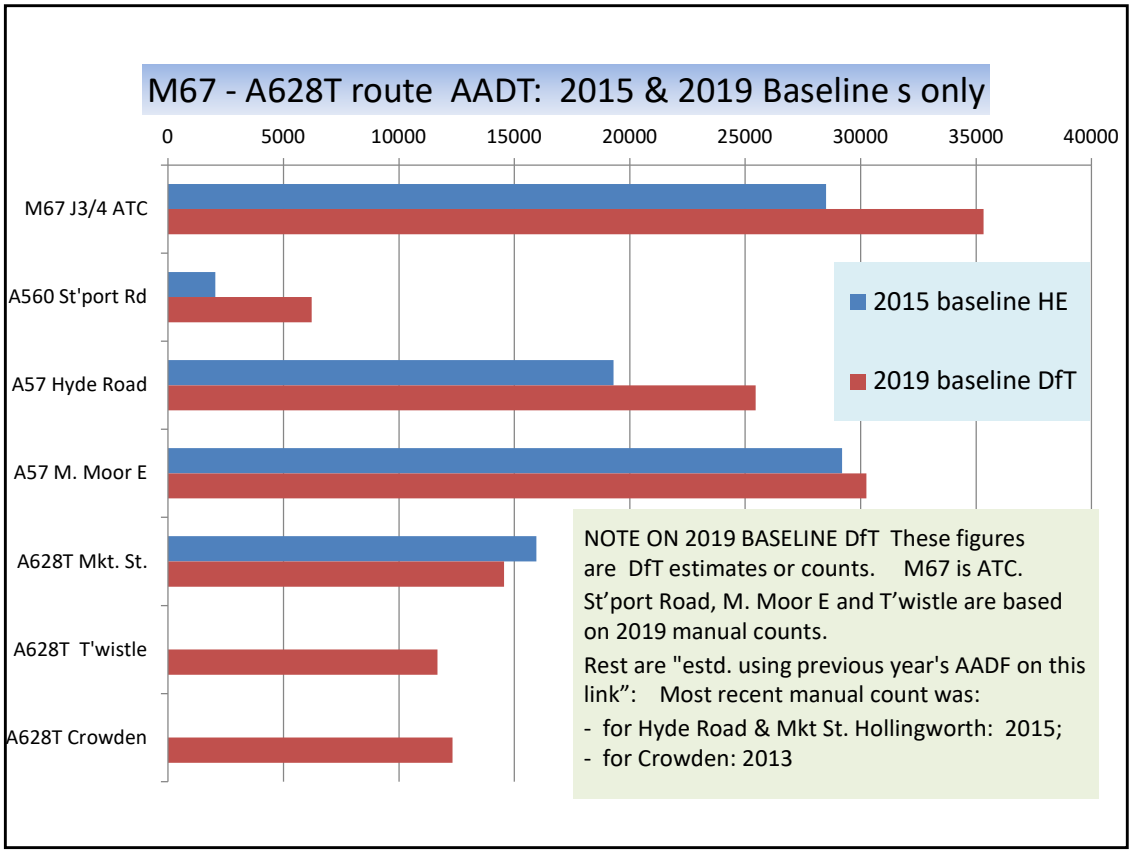
WITH COMMENTARY BY DANIEL WIMBERLEY

Click in notes space to see more notes, or use mini-scroll-bar

A57 link roads scheme
TRAFFIC FLOWS AADT

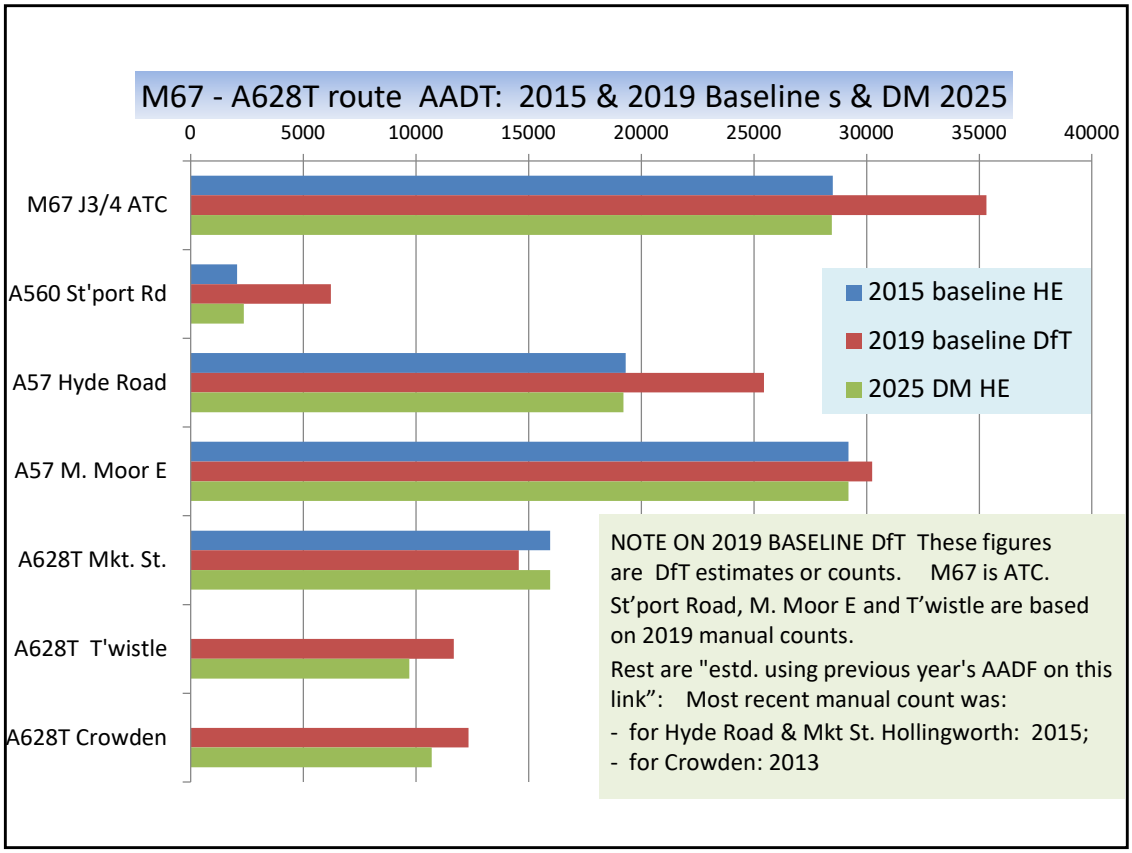
Starting with the route M67 to A628
Baselines & DM

