

**South Devon Link Road  
(Kingkerswell Bypass) – Cost  
Benefit Analysis  
June 2010**

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## Contents

|  |           |
|--|-----------|
| <b>EXECUTIVE SUMMARY .....</b>   | <b>1</b>  |
| <b>1 INTRODUCTION.....</b>   | <b>3</b>  |
| <b>2 EMPLOYMENT PROJECTIONS .....</b>                                  | <b>4</b>  |
| <b>3 ECONOMIC IMPACT OF EMPLOYMENT CREATION.....</b>                   | <b>10</b> |
| Indirect Benefits of Tackling Worklessness / Creating Employment ..... | 16        |
| <b>4 SUMMARY.....</b>  | <b>22</b> |

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## EXECUTIVE SUMMARY

- Cambridge Econometrics' employment forecasts for the original Kingkerswell Economic Impact Study, projected that 7,960 new jobs could be created as a result of the proposed link road. The net increase in employment for Torbay residents as a result of the proposed link road is forecast to be 3,554 jobs.
- The gross value added (GVA) generated from the creation of employment of this level (based on 2007 figures) is £125m per annum for Torbay plus another £96.6m from the additional employment within the wider Teignbridge and South Hams area giving a combined net additional GVA for the Torbay, South Hams and Teignbridge area of £221.6m.
- In calculating the persistence of benefits we have utilised PWC impact evaluation guidance (2009) on persistence rates. On the basis of this approach (netting off the present value of costs (PVC)), the net present value for the road in relation to the generation of additional employment is estimated as £1.24bn.
- The cost benefit ratio using existing estimates of the costs to construct the road (£136m) against the net present value equates to 9.11 or £9.11 return for every £1 spent.
- Figure 1 illustrates that the rate of benefit claimants is significantly higher in Torbay (at 7.4%) than anywhere else in the South West.
- ERS estimates that a total of 1,136 claimants of Jobseeker's Allowance (JSA), including 693 in Torbay, are likely to take up the employment opportunities forecast for the scheme (Tables 4 and 5).
- The potential cost savings to the Exchequer of the forecast employment creation generated from savings in benefits payments (JSA) are estimated at over £6.6m for Torbay and £4.2m across the wider South Devon area.
- The potential addition income to the Exchequer generated through additional employment within Torbay and the wider South Devon area equates annual figure of up to £4.07m and (using persistence rates to 2024) equates to a net present value to the Exchequer of £25.283m.

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- Cost savings derived from reduced Housing and Council Tax benefits could total over £13m in Torbay and £5m in the wider South Devon area.
  - The identification of the indirect benefits of moving workless people into work is extremely difficult and should largely be seen as a bonus to the main benefits derived from savings in benefits.
  - There are however, significant, if small, correlations to be drawn between high levels of worklessness and a variety of areas of disadvantage including inferior health, higher crime levels, low educational achievement and lower quality of life.

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## **1 INTRODUCTION**

This paper analyses the potential benefits emanating from the construction of the Kingkerswell Bypass estimated through a variety of research papers. It builds upon the overarching net employment growth projections posited in previous studies, through consideration of the likely economic impacts and the reduction in costs to the Exchequer arising from employment creation.

## 2 EMPLOYMENT PROJECTIONS

Cambridge Econometrics employment forecasts for the original Kingkerswell Economic Impact Study<sup>1</sup>, based on a combined study area comprising Torbay (the Research Area, RA), South Hams and Teignbridge (the wider South Devon area, HL) projected that 7,960 new jobs could be created as a result of the proposed link road. An additional 590 jobs are also expected to be created in the RA but taken by HL residents, although these were not included in the original appraisal work. The expected occupational and geographic locations of these jobs are summarised in Table 1 below.

| <b>Occupational Classification</b> | <b>New Jobs in RA to Torbay Residents</b> | <b>New Jobs in HL to Torbay Residents</b> | <b>New Jobs in HL to HL residents</b> | <b>Total New Jobs in RA and HL</b> |
|------------------------------------|---|---|---------------------------------------|------------------------------------|
| Unskilled                          | 532                                       | 261                                       | 557                                   | 1,350                              |
| Skilled Manual                     | 766                                       | 370                                       | 791                                   | 1,927                              |
| White Collar                       | 1,142                                     | 594                                       | 1,249                                 | 2,985                              |
| Managerial and Professional        | 650                                       | 338                                       | 711                                   | 1,699                              |
| <b>Total</b>                       | <b>3,091</b>                              | <b>1,564</b>                              | <b>3,305</b>                          | <b>7,960</b>                       |

However, the net increase in employment for Torbay residents as a result of the proposed link road is forecast to be 3,554 jobs given the forecast number of jobs which are expected to be taken by workers resident in the wider South Devon area. The gross value added (GVA) generated from the creation of employment of this level in (based on 2007 figures) is £125m per annum for Torbay<sup>2</sup> plus another £96.6m from the additional employment within the wider South Devon area<sup>3</sup> giving a combined net additional GVA for the Torbay, South Hams and Teignbridge area of £221.6m.

The gross value added through employment creation is clearly substantial, however it only accounts for the annual contribution once the impact of the

<sup>1</sup> Kingkerswell Bypass Economic Impact Study – SQW and BBP Alliance (2002)

<sup>2</sup> Based on GVA per employee figures of (derived from ABI Employee estimates and Regional Accounts – 2007 of 48,000 and £1.678bn respectively) – the Cambridge econometrics figures have already factored in indirect and induced (multiplier) impacts.

