

Monitoring & Evaluation Plan

Truro and Housing Employment
Link (one year after plan)

Date 09 January 2017

Economic Growth & Development

Monitoring & Evaluation Plan

Truro and Housing Employment Link (One year after)

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1.0 Introduction

1.1 General

This is the 'One Year After' Monitoring and Evaluation Plan (MEP) of Truro Housing and Employment Link scheme. This initial report is based on data collected one year after scheme opening.

Cornwall and the Isles of Scilly Local Enterprise Partnership (LEP) has been successful in securing Local Growth Funding (LGF) of £48.9m in round 1 and in 2015 agreed an expansion with the Government for an additional £10.29m to support a number of transport improvement schemes. LGF is aimed at creating a thriving and vibrant local economy and overcoming barriers which are currently holding back growth.

1.2 Purpose of the report

Monitoring of the schemes will help evaluate the investment made by LGF to deliver the following government objectives:

- Provide accountability for the investment;
- Justify future spending allocations;
- Enhance the operational effectiveness of existing schemes or future scheme extensions; and
- Improve future initiatives based on learning.

Monitoring and Evaluation is a key requirement of the funding conditions, which must be demonstrated by the LEP to the Department for Communities and Local Government (DCLG).

Cornwall and Isles of Scilly Local Transport Board (CISLTB) is a driver board of the LEP and is therefore responsible to provide a strategic overview on all transport infrastructure schemes and monitor performance of the LEP's Growth Deal suite of transportation projects.

The CISLTB's roles will be:

- Providing feedback to the LEP and the Local Authority with regards to whether projects have achieved value for money.
- Advise the LEP Board of overall programme progress, highlighting any known red risks.
- Receive confirmation from the Local Authority that processes and protocols have been carried out when identifying and prioritised a programme of investments, brought before the LTB.

2.0 The Scheme

2.1 Scheme Background

Truro has a significant imbalance between the resident workforce and the number of jobs with just over 17,600 Travel to Work Trips¹ into the City each day. This level of in-commuting causes congestion and has been identified as the key constraint in terms of enabling the City to expand its housing stock and employment space and to enhance its position as a regional economic centre. The city has a development framework approved to support 2500 houses north of the A390 and 3000 houses in total by 2030. Transport intervention is required to tackle congestion and encourage inward investment and to facilitate employment growth and housing targets.

2.2 Scheme Description

Investment in 'The Truro Housing and Employment Link' project supports the aims and objectives of the schemes being delivered as part of the Truro Western Corridor Growth Deal 1 project. The additional buses deliver increased capacity and quality for Truro's Park and Ride, builds additional capacity into the western corridor and secures the foundations for sustainable travel to work, health, education and retail to support local housing growth. The scheme will contribute directly to several Connecting Cornwall 2030 objectives:

- Tackling climate change – The new Euro 6 Mercedes Citaro vehicles use 5% less fuel than the Euro 5 buses replaced. With Truro identified as an Air Quality Management Area this is a positive change.
- Supporting economic prosperity – supports business take up at the Health and Well Being Innovation Centre (at Royal Cornwall Hospital, directly served by the P&R).
- Respecting and enhancing the environment – through improvement to the sustainable travel offer within Truro. Provision of a high quality P&R service is attracting a large number of commuters who would normally travel and add to congestion on Truro's road network.
- Encouraging healthy active lifestyles – provision of cycle facilities on site combined with enhanced routes to each of the P&R sites encourages combined walking/cycling trips with the P&R.
- Supporting community safety and individual wellbeing – The P&R sites where customers can connect to the service are well light, have CCTV and are manned during hours of operation, which provides confidence for the travelling community.
- Supporting equality of opportunity – The Euro 6 buses comply with the Public Service Vehicle Accessibility Regulations (PSVAR 2000) and providing easy access for mobility impaired or those with pushchairs and buggies. Each bus comes with a dedicated wheelchair space and buttons designed for easy reach of occupants. Signs are clearly displayed on windows to promote priority seating.

