

Transport Modelling and Forecasting

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The Transport Modelling Process

- 🚌 Investigations undertaken for possible P&R sites to inform Cabinet's decision
- 🚌 Department of Transport's web-based Transport Analysis Guidance (WebTAG) provides details of the prescribed process
- 🚌 Links potential solutions to the defined problems and objectives

The Transport Modelling Process

- 🚌 WebTAG helps to test transport proposals to an industry standard
- 🚌 DfT and other agencies such as Highways England require use of WebTAG to consider any applications for funding
- 🚌 Supports a business case for any public spending proposal

The Transport Modelling Process

- 🚌 Process covers the strategic case (i.e. what the proposal is trying to achieve) plus all other aspects and impacts including economic and environmental
- 🚌 Analysis requires modelling to determine demand forecasts which provides data from economic appraisal and other assessments

The Transport Modelling Process

- ① Modelling is a complex activity that includes highway (traffic), public transport options and mode share models
- ① Recent survey data has been obtained
 - ① Roadside interviews
 - ① Public transport user surveys
 - ① Journey time data
 - ① Traffic count data
- ① Validation to WebTAG standards

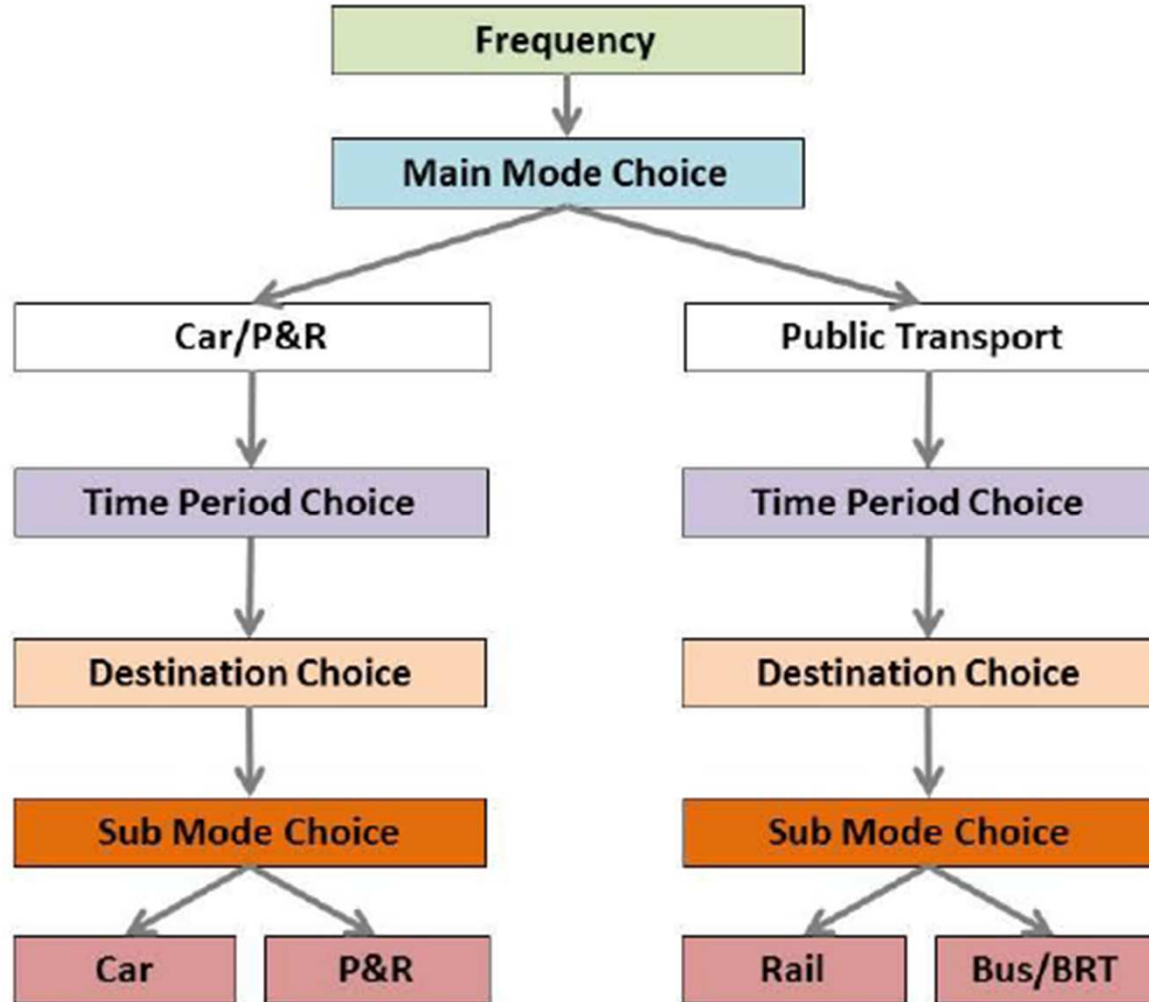
The Transport Modelling Process

- 🚌 Existing G-BATH model was used for Bath Transportation Package in 2007 which forecast substantial demand for Park and Ride to the east
- 🚌 This was subject to scrutiny and approved by DfT

The Transport Modelling Process

- 🚌 Updated G-BATH to base model 2014
- 🚌 Forecast model 2029 takes into account proposed scheme(s) and other interventions including planned developments
- 🚌 Applies demand to the network to determine people's transport options

Demand Forecasts



Demand Forecasts

- 🚌 Park and Ride demand forecasts indicate how many vehicle units can be expected to use a site given user origins, relative costs, etc.
- 🚌 Bath attracts journeys from the east and this demand is expected to grow over time

Demand Model Forecast (vehicles per day 2029)

P&R Site	Do Minimum	Do Something based on Odd Down profile for new site (with RUH service)	Do Something based on Lansdown profile for new site (with RUH service)
A4 Eastern	--	1,245 (1,778)	1,102 (1,588)
Odd Down	1,755	1,662 (1,638)	1,682 (1,638)
Newbridge	639	580 (580)	580 (580)
Lansdown	1,260	853 (866)	853 (866)
Total	3,654	4,360 (4,862)	4,217 (4,672)

Demand Forecasts

- 🚌 Note some abstraction from Lansdown P&R with a new P&R in place
 - 🚌 Location of Lansdown presents problems
 - 🚌 Surrounding road access poor
 - 🚌 Journeys intercepted more appropriately with an additional site to the east

2029 Predicted Traffic Flows

A4 London Road (vehicles per day)

Period	Do Minimum	Do Something without additional RUH service	Do Something with additional RUH service
AM Peak Inbound	884	836 (-5.4%)	792 (-10.4%)
InterPeak Inbound	1,045	999 (-4.0%)	906 (-9.0%)
InterPeak Outbound	961	922 (-4.4%)	893 (-5.7%)
PM Peak Outbound	1,151	1,117 (-3.0%)	1,008 (-3.8%)

Demand Forecasts

- 🚌 Lansdown P&R expected to exceed its current capacity if a new site to the east is not introduced
- 🚌 59% of demand for a site to the east from A4 to the east of Bath, 32% from A46
- 🚌 Relief on London Road between 5% (AM inbound) to 10% (PM outbound) 2029

Summary

- 🚌 The modelling process accords with DfT's guidance to generate reliable demand forecasts i.e. developed to industry standards
- 🚌 The model has been updated to produce P&R demand forecasts for a selection of site options, highlighting the need for an additional site to the east