<sup>3</sup> Based on Devon County GVA and Employee figures from ABI 2007

construction of the road has flowed through the economy. Estimations as to the rate at which employment opportunities will be developed were considered to be around 3-5 years on commencement of construction. More recently, in recognition of the economic downturn and subsequent recession, the examination in public highlighted that whilst the scale of additional employment appears to be robust, the rate at which employment increases will be achieved could be questioned. This reinforces the assertion that these rates of employment generation can only be achieved through supplementary and effective public sector intervention, to support local employment generation.

Road infrastructure typically adopts a 60 year assessment of persistence of benefits however this is typically focused on impacts associated with commuter journey time reductions and agglomeration benefits. In this particular instance the study team believe that the Department of Business Innovation and Skills' Impact Evaluation Framework guidelines<sup>4</sup> which utilise PWC (2009) research provides a more appropriate measure of impact given the focus of the SQW report on Jobs created. In this respect the IEF cross-cutting regeneration theme of "Place" is most closely aligned with the planned development and offers guidance of a 3 year period over which benefits are built (with regard to the SDLR this has been considered as closer to 5 years as it includes the 2 year build period) with a persistence of benefits estimated at around 10 years in accordance with PWC rates.<sup>5</sup>

In calculating the persistence of benefits we have utilised HM Treasury's benchmark annual discount rate of 3.5% to derive a net present value (NPV of this impact). Table 2 below provides detail on the scale of GVA generated on an annual basis through to 2024 (the estimated life term of the persistence rates using the definition above). It also provides the cost estimates for the development of the road £136million. On the basis of this approach (netting off the present value of costs (PVC)), the net present value for the road in relation to the generation of additional employment is estimated as £1.24bn.

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<sup>4</sup> Impact of RDA Spending, Pricewaterhouse Coopers (2009) in RDA Evaluation: Practical Guidance on Implementing the Impact Evaluation Framework, BIS (2009)

<sup>5</sup> Ibid.,

**Table 2: Calculating the Net Present Value of the Link Road using Estimations of Additional Employment Generation**

|  | Year |      |      |      |        |       |       |       |       |       |       |        |       | 2024 |      |
|--|------|------|------|------|--------|-------|-------|-------|-------|-------|-------|--------|-------|------|------|
|  | 2010 | 2011 | 2012 | 2013 | 2014   | 2015  | 2016  | 2017  | 2018  | 2019  | 2020  | 2021   | 2022  | 2023 | 2024 |
| Estimated proportion of net employment growth      | 0    | 0    | 20%  | 40%  | 60%    | 80%   | 100%  | 100%  | 100%  | 100%  | 80%   | 60%    | 40%   | 20%  | 0%   |
| GVA Equivalent (£000s)                             |      |      | 44,3 | 88,6 | 132,96 | 177,2 | 221,6 | 221,6 | 221,6 | 221,6 | 177,2 | 132,96 | 88,64 | 44,3 | 0    |
| Net Present Value (£000s) (Present Value of Costs) |      |      | 0    | 40   | 0      | 80    | 00    | 00    | 00    | 00    | 80    | 0      | 0     | 20   | 0    |
| <b>Total NPV</b>                                   |      |      | 41,3 | 79,9 | 115,86 | 149,2 | 180,2 | 174,1 | 168,2 | 162,5 | 125,6 | 91,070 | 58,66 | 28,3 | 0    |
| <b>Benefit to Cost Ratio</b>                       |      |      | 73   | 48   | 7      | 65    | 71    | 76    | 86    | 94    | 77    | 0      | 0     | 38   | 0    |

The table highlights a benefit to cost ratio based on estimates of likely additional employment generation of **9.11** (e.g. £9.11 return for every £1 spent), representing excellent value for money.



### **Workforce Beneficiaries**

Further analysis on the impact of the construction of the South Devon Link Road can be undertaken through an estimation of the types of individuals securing the additional employment generated. The expected occupational and geographic locations of these net jobs are summarised in Table 3 below.