First slide: baselines only



Shows 2015 HE versus DfT 2019. Note the growth in traffic, reliably ascertained, between 2015 and 2019, on the roads which feed into and out of our area. *(continued below)*

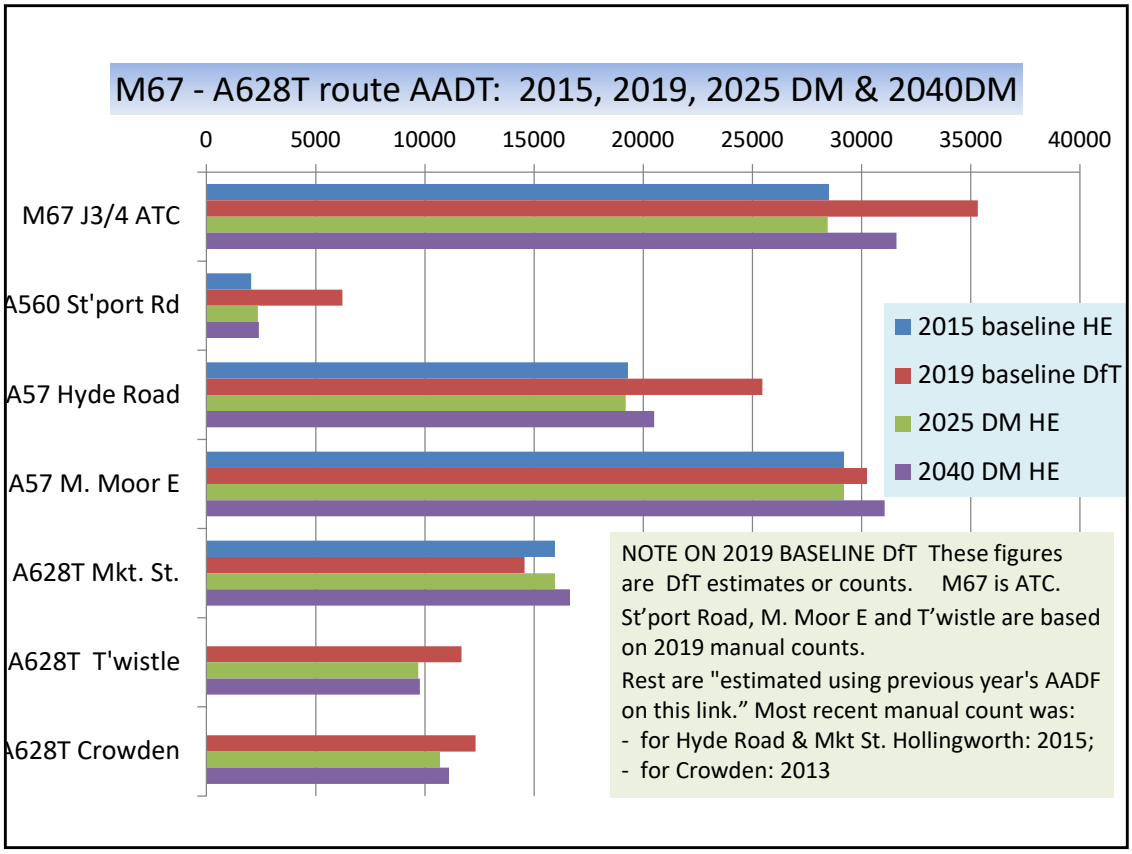
Hollingworth Market Street is an anomaly. No 2015 data for T'wistle and Crowden



2025-DM HE modelled flows are added. Note that in all locations 2025-DM flows are virtually identical with 2015 flows. *(continued below)*

2025-DM modelled flows are LOWER or FAR LOWER than 2019 flows, with the exception of Market Street in Hollingworth.

The drop in predicted DM flow between Hollingworth Market Street and Tintwistle/Crowden is noteworthy. How can it be explained?
No 2015 data for T'wistle and Crowden