2.3 Scheme Objectives

¹ Census 2011

Purchase of 7 high quality buses that will operate between two P&R sites providing additional passenger capacity.

Prior to the introduction of the new buses, the Council operated one P&R site to the West of Truro at Langarth. Peak service operation (every ten minutes) required 5 buses to be operational. On average each bus accommodates 40 seated passengers with 20 standing. This means that the service can carry up to 300 passengers along the P&R route.

Now that the Park and Ride to the east of the City, Tregurra Park has opened, the service operates 8 vehicles during the peak periods, which is an uplift of 200 to 480 passengers. Therefore, capacity during the peak hour has increased by 60%, meeting one of the direct outcomes of this project (see logic model figure 2.1).

2.4 Logic Modal

The inputs, outputs and of the scheme are illustrated in **Reference source not found.**

outcomes **Error!** below.

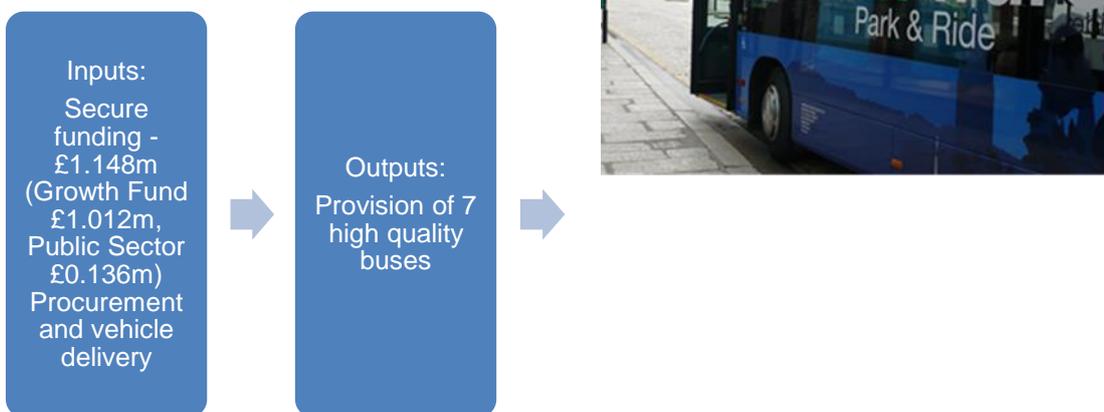


Figure 2.1 Logic Modal

3.0 Monitoring Measures

3.1 Delivered Scheme

Cornwall Council took delivery of 7 new buses in May 2015, which allowed them to be introduced to the service. This project was delivered on time and to budget with the Growth Deal funding drawn down in full during 2015/16.

The following sections of this report, reviews whether the project has met the outcomes and benefits shown in figure 2.1.

3.2 Park & Ride Patronage

Cornwall Council has been operating a park and ride site on the western approach to the city since August 2007, patronage is shown in figure 3.1.

Year 5 shows a decline in patronage but this coincided with changes to the cost structure especially in relation to charging concessionary fare holders to travel (before 9.30am), which was free previously. The data does conclude however that despite this immediate decline, the service has since seen numbers continue to rise year on year.