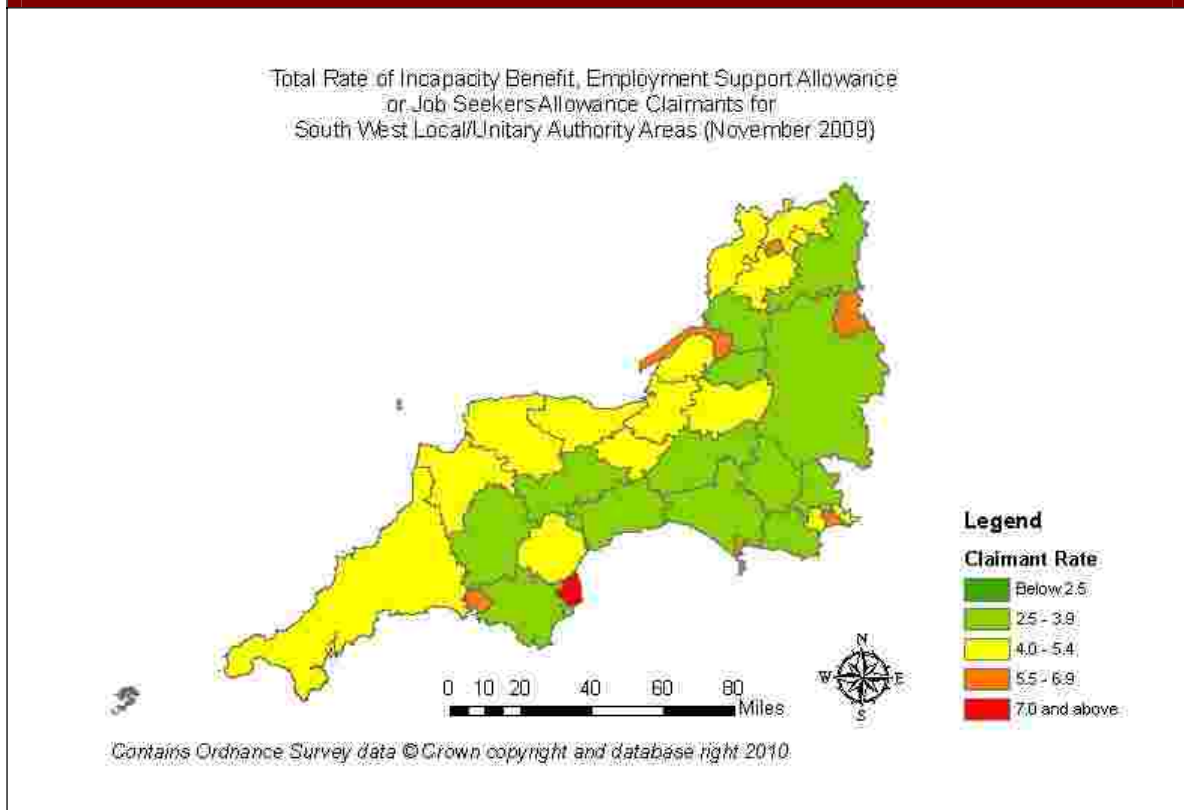
| <b>Table 3: Net Job Creation</b> |                                    |                                    |   |
|----------------------------------|------------------------------------|------------------------------------|---|
|                                  | <b>Net Change in RA Employment</b> | <b>Net Change in HL Employment</b> | <b>Total Net Employment (RA and HL)</b> |
| Unskilled                        | 603                                | 423                                | 1,026                                   |
| Skilled Manual                   | 861                                | 601                                | 1,462                                   |
| White Collar                     | 1,332                              | 949                                | 2,281                                   |
| Managerial and Professional      | 758                                | 540                                | 1,298                                   |
| <b>Total</b>                     | <b>3,554</b>                       | <b>2,512</b>                       | <b>6,066</b>                            |

### **Torbay Labour Market**

Torbay's labour market is characterised by having a relatively high proportion of benefit claimants of working age. Figure 1 below illustrates the combined rate of Incapacity Benefit and Jobseekers Allowance claimants throughout the region. It highlights that the rate of benefit claimants is significantly higher in Torbay (at 7.4%) than anywhere else in the South West, being well above the regional average of 4.7%. as well as the national (England) average of 5.9%.<sup>6</sup>

<sup>6</sup> DWP Benefit Claimants (2009)

**Figure 1: JSA and ESA/IB Claimant Rate – South West England**

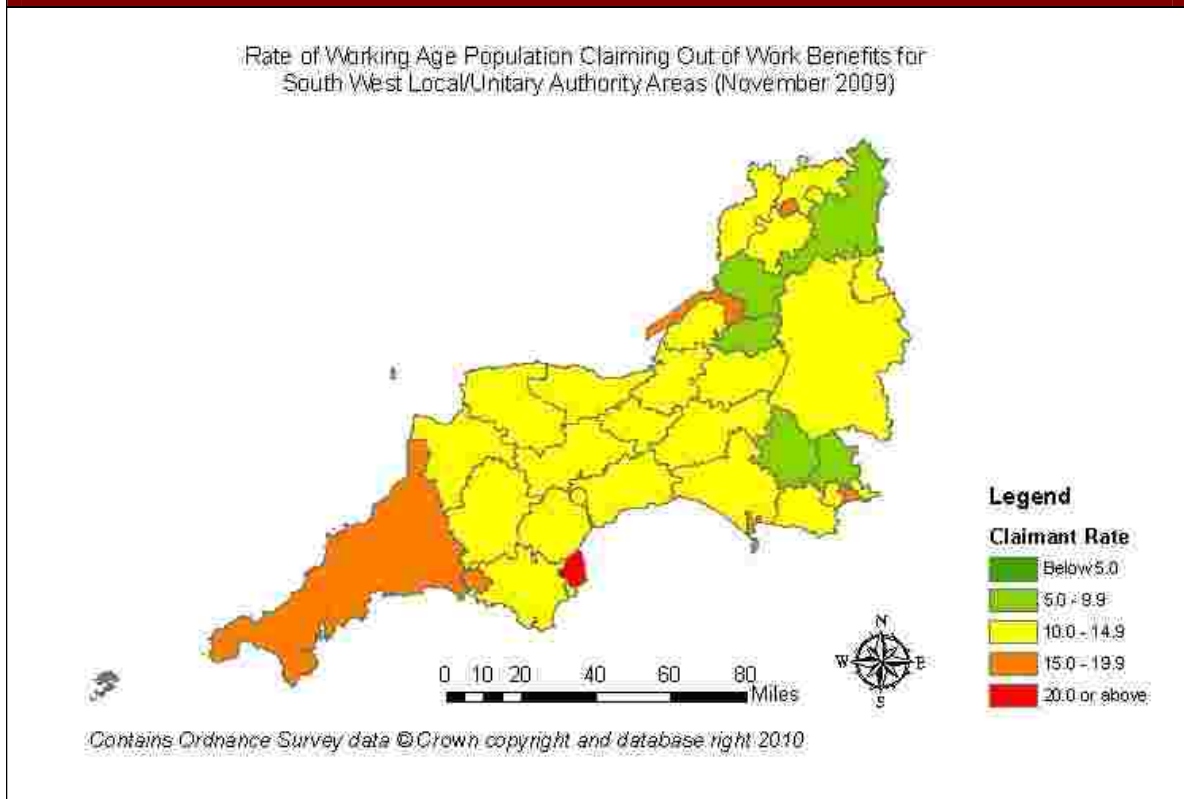


Source: DWP Benefits Data (2009)

The following map (Figure 2) considers the broader rate of benefits obtained by the working age population across the region.<sup>7</sup> The map provides detail on the scale of benefits being claimed and the associated level of workless amongst the population for each district or unitary authority area. Again, Torbay harbours the highest rate of benefit claimants at over one fifth (21%) of the working age population, this compares to a 13.2% average throughout the region and 15.8 % at the national level.

<sup>7</sup> This includes the proportion of working age claiming one or more of the following benefits: Bereavement Benefit, Carer’s Allowance, Disability living Allowance, Incapacity Benefit, Severe Disablement Allowance, Income Support, Jobseekers Allowance and Widow’s Benefit.

**Figure 2: Benefit Claimants, Working Age Client Group – South West England**



Source: DWP Benefits Data (2009)

### 3 ECONOMIC IMPACT OF EMPLOYMENT CREATION

Given the scale of benefit claimants and the general rate of worklessness in Torbay, a key determinant of the impact of the projected job creation linked to the proposed Kingkerswell Bypass is the proportion of claimants of key out of work benefits who are likely to take up these related employment opportunities. To date, there has been a dearth of analysis undertaken in this area, primarily due to the lack of consistent and sufficiently accurate data available from which to base a hypothesis.

However, ERS has developed a model based on the latest available data relating to the number of vacancies filled by Jobcentre Plus by occupation. The dataset ceased in May 2006 but provides a broad estimate of the proportion of claimants gaining employment out of the total outflow of vacancies. It has been assumed that the figures provide an underestimate of the total take-up of vacancies by unemployed people given that only between one third and one half of vacancies are handled by Jobcentre Plus.

Based on 24 month averages to May 2006, proxy figures for the proportion of claimants accessing employment opportunities by occupational classification are presented in Table 4 below. There are a variety of other reasons offered for claimants leaving the register including moving to benefits other than JSA, accessing training, going abroad and failing to sign (hence the percentage figures do not add up to 100%).

| <b>Table 4: Proportion of Employment Opportunities Filled by Benefits Claimants, % (24 month averages to May 2006)</b> |                                    |                     |                       |                  |
|--|------------------------------------|---------------------|-----------------------|------------------|
|  | <b>Managerial and Professional</b> | <b>White Collar</b> | <b>Skilled Manual</b> | <b>Unskilled</b> |
| Torbay   | 15.9                               | 19.3                | 22.4                  | 20.2             |
| Wider Sth Devon  | 13.1                               | 19.1                | 19.2                  | 18.0             |

Based on these proportions, the estimated numbers of net employment opportunities by occupational classification to be taken up by claimants (in this instance of, Jobseeker's Allowance, JSA) are presented in Table 5 below.

| <b>Table 5: Number of Employment Opportunities Filled by JSA Benefit Claimants</b> |                                    |                     |                       |                  |              |
|--|------------------------------------|---------------------|-----------------------|------------------|--------------|
|  | <b>Managerial and Professional</b> | <b>White Collar</b> | <b>Skilled Manual</b> | <b>Unskilled</b> | <b>Total</b> |
| Torbay   | 121                                | 257                 | 193                   | 122              | <b>693</b>   |
| Wider Sth Devon  | 71                                 | 181                 | 115                   | 76               | <b>443</b>   |
| <b>Total</b>   | <b>192</b>                         | <b>438</b>          | <b>308</b>            | <b>198</b>       | <b>1136</b>  |

### ***Timescale for Job Creation***

The job creation statistics within the economic impact assessments are based on a five year period. For the following estimates of financial impact we have allocated 20% of any benefits across 2011-12, incorporating construction-related opportunities. The remaining benefits have been allocated equally (20% per year) across the four years to 2016.

### ***Selected Financial Cost Savings***

The rate of JSA available to claimants aged 25 and over is £65.45 a week compared to £51.85 for a claimant aged 25 or under. 28% of claimants across both Torbay and Teignbridge/South Hams are aged 25 or under. The analysis in Tables 6 and 7 below assumes these proportions for those accessing the employment opportunities emanating from the proposed Kingkerswell Bypass scheme. It also assumes that all employment is sustained across the period, therefore generating cumulative savings across the five year period.

We understand that the approximate weekly payments for Housing Benefit (HB) and Council Tax Benefit (CTB) are £1.1m and £297,000 respectively. The cost of administering this is around £62,600 per week. This equates to 19,148 live cases.

| <b>Table 6: Potential Cost Savings – Torbay</b> |                |             |             |             |             |                   |
|---|----------------|-------------|-------------|-------------|-------------|-------------------|
|   | <b>2011-12</b> | <b>2013</b> | <b>2014</b> | <b>2015</b> | <b>2016</b> | <b>Total</b>      |
| JSA   | 445,492        | 890,984     | 1,336,475   | 1,768,354   | 2,210,442   | <b>6,651,746</b>  |
| HB  | 415,229        | 4,982,745   | 1,245,686   | 1,648,966   | 2,061,207   | <b>10,353,833</b> |
| CTB   | 112,112        | 1,345,341   | 336,335     | 445,221     | 556,526     | <b>2,795,535</b>  |

| <b>Table 7: Potential Cost Savings – Wider South Devon</b> |                |             |             |             |             |                  |
|--|----------------|-------------|-------------|-------------|-------------|------------------|
|  | <b>2011-12</b> | <b>2013</b> | <b>2014</b> | <b>2015</b> | <b>2016</b> | <b>Total</b>     |
| JSA  | 285,223        | 570,445     | 855,668     | 1,127,277   | 1,409,096   | <b>4,247,708</b> |
| HB   | 265,866        | 531,732     | 797,598     | 1,051,515   | 1,314,393   | <b>3,961,103</b> |
| CTB  | 71,784         | 143,568     | 215,351     | 283,909     | 354,886     | <b>1,069,498</b> |

Given the Coalition Government has prioritised moving people from disability benefits and particularly Incapacity Benefit (IB) to Employment and Support Allowance (ESA) and Jobseeker's Allowance (JSA), there is also scope to suggest potential savings from people moving from IB and ESA into employment. A major review is promised of the two million existing recipients of incapacity benefits to see if they are genuinely unfit to work. This is however likely to take more than three years to complete and therefore cannot be incorporated into this analysis.

The complexities associated with estimating potential cost savings are highlighted in the following analysis taken from a recent attempt to capture the cost of worklessness in London commissioned by London Councils.<sup>8</sup> Tables 8, 9, 10 and 11 show the net weekly gains to the Exchequer emanating from an employment outcome across a range of family circumstances to HMRC in terms of increased taxation, DWP in terms of benefits payments and Local Authorities in terms of the cost of employability interventions.

| <b>Table 8: Benefit to National and Local Government of Successful Employment Outcome</b> |                      |              |                      |               |
|---|----------------------|--------------|----------------------|---------------|
| <b>Lone Parent with two children</b>  |                      |              |                      |               |
| <b>Former Benefit</b>   | <b>Part Time (£)</b> |              | <b>Full Time (£)</b> |               |
| Jobseekers Allowance  | HMRC                 | -72.05       | HMRC                 | -87.00        |
|   | DWP                  | 64.30        | DWP                  | 64.30         |
|   | LA                   | 49.22        | LA                   | 124.73        |
|   | <b>Total</b>         | <b>41.47</b> | <b>Total</b>         | <b>102.30</b> |
| Income Support  | HMRC                 | -72.05       | HMRC                 | -87.00        |
|   | DWP                  | 64.30        | DWP                  | 64.30         |
|   | LA                   | 49.22        | LA                   | 124.73        |
|   | <b>Total</b>         | <b>41.47</b> | <b>Total</b>         | <b>102.03</b> |
| Incapacity Benefit  | HMRC                 | -120.85      | HMRC                 | -135.80       |
|   | DWP                  | 90.44        | DWP                  | 90.44         |
|   | LA                   | 34.28        | LA                   | 98.41         |
|   | <b>Total</b>         | <b>3.87</b>  | <b>Total</b>         | <b>53.05</b>  |

<sup>8</sup> Counting the Cost – A Worklessness Costs Audit for London

| <b>Table 9: Benefit to National and Local Government of Successful Employment Outcome</b> |                      |              |                      |               |
|---|----------------------|--------------|----------------------|---------------|
| <b>Single Person</b>  |                      |              |                      |               |
| <b>Former Benefit</b>   | <b>Part Time (£)</b> |              | <b>Full Time (£)</b> |               |
| Jobseekers Allowance  | HMRC                 | 0            | HMRC                 | -51.30        |
|   | DWP                  | 64.30        | DWP                  | 64.30         |
|   | LA                   | 14.54        | LA                   | 91.34         |
|   | <b>Total</b>         | <b>78.84</b> | <b>Total</b>         | <b>104.34</b> |
| Income Support  | HMRC                 | 0            | HMRC                 | -51.30        |
|   | DWP                  | 64.30        | DWP                  | 64.30         |
|   | LA                   | 14.54        | LA                   | 91.34         |
|   | <b>Total</b>         | <b>78.84</b> | <b>Total</b>         | <b>104.34</b> |
| Incapacity Benefit  | HMRC                 | -85.06       | HMRC                 | -100.01       |
|   | DWP                  | 89.80        | DWP                  | 89.80         |
|   | LA                   | 31.25        | LA                   | 95.38         |
|   | <b>Total</b>         | <b>35.99</b> | <b>Total</b>         | <b>85.17</b>  |

| <b>Table 10: Benefit to National and Local Government of Successful Employment Outcome</b> |                      |              |                      |               |
|--|----------------------|--------------|----------------------|---------------|
| <b>Family with two children aged 12 and 15</b>   |                      |              |                      |               |
| <b>Former Benefit</b>  | <b>Part Time (£)</b> |              | <b>Full Time (£)</b> |               |
| Jobseekers Allowance   | HMRC                 | -72.14       | HMRC                 | -87.09        |
|  | DWP                  | 100.95       | DWP                  | 100.95        |
|  | LA                   | 23.56        | LA                   | 87.69         |
|  | <b>Total</b>         | <b>52.37</b> | <b>Total</b>         | <b>101.55</b> |
| Income Support   | HMRC                 | -14.95       | HMRC                 | -14.95        |
|  | DWP                  | 0            | DWP                  | 0             |
|  | LA                   | 69.31        | LA                   | 123.72        |
|  | <b>Total</b>         | <b>54.36</b> | <b>Total</b>         | <b>108.77</b> |
| Incapacity Benefit   | HMRC                 | 0            | HMRC                 | 30.59         |
|  | DWP                  | 0            | DWP                  | 0             |
|  | LA                   | 59.59        | LA                   | 94.11         |
|  | <b>Total</b>         | <b>59.59</b> | <b>Total</b>         | <b>124.70</b> |

| <b>Table 11: Benefit to National and Local Government of Successful Employment Outcome</b> |                      |        |                      |        |
|--|----------------------|--------|----------------------|--------|
| <b>Family with two children aged 5 and 8</b>   |                      |        |                      |        |
| <b>Former Benefit</b>  | <b>Part Time (£)</b> |        | <b>Full Time (£)</b> |        |
| Jobseekers Allowance   | HMRC                 | -72.14 | HMRC                 | -87.09 |
|  | DWP                  | 100.95 | DWP                  | 100.95 |
|  | LA                   | 23.56  | LA                   | 87.69  |

|                    |              |               |              |               |
|--------------------|--------------|---------------|--------------|---------------|
|                    | <b>Total</b> | <b>52.37</b>  | <b>Total</b> | <b>101.55</b> |
| Income Support     | HMRC         | -102.35       | HMRC         | -102.35       |
|                    | DWP          | 0             | DWP          | 0             |
|                    | LA           | 55.11         | LA           | 109.52        |
|                    | <b>Total</b> | <b>-47.24</b> | <b>Total</b> | <b>7.17</b>   |
| Incapacity Benefit | HMRC         | -87.40        | HMRC         | -87.40        |
|                    | DWP          | 0             | DWP          | 0             |
|                    | LA           | 45.39         | LA           | 99.80         |
|                    | <b>Total</b> | <b>-42.01</b> | <b>Total</b> | <b>12.40</b>  |

The benefit to HMRC is usually negative as those moving into work can start claiming Working Tax Credits but the overall benefits to the Exchequer are positive due to savings in benefit payouts.

Although the largest single element contributing to the direct costs associated with tackling worklessness is the benefits paid, passported benefits, i.e. those paid automatically to people in receipt of another benefit (e.g. free school meals and health benefits), can be added to the analysis. Those qualifying can also claim free prescriptions, free dental treatment, free sight tests, vouchers for glasses or contact lenses, full help with their fares to attend a hospital or any other establishment for NHS Treatment or services.



### **Increased Income to the Exchequer (Taxes and National Insurance)**

Increased income to the exchequer through the payment of income tax (PAYE) and National Insurance can also be calculated based on the estimated net additional employment of those currently claim some form of workless related benefit. Whilst it could be calculated for the total net additional employment figure this would be subject to a very high level of displacement (as many of the individuals will already have jobs elsewhere). The table below provides details of the analysis undertaken. Annual earnings for each occupational category have been used to calculate likely income tax and national insurance using **2010/11 rates only**. The consideration of payments has been calculated using the same profile as that outlined for GVA calculations earlier in the report. At current rates, applying the total additional jobs created in Torbay and the wider South Devon area generates an annual income to the exchequer of up to **£4.07m**. Applying the persistence and discount rates generates a net present value of **£25.283m** to the exchequer as a result of net additional employment generated in Torbay and the wider South Devon area (Teignbridge and South Hams).

| <b>Table 12: Income to the Exchequer (NI and PAYE) –Torbay and Wider Sth Devon</b> |                     |                      |                     |                       |                  |                   |
|--|---------------------|----------------------|---------------------|-----------------------|------------------|-------------------|
|  | <b>Area</b>         | <b>Manager/ Prof</b> | <b>White Collar</b> | <b>Skilled Manual</b> | <b>Unskilled</b> | <b>Total</b>      |
| Additional Employees   | Torbay              | 121                  | 257                 | 193                   | 122              | <b>693</b>        |
|  | SH/Teign            | 71                   | 181                 | 115                   | 76               | <b>443</b>        |
|  | <b>Total</b>        | <b>192</b>           | <b>438</b>          | <b>308</b>            | <b>198</b>       | <b>1,136</b>      |
| Average Salary (£)   | <b>weekly</b>       | 616                  | 267                 | 345.1                 | 235.1            |                   |
|  | <b>yearly</b>       | 32,032               | 13,884              | 17,945                | 12,225           |                   |
| Proportion of net employment growth (%)  | <b>tax &amp; ni</b> | £8,006.3             | £2,380              | £3,639                | £1,866           |                   |
|  | <b>Year</b>         |                      |                     |                       |                  |                   |
| 0  | <b>2010</b>         | 0                    | 0                   | 0                     | 0                | <b>£0</b>         |
| 0  | <b>2011</b>         | 0.0                  | 0.0                 | 0.0                   | 0                | <b>£0</b>         |
| 20   | <b>2012</b>         | 286,999.2            | 194,657.7           | 209,275.3             | 68,984.2         | <b>£759,916</b>   |
| 40   | <b>2013</b>         | 554,587.9            | 376,150.1           | 404,396.6             | 133,302.7        | <b>£1,468,437</b> |
| 60   | <b>2014</b>         | 803,750.6            | 545,145.1           | 586,082.1             | 193,192.4        | <b>£2,128,170</b> |

|  |             |             |           |           |              |                    |
|--|-------------|-------------|-----------|-----------|--------------|--------------------|
| 80   | <b>2015</b> | 1,035,427.5 | 702,280.3 | 755,017.1 | 248,879.1    | <b>£2,741,604</b>  |
| 100  | <b>2016</b> | 1,250,516.3 | 848,164.6 | 911,856.5 | 300,578.6    | <b>£3,311,116</b>  |
| 100  | <b>2017</b> | 1,208,228.3 | 819,482.7 | 881,020.7 | 290,414.1    | <b>£3,199,146</b>  |
| 100  | <b>2018</b> | 1,167,370.4 | 791,770.7 | 851,227.8 | 280,593.3    | <b>£3,090,962</b>  |
| 100  | <b>2019</b> | 1,127,894.1 | 764,995.9 | 822,442.3 | 271,104.6    | <b>£2,986,437</b>  |
| 80   | <b>2020</b> | 871,802.2   | 591,301.1 | 635,704.2 | 209,549.5    | <b>£2,308,357</b>  |
| 60   | <b>2021</b> | 631,740.7   | 428,479.1 | 460,655.2 | 151,847.5    | <b>£1,672,722</b>  |
| 40   | <b>2022</b> | 406,918.3   | 275,993.0 | 296,718.3 | 97,808.3     | <b>£1,077,438</b>  |
| 20   | <b>2023</b> | 203,459.2   | 137,996.5 | 148,359.2 | 48,904.2     | <b>£538,719</b>    |
| 0  | <b>2024</b> | 0           | 0         | 0         | 0            | 0                  |
|  |             |             |           |           | <b>Total</b> | <b>£25,283,025</b> |
| <i>Source: ASHE 2010, SQW 2002 &amp; 2009, HMRC 2010</i> |             |             |           |           |              |                    |

### ***Indirect Benefits of Tackling Worklessness / Creating Employment***

The identification of the indirect benefits of moving workless people into work is extremely tricky with correlations of varying strengths between worklessness and other areas of disadvantage including inferior health, higher crime levels, low educational achievement and lower quality of life. The main problem lies in identifying the attribution and time lag between the two effects, e.g. are people out of work because they have poor health, or are they unhealthy because they are out of work.

It is likely that, all things being equal, if the process of moving workless people into work would produce a lasting improvement in health, the savings to the Exchequer would accumulate very quickly. However, in this context it is very difficult to develop a case that would satisfy the Government. In the majority of cases, if a net gain can be proven in terms of potential benefit savings, then any related indirect benefits are seen as an added extra.

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A 2010 paper<sup>9</sup> produced by the Policy Exchange<sup>10</sup> highlights that the costs of unemployment and worklessness extend beyond purely financial matters with Incapacity Benefit and Employment and Support Allowance claimants most likely to suffer from the personal and social costs of unemployment. These claimants are also statistically more likely to spend a long time out of work and face greater problems trying to return to work than those on more work-focused benefits. The personal and social costs of worklessness extend much further, however, with the need for interventions to boost employment levels highlighted relative to a range of issues.

### ***Worklessness and Crime***

A substantial body of evidence suggests that education and the strength of the labour market influence rates of criminal activity. It is therefore feasible that someone with poor education and reduced (legal) opportunities in the labour market is more likely to become involved in criminal activity. For example, the potential gains to be made from criminal activity outweigh the financial gains from low paid legal employment.

Young people and more particularly low skilled young men have been found to be much more likely to commit crimes than other groups. A recent report for the Prince's Trust estimated that the costs of crime committed by young people aged 10-21 in 2004 in London was £128m, and for the UK as a whole just over £1bn. The Social Exclusion Unit has also reported that two thirds of young offenders were unemployed at the time of their arrest compared to just under a half of those aged over 25.

A number of US research studies have found that worklessness is associated with greater crime and areas with high unemployment tend to have high crime rates. In general, there is a proven, if small, statistically significant relationship between unemployment rates and property crime.

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<sup>9</sup> Policy Exchange 2010, Escaping the Poverty Trap: How to help people on benefits into work

<sup>10</sup> Policy Exchange is an independent charity interested in free market and localist solutions to public policy questions

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A typical estimate is that a one percentage point increase in the unemployment rate can be associated with a one percent increase in property crime although other studies have increased this rate to between two and three percent.

## ***Worklessness and Health***

### ***Health***

There is a positive correlation between mortality and unemployment across all age groups. For example, suicide rates increase within a year of job loss and cardiovascular mortality accelerates after two or three years before continuing for the next 10-15 years. There is also evidence to suggest that there is a strong link between unemployment and poor mental health which is subsequently reversed on an individual re-entering employment. Unemployment is also considered to be a significant cause of psychological distress in itself.

Research into the effects of unemployment in the UK during the early 1990s found that people in secure employment recovered more quickly from ill health. In contrast, unemployment increased the chance of being ill, especially for those who had never worked or had had poorly paid jobs<sup>11</sup>.

Unemployment is also linked to higher rates of depression, particularly amongst younger age groups who have never worked. Loss of work would also be expected to affect self-esteem by limiting a person's chances of feeling achievement, accomplishment and satisfaction as well as potentially increasing guilt about failure to provide for their family.

### ***Child Poverty***

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<sup>11</sup> Bartley M, Sacker A, Clarke P. (2004)- 'Employment status, employment conditions, and limiting illness: prospective evidence from the British household panel survey 1991-2001. J Epidemiol Community Health 2004;58:501-6.

The importance of tackling childhood disadvantage was highlighted in the Pre-budget report of 2001<sup>12</sup>, with childhood experiences laying the foundations for later life. Children growing up in low-income households were found to be more likely than others to:

- have poor health;
- do badly at school;
- become teenage mothers;
- come into early contact with the police;
- be unemployed as adults; or
- earn lower wages.

The most significant way to reduce current and future child poverty was found to be ensuring a decent family income, for example by providing employment opportunities for one or both parents. However, other influences such as health and parental background, neighbourhood environment and housing conditions, all have a key role to play in a child's quality of life and their future achievements. Emerging analysis from the British Youth Panel<sup>13</sup>, which looks at children born between 1983 and 1989, confirms the strong link between low income and poor outcomes as adolescents. The study finds that children who experience poverty, compared to those who never experience life in a low-income household, are more likely to have lower self-esteem, play truant and expect to leave school at the age of 16.

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<sup>12</sup> HM Treasury (2001) 'Tackling child poverty: giving every child the best possible start in life'

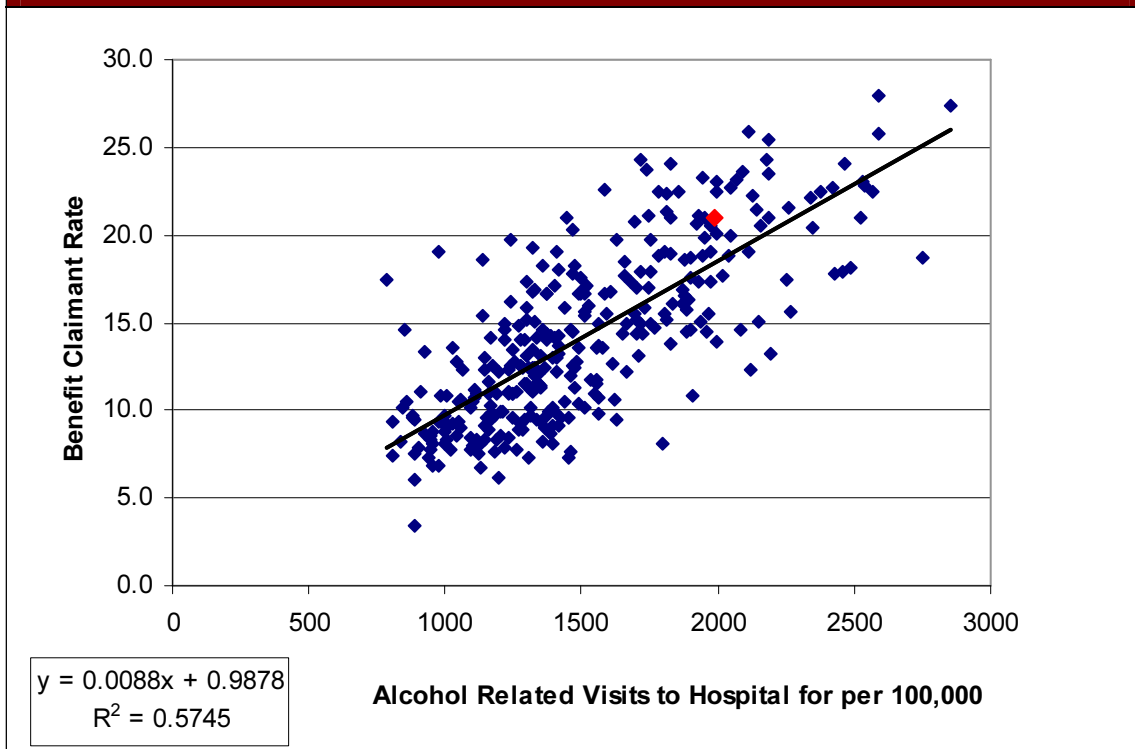
<sup>13</sup> Ermisch, Francesconi and Pevalin (2001) - 'Outcomes for Children of Poverty, Institute for Social and Economic Research, Department for Work and Pensions Research Report Number 158'

### **Costs Related to Instances of Alcohol Admissions**

The study team also explored likely savings resulting from existing data which suggests a relationship between unemployment rates and the number of admissions to hospital with alcoholic conditions.

Figure 3 below plots all local authorities on the basis of admissions per 100,000 people and the benefit claimant rate. It provides a trend line that depicts the positive relationship alongside the equation that can be used to estimate scales of reduction and the scale of relationship ( $R^2$ ) that exists within the data.

**Figure 3: Relationship between the Proportion of Alcohol Related Visits to Hospital and the Rate of Benefit Claimants – England Local Authorities (2009)**



Source: DWP Benefits and Local Alcoholic Profiles for England (2009)(Torbay in red)

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The number of individuals coming off JSA benefits as a result of the development of the road has been estimated at 693. This broadly equates to 0.1% of the working age population within Torbay.

On this basis, through a balance of the formula set out in the chart above it is possible to identify that for every 0.1% fall in the proportion of benefit claimants, there is a drop of 11.5 alcohol related visits per hospital, per 100,000 people.

There are an estimated 134,000 people in Torbay resulting in an estimated annual drop of 15.41 hospital visits in relation to alcohol. The cost of an alcohol related hospital visit ranges from £532 to £831 for an admittance that involves intensive care. Estimating that the majority of these visits do not involve intensive care (and therefore averages out at £800 a visit) the reduction in annual costs is £12,328.

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## 4 SUMMARY

The above analysis sought to highlight the potential benefits emanating from the construction of the Kingkerswell Bypass estimated through extensive analysis underpinned by a variety of research papers, focusing on an updated consideration of the likely economic impacts and the reduction in costs to the Exchequer arising from employment creation.

The analysis confirms the likely beneficial impact of the scheme on Torbay and its wider hinterland in terms of job creation, the related affect on GVA and potential savings derived from savings in out of work benefit payments to individuals moved into employment.

The analysis also touches upon a quantitative assessment of the indirect benefits of moving workless people into work although the limitations of this approach within the timescale provided are clear. Indeed, the dearth of clear and quantifiable research in this area highlights the problem in accurately estimating the organisational, social and governmental savings to be derived from capital programmes such as this.

The available research does however highlight a relationship between enhanced employment opportunities and a raft of major social issues including improved health, lower crime rates and a superior quality of life for the residents of Torbay and the surrounding hinterland. Further indicators of costs associated with long term worklessness include the following:

- Long term worklessness is considered to have health risks equivalent to smoking 10 packs of cigarettes per day (Ross 1995)
- Suicide in young men > 6 months out of work is increased 40 x (Wessely, 2004)
- Suicide rate in general increased 6x in longer-term worklessness (Bartley et al, 2005)
- Long term worklessness related health risk and life expectancy greater than many “killer diseases” (Waddell & Aylward, 2005)



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In summarising the potential impacts, research is in agreement that the most significant way to reduce current and future child poverty (with its links to health, crime etc.) was found to be in ensuring a decent family income through, for example providing employment opportunities for one or both parents. The scheme undoