



Bristol Clean Air Plan

Bristol City Council

Local Plan Transport Modelling Methodology Report (T3)

January 2019



Bristol Clean Air Plan

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Contents

1.	Introduction	1
1.1	Background	1
1.2	Purpose of this report.....	1
2.	Data Collection and Use.....	2
2.1	Automatic Number Plate Recognition	2
2.2	Bus Fleet	3
2.3	Stated Preference Surveys	3
3.	Base Year Model	5
3.1	2013 Model	5
3.1.1	Highway Model	5
3.1.2	Public Transport Model	5
3.1.3	Variable Demand Model	6
3.2	2015 Model	6
3.2.1	Matrix Compliance / Fuel Splits	6
4.	Baseline Model	7
4.1	Compliance Year	7
4.2	Uncertainty Log.....	7
4.3	Model Constraints	8
4.4	Matrix Compliance / Fuel Type Splits	8
5.	Option Modelling.....	9
5.1	Primary Behavioural Responses	9
5.2	Secondary Behavioural Responses.....	11
6.	Interim Years	12
7.	Assessment Year Plus 10	13
8.	Links to Air Quality Model.....	14
8.1	Base/Baseline Data Use	14
8.2	Option Data Use	14
	Appendix A – Uncertainty Log.....	15

Acronyms and Abbreviations

ANPR	Automatic Number Plate Recognition
AQMA	Air Quality Management Area
BCC	Bristol City Council
CAZ	Clean Air Zone
Defra	Department for Environment, Food & Rural Affairs
DfT	Department for Transport
EFT	Emission Factor Toolkit
GBATS	Greater Bristol Area Transport Study
HGV	Heavy Goods Vehicle
IMD	Indices of Multiple Deprivation
JAQU	Joint Air Quality Unit
LGV	Light Goods Vehicle
NTM	National Transport Model
NTEM	National Trip End Model
PT	Public Transport
(Web)TAG	Transport Analysis Guidance

1. Introduction

1.1 Background

Poor air quality is the largest known environmental risk to public health in the UK¹. Investing in cleaner air and doing more to tackle air pollution are priorities for the EU and UK governments, as well as for Bristol City Council (BCC). BCC has monitored and endeavoured to address air quality in Bristol. Despite this, Bristol has ongoing exceedances of the legal limits for Nitrogen Dioxide (NO₂) and these are predicted to continue until 2022 without intervention.

In 2017 the government published a UK Air Quality Plan for Nitrogen Dioxide² setting out how compliance with the EU Limit Value for annual mean NO₂ will be reached across the UK in the shortest possible time. Due to forecast air quality exceedances, BCC, along with 27 other Local Authorities, was directed by Minister Therese Coffey (Defra) and Minister Jesse Norman (DfT) in 2017 to produce a Clean Air Plan (CAP). The Plan must set out how BCC will achieve sufficient air quality improvements in the shortest possible time. In line with Government guidance BCC is considering implementation of a Clean Air Zone (CAZ), including both charging and non-charging measures, in order to achieve sufficient improvement in air quality and public health.

Jacobs has been commissioned by BCC to produce an Outline Business Case (OBC) for the delivery of the CAP; a package of measures which will bring about compliance with the Limit Value for annual mean NO₂ in the shortest time possible in Bristol. The OBC assesses the shortlist of options set out in the Strategic Outline Case, and proposes a preferred option including details of delivery. The OBC forms a bid to central government for funding to implement the CAP.

1.2 Purpose of this report

This report sets out the transport modelling methodology which outlines the approach taken to model the transport impacts, including base and forecast years, baseline assumptions and scheme effects. It also sets out how the Euro standards have been calculated and forecast, together with how the traffic modelling outputs will feed into the air quality modelling.

¹ Public Health England (2014) Estimating local mortality burdens associated with particular air pollution.
<https://www.gov.uk/government/publications/estimating-local-mortality-burdens-associated-with-particulate-air-pollution>

² <https://www.gov.uk/government/publications/air-quality-plan-for-nitrogen-dioxide-no2-in-uk-2017>

2. Data Collection and Use

2.1 Automatic Number Plate Recognition

Permanent Automatic Number Plate Recognition (ANPR) camera data is available in and around Bristol City Centre and has been obtained for 2015 and 2017. In addition to these sites, surveys of another 20 ANPR sites were commissioned in 2017 to enhance the data collected at the permanent sites. Figure 2-1 shows the location of both the permanent and commissioned ANPR sites.

The 2017 ANPR surveys were undertaken in July 2017 due to the programme timescales of the Feasibility Study at that time. Data from the permanent cameras has been obtained for June and July 2017 in order to assess whether there are any substantial differences in fleet composition between a neutral month (June) and a summer month (July). This comparison showed that there were no material differences in compliance rates by vehicle type between the June and July datasets at the BCC permanent camera locations. Hence the dataset subsequently used in the analysis was the full July 2017 data, including both the BCC permanent sites and the 20 additional ANPR locations since this gave the greatest geographical coverage.

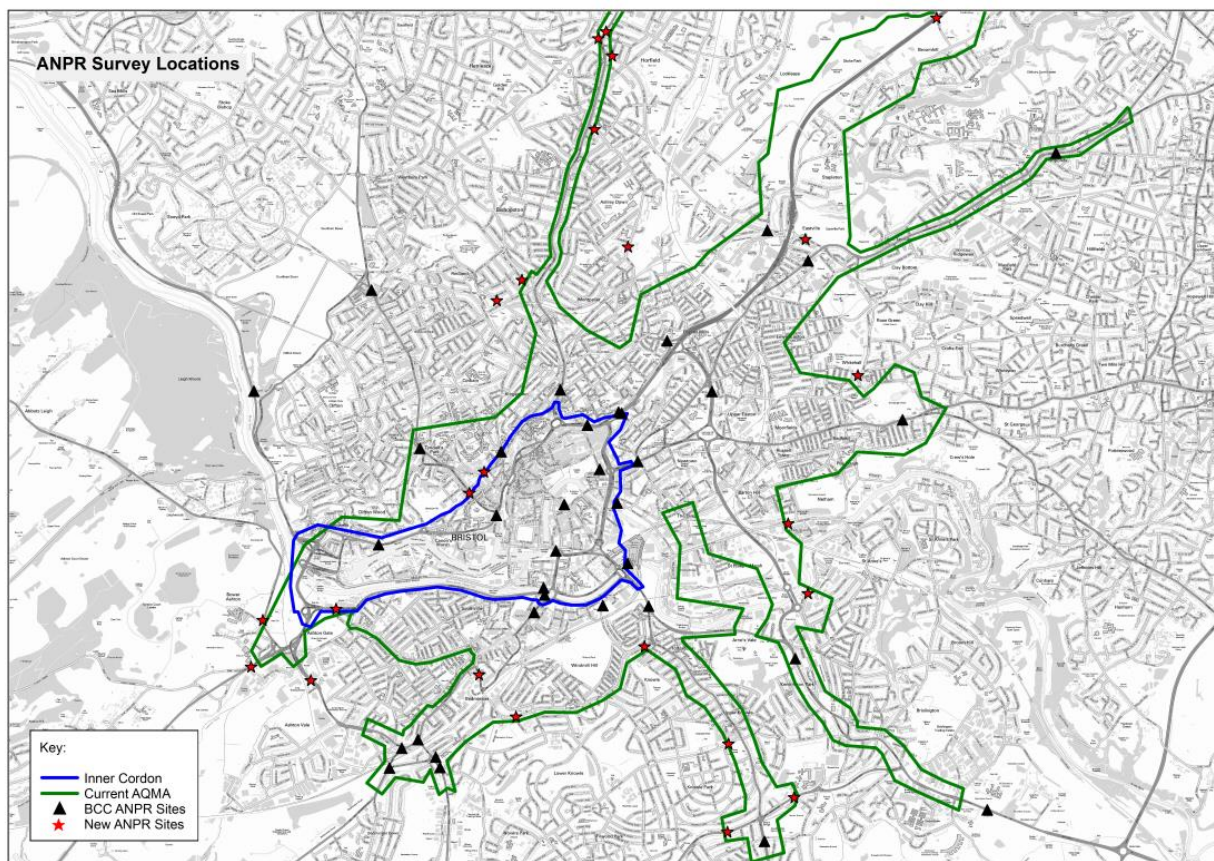


Figure 2-1: ANPR Survey Locations

The data collected has been used to determine the compliance/non-compliance splits of the current fleet when compared to the CAZ framework criteria; namely that non-compliant vehicles are those that do not meet the required Euro standards for a CAZ (i.e. petrol must be at least Euro 4 and diesel must be at least Euro 6). The registration data from the ANPR surveys have been cross referenced with data purchased from Carweb to gain information on vehicle type, fuel type and Euro standard. Both the base year and baseline (future year) splits have been determined from the 2017 ANPR data, adjusted to the assessment year using the fleet projection tool in the Emission Factor Toolkit for compliance splits and WebTAG projections for changes in fuel type splits. These splits have been applied to the model matrices for each user class (Cars, Taxis, LGVs, Coaches and HGVs).

The GBATS transport model does not have a separate taxi or coach user classes. Therefore, the ANPR data has been used to split the taxi fleet from the car matrices and the coaches from the HGV matrices, by applying global factors for each time period.