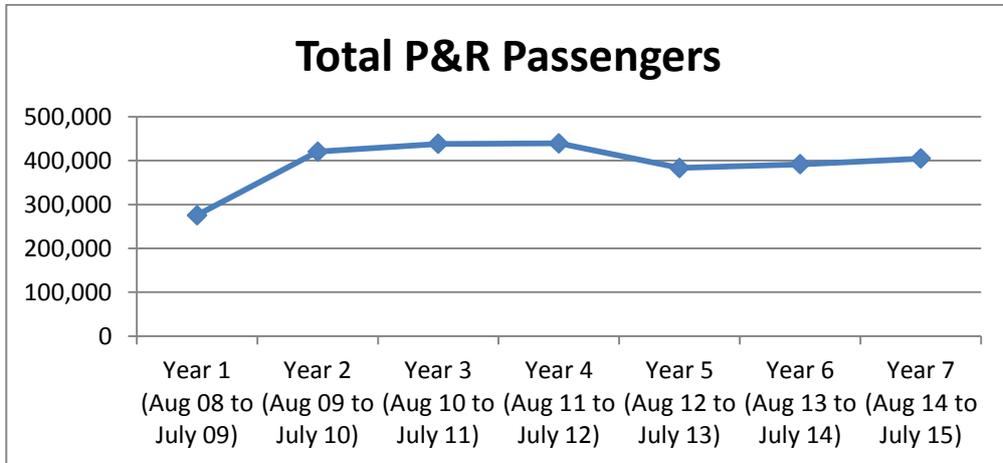


Figure 3.1 Park & Ride Total Passenger Numbers (Langarth Site Only) – Baseline Data

Park Tregurra Park & Ride opened in August 2015 and figure 3.2 below shows the impact that this has had on total passengers. This has seen the number of people using this service increase by 29% in the first year of dual site operation.

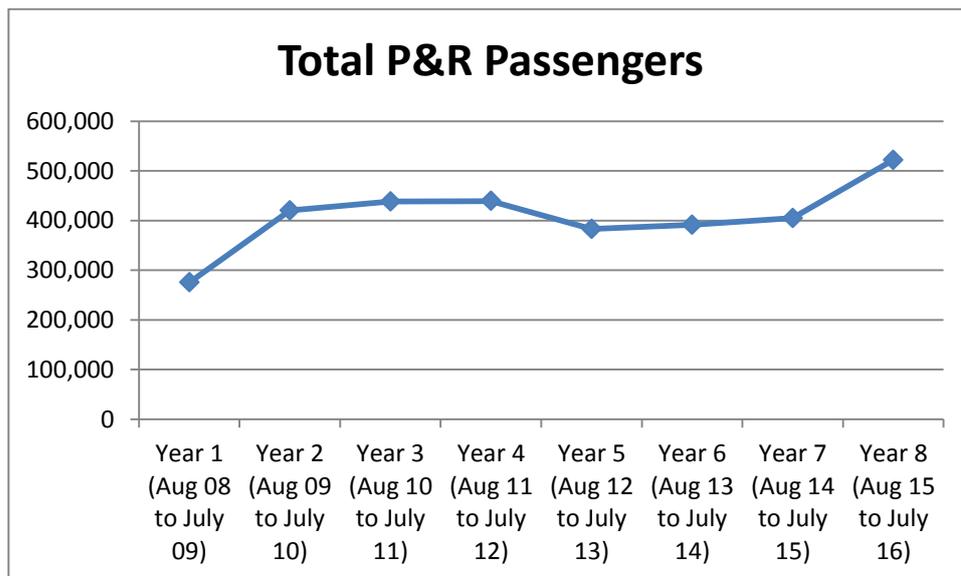


Figure 3.2 Combined Park & Ride Total Passenger Numbers (Langarth & Tregurra) – Post Year One Data

Each year Cornwall Council carries out passenger satisfaction surveys to establish key trends, areas for improvement and to understand why people use the service and where journeys originate from. Some of the key findings from the 2016 survey are:

- Across both sites 36.2% of respondents said that the availability of the service influenced their decision to come to Truro. The proportion of Tregurra respondents who answered yes to this question was 41.9% compared to 31.9% for Langarth
- Respondents who were either Very Satisfied or Satisfied with the service averaged 98.5% across both sites
- In terms of the top 3 elements that customers are happy with across both sites are:
 1. Frequency
 2. Ticket Prices
 3. Reliability
- Hours of operation are what people are least satisfied with, the majority want evening times extended to cover shift patterns and hospital visiting hours. Standing on the buses has been raised as a concern previously and is why additional capacity has been provided in the peak hours.

3.3 Traffic Congestion

Automatic Number Plate Recognition (ANPR) cameras have been installed on the two key routes leading to the Tregurra site. This enables data regarding traffic flows prior to site entrances to be collated for monitoring purposes. Tables 3.1 and 3.2 below compares the baseline average daily Monday to Friday counts and the peak hour of 7-9am with the one year after scheme completion.

Table 3.1 Newquay Road Vehicle Counts		
Date	Average Daily Vehicle Count Total	Average Daily 7am-9am Vehicle Count Total
Aug 14 to Jul 15 (baseline)	7,378	633
Aug 15 to July 16 (Year 1)	7,155	556

Table 3.2 Tresillian Road Vehicle Counts		
Date	Average Daily Vehicle Count Total	Average Daily 7am-9am Vehicle Count Total
Aug 14 to Jul 15 (baseline)	8,706	839
Aug 15 to July 16 (Year 1)	8,618	743

The baseline average daily traffic count (Monday to Friday) for the eastern routes into Truro equates to 16,084 vehicles. In terms of the peak commuter period this equates to 1,472 vehicles (9% of the total). One year after the opening of the Tregurra P&R site, the data concludes that the daily average traffic count fell to 15,773 (1.9% reduction overall) although during the peak hour the reduction was 12%. This is a key benefit to peak hour commuter congestion.

A further ANPR camera is located on Trafalgar Roundabout, which collates the number of vehicles continuing their journey past the Tregurra P&R site into Truro (includes all other connecting roads prior to camera location). In the baseline year the Trafalgar Roundabout site recorded 17,680 vehicles but this reduced to 16,722, a reduction of approximately 5% one year later. This is shown in table 3.3.

Table 3.3 Trafalgar Roundabout Vehicle Counts		
Date	Average Daily Vehicle Count Total	Average Daily 7am-9am Vehicle Count Total
Aug 14 to Jul 15 (baseline)	17,680	Not Available
Aug 15 to July 16 (Year 1)	16,722	1,385

3.4 Travel Times and Reliability

ANPR cameras can also track journey times by matching number plates. Table 3.4 shows a comparison between the average journey time between the hours of 7-8am, 8-9am and 9-10am Monday to Friday for both the baseline (pre-scheme) and year one.

Table 3.4 Tresillian Road to Trafalgar Roundabout Journey Times		
Date	Baseline Journey Time	Year One Journey Time
07:00:00 to 08:00:00	00:04:35	00:04:44
08:00:00 to 09:00:00	00:08:18	00:07:20
09:00:00 to 10:00:00	00:05:42	00:05:26
AVERAGE 7am-10am	00:06:12	00:05:50

The route from Tresillian to Trafalgar Roundabout has shown that between 7am to 10am average journey times have reduced by 22 secs. However, the 7-8am hour has seen an increase in journey times of 9 secs. The route from Newquay Road to Trafalgar Roundabout shown in table 3.5 indicates journey time

benefits in each of the hour bands monitored. As an average overall journey times fell by 1 minute 44 seconds.

Table 3.5 Newquay Road to Trafalgar Roundabout Journey Times		
Date	Baseline Journey Time	Year One Journey Time
07:00:00 to 08:00:00	00:04:40	00:03:22
08:00:00 to 09:00:00	00:07:36	00:05:05
09:00:00 to 10:00:00	00:05:04	00:03:41
7am - 10am AVERAGE	00:05:47	00:04:03

The Year one data concludes that the opening of the P&R site at Tregurra has not only increased the number of passengers choosing to use public transport for all/part of their journey but there has also been a corresponding reduction in daily average traffic counts and journey time savings on the eastern approach to the City. This is a positive outcome.

3.5 Impacts on the Economy

Whilst the Growth Deal funding contribution was drawn down in 2015/16 it is accepted that the outputs would be achieved incrementally from the wider developments that the P&R was linked to.

The park and ride site opened on 12th August 2015 to assist in catering for seasonal summer peak of tourists. A total of 1062 spaces were available on this date (598 in the North Car Park and 472 in the East Car Park less 8 spaces used for temporary accommodation). Works continued on the South Car Park and this was opened in December 2015 adding a further 275 spaces, a total of 1345.

Whilst the provision of the buses alone does not deliver Direct and Indirect Outcomes outlined in the Growth Deal Offer Letter it was accepted that this would be achieved by the wider Truro Eastern District Centre planning application which includes provision for:

- Truro’s second P&R site and hub building (Tregurra)
- Household Waste Recycle Centre
- Cornish Food Centre (A1) Energy Centre



7 homes plus lodge house

Given that the Planning Application was granted approval this particular project will meet the outcomes, which was to provide 249 jobs (including both direct and indirect), 97 homes and 1 lodge and achieve a £9.12m increase in GVA. The current expectation is that the targets will be exceeded:

- 259 jobs expected (10 additional)
 - Direct 11 from P&R created (10 drivers/supervisors and 1 cleaner)
 - Direct 5 from HWRC (expected summer 2018)
 - Direct 210 from Waitrose store and Cornish Food Centre created Indirect from house build including lodge 33 (utilising approved Employment and Density Guide 2010 (2nd Edition)
- 100 homes and 1 lodge (3 additional)
- GVA totalling £9.498m (uplift of £0.37m)

Job calculations are based on both direct and indirect impacts and follow industry Guidance as set out in the Employment and Density Guide 2010 (2nd Edition) Direct, which can be accessed from this link:

<https://www.gov.uk/government/publications/employment-densities-guide>

The purpose of the guide is to assist appraisers in the estimation of employment generated by property development based on 'employment density' ratios. Ratios are generally expressed as the number of square metres per employee.

The guide also suggests that indirect jobs are achieved as a consequence of house builds. It outlines that 150 indirect jobs per 1,000 increase in population (using a housing occupancy of 2.2), should also be applied. Therefore a ratio of 0.33 jobs per home has been allowed for.

The 'real time' achievement of the Direct and Indirect Outcomes depends on the rate of build of all of the projects linked to the Planning Application Table 3.6 below sets out both 'achieved' (in bold) and 'expected' achievement of the jobs and homes.

Table 3.6 Direct and Indirect Outcomes

	2015	2016	2017	2018	2019	2020	2021
Direct Job Creation	11	210	0	5	0	0	0
House Completions	0	0	58	43	0	0	0
Indirect jobs linked to house builds	0	0	19	14	0	0	0

- GVA calculations have been based on calculations determined within the 2012 ECORYS Economic report which takes into accounts both direct and indirect jobs (although construction jobs are not included in our calculations). This study concluded that in order to calculate GVA a figure of £36,673 (2012) should be used per worker (69% of the UK average of £47,108). Table 3.7 below calculates GVA on the figures shown in table 3.6. Again the bold figure represents what has already been 'achieved'.

Table 3.7 Gross Value Added				
	2015	2016	2017	2018
Jobs P&R	11	0	0	0
Jobs HWRC	0	0	0	5
Jobs Cornish Food Centre (Inc Waitrose)	0	210	0	0
Jobs achieved from house build	0	0	19	14
GVA	£0.403m	£7.701m	£0.697m	£0.697m

Therefore year one after completion the actual jobs, homes and GVA achieved is:

- Jobs (indirect and direct) – 221 jobs
- Homes – build underway but completion of 58 is during 2017
- GVA - £8.104m

3.6 Environmental Impacts

Improving local air quality is a priority for Cornwall Council and regular monitoring is carried out across Cornwall. Monitoring of nitrogen dioxide levels

in Truro has been ongoing for several years and the biggest source of nitrogen dioxide is the exhaust gases from cars and lorries travelling on the A390. Monitoring has shown that air pollution levels in Truro are higher than they should be and a Detailed Assessment of air quality was commissioned. This report confirmed poor air quality at several locations along the A390, primarily at Highertown and Tresawls Road as well as the B3284 Kenwyn Road.

It was therefore concluded that an Air Quality Management Area (AQMA) should be declared. Following a public consultation in early 2015, the AQMA was formally declared on 1 July 2015. The Council has decided that the entire city should be declared as an AQMA due to higher pollution levels being found in several 'hotspots'.

This designation highlights the Council's commitment to Truro as an area for improvement in air quality, and a draft action plan has been prepared including suggested measures to mitigate and exhibitions carried out in October 2016 and will form part of the Council's Clean Air for Cornwall Strategy.

Provision of high quality sustainable travel links is just one way to encourage modal switch from private car. Truro P&R has the ability to remove cars from routes leading into the City which may help in addressing traffic related NO2. In August 2015, the second P&R site opened on the eastern approach to the. Data collection (on air quality) within Truro has been ongoing for a number of years and the following series of graphs detail changes that have occurred.

Figure 3.3 looks at the average annual NO2 concentrations recorded at all diffusion tube sites in Truro. This shows an upward trend to the peak recorded in 2013 but this has decreased with each year that followed.

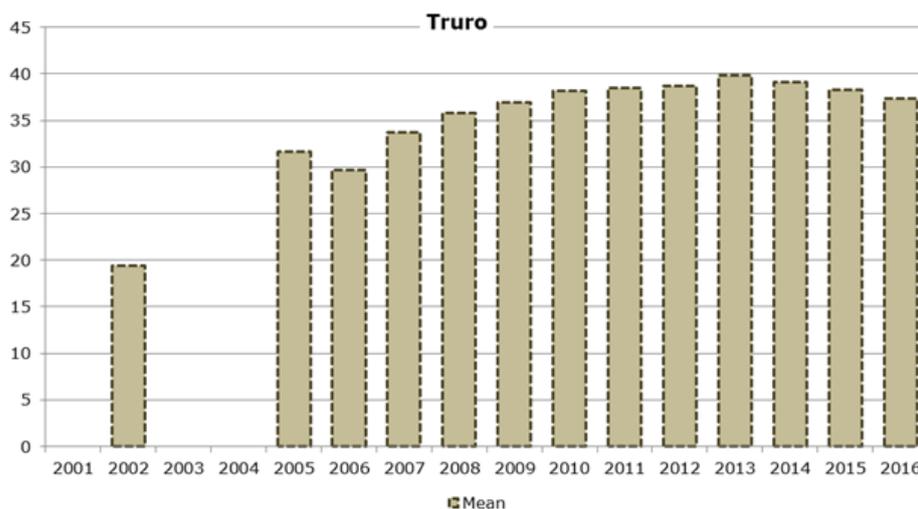


Figure 3.3 Annual Mean Calculated NO2

Figure 3.4 shows the changes recorded at each site, between the base year and year one. This shows that all sites have recorded a decrease in the NO2 concentrations in year 2. It is important to note however that it is a requirement for the data to be adjusted using Defra's bias adjustment. This is used as NO2 levels recorded by diffusion tubes generally are +/- 10% of the actual amount. Due to differences in reporting years the bias adjustment for

2016 will not be available until some point after April 2017. The data analysis below is based on using the “non-fixed” 2015 factor.

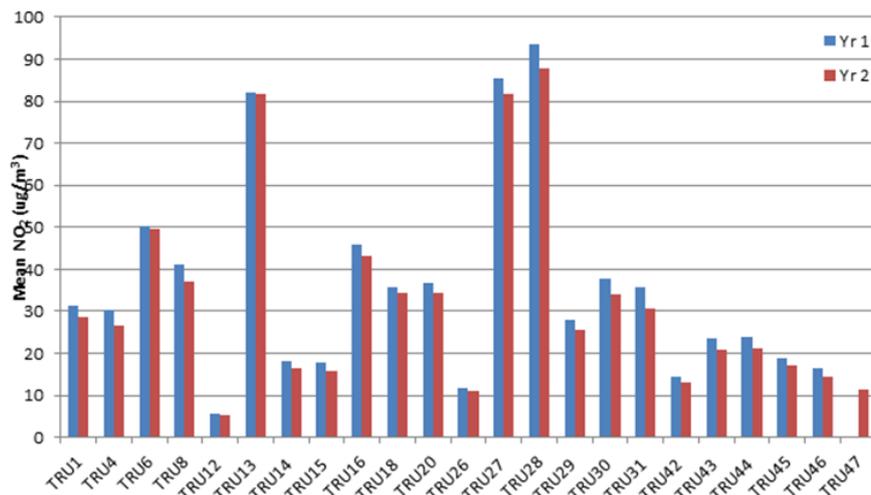


Figure 3.4 Comparison of NO2 between baseline to year one

Looking more specifically at the key sites leading into Truro (from both P&R’s), changes in the monthly NO2 concentrations are as follows:

- TRU18 shows a 6.4ug/m3 or 22.3% decrease (Sept 14 - Sept 16)
- TRU20 shows a 3.4ug/m3 or 11.5% decrease (Aug 14 - Aug 16)
- TRU43 shows a 4ug/m3 or 24.4% decrease (Aug 14 - Aug 16)
- TRU44 shows a 6.3 ug/m3 or 30% decrease (Aug 14 - Aug 16)
- TRU44 shows a 6.4 ug/m3 or 47.8% decrease (Sep 14 - Sep 16),

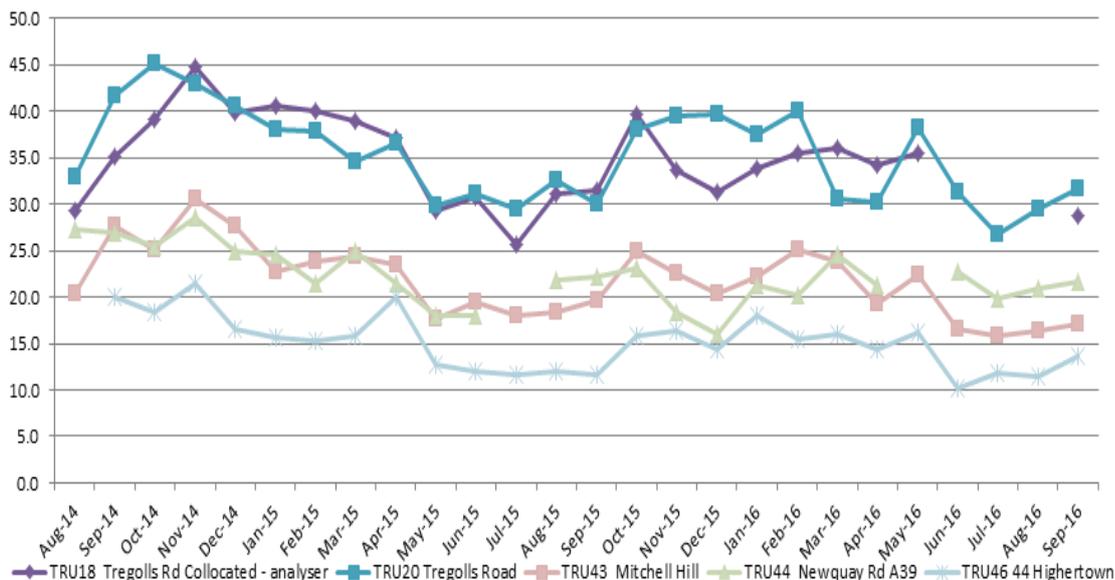


Figure 3.5 NO2 calculations at key sites in Truro

Table 3.8 outlines NO2 concentrations using Defra’s calendar (Jan – Dec) and has the correct bias adjustments for 2015 and 2015. 2016 will be adjusted once the figure is confirmed. This shows a slightly different pattern overall where some sites, including the Newquay Road site show an increase in concentrations for 2016. This is likely to be due to greater numbers coming to Truro to use the P&R site.

Site TRU12 is the “background” site (i.e. the site that is least affected by traffic pollution and therefore the most representative of “normal” levels of NO2 in air). The results show that this site has decreased by 5% between Yr1 and Yr2. Anything that achieves more than 5% could therefore be considered as higher than the norm, which was the case at the following sites TRU6, TRU13, TRU16, TRU18 and TRU27. However, one of the key sites served by the existing P&R (TRU18) is the only site in 2015 to have increased NO2 concentrations during Defra’s reporting period of Jan-Dec 2015. Given that 2016 is not yet complete in terms data collection using Defra’s calendar year (Jan 16 – Dec 16) and adjustments required using the bias adjustment (known April 2017) the results for 2016 are not fixed but provide an indication of the changes. This indicates at this stage that 4 out of the 5 key sites show potential decreases in NO2.

Table 3.8 NO2 Concentrations

Site Name	Town	Location	2014 bias-adj mean (µg/m3)	2015 bias-adj mean (µg/m3)	2015 %age Change	2016 bias-adj mean (µg/m3)	2016 % Change
TRU4	Truro	Tresawls Rd 5	33.10	26.66	-19.45%	26.76	0.40%
TRU6	Truro	Tresawls Rd 3	52.66	45.49	-13.60%	45.62	0.28%
TRU8	Truro	Tresawls Rd	42.41	37.12	-12.46%	38.41	3.47%
TRU12	Truro	Newbridge Lane	6.11	5.19	-15.01%	5.14	-0.98%
TRU13	Truro	Highertown	80.20	78.15	-2.55%	82.44	5.48%
TRU14	Truro	35 Highertown	17.46	16.43	-5.86%	16.62	1.15%
TRU15	Truro	43 Highertown	17.36	16.41	-5.52%	16.22	-1.16%
TRU16	Truro	Kenwyn Rd Telegraph pole	50.13	41.02	-18.17%	42.65	3.98%
TRU18	Truro	Trafalgar Roundabout Rd Collocated - analyser	31.19	32.25	3.42%	29.15	-9.62%
TRU20	Truro	Trafalgar Roundabout	38.49	34.75	-9.72%	32.84	-5.49%
TRU26	Truro	Pen y Bryn 76 Highertown	12.94	10.70	-17.33%	10.71	0.15%
TRU27	Truro	Highertown 2	82.91	81.67	-1.50%	75.19	-7.94%
TRU28	Truro	Highertown 3	95.26	88.83	-6.75%	87.61	-1.37%
TRU29	Truro	Highertown 4	28.41	24.74	-12.91%	26.31	6.34%
TRU30	Truro	Highertown 5	40.34	34.35	-14.86%	32.32	-5.91%
TRU31	Truro	Highertown 6	34.67	31.12	-10.24%	30.10	-3.28%

TRU43	Truro	Mitchell Hill	25.12	21.27	-15.32%	19.85	-6.68%
TRU44	Truro	Newquay Rd A39	25.73	20.92	-18.67%	21.55	3.01%
TRU45	Truro	58 Highertown	19.31	17.04	-11.71%	16.61	-2.55%
TRU46	Truro	44 Highertown	16.37	14.45	-11.72%	14.13	-2.21%
TRU47	Truro	Strangways Terrace				10.67	

4.0 Conclusion

4.1 Summary

The Growth Deal investment of £1,012,000 towards the purchase of 7 new buses for Truro's Park and Ride Service has provided many benefits. In terms of the service this instantly created the 60% uplift in capacity during the peaks, which has benefitted all users of the service.

In terms of the Direct and Indirect outcome which was linked to the wider development of the Truro Eastern Direct centre a total of 221 jobs have been created to date, the Cornish Food Centre opened which includes Cornwall's first Waitrose store and this has contributed to an uplift in GVA of just over £8m.

The house build are well underway with 58 (over half of the development) will be completed during 2017.

This investment has been critical in improving the Park and Ride service for Truro and this is evident by the growing numbers using the site.

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15 February 2017

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