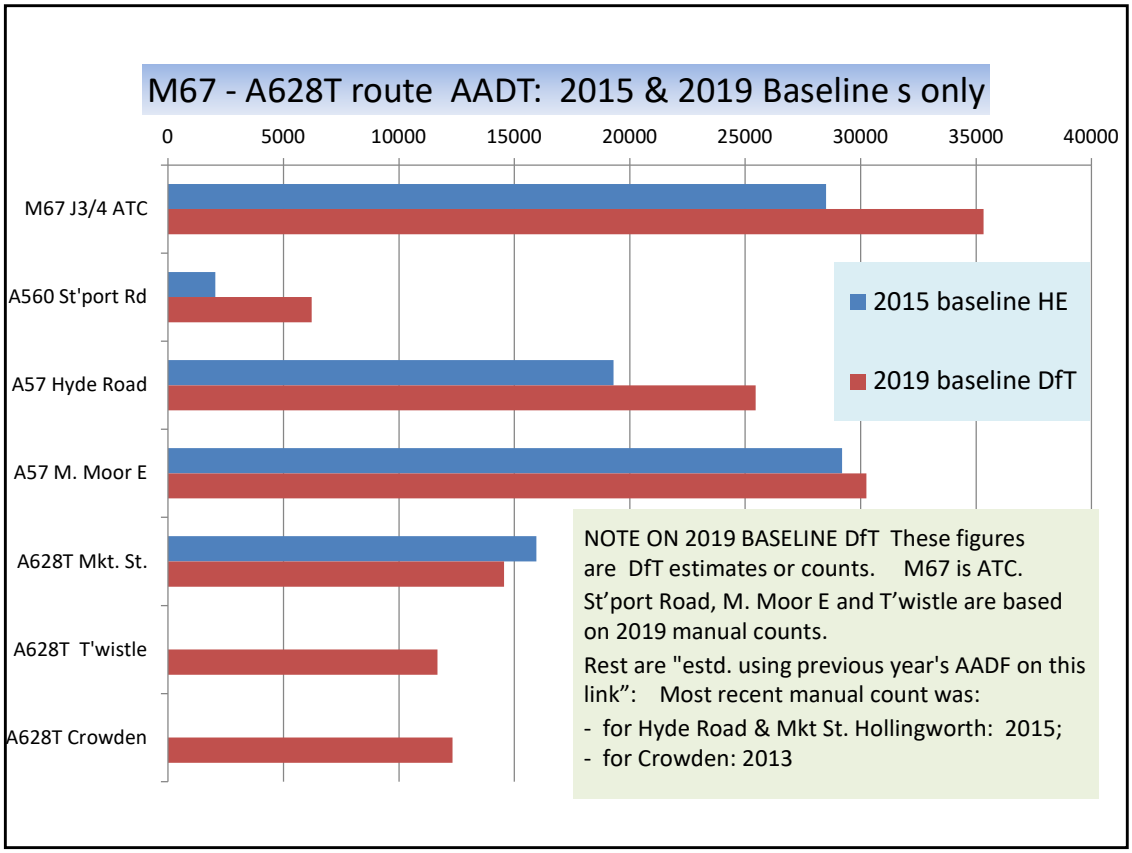


2040-DM HE modelled flows are added. Note that in all locations 2040-DM flows are predicted to be modestly more than 2025-DM flows, or the same. The Hollingworth – Tintwistle anomaly is even more marked in 2040.

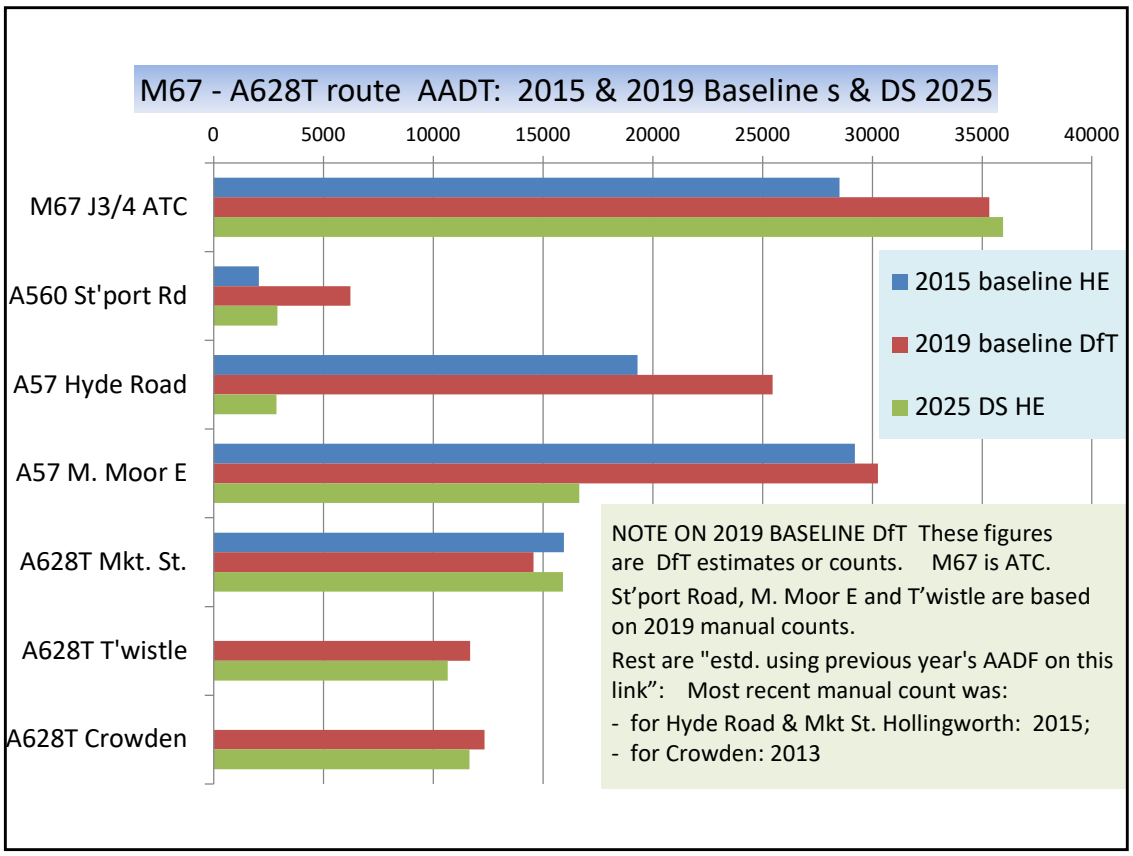
A57 link roads scheme
TRAFFIC FLOWS AADT

Moving on to the same route M67 to A628
Baselines & DS

First slide: baselines only

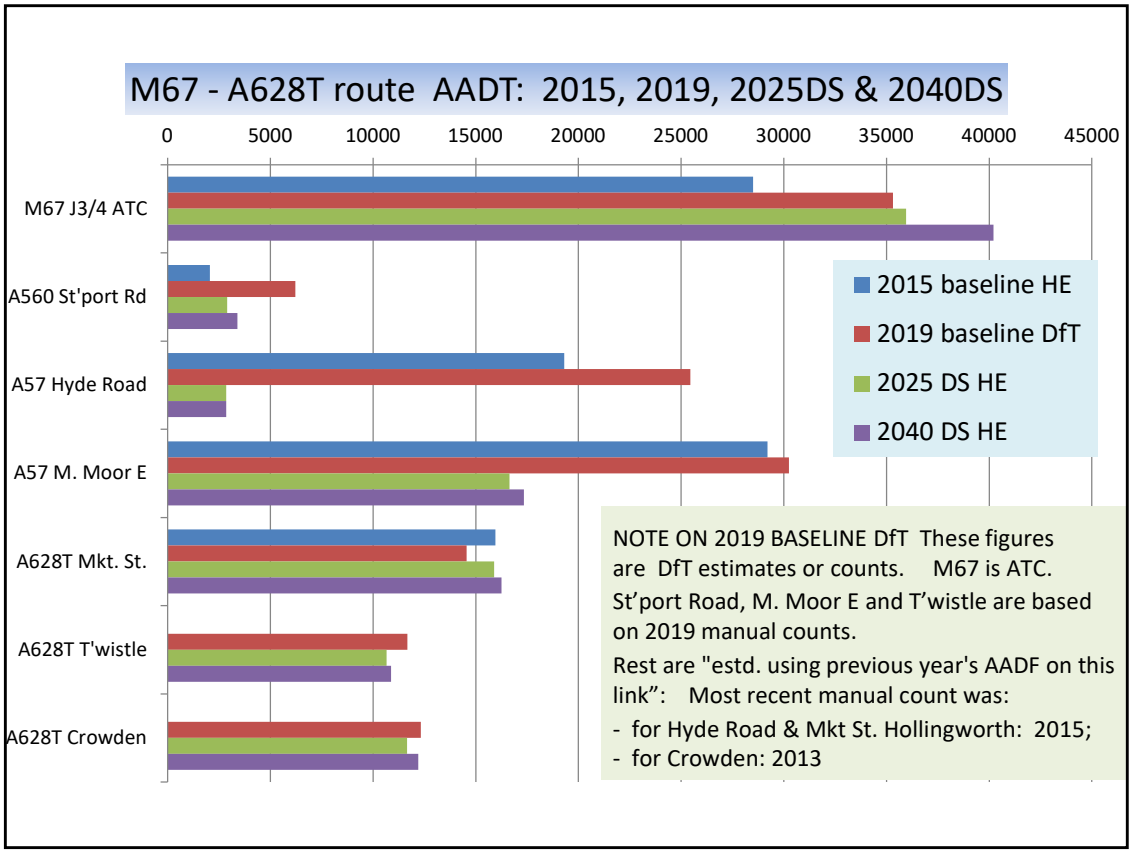


Repeat slide. Shows 2015 HE versus DfT 2019. Note the growth in traffic, reliably ascertained, between 2015 and 2019, on the roads which feed into and out of our area. No 2015 data for T'wistle and Crowden



2025-DS HE modelled flows are added. On the M67 2025-DS flow is predicted to be very slightly more than 2019 DfT. How plausible is this? *(continued below)*

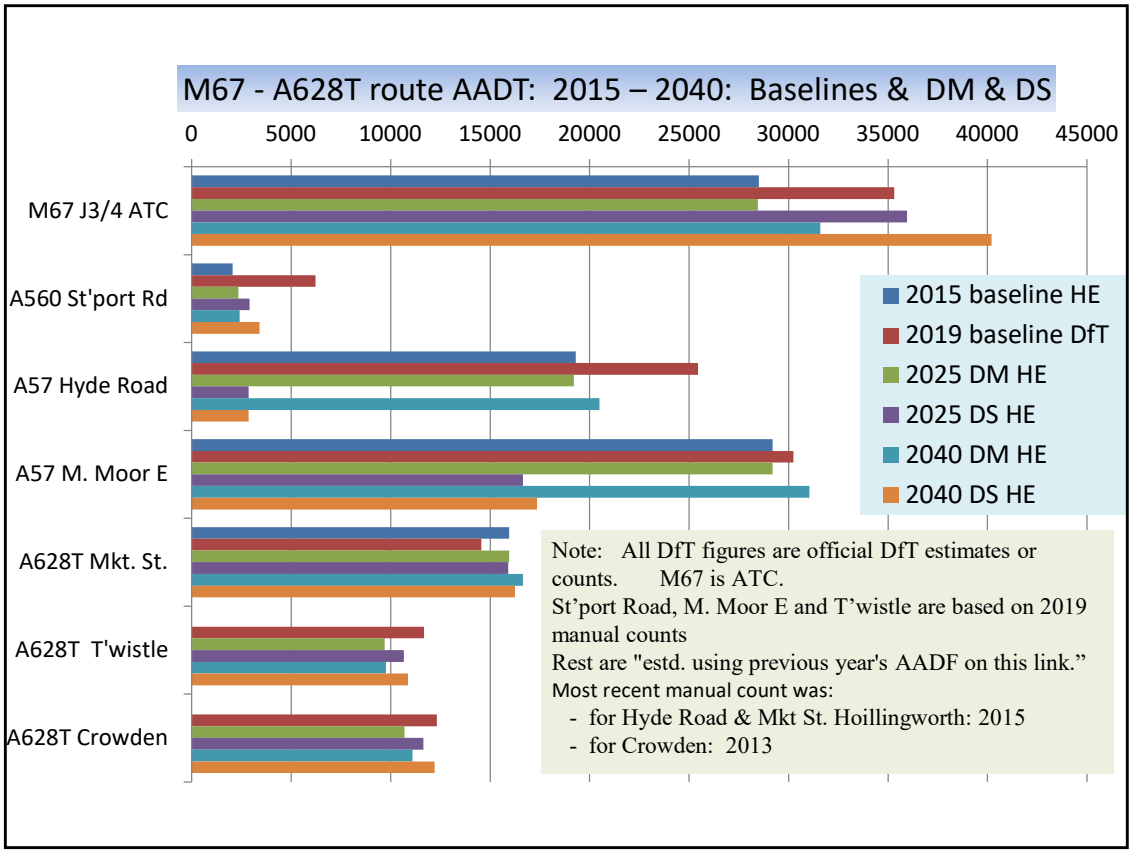
The drop in predicted flow between Hollingworth Market Street and Tintwistle/Crowden is noteworthy. How can it be explained? No 2015 data for T'wistle and Crowden



2040-DS is added. Compared to 2025-DS a biggish increase on the M67, but not anywhere else on this route. No 2015 data for T'wistle and Crowden

AND NOW THE A628
ALL COUNTS TOGETHER

Baselines, DM and DS, 2025 & 2040



The DS bars are much spikier on the M67 than in Hollingworth, T'wistle, and Crowden.
There seems to be some sort of a barrier between Hollingworth and Tintwistle.
What other lessons/questions lie here?

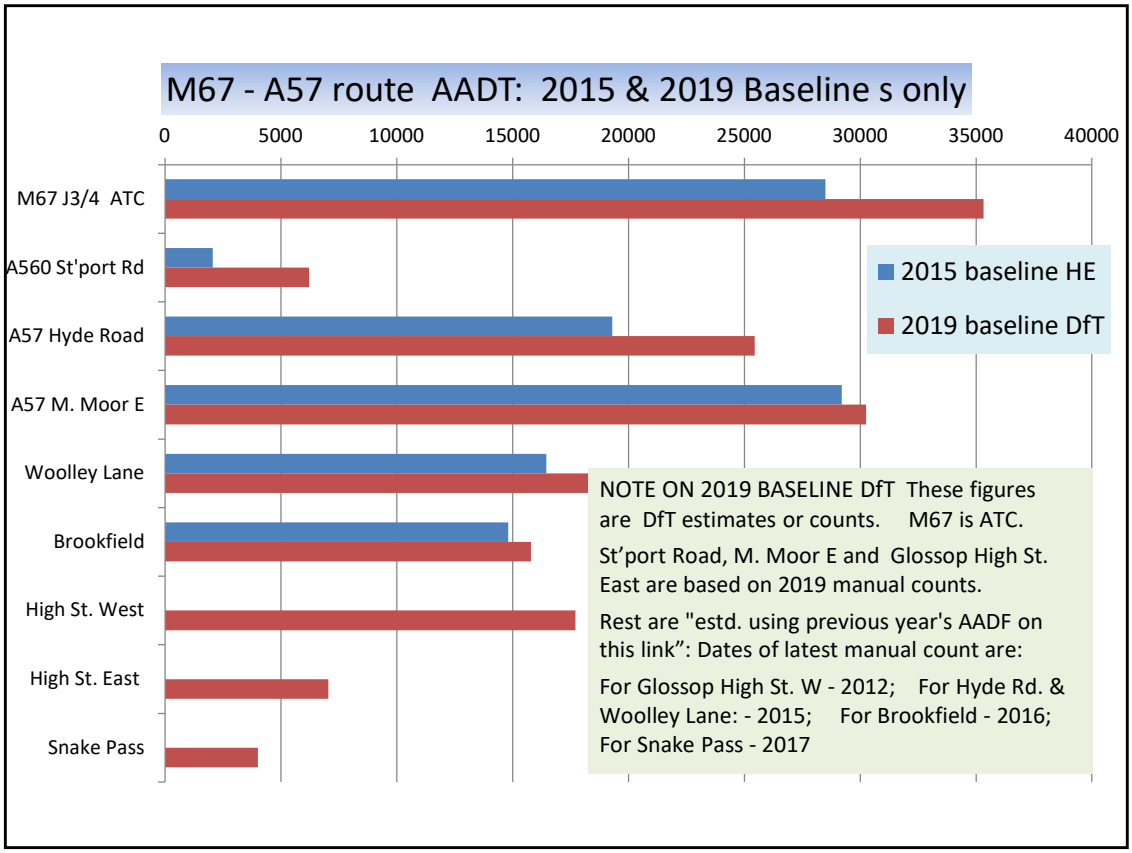
A57 link roads scheme
TRAFFIC FLOWS AADT

Moving on to the A57 route

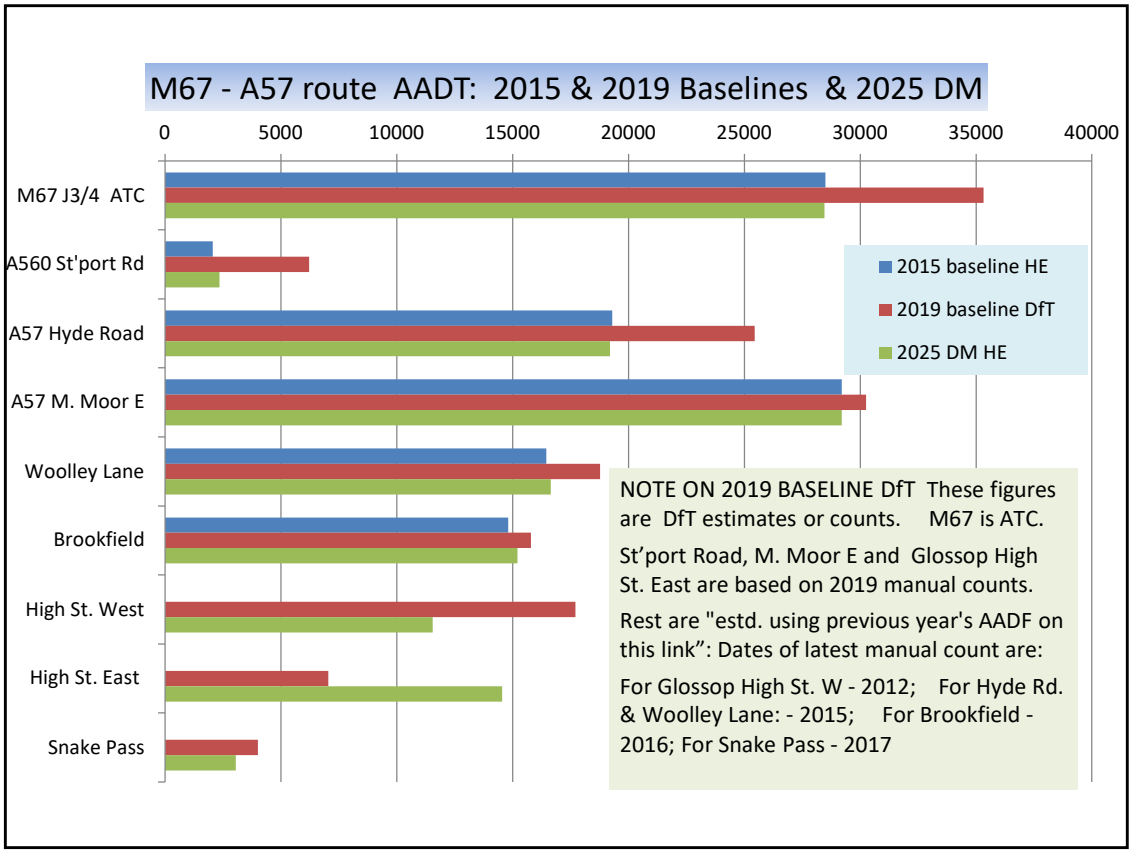
M67 to Snake Pass

Baselines & DM

First slide: baselines only



Repeat slide. Shows 2015 HE versus DfT 2019. Note the growth in traffic, reliably ascertained, between 2015 and 2019, on the roads which feed into and out of our area. No 2015 data for Glossop High St. West or East or for Snake Pass

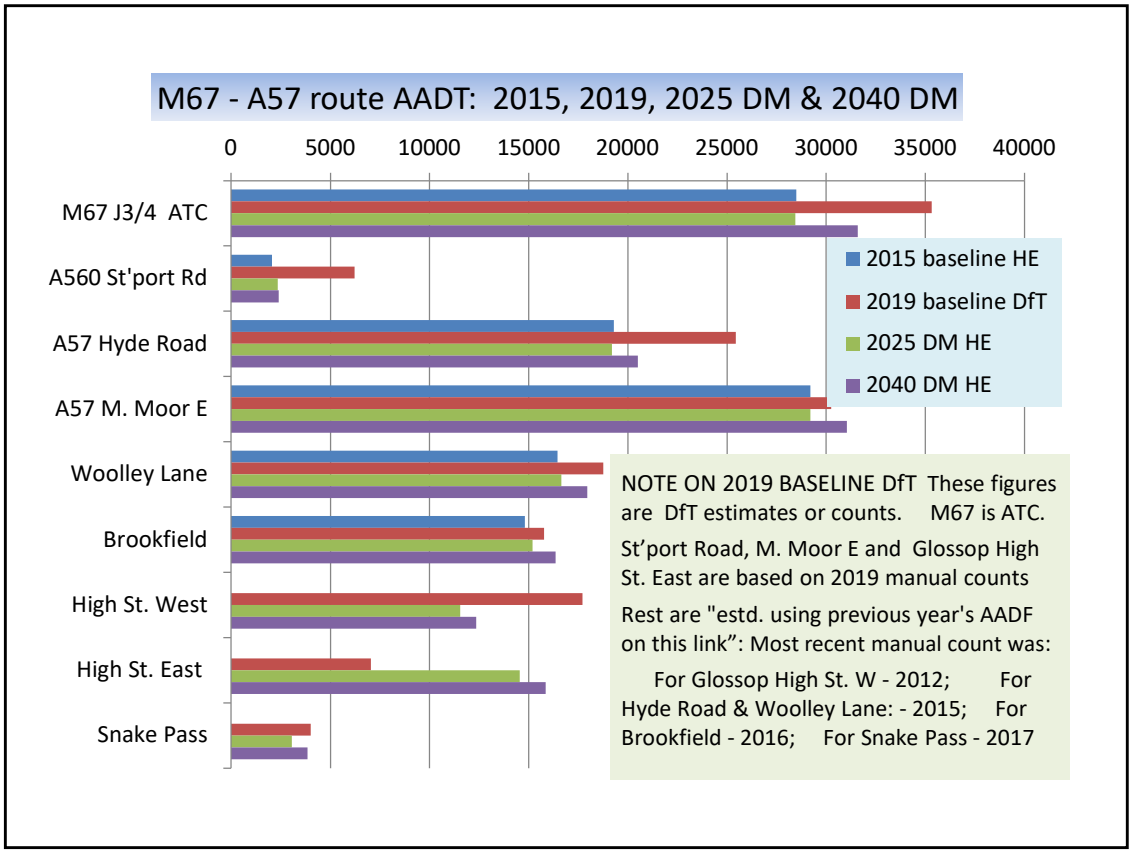


2025-DM HE modelled flows are added. Note that in all locations as far as Brookfield 2025-DM flows are virtually the same as 2015 flows.

When 2025-DM is compared to 2019 DfT on High St. West, then the 2025-DM flow is predicted to be FAR lower, but on High St. East it is predicted to be FAR higher.

When 2025-DM is compared to 2019 DfT there is predicted to be a similar percentage drop on Snake pass as on the M67. This is just as implausible on Snake Pass as it is on the M67, but less startling as the absolute numbers are lower.

The 14,550 predicted vehicles on Glossop High Street East do not reach or come from Snake Pass. Where do they all disappear to?

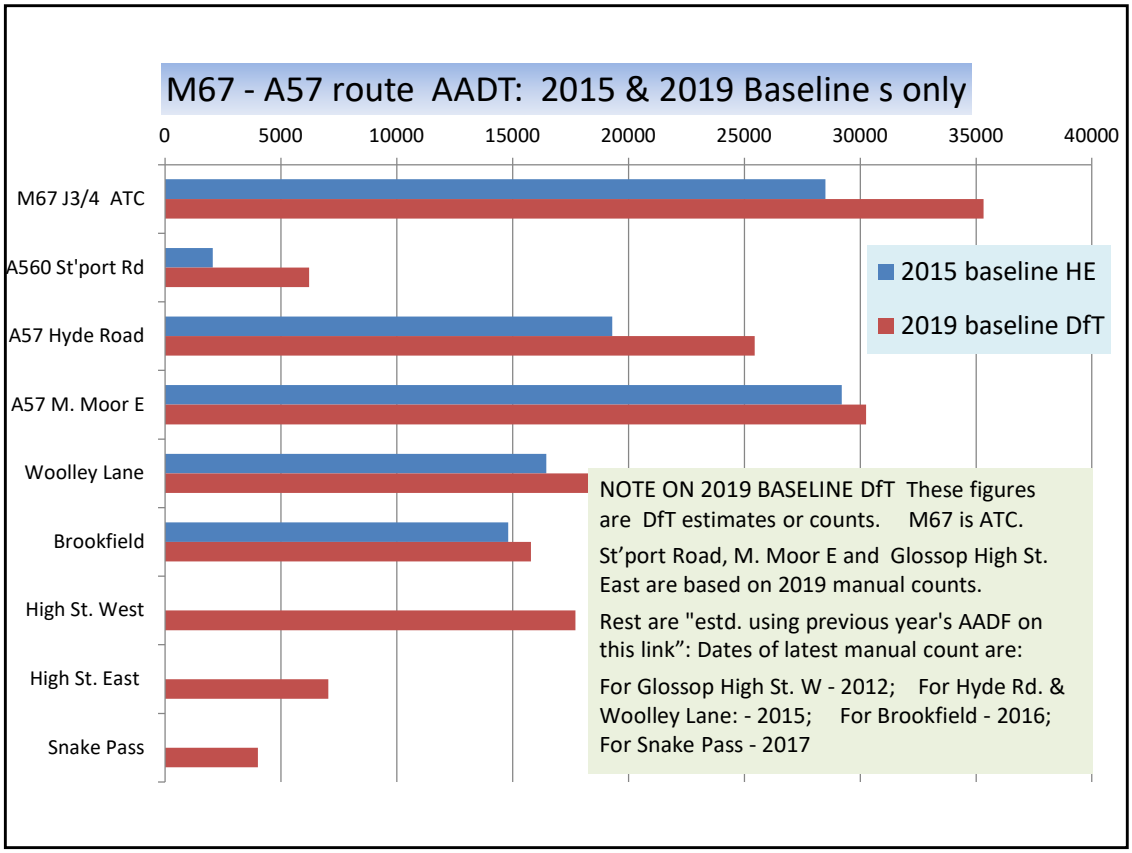


2040-DM HE modelled flows are added. Note that in all locations 2040-DM flows are predicted to be modestly more than 2025-DM flows. The biggest percentage increase is Snake Pass. There is the same anomaly in Glossop High Street, West and East, and the same disappearance of thousands of vehicls between High Street East and Snake as on the previous slide.

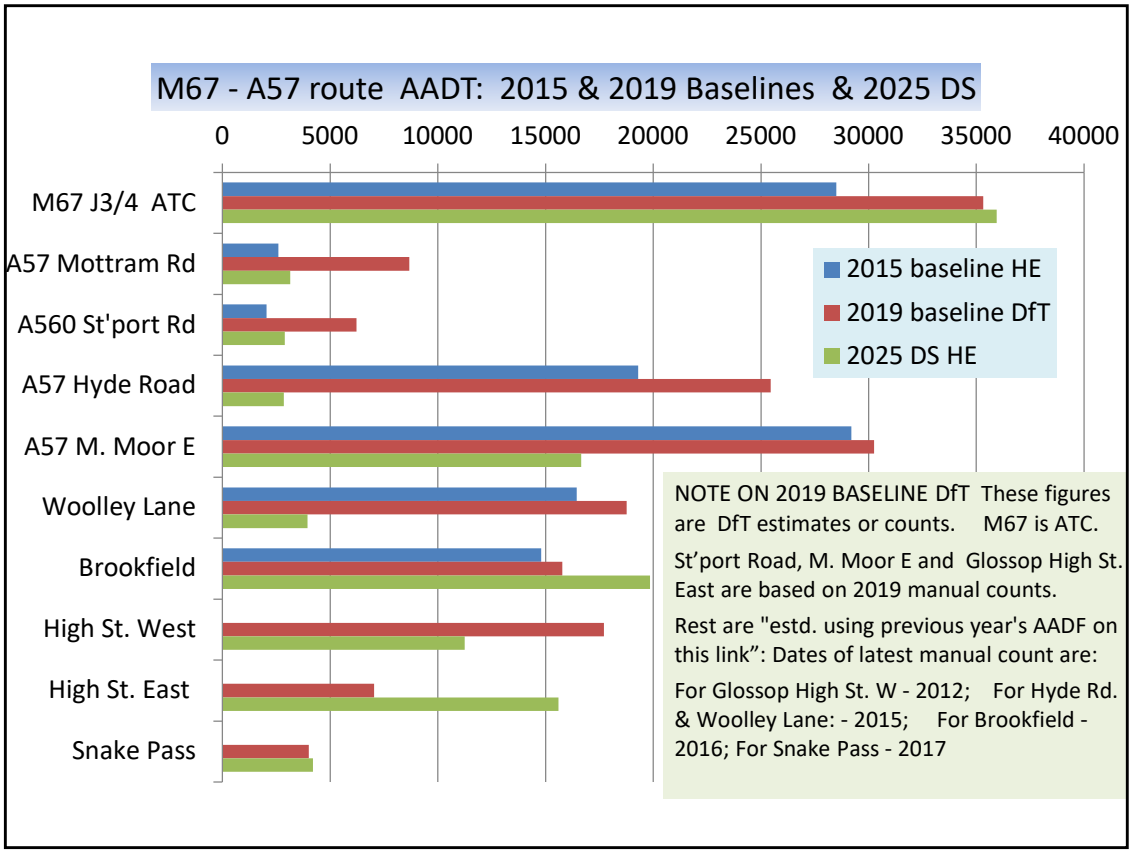
A57 link roads scheme
TRAFFIC FLOWS AADT

Moving on to the same route M67 to A628
Baselines & DS

First slide: baselines only



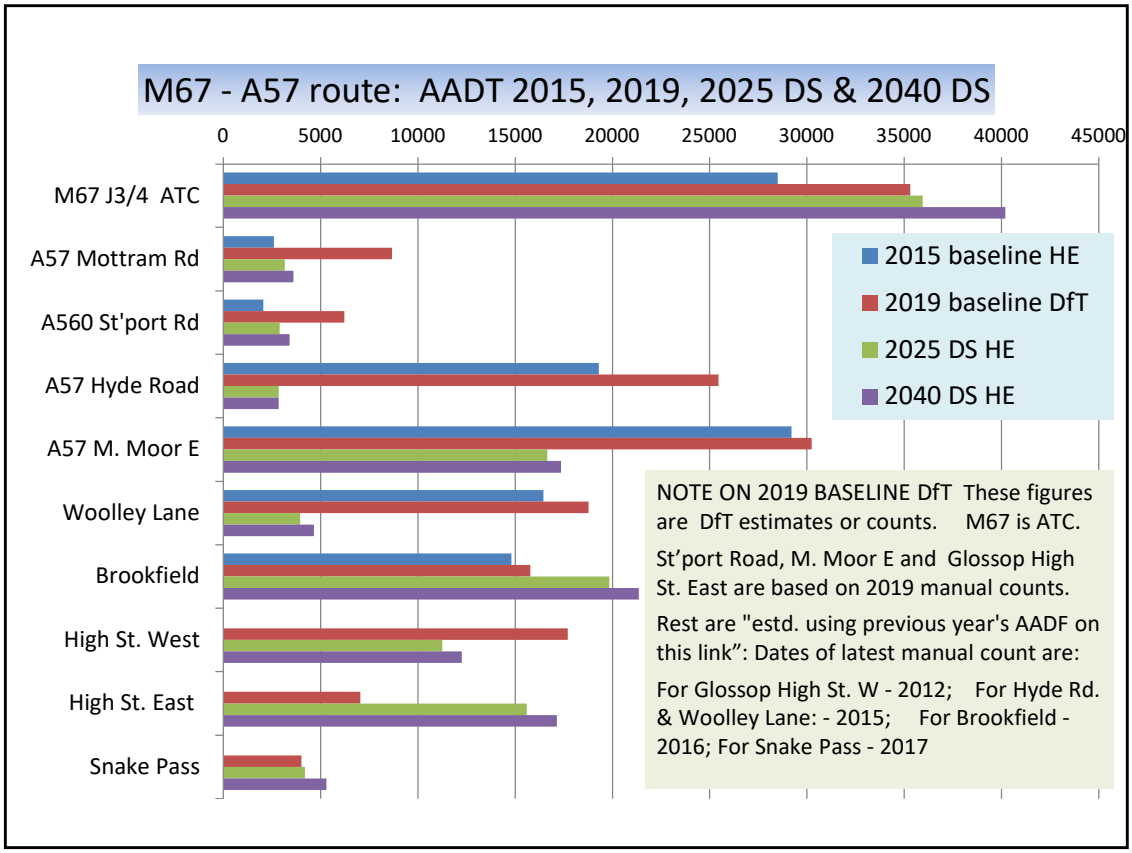
Repeat slide. Shows 2015 HE versus DfT 2019. Note the growth in traffic, reliably ascertained, between 2015 and 2019, on the roads which feed into and out of our area. No 2015 data for Glossop High St. West or East or for Snake Pass



2025-DS HE modelled flows are added. Compared to 2019 DfT, DS flows are predicted to be considerably higher (4000) in Brookfield, and yet only slightly higher on Snake and on the M67 J3/4

The comparison of 2025-DS with 2019 DfT shows the same pattern in Glossop High Street West and East as 2025-DM (see slide 24), namely MUCH lower on the former, and MUCH higher on the latter.

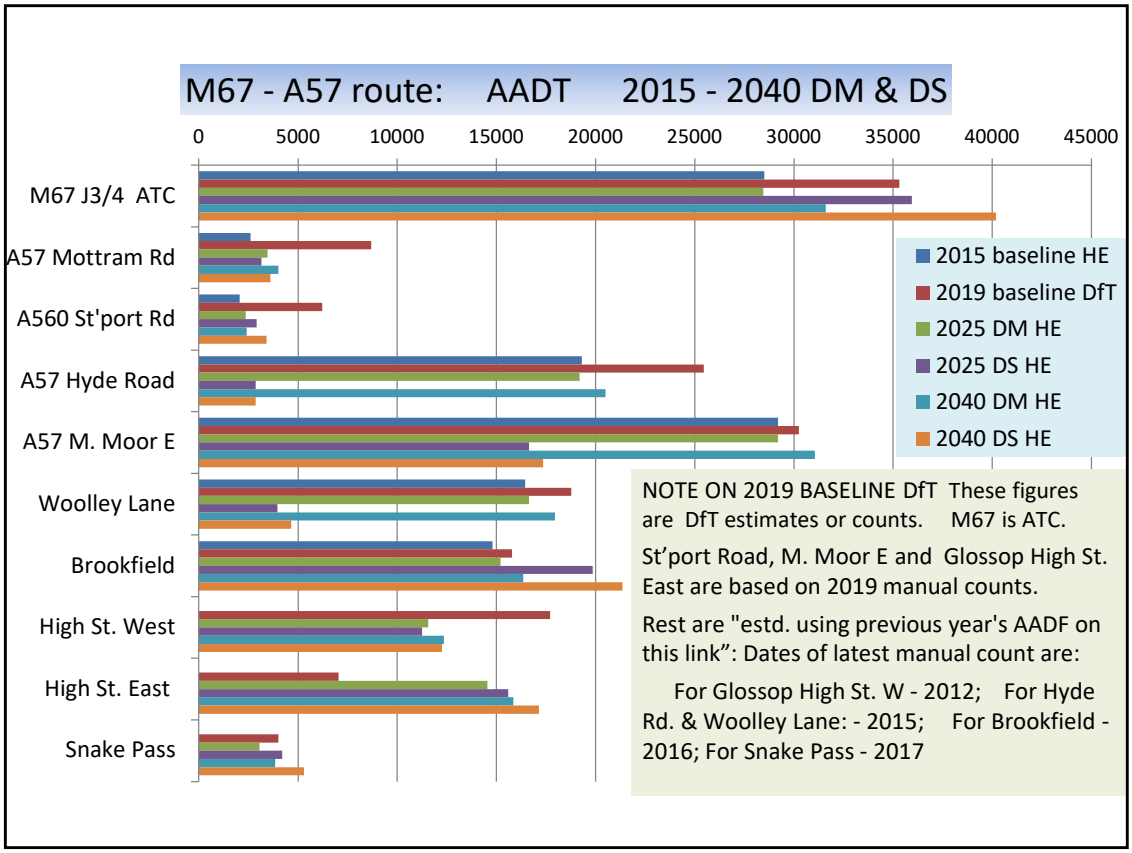
The 15,600 vehicles on Glossop High Street East do not apparently reach or come from Snake Pass. Where do they come from / disappear to?



2040-DS HE modelled flows are added. On M67 and High Street East and West, there is around a 10% increase on 2025-DS, on Brookfield slightly less and on Snake a 25% increase.

AND NOW THE A57
ALL COUNTS TOGETHER

Baselines, DM and DS, 2025 & 2040



Four things stand out here for me: 1) how the gap between DS and DM behaves from Brookfield onwards; 2) how clearly the anomaly around High Street East and West stands out, how ALL the flows bunch together EXCEPT 2019 DfT and how the relation of the bunch to 2019 is inverted; 3) the strangeness of flows at DM 2025 being substantially SMALLER than 2019 DfT at both M67 and Snake, and DS 2025 being only a small bit larger; and 4) the anomaly between High Street East and Snake.

THAT'S ALL FOR NOW

I think, Sirs, a small fee will be payable if you want any more slides doing