The data collected has also been used to determine the fuel type splits and Euro standard fleet mix for the base year and assessment year models. Therefore, in addition to splitting each user class by compliance within the transport model, this data has been used to add more detail to the modelled outputs via post processing to yield emissions standards inputs into the Air Quality Model.

Compliance segmentation of highway model trip matrices has been considered on a geographical basis, based on a review of compliance by area and trip pattern e.g. trips through or to the city centre. Hence the combined 2017 ANPR data has also been used to identify the relationship between fleet composition and movements through the city, by matching registration number plates between cameras and identifying the vehicle details.

Further details are provided in OBC-24 ANPR Analysis and Application technical note in Appendix E of the OBC.

2.2 Bus Fleet

Jacobs and BCC have held conversations with First bus, the main local operator, about the fleet composition by service for the base year, baseline and options to be assessed.

The bus fleet composition is handled outside the transport model via post processing of model outputs. This has enabled vehicle details for particular routes to be accounted for in both the current and future fleet.

2.3 Stated Preference Surveys

Stated preference surveys have been undertaken to determine local behavioural responses to the implementation of a CAZ. This provides Bristol based proportions for the responses to a CAZ by petrol and diesel non-compliant cars.

The main part of the survey are two stated preference exercises, the first asks the respondent to consider their most recent trip through the zone and how they would have responded from the following choices:

- Paid the charge and travelled as before;
- Made the same journey but changed mode;
- Not have made the journey at all;
- Made the same journey purpose but changed the destination;
- Made the same journey but changed route to avoid the zone; or,
- Made the same journey but switched to another compliant vehicle in their household (this option will only be shown if the respondent has indicated in an earlier question that such a vehicle exists).

Each respondent was asked to make this choice for one of two subgroups of 4 different charge levels.

The second exercise asks respondents the longer term choice of whether they would continue to pay the charge to travel in the zone or would pay upgrade the vehicle to a compliant one for a given hypothetical cost.

When completed, the survey data has undergone a cleaning process to identify and discard nonsensical questionnaires.

Statistical models have been fitted to the data and then combined in order to allow predictions to be made on behavioural changes to feed into the highway transport model. Specifically, of the non-compliant car user class that travels in the zone it has allowed the proportions to be established as follows:

- Travel as is (and pay the charge);
- Still travel as a non-compliant vehicle but reroute or change destination (to avoid the charge);
- Be moved to the compliant car userclass (due to replacing their non-compliant vehicle with a compliant one); and,
- Be removed from the highway matrix entirely (due to no longer making the car journey).

The above responses have also been established for diesel cars in relation to a diesel car ban, with the exception of the first response of paying a charge which would not be an option under this scenario. Strictly speaking, Euro 6 diesels were not covered by the stated preference survey however analysis of the survey results has shown there is little difference in response rates between diesel cars of different Euro class and hence the response rates are assumed to apply to Euro 6 as well for the purposes of the diesel ban test.

The survey also asks questions about respondents' existing vehicle replacement plans to inform both the likely average upgrade cost and the base change in vehicle fleet compliance rate regardless of the introduction of a Charging Zone.

3. Base Year Model

3.1 2013 Model

In 2013, BCC commissioned CH2M (now Jacobs) to update the existing GBATS model, primarily to assess the MetroWest scheme. The updated model is called the GBATS4 Metro Model (GBATS4M). The GBATS4M model consists of:

- A Highway Assignment Model representing vehicle based movements across the Greater Bristol area for a 2013 autumn weekday morning peak hour (08:00-09:00), an average inter-peak hour (10:00-16:00) and an evening peak hour (17:00-18:00);
- A Public Transport (PT) Assignment Model representing bus and rail based movements across the same area and time periods; and
- A five-stage multi-modal incremental Variable Demand Model (VDM) that forecasts changes in trip frequency and choice of main mode, time period of travel, destination, and sub-mode choice, in response to changes in generalised costs across the 12-hour period (07:00 – 19:00).

3.1.1 Highway Model

The GBATS4M highway model included an update of the trips to/from the city centre with roadside interview data. The model has been validated using the guidance, measures and criteria recommended in TAG M3.1. The following comparisons between modelled and observed data have been reported in the METROWEST Highway Model Local Model Validation Report:

- Total flows for cordons and screenlines, for light and all vehicles;
- Traffic Flows on individual links, for light and all vehicles; and
- Journey times (both cruise and net) for a range of key routes.

The analysis shows that the three models meet the acceptability guidelines:

- Regarding matrix estimation changes;
- For traffic flows on links across the total cordon and screenlines and at the individual calibration, and independent validation sites; and
- For journey times.

All three models (AM, inter-peak and PM) achieve acceptable levels of convergence and are stable based on delay/cost. Full details of the highway model update are detailed in the METROWEST Highway Model Local Model Validation Report.

The light and heavy goods vehicles had not previously been validated in short screenlines, using grouped counts. This has been checked as part of this study and reported in OBC-25 LGV and HGV Validation Technical Note in Appendix E of the OBC.

3.1.2 Public Transport Model

The GBATS4M PT model is closely integrated with the GBATS4M Highway model. The two models use different software packages (EMME and SATURN, respectively) but are identical in terms of road network structure, and zone system. The bus routes and frequencies in the PT model are used in the Highway model.

The validation process has been carried out in-line with current guidelines as set-out in the TAG M3.2. This states that validation should involve checks of:

- Validation of the trip matrix;
- Network and service validation; and
- Assignment validation.

Count data from a variety of sources has been compared to modelled flows in all represented time-periods. This has demonstrated that in the majority of cases the resulting validation has been good. Full details can be found in the METROWEST Public Transport Model Local Model Validation Report.

3.1.3 Variable Demand Model

The GBATS4M variable demand model is a five-stage multi-modal incremental model that calculates trip frequency, main mode choice, time period choice, destination choice and sub mode choice with regards to changes in generalised cost for both the highway and PT models. The variable demand model follows the current TAG guidance with respect to the structure of model, parameters used and realism tests, which demonstrate that it is fit for purpose to test the impact of proposed future year schemes. Full details of the demand model design methodology and calibration are outlined in the METROWEST Demand Model Report.

3.2 2015 Model

The air quality model base year is 2015 since the 2017 data was not available at the time the model was developed, and in 2016 there was a significant amount of disruption from roadworks in the city (related to the Metrobus scheme) which prevented some monitoring data from being collected and altered the typical travel patterns across the city.

As the transport model has a base year of 2013, a 2015 traffic model has been developed to support this by interpolating from the 2013 and 2021 models. It was therefore pragmatic to undertake disaggregation of the traffic model by vehicle compliance / fuel type in the 2015 model rather than 2013. The validation of the 2015 fleet composition will be reported within the T4 Transport Modelling Forecast Report.

3.2.1 Matrix Compliance / Fuel Splits

The base year highway model has 6 user classes: Car Non-business (Low Income), Car Non-business (Medium Income), Car Non-business (High Income), Car Business, LGV and HGV. These have been split into 16 user classes using the following methodology:

- Split the Car user classes into Car and Taxi user classes;
- Split the HGV user class into HGV and Coach user classes;
- Split Taxi, LGV, HGV and Coach matrices into compliant and non-compliant using the time period splits; and
- Further split the car user classes in two different ways, to test a charging CAZ scheme and a diesel car ban scheme respectively, as follows:
 - split into compliant / non-compliant cars
 - split into non-diesel / diesel cars.

Before the compliance / fuel splits were applied to the matrices, the car and HGV user classes were split to produce Taxi and Coach user classes respectively. Compliance splits have been calculated from the 2017 ANPR data worked back to 2015 using the 2015 vs 2017 relative differences in the EFT national Euro standard splits and applied to the 2015 matrices for each time period. Car fuel splits have been calculated from ANPR data, adjusted by WebTAG changes between 2015 and 2017.

For further details and splits used please refer to OBC-24 ANPR Analysis and Application technical note in Appendix E of the OBC.

4. Baseline Model

4.1 Compliance Year

Based on technical work undertaken to date for option sifting, 2021 has been identified as the earliest possible year that compliance could be achieved. Figure 4-1 shows the results from the assessment to date (as presented in the Strategic Outline Case³), which demonstrates that compliance is likely to be achieved at most locations in the year of opening. This analysis is based on the response rates provided by Defra in Table 4.4 of the National Air Quality Plan Technical Report which forecast a large proportion of drivers will replace their vehicles. The analysis undertaken assumes this response will be achieved in the same year as implementation, but in reality, it is unlikely to be an immediate response. The long-term nature of this key response, and the assessment of the potential to achieve compliance in the opening year support the need to assess the impact of the CAZ in 2021 rather than 2020.

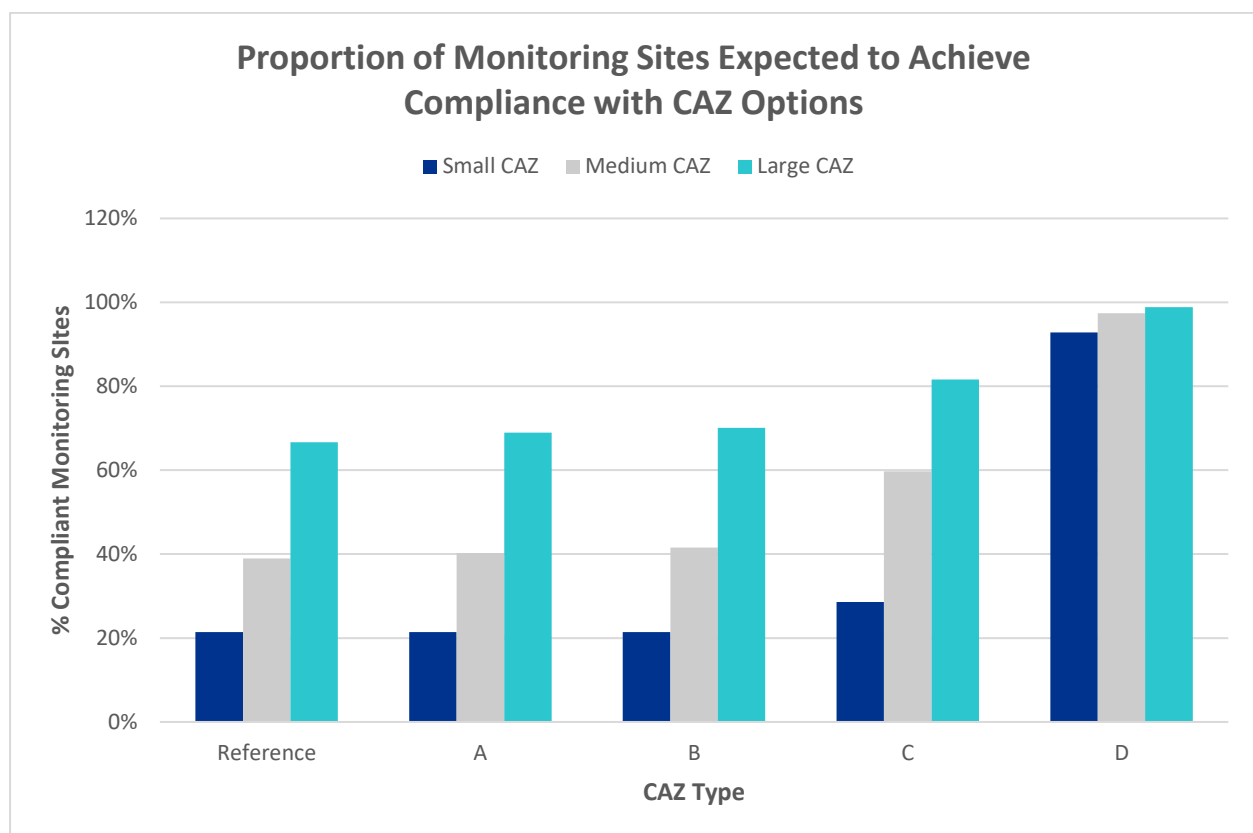


Figure 4-1: Compliance Year

4.2 Uncertainty Log

Appendix A shows the uncertainty log for the 2021/2036 forecast traffic models currently held. The uncertainty log was developed in 2015 therefore details for an up-to-date uncertainty log have been collated. This will cover both development and scheme assumptions. The baseline model (2021) has the most recent scheme assumptions for the assessment year modelled within it based on the Near Certain and More than Likely entries in the Uncertainty Log.

³ <https://www.cleanairforbristol.org/bristols-clean-air-plan/>

4.3 Model Constraints

A growth model has been developed within the Demand Model which creates highway and public transport future year demand matrices using the production and attraction trip end totals for the new development, a gravity model to distribute these new developments using base year travel costs and then converting to origin and destination format. These new trips are then added to the base year matrices. Three-dimensional matrix balancing to build full reference case matrices is undertaken, retaining the base year trip length distribution and control to the National Trip End model (NTEM, Temprow V7.2) OD growth for West of England and external zones.

These matrices are then run through the variable demand model until convergence is achieved within the limits specified by the DfT.

Light and heavy goods vehicle growth is based on forecasts produced by the National Transport Model (NTM) as advised by WebTAG. Goods vehicles are not subject to change via the demand model.

4.4 Matrix Compliance / Fuel Type Splits

The outturn baseline highway model from the variable demand model has 6 user classes: Car Non-business (Low Income), Car Non-business (Medium Income), Car Non-business (High Income), Car Business, LGV and HGV. These have been split into 16 user classes using the following methodology, as per the base year model:

- Split the Car user classes into Car and Taxi user classes;
- Split the HGV user class into HGV and Coach user classes;
- Split Taxi, LGV, HGV and Coach matrices into compliant and non-compliant using the time period splits; and
- Further split the car user classes in two different ways, to test a charging CAZ scheme and a diesel car ban scheme respectively, as follows:
 - split into compliant / non-compliant
 - split into non-diesel / diesel cars.

The fleet projection tool within the EFT version 8 has been used to project the euro standard splits, and associated compliance splits, from the 2017 ANPR data to the Baseline year of 2021. WebTAG values have been used to adjust the 2017 fuel splits from the ANPR data to 2021 values.

For further details and splits used please refer to OBC-24 ANPR Analysis and Application technical note in Appendix E of the OBC.

5. Option Modelling

5.1 Primary Behavioural Responses

The results from the stated preference surveys will determine the local proportions for each of the four primary responses for non-compliant cars to the implementation of the CAZ, which will replace the percentages shown for cars in Figure 5-1. For non-compliant light goods vehicle, employer's business responses from the stated preference surveys were used. For heavy goods vehicles the responses will be determined by looking at the upgrade cost compared to the charge on entering the CAZ. For coaches, the proportions will be used from the 'Draft UK Air Quality Plan for tackling nitrogen dioxide' May 2017, Table 4.4, as shown in Figure 5-1. Bus and Taxi responses will be based on talks with Bristol City Council and the service providers.

Table 4.4: Proportions of non-compliant trips by response to the presence of a CAZ

	Cars	LGVs	HGVs	Buses	Coaches
Pay charge	7%	20%	9%	0%	16%
Avoid zone	7%	8%	0%	0%	0%
Cancel journey / change mode	21%	8%	9%	6%	13%
Replace vehicle	64%	64%	83%	94%	72%

Figure 5-1: Table 4.4 from the Draft UK Air Quality Plan for tackling Nitrogen Dioxide – Technical Report

Charging CAZ

For a charging CAZ the primary responses will be modelled using the GBATS4M SATURN highway model with the following methodology:

- Pay Charge – no change to the highway model
- Avoid Zone – a charge is applied to each inbound link to replicate the percentage change of non-compliant cars, LGVs and HGV's within the CAZ;
- Cancel journey / change mode – modelled by reducing the number of trips made by non-compliant vehicles to/from and within the CAZ area, to replicate the required percentage change from the baseline case; and
- Replace Vehicle – an adjustment to the matrices by extracting select cordon matrices for the non-compliant trips and switching the required proportion of replace vehicles from the non-compliant matrices to the compliant matrices.

Diesel Ban with bus and taxi fleet improvement

For a diesel ban scheme the primary responses for car trips will be modelled using the highway model with the following methodology:

- Avoid Zone – determined by the model assignment for cars, where through trips can reroute;
- Cancel journey / change mode – modelled by reducing the number of diesel car trips to/from and within the CAZ area, to replicate the required percentage change from the baseline case; and

- Replace Vehicle – modelled by switching the required proportion of vehicles from the diesel matrices to the non-diesel matrices, for trips to/from and within the CAZ area, to replicate the required percentage change from the baseline case.

Note for cars, the cancel trip/change mode and replace vehicle responses derived from the stated preference surveys have been proportioned so that the total response rate totals 100 per cent for all trips to/from and within the CAZ boundary.

5.2 Secondary Behavioural Responses

In addition to the primary behavioural responses, JAQU have made some further assumptions on secondary responses for a charging CAZ for cars which we will adopt in our analysis. JAQU's assumptions from paragraph 3.3 of the Evidence Package are as follows:

- The 'upgrade vehicle' response will result in 75% replacing their non-compliant vehicle to a second-hand compliant vehicle;
- 25% will scrap their vehicle and buy a new compliant one of the same fuel type; and
- For those replacing with a second-hand vehicle, 75% will switch from diesel and petrol while the remainder will keep the same fuel type.

For the diesel ban scenario, secondary responses are used as follows:

- 75% of the upgrade vehicle response will be replacing their diesel car with a second-hand petrol one
- 25% of the upgrade vehicle response will be replacing their diesel car with a new petrol one.

6. Interim Years

The Evidence Package guidance states that projection for all years between the base year and the compliance year should be included, via interpolation methods. This is to show a clear pathway to compliance in the shortest time possible. However, where infrastructure changes are expected to have a significant impact on air quality there may be a need to model additional interim years. In the case of Bristol, the opening of the South Bristol Link road in 2017 is an infrastructure scheme that would fall into this category since it has altered the routing of vehicles in south Bristol.

We have focussed our analysis on the earliest year of expected compliance (2021) as we have demonstrated that compliance is unlikely to be achieved prior to this. The 2021 model includes the South Bristol Link Road and hence will include the effects of this scheme on both the traffic and air quality results. Additional modelling of interim years would provide a more detailed understanding of the air quality projections over the next few years but will not assist in identifying the scheme most likely to achieve compliance in the shortest timescales possible. We therefore have not assessed interim years between 2015 and 2021.

7. Assessment Year Plus 10

JAQU have advised emissions of the baseline and each options assessment (NO₂, particulate matter and CO₂) should also be calculated for 10 years after the compliance year. This is needed to compare the long-term costs and benefits of options that are equally effective in terms of achieving compliance in the shortest time possible.

To produce traffic flows for the assessment year plus 10 (2031), we propose to use a new demand model forecast year of 2031 to create 2031 matrices, which will be re-assigned before extracting data for the Air Quality Model.

8. Links to Air Quality Model

8.1 Base/Baseline Data Use

Link based data from the base and baseline highway assignment model has been output for Cars, Taxis, LGVs, Coaches and HGVs split by Euro standards compliance and / or fuel type as required into a spreadsheet. The highway model outputs also include buses (not split by compliance) and net speeds by link. Buses are split into compliant / non-compliant during post processing of highway model outputs before being input to the EFT.

The peak hourly flows (AM, IP and PM) have been converted into AADT using factors derived from local ATC data. Percentages of cars (by fuel type using ANPR data for the charging CAZ test), Taxis, LGVs, HGVs (rigid and artic) and Buses and coaches have been calculated from the flow data by link from the highway model. Spreadsheets were produced to contain data required for input to the EFT as follows:

- For the CAZ D test, separate spreadsheets for compliant and non-compliant vehicles were produced and run through separate EFT's so that varying proportions of compliant / non-compliant vehicles could be reflected spatially across the modelled area by link.
- For the diesel ban test, separate spreadsheets were compiled for EFT inputs as above except that cars were split by diesel / non-diesel rather than CAZ compliance.

The disaggregation of the link-based data has been undertaken via post processing before input into the Air Quality model. This has been achieved using the following methodology:

- Buses split using information provided to us by First Bus, using Euro Standard of vehicle by service, which can then be applied to links;
- Cars and LGVs split by fuel type derived from the ANPR data (note, for the diesel ban test cars are already split by fuel type in the transport model so do not need to be split again);
- HGVs split by rigid and artic from the ANPR data;
- Motor cycles excluded due to limited information;
- Separate EFT's split by compliance / fuel type populated from the transport model;
- Within each EFT, Euro Standard splits for the assessment year are overwritten with values derived from ANPR data projected to the modelled year.

The base and baseline year splits have been derived from the 2017 ANPR data, adjusted to the assessment years. For full details please refer to OBC-24 ANPR Analysis and Application technical note in Appendix E of the OBC.

8.2 Option Data Use

A similar approach will be taken to the baseline data processing for the option processing insofar that there will be separate EFT input tables split by compliance / fuel type (for CAZ / diesel ban tests respectively) containing the required link based data.

The secondary behavioural responses of what type of car the replacement will be will also be applied via post processing with changes applied to the Euro Standard splits input into the EFT.

Appendix A – Uncertainty Log

									2014 - 2036									
UA	Site Description	Address	Policy Area	Ward	Planning Status	Development Status	Certainty	Hectares	Office Floor space (sq m)	Office no. jobs	Industry Floor Space (sq m)	Industry no. jobs	Retail Floor space (sq m)	Retail no. jobs	Schools Floor space (sq m)	Schools no. students	Other Floor space (sq m)	Other no. jobs
B&NES		Manvers Street, Bath	Bath	Abbey	Future Allocation	None	RF		9000	750	0	0	0	0	0	0	0	0
B&NES		Avon Street, Bath	Bath	Abbey	Future Allocation	None	RF		18000	1500	0	0	0	0	0	0	0	0
B&NES		South Quays, Bath	Bath	Widcombe	Future Allocation	None	RF		16000	1333	0	0	0	0	0	0	0	0
B&NES		South Quays II, Bath	Bath	Widcombe	Future Allocation	None	RF		17500	1458	0	0	0	0	0	0	0	0
B&NES		Green Park, Bath	Bath	Widcombe	Future Allocation	None	RF		15000	1667	0	0	20000	1000	0	0	0	0
B&NES		Bath City Centre	Bath	Abbey	Future Allocation	None	H		0	0	0	0	0	0	0	0	0	0
B&NES		Bath Press, Bath	Bath	Westmoreland	Future Allocation	None	RF		3000	250	0	0	0	0	0	0	0	0
B&NES		Roseberry Place, Bath	Bath	Westmoreland	Planning Application	None	RF		5000	417	0	0	0	0	0	0	0	0
B&NES		Former MoD Foxhill	Bath	Odd Down	Pre-Planning Application	None	ML		0	0	0	0	0	0	0	200	0	0
B&NES		Somerdale, Keynsham	Keynsham	Keynsham North	Planning Status	Partly under construction	ML		10000	833	0	0	0	0	0	0	0	0
BCC	Extensions to the existing regional Distribution Centre (Use Class B8)	Accolade Park Kings Weston Lane Avonmouth Bristol BS11 9FG	Avonmouth and Bristol Port	Avonmouth	Permitted	Not Started	NC	15.00	0	0	9092	123	0	0	0	0	0	0
BCC		Accolade Park Kings Weston Lane Avonmouth Bristol BS11 9FG	Avonmouth and Bristol Port	Avonmouth	Permitted	Not Started	NC	15.00	0	0	-702	-10	0	0	0	0	0	0
BCC	New industrial buildings associated with outline planning application for redevelopment to provide new office campus, research, development and manufacturing building, new staff facilities	Airbus UK Golf Course Lane Bristol BS99 7AR	Northern Arc	Southmead	Permitted	Not Started	NC	10.66	0	0	6388	160	0	0	0	0	0	0
BCC	Redevelopment to provide new office campus, research, development and manufacturing building, new staff facilities revised parking and access to A38.	Airbus UK Golf Course Lane Bristol BS99 7AR	Northern Arc	Southmead	Permitted	Not Started	NC	10.66	0	0	0	0	0	0	0	0	0	0
BCC	Residential development of up to 80 dwellings, including the demolition of Lewis House and change of use of Phoenix House to 3 no. 2-bed and 3 no. 1-bed flats. (Major application)	Anderson And Leese Building Brentry Hospital Brentry Lane Bristol BS10 6NB	Northern Arc	Henbury	Permitted	Not Started	NC	2.07	0	0	0	0	0	0	0	0	-900	-9
BCC	Ground floor and 1st floor classroom block extension to existing school,	Ashley Down Primary School Arthur Milton Street Bristol BS7 9JT	Rest of Bristol	Bishopston	Permitted	Under Construction	NC	1.08	0	0	0	0	0	0	2307	210	0	0
BCC	Proposed change of use of the existing hangar from Use Class B2 (General Industrial) to Use Class B8 (Storage or Distribution),	BAE Systems West Way Bristol BS99 7AR	Northern Arc	Southmead	Permitted	Not Started	NC	3.36	0	0	35585	483	0	0	0	0	0	0
BCC		BAE Systems West Way Bristol BS99 7AR	Northern Arc	Southmead	Permitted	Not Started	NC	-3.36	0	0	-35585	-483	0	0	0	0	0	0

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									Office Floor space (sq m)	Office no. jobs	Industry Floor Space (sq m)	Industry no. jobs	Retail Floor space (sq m)	Retail no. jobs	Schools Floor space (sq m)	Schools no. students	Other Floor space (sq m)	Other no. jobs
BCC	Alterations to Unit A including its partial demolition, insertion of mezzanine floor and re-cladding together with the erection of unit for class D2 (gym)	Bath Road Retail Park Bath Road Brislington Bristol BS4 3LP	South Bristol	Brislington West	Permitted	Not Started	NC	1.35	0	0	0	0	1742	78	0	0	1958	18
BCC		Bath Road Retail Park Bath Road Brislington Bristol BS4 3LP	South Bristol	Brislington West	Permitted	Not Started	NC	-1.35	0	0	0	0	-2831	-127	0	0	0	0
BCC	Proposed new teaching block, reception extension	Begbrook Primary School Begbrook Drive Bristol BS16 1HG	Rest of Bristol	Frome Vale	Permitted	Not Started	NC	2.17	0	0	0	0	0	0	804	210	0	0
BCC	Housing with mixed-uses. A proportion of mixed-use development including business use	Blackberry Hill Hospital, Manor Road, Fishponds	Rest of Bristol	Frome Vale	Allocated	Not started	RF	9.11	0	0	0	0	500	22	0	0	0	0
BCC	New pool hall extension to include: 25m pool; learner pool; changing area and ancillary spaces to the rear of the existing academy and a proposed extension of the existing fitness gym.	Bristol Brunel Academy Speedwell Road Bristol BS15 1NU	Rest of Bristol	Hillfields	Permitted	Not Started	NC	1.36	0	0	0	0	0	0	1441	0	0	0
BCC	Demolition of the laundry building, former nurses accommodation, physiotherapy and William Lloyd unit, along with modern accretions to other listed buildings on the site and erection of a range of buildings from two to seven storeys and conversion of the remaining buildings to provide 190 residential units and 2,442 metres square commercial floorspace comprising A1, A2, A3, A4, B1 and D2	Bristol General Hospital Guinea Street Bristol BS1 6SY	Bristol City Centre	Cabot	Permitted	Not Started	NC	1.54	0	0	0	0	1628	73	0	0	814	8
BCC		Bristol General Hospital Guinea Street Bristol BS1 6SY	Bristol City Centre	Cabot	Permitted	Not Started	NC	1.54	0	0	0	0	0	0	0	0	-17911	-169
BCC	Industrial development within Use Classes B2 and B8.	Cabot Park Plots P1, P7B and P8 Poplar Way East Lawrence Weston Bristol	Avonmouth and Bristol Port	Avonmouth	Permitted	Not Started	NC	4.04	0	0	14552	197	0	0	0	0	0	0
BCC	Extension to rear of main hospital building; extension to curtilage former stable block;	Cossham Hospital Lodge Road Bristol BS15 1LF	Rest of Bristol	Hillfields	Permitted	Under Construction	NC	1.62	0	0	0	0	0	0	0	0	1144	11
BCC		Cossham Hospital Lodge Road Bristol BS15 1LF	Rest of Bristol	Hillfields	Permitted	Under Construction	NC	-1.62	0	0	0	0	0	0	0	0	-1509	-14
BCC	Outline application for the demolition of the existing building and redevelopment of the site for 7380 square metres of B1 office use	Diamonite Industrial Park Goodneston Road Bristol BS16 3JX	Rest of Bristol	Hillfields	Permitted	Not Started	NC	1.08	7380	523	0	0	0	0	0	0	0	0

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BCC		Diamonite Industrial Park Goodneston Road Bristol BS16 3JX	Rest of Bristol	Hillfields	Permitted	Not Started	NC	-1.08	-1800	-128	-5900	-148	0	0	0	0	0	0
BCC	Outline planning application for a 10 year masterplan of the campus for the future development of the faculty buildings, amenities and environs.	Faculty Of Art Media And Design University Of The West Of England Bristol Kennel Lodge Road Bristol BS3 2JT	South Bristol	Southville	Permitted	Not Started	NC	2.94	0	0	0	0	0	0	0	0	8453	80
BCC		Faculty Of Art Media And Design University Of The West Of England Bristol Kennel Lodge Road Bristol BS3 2JT	South Bristol	Southville	Permitted	Not Started	NC	-2.94	0	0	0	0	0	0	0	0	-6534	-62
BCC	Reserved Matters for 5,601 sqm employment space	Filwood Park Hengrove Way Bristol	South Bristol	Filwood	Permitted	Not Started	NC	1.97	5601	397	0	0	0	0	0	0	0	0
BCC	Mixed use development, including the creation of a new park, erection of up to 150 no. residential units, 8000 sqm of employment floorspace (Use Class B1/B2)	Filwood Park Hengrove Way Bristol	South Bristol	Filwood	Permitted	Not Started	NC	5.10	1200	85	1200	30	0	0	0	0	0	0
BCC	Re-development to provide a mixed use scheme comprising business (B1), 398 no. residential apartments (C3), retail units (A1), professional services (A2), food and drink uses (A3, A4 & A5), creche (D1), health and leisure club (D2) and a micro brewery (Sui Generis)	Finzel's Reach (former Bristol Brewery) Counterslip Bristol BS1 6BX	Bristol City Centre	Lawrence Hill	Permitted	Not Started	NC	1.79	25963	1839	1587	40	3750	168	0	0	2760	26
BCC	Construction of a transit store of approximately 8500sq.m.	Former BP Site Avonmouth Docks St Andrews Road Avonmouth Bristol BS11 9DQ	Avonmouth and Bristol Port	Avonmouth	Permitted	Not Started	NC	5.40	0	0	8500	101	0	0	0	0	0	0
BCC	Construction of a transit store of approximately 10,130 sq.m.	Former Coal Yard Royal Edward Dock Bristol BS11 9BT	Avonmouth and Bristol Port	Avonmouth	Permitted	Not Started	NC	1.74	0	0	10130	120	0	0	0	0	0	0
BCC	Redevelopment of part of existing industrial site for a Bio-fuel, renewable energy plant	Former Columbian Chemicals (Sevalco) Severn Road Avonmouth Bristol BS11 0YU	Avonmouth and Bristol Port	Avonmouth	Permitted	Not Started	NC	4.30	0	0	2807	70	0	0	0	0	0	0
BCC	Housing, Commercial, Other	Former Diesel Depot / Arena site, Bath Road	Bristol City Centre	Windmill Hill	Allocated	Not started	RF	4.05	6100	432	0	0	4000	179	0	0	26400	249

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BCC	Redevelopment of the site to provide a building comprising 2,650 sq m (gross) of employment floorspace (class B1/B2/B8) and/or class D1 floorspace with associated parking, 41 no. senior living units with ancillary accommodation (Class C2) with associated parking, a 45 bed care home with associated parking, 13 no. houses and 29 no. one and two bedroom flats	Former Parnalls Works corner of Filwood Road and Goodneston Road Fishponds Bristol BS16 3JX	Rest of Bristol	Hillfields	Permitted	Not Started	NC	1.80	1325	94	1325	33	0	0	0	0	380	4
BCC	mixed use development within two buildings (A and B) comprising ground floor commercial use (A1, A2, A3, A4, A5, B1, D1 or D2) with residential units (total 107) and office/studio space (B1) above.	Former Post Office Sorting Depot Cattle Market Road Bristol BS1 1BX	Bristol City Centre	Lawrence Hill	Permitted	Not Started	NC	1.12	12198	864	0	0	1594	71	0	0	797	8
BCC	The construction and operation of a Resource Recovery Centre, including a Material Recycling facility, an Energy-from-Waste and Bottom Ash facility, associated Office Visitor Centre	Former Sevalco Site (North) Severn Road Avonmouth Bristol BS11 0YU	Avonmouth and Bristol Port	Avonmouth	Permitted	Not Started	NC	8.54	0	0	26383	660	0	0	0	0	0	0
BCC	The modernisation of the County Cricket ground to include demolition of existing Mound & Jessop stands & associated toilet blocks, provision of 7500 permanent seats incorporating bar, toilet block facilities & 351 surface car parking spaces, a 147 dwelling apartment building incorporating 111 basement car parking spaces, a 217msq club shop, 150msq of office space	Gloucestershire County Cricket Club Nevil Road Bristol BS7 9EJ	Rest of Bristol	Bishopston	Permitted	Under Construction	NC	4.73	150	11	0	0	467	21	0	0	2000	19
BCC	Removal of four temporary classrooms and replacement with four permanent classrooms and ancillary accommodation.	Henleaze Junior School Park Grove Bristol BS9 4LG	Rest of Bristol	Henleaze	Permitted	Not Started	NC	4.39	0	0	0	0	0	0	0	0	630	6
BCC		Henleaze Junior School Park Grove Bristol BS9 4LG	Rest of Bristol	Henleaze	Permitted	Not Started	NC	-4.39	0	0	0	0	0	0	0	0	-272	-3
BCC	New office development associated with: Demolition of existing factory buildings (use class B1 and B2) and erection of new office building (use class B1)	Imperial Tobacco Ltd Winterstoke Road Bristol BS3 2LJ	South Bristol	Bedminster	Permitted	Under Construction	NC	1.93	9717	688	0	0	0	0	0	0	0	0
BCC		Imperial Tobacco Ltd Winterstoke Road Bristol BS3 2LJ	South Bristol	Bedminster	Permitted	Under Construction	NC	-1.93	0	0	-13670	-342	0	0	0	0	0	0

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BCC	Change of use of part of the building to a nursery; erection of new, rear elevation; construction of an all-weather sports pitch;	Imperial Tobacco Ltd Winterstoke Road Bristol BS3 2LJ	South Bristol	Bedminster	Permitted	Not Started	NC	-1.26	-2785	-197	0	0	0	0	0	0	0	0
BCC	Change of use from a business and conference centre, including a restaurant, function room facilities	Kings Weston House Kings Weston Lane Lawrence Weston Bristol BS11 0UR	Northern Arc	Kingsweston	Permitted	Not Started	NC	1.33	0	0	0	0	0	0	0	0	425	4
BCC	Change of use from a business and conference centre, including a restaurant, function room facilities	Kings Weston House Kings Weston Lane Lawrence Weston Bristol BS11 0UR	Northern Arc	Kingsweston	Permitted	Not Started	NC	-1.33	-425	-30	0	0	0	0	0	0	0	0
BCC	a mixed use development totaling 406 residential apartments, 17 live/work units,	"Lakeshore" (Former Office Block To Wills Factory) Hengrove Way Bristol BS14 0HR	South Bristol	Hartcliffe	Permitted	Not Started	NC	4.67	1611	114	0	0	0	0	0	0	0	0
BCC	Mixed use development comprising residential units, offices, leisure, retail and food and drink uses, education, cultural and crèche facilities.	Land At Canons Marsh (incl. car park & Brandons Yard) Anchor Road City Centre Bristol	Bristol City Centre	Cabot	Permitted	Under Construction	NC	1.39	8632	611	0	0	436	20	0	0	0	0
BCC	Subdivision of existing industrial unit and construction of 3 no. industrial buildings (flexible B1(c), B2 and B8 Use Classes).	Land At Chittening Industrial Estate Bristol BS11 0YB	Avonmouth and Bristol Port	Avonmouth	Permitted	Under Construction	NC	3.75	0	0	14524	363	0	0	0	0	0	0
BCC		Land At Chittening Industrial Estate Bristol BS11 0YB	Avonmouth and Bristol Port	Avonmouth	Permitted	Under Construction	NC	-3.75	0	0	-16722	-418	0	0	0	0	0	0
BCC	Housing, community use and retail	Land at former Lawrence Weston Campus of City of Bristol College, Lawrence Weston	Northern Arc	Kingsweston	Allocated	Not started	RF	2.45	0	0	0	0	1800	81	0	0	1200	11
BCC	industrial redevelopment, comprising B1(b), B1(c) and B8 uses. (Major application)	Land At Rockingham Park Smoke Lane Bristol	Avonmouth and Bristol Port	Avonmouth	Permitted	Not Started	NC	5.99	5945	421	8918	121	0	0	0	0	0	0
BCC	mixed use scheme including residential, retail, office, community workspace, hotel and leisure uses (Classes C1, C2, C3, A1, A2, A3, B1, D1, D2)	Land At Wapping Wharf Wapping Road Bristol	Bristol City Centre	Cabot	Permitted	Not Started	NC	2.68	1350	96	0	0	2096	94	0	0	3048	29
BCC	Outline application for an employment development within Use Classes B1 (Light Industrial), B2 (General Industrial) and B8 (Storage and Distribution)	Land North Of SCA Factory South Side Of Deep Pit Road Bristol	Rest of Bristol	Hillfields	Permitted	Not Started	NC	1.24	3729	264	0	0	0	0	0	0	0	0

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BCC	Outline application for mixed use redevelopment of land to comprise a maximum of 32,442 sq m of floorspace; up to 21,892 sq m residential floorspace (a maximum of 250 separate units); up to 8,400sq m of commercial floorspace (B1 Class); up to 2,000sq m of commercial floorspace (A1, A2, A3, A4 or A5); a doctors surgery of up to 150 sq m (D1);	Land Surrounding Dove Lane St Pauls Bristol	Bristol City Centre	Ashley	Permitted	Not Started	NC	1.72	8400	595	0	0	2000	89	0	0	150	1
BCC	Community use (including school) and housing with business. The site should provide 2,000 to 3,000m² of business and / or community facilities.	Marksbury Road College Site	South Bristol	Windmill Hill	Allocated	Not started	RF	2.34	900	64	0	0	150	7	2900	480	1100	10
BCC	New build and classroom extension	May Park Primary School Coombe Road Bristol BS5 6LE	Rest of Bristol	Eastville	Permitted	Under Construction	NC	2.93	0	0	0	0	0	0	4288	60	0	0
BCC		May Park Primary School Coombe Road Bristol BS5 6LE	Rest of Bristol	Eastville	Permitted	Under Construction	NC	-2.93	0	0	0	0	0	0	-400	0	0	0
BCC	Proposed extension and refurbishment	Millpond Primary School Baptist Street Bristol BS5 0YR	Inner East	Lawrence Hill	Permitted	Under Construction	NC	1.61	0	0	0	0	0	0	103	0	0	0
BCC	Extension to the western elevation of the store	Morrisons 692-716 Fishponds Road Fishponds Bristol BS16 3UE	Rest of Bristol	Frome Vale	Permitted	Not Started	NC	2.57	0	0	0	0	728	33	0	0	0	0
BCC	Refurbishment of wing of secondary school and new build extension to create primary school	Orchard School Filton Road Bristol BS7 0XZ	Northern Arc	Horfield	Permitted	Under Construction	NC	10.98	0	0	0	0	0	0	0	210	240	2
BCC	Outline application for the retention of Endemol buildings, demolition of other existing buildings and erection of new buildings of 2-7 storeys built on top of new undercroft car park to provide employment floor space (B1); Retail floor space (A1, A3 & A4); up to 11 live/work units; and up to 210 residential units (C3); with revised vehicular access off Bath Road. (Major application)	Paintworks Phase III site, Bath Road	South Bristol	Brislington West	Permitted	Not Started	NC	2.40	11060	783	0	0	1280	57	0	0	6674	63
BCC		Paintworks Phase III site, Bath Road	South Bristol	Brislington West	Permitted	Not Started	NC	-2.40	0	0	-10200	-255	0	0	0	0	0	0
BCC	Outline planning application - Erection of Public House.	Plot 1 - Phase 6 Imperial Park South Side Of Main Access Wills Way Bristol	South Bristol	Hartcliffe	Permitted	Not Started	NC	1.08	0	0	0	0	1200	54	0	0	0	0

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BCC	Outline planning application - Erection of business units (Use Class B1)	Plot 3 - Phase 6 Imperial Park South Side Wills Way Bristol	South Bristol	Hartcliffe	Permitted	Not Started	NC	1.44	2400	170	0	0	0	0	0	0	0	0
BCC	Proposed Bristol Resource Recovery Centre	Plot M2 (Merebank) Kings Weston Lane Avonmouth Bristol BS11 8AQ	Avonmouth and Bristol Port	Avonmouth	Permitted	Under Construction	NC	7.32	0	0	27524	374	0	0	0	0	0	0
BCC	Redevelopment of the former Rhodia chemical works to provide a chilled distribution unit (Use Class B8) and an ancillary service centre (Use Class B2)	Portside (Former Rhodia Works) St Andrews Road Avonmouth Bristol BS11 9YF	Avonmouth and Bristol Port	Avonmouth	Permitted	Under Construction	NC	17.15	0	0	57195	1430	0	0	0	0	0	0
BCC	Mixed use development comprising 4 hectares of residential development to be built at a minimum density of 30 dwellings per hectare and 0.3 hectares of employment land for class B1 (business) use.	Riverwood International Packaging Ltd Filwood Road Bristol BS16 3SB	Rest of Bristol	Hillfields	Permitted	Not Started	NC	4.36	1500	106	0	0	0	0	0	0	0	0
BCC		Riverwood International Packaging Ltd Filwood Road Bristol BS16 3SB	Rest of Bristol	Hillfields	Permitted	Not Started	NC	-4.36	0	0	-26577	-361	0	0	0	0	0	0
BCC	mixed use comprising around 145 residential units (Use Class C3), around 5000sqm of employment floorspace (Use Classes B1(b) (c), B8) and around 600 sqm of retail floorspace (Use Classes A1/A2/A3).	Sainsburys Winterstoke Road Bristol BS3 2NS	South Bristol	Bedminster	Permitted	Not Started	NC	4.05	2500	177	2500	48	8367	374	0	0	0	0
BCC		Sainsburys Winterstoke Road Bristol BS3 2NS	South Bristol	Bedminster	Permitted	Not Started	NC	-4.05	0	0	0	0	-8367	-374	0	0	0	0
BCC	Erection of a steel clad portal framed building.	Sims Metal Royal Edward Dock Bristol BS11 9BT	Avonmouth and Bristol Port	Avonmouth	Permitted	Not Started	NC	1.30	0	0	945	13	0	0	0	0	0	0
BCC	Construct a single storey social centre.	Southmead Community Sport Pen Park Sports Pavilion Jarratts Road Bristol BS10 6WF	Northern Arc	Southmead	Permitted	Not Started	NC	5.91	0	0	0	0	0	0	0	0	360	3
BCC	construct the new acute North Bristol and Community hospital	Southmead Hospital Southmead Road Bristol BS10 5NB	Northern Arc	Horfield	Permitted	Under Construction	NC	18.40	0	0	0	0	0	0	0	0	145515	1374
BCC		Southmead Hospital Southmead Road Bristol BS10 5NB	Northern Arc	Horfield	Permitted	Under Construction	NC	-18.40	0	0	0	0	0	0	0	0	-70452	-665
BCC	Housing with mixed-uses	St Matthias Campus, College Road, Fishponds.	Rest of Bristol	Frome Vale	Allocated	Not started	RF	5.62	0	0	0	0	0	0	0	0	927	9
BCC		St Matthias Campus, College Road, Fishponds.	Rest of Bristol	Frome Vale	Allocated	Not started	RF	-5.62	0	0	0	0	0	0	0	0	-5469	-52
BCC	Proposed single storey extension.	Stax Trade Centre Passage Road Henbury Bristol BS10 7JB	Northern Arc	Henbury	Permitted	Not Started	NC	1.38	0	0	653	16	0	0	0	0	0	0

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BCC	Provide a new 18,000 seated (18,500 Capacity) stadium and ancillary accommodation, hotel (84 rooms), 99 student flats (546 rooms), restaurant, convenience store, offices	The Memorial Stadium Filton Avenue Bristol BS7 0AQ	Rest of Bristol	Bishopston	Permitted	Not Started	NC	3.90	1548	110	0	0	370	17	0	0	12633	119
BCC		The Memorial Stadium Filton Avenue Bristol BS7 0AQ	Rest of Bristol	Bishopston	Permitted	Not Started	NC	-3.90	0	0	0	0	0	0	0	0	-3500	-33
BCC	Redevelopment of land fronting St. Michaels Hill and Tyndalls Avenue to provide academic/educational facilities (Use Class D1)	University Of Bristol Site St Michaels Hill & Tyndall Avenue Bristol BS2 8BH	Bristol City Centre	Cabot	Permitted		NC	1.26	0	0	0	0	0	0	0	0	21163	200
BCC		University Of Bristol Site St Michaels Hill & Tyndall Avenue Bristol BS2 8BH	Bristol City Centre	Cabot	Permitted		NC	-1.26	0	0	0	0	0	0	0	0	-9200	-87
BCC	Employment & Other (hotel)	Bristol and Exeter Yard (TCN) site	Bristol City Centre	Lawrence Hill	Allocated	Not started	RF	1.11	1000	71	0	0	0	0	0	0	3000	71
BCC	Potential Future Development site Avonmouth (Industrial)	Former GKN Aerospace, Atlantic Road	Avonmouth and Bristol Port	Avonmouth	Allocated	Not started	RF	4.86	0	0	29000	394	0	0	0	0	0	0
BCC	Potential Future Development site Avonmouth (Industrial)	Former Texaco Oil Depot	Avonmouth and Bristol Port	Avonmouth	Allocated	Not started	RF	3.73	0	0	22300	303	0	0	0	0	0	0
BCC	Housing with mixed-uses.	Glenside Campus, Blackberry Hill, Fishponds	Rest of Bristol	Frome Vale	Allocated	Not started	RF	6.83	0	0	0	0	500	22	0	0	0	0
BCC	Housing, offices and open space in the form of a large high quality park	Hengrove Park	South Bristol	Hengrove	Allocated	Not started	RF	49.84	30000	2125	0	0	0	0	0	0	0	0
BCC	Community use, open space, business and housing.	Knowle West Health Park, Downton Road	South Bristol	Filwood	Allocated	Not started	RF	4.48	0	0	5200	130	0	0	0	0	0	0
BCC	Housing, Offices	Land and buildings south of Brunel Lock Road, including A-Bond Warehouse	Bristol City Centre	Cabot	Allocated	Not started	RF	3.15	9600	680	0	0	0	0	0	0	0	0
BCC		Land and buildings south of Brunel Lock Road, including A-Bond Warehouse	Bristol City Centre	Cabot	Allocated	Not started	RF	3.15	0	0	-17100	-192	0	0	0	0	0	0
BCC	Housing and light industry	Land at and adjacent to Malago House, Bedminster Road, Bedminster	South Bristol	Bedminster	Allocated	Not started	RF	2.84	0	0	6000	150	0	0	0	0	0	0
BCC	Housing, business, community use and small-scale retail	Land at former Elizabeth Shaw Factory, Greenbank Road, Easton	Inner East	Easton	Allocated	Not started	RF	1.96	0	0	0	0	800	36	700	0	0	0
BCC	Housing and business	Land at Novers Hill, adjacent to industrial units	South Bristol	Filwood	Allocated	Not started	RF	2.18	7200	510	0	0	0	0	0	0	0	0
BCC	Housing and light industry	Morley / Ashley / Southey Street Works, St Werburgh's	Inner East	Ashley	Allocated	Not started	RF	1.61	0	0	4600	115	0	0	0	0	0	0
BCC	Community use (school)	Open Space to rear of Abingdon Road and Honiton Road, Mayfield Park, nr Fishponds	Rest of Bristol	Hillfields	Allocated	Not started	RF	1.59	0	0	0	0	0	0	2900	450	0	0

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BCC	Housing - Business uses	Part of Henacre Open Space, Lawrence Weston	Northern Arc	Avonmouth	Allocated	Not started	RF	3.69	2100	149	0	0	0	0	0	0	0	0
BCC	Employment, residential, other	Plot 6 Temple Quay, The Friary	Bristol City Centre	Lawrence Hill	Allocated	Not started	RF	1.47	4800	340	0	0	1200	54	0	0	600	14
BCC	Housing and business	Site of former City of Bristol College (Hartcliffe Campus), Hawkfield Road, Hartcliffe	South Bristol	Whitchurch Park	Allocated	Not started	RF	8.48	10800	765	0	0	0	0	0	0	0	0
NSC	Erection of 4no two storey office buildings with associated car parking and landscaping.	Plot 6, Servert Road, Gordano Gate, Portishead	Town	Portishead East	Full	Part built - only one block complete, rest not started	NC	1.09	4,400	367	0	0	0	0	0	0	0	0
NSC	Application to extend time limit for 08/P/1914/O (Outline planning application for the erection of an employment development comprising of a B1 office use including demolition of existing premises)	A.P. Burt Paper Mill site, Portishead	Town	Portishead East	Outline	Not Started	NC	1.7	0	0	-9,300	-70	0	0	0	0	0	0
NSC	Application to extend time limit for 08/P/1914/O (Outline planning application for the erection of an employment development comprising of a B1 office use including demolition of existing premises)	A.P. Burt Paper Mill site, Portishead	Town	Portishead East	Outline	Not Started	NC	1.7	8,000	400	0	0	0	0	0	0	0	0
NSC	Outline planning permission for the erection of a new furniture store, petrol filling station and associated parking.	Land off Wyndham Way, Gordano Gate, Portishead	Town	Portishead East	Outline	Not Started	NC	1.43	0	0	0	0	5,190	38	0	0	0	0
NSC	Reserved matters for external appearance, siting, design, means of access and landscaping for the erection of 3 commercial office blocks (B1)	Long Ashton Research Station, Weston Road, Long Ashton	Service Village	Wraxall and Long Ashton	Reserved Matters	Two office blocks complete, one not started	NC	1.16	2,494	208	0	0	0	0	0	0	0	0
NSC	Reserved matters for 66no dwellings with live/work units.	Oxford Plasma Technology, North End Road, Yatton	Service Village	Yatton	Reserved Matters	Not Started	ML	1.46	0	0	-18,288	-270	0	0	0	0	0	0
NSC	Erection of an extension to existing building to create additional warehouse space.	Unit A, Kenn Business Park, Barns Ground, Kenn	Countryside	Yatton	Full	Not Started	NC	1.03	0	0	635	8	0	0	0	0	0	0
NSC	Outline application for B1, B2, B8, C1, A1, A2, A3, A4, A5 development with associated works with all matters reserved for subsequent approval apart from access.	Land north of Somerset Avenue and land off West Wick Roundabout, South Worle, Weston-super-Mare	Town	Weston-super-Mare South Worle	Outline	Two reserved matters application received and building work has commenced.	NC	6.4	6800	360	4200	120	0	0	0	0	850	20
NSC	Erection of (B1) office comprising central core, office floor space, parking and landscaping.	Former Weston Gateway Caravan Park, Land off Somerset Avenue, West Wick, Weston-super-Mare	Town	Weston-super-Mare South Worle	Reserved Matters	Under Construction	NC	0.55	3,719	300	0	0	0	0	0	0	0	0

UA	Site Description	Address	Policy Area	Ward	Planning Status	Development Status	Certainty	Hectares	2014 - 2036									
									Office Floor space (sq m)	Office no. jobs	Industry Floor Space (sq m)	Industry no. jobs	Retail Floor space (sq m)	Retail no. jobs	Schools Floor space (sq m)	Schools no. students	Other Floor space (sq m)	Other no. jobs
NSC	Reserved matters application pursuant to outline application 11/P/0672/O for erection of public house/restaurant	Plot G, Weston Gateway Business Park, Somerset Avenue, Weston-super-Mare	Town	Weston-super-Mare South Worle	Reserved Matters	Not Started	NC	0.5	0	0	0	0	0	0	0	0	796	40
NSC	Erection of 13no. B1(a) and B1(b) office buildings	Land off Wolverhill Road, Summer Lane, West Wick, Weston super Mare	Town	Weston-super-Mare South Worle, Banwell and Winscombe, Kewstoke	Reserved Matters	Not Started	NC	3.48	17,158	1430	0	0	0	0	0	0	0	0
NSC	Application to extend time limit for implementation of planning permission 07/P/2156/F (Erection of two storey office (Class B1))	Land off Scot Elm Drive, West Wick Business Park, Weston super Mare	Town	Weston-super-Mare South Worle	Full	Not Started	NC	0.5	676	56	0	0	0	0	0	0	0	0
NSC	Proposed new office development, associated car parking and landscaping	Land at Scot Elm Drive, West Wick, Weston-super-Mare	Town	Weston-super-Mare South Worle	Full	Not Started	NC	2.17	10,951	913	0	0	0	0	0	0	0	0
NSC	Change of use from boarding kennels and cattery to B1/B8 mixed use.	Land at Chelvey Boarding Kennels, Brockley Lane, Brockley	Countryside	Backwell	Full	Not Started	NC	2.2	100	8	630	8	0	0	0	0	0	0
NSC	Outline application the formation of a Business Park and an Industrial Quarter.	Weston Park, Weston Airfield, Winterstoke Road, Weston-super-Mare	Town	Weston-super-Mare East, Hutton and Locking	Outline	Two reserved matters application received and building work has commenced.	NC	29.5	49322	4,110	27500	578	0	0	0	0	9975	250
NSC	Erection of an office building pursuant of Outline Permission 07/P/1950/O	Plot A3, Weston Park, Weston Airfield, Winterstoke Road, Weston-super-Mare	Town	Hutton and Locking, Weston-super-Mare East, Weston-super-Mare South	Full	Under Construction	NC	0.58	2,180	182	0	0	0	0	0	0	0	0
NSC	Reserved Matters for the erection of a public house/restaurant and hotel.	Weston Park, Land at Former Weston Airfield, Off Locking Moor Road, Weston-super-Mare	Town	Weston-super-Mare East	Reserved Matters	Not Started	NC	0.7	0	0	0	0	0	0	0	0	3532	72
NSC	Outline application for the development of a business park comprising B1, B2 and B8	Land to the west of Kenn Road, bound by former railway, the M5 and Colehouse Lane, Kenn	Countryside	Yatton	Outline	Not Started	ML	9.48	Unknown	Unknown	Unknown	Unknown	0	0	0	0	0	0
NSC	Variation of condition 50 of outline permission 05/P/1198/O to read: The new builds B1/Office space shall be limited to a total floorspace of 24,000sqm over a footprint area of 11,000sqm.	Barrow Hospital, Barrow Gurney, Somerset	Countryside	Backwell	Full	Not Started	H	38.3	24,000	2000	0	0	0	0	0	0	0	0
NSC	Erection of foodstore, customer parking, service access and associated development	Land off Serbert Way, Portishead	Town	Portishead East	Full	Under Construction	NC	1.9	0	0	0	0	4,568	270	0	0	0	0

[illegible]

[illegible]

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									Office Floor space (sq m)	Office no. jobs	Industry Floor Space (sq m)	Industry no. jobs	Retail Floor space (sq m)	Retail no. jobs	Schools Floor space (sq m)	Schools no. students	Other Floor space (sq m)	Other no. jobs
SGC	Plot 1700 Aztec West	Plot 1700 Aztec West, Almondsbury	North Fringe of Bristol	Patchway	Planning permission	Approved development proposals	NC	-2.17	0	0	-6565	-200	0	0	0	0	0	0
SGC	Plot 1700 Aztec West	Plot 1700 Aztec West, Almondsbury	North Fringe of Bristol	Patchway	Planning permission	Approved development proposals	NC	2.17	15060	610	0	0	0	0	0	0	0	0
SGC	Former Mushroom Farm, Cribbs Causeway	Former Mushroom Farm, Cribbs Causeway, Almondsbury	North Fringe of Bristol	Patchway	Planning permission	Approved development proposals	NC	1.85	0	0	2714	0	0	0	0	0	0	0
SGC	Filton Triangle	Filton Triangle, Stoke Gifford	North Fringe of Bristol	Stoke Gifford	Planning permission	Under construction	NC	17.48	0	0	11216	170	0	0	0	0	0	0
SGC	Abbeywood Retail Park	Abbeywood Retail Park, Station Road, Filton	North Fringe of Bristol	Frenchay and Stoke Park	Planning permission	Under construction	NC	3.63	0	0	0	0	8209	400	0	0	0	0
SGC	CPNN	Cribbs Patchway New Neighbourhood, Filton	North Fringe of Bristol	Filton	Site allocated	Identified within development plan	ML	50	0	0	Not known	6500	0	0	0	0	0	0
SGC	Wallscourt Primary School	Wallscourt Primary School, Longdown Avenue, Filton	North Fringe of Bristol	Frenchay and Stoke Park	Planning permission	Under construction	NC	2.03	0	0	0	0	0	0	2755	410	0	0
SGC	BTE Academy	BTE Academy, New Road, Stoke Gifford	North Fringe of Bristol	Frenchay and Stoke Park	Planning permission	Under construction	NC	1.11	0	0	0	0	0	0	4358	440	0	0
SGC	Land off Longdown Ave, Stoke Gifford	Land off Longdown Ave, Stoke Gifford	North Fringe of Bristol	Frenchay and Stoke Park	Planning permission	Approved development proposals	NC	8.32	0	0	0	0	0	0	0	0	6347	212
SGC	Harlequin Office Park	Harlequin Office Park, Folly Brook Road, Emersons Green	East Fringe of Bristol	Emersons Green	Planning permission	Approved development proposals	NC	1.76	9150	915	0	0	0	0	0	0	0	0
SGC	Emersons Green East, "SPark"	Science Park, Emersons Green	East Fringe of Bristol	Emersons Green/Boyd Valley	Planning permission	Approved development proposals	NC	16.87	0	0	38491	2200	0	0	0	0	0	0
SGC	National Composites Centre, Emersons Green	National Composites Centre, Feynman Way Central, Emersons Green	East Fringe of Bristol	Emersons Green	Planning permission	Approved development proposals	NC	3.92	0	0	9972	100	0	0	0	0	0	0
SGC	Emersons Green Development Area C	Emersons Green East, Emersons Green	East Fringe of Bristol	Emersons Green/Boyd Valley	Site allocated	Identified within development plan	RF	20	0	0	85000	2500	0	0	0	0	0	0
SGC	Emersons Green Safeguarded land	Emersons Green East, Emersons Green	East Fringe of Bristol	Emersons Green/Boyd Valley	Site allocated	Identified within development plan	RF	5	0	0	20400	600	0	0	0	0	0	0
SGC	Bristol Water Depot, Soundwell	Bristol Water Depot, Soundwell Road, Soundwell	East Fringe of Bristol	Kings Chase	Planning permission	Approved development proposals	NC	-1.83	0	0	0	0	0	0	0	0	Not known	-40
SGC	Land between Avon Ring Road and Folly Brook Road, Emersons Green	Land between Avon Ring Road and Folly Brook Road, Emersons Green	East Fringe of Bristol	Emersons Green	Planning permission	Approved development proposals	NC	2.34	0	0	0	0	0	0	0	0	8346	130
SGC	Ansteys Road	Land at Ansteys Road, Hanham	East Fringe of Bristol	Hanham	Planning permission awaiting signing of S106 Agreement	Not started	NC	-3.23	0	0	Not known	Not known	0	0	0	0	0	0
SGC	Ansteys Road	Land at Ansteys Road, Hanham	East Fringe of Bristol	Hanham	Planning permission awaiting signing of S106 Agreement	Not started	NC	3.23	0	0	0	0	2918	200	0	0	0	0

Future Year Infrastructure and Service Changes

Scheme ID	UA(s)	Scheme name	Scheme description	Scheme type	nc/mt/rt/hy - see classification	Opening date
RC-01	BCC	20mph speed limits	Roll out of 20mph speed limits across Bristol	Traffic management	nc	Mar-15
RC-02	SG	CPNN Off-site Works Package	Capacity and safety improvements on Gipsy Patch Lane.	Junction improvement	nc	2015
RC-03	SG	CPNN Off-site Works Package	A38 Filton roundabout. Capacity and safety improvements on 3-arms.	Junction improvement	nc	2015
RC-04	SG	CPNN Off-site Works Package	Widening of M5 J16 motorway off-slips, A38 North and circulatory carriageway.	Junction improvement	nc	2015
RC-05	SG	CPNN Off-site Works Package	SCHEME CHANGE. Signing & lining changes on M5 J17 southbound off-slip. Widening of Merlin Road exit from roundabout and Highwood Lane entry to Merlin Road junction.	Junction improvement	nc	2015
RC-06	SG	CPNN Off-site Works Package	Widening of southbound approach at A38 Aztec West Rbt	Junction improvement	mt	2015
RC-07	BCC	CPNN Off-site Works Package	A4018 Bus Corridor. Crow Lane, Charlton Road, Greystoke Avenue junction improvements	Junction improvement	mt	2015
RC-08	SG	CPNN Off-site Works Package	Local bus service enhancements	Public Transport	mt	2016
RC-09	SG	Cribbs Patchway (Filton Airfield) New Neighbourhood On-site Highways	Network of highway schemes on development site and access junctions onto A4018, A38, Merlin Road, Charlton Rd (bus only).	Highways	mt	Phased 2016-26
RC-10_AVTM	BCC	MetroBus: Ashton Vale to Temple Meads	Rapid transit from Ashton Vale to Temple Meads via Bristol city centre	Major scheme	nc	Jul-15
RC-10_NFTH	BCC/SG	MetroBus: North Fringe to Hengrove Package	North Fringe to Hengrove Package	Major scheme	nc	2017
RC-12	BCC/NSC	MetroBus: South Bristol Link	New highway link and bus route between A370 and Hengrove Park	Major scheme	nc	2016/17
RC-13	BCC	Residents parking	Roll out of residents parking permit scheme across central Bristol		nc	various
RC-14	BCC	Temple Circus Project	Redesign of Temple Circus roundabout		nc	
RC-14	BCC	Temple Circus Project	Related changes to the end of Victoria Street, The Friary, Temple Way, Temple Gate, connection with Redcliffe Way, Bath Bridge Roundabout		nc	
RC-16	BCC	Feeder Road Cycle Route	Creation of a shared use footway and alterations to three junctions: Avon Street (minor) Marsh Lane (minor) Feeder Road (more significant)	Walk & cycle	mt	
RC-18	BCC	New Junction at Cattle Market Road/Feeder Road:	Part of the works to construct a bridge into the Diesel Depot (Arena Site)	Junction improvement	nc	
RC-19	Highways England	Managed Motorway	Sections of M4 (between junctions 19 and 20), and M5 (between junctions 15 and 17) converted to Smart motorway. Smart motorways help relieve congestion Hard shoulder used as a running lane to create additional capacity.	Major scheme	nc	Jan-14
RC-20	SGC	PT for new developments	Addition of additional bus routes serving CPNN.	Public Transport	mt	
RC-21	BCC	PT for new developments		Public Transport	mt	
RC-22	BCC	St James Barton rbt	Improvement works on roundabout		nc	
RC-23	NSC	M5 J21	Outbound scheme and SB off (Weston Package)		nc	
RC-24	SGC	Hambrook Jn scheme	Improvement scheme at junction;		nc	
RC-25	SG	Cribbs Patchway Metrobus Extension	Extending the NFHP Metrobus route from The Mall back to Parkway; selective bus priority along route	Major scheme	mt	
RC-26	Highways England	M5 Junction 19	Replacement of left turn off the south bound exit slip, with a two lanes		nc	
RC-27	Network Rail	London Paddington – South Wales Rail Electrification	Extra services between Bristol Temple Meads and London Paddington via Bristol Parkway included	Major scheme	nc	
RC-28	BCC	Portway P&R Rail Station	Opening of rail station at Portway Park and Ride Site	Public Transport	mt	

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RC-28	BCC	Portway P&R Rail Station	Opening of rail station at Portway Park and Ride Site	Public Transport	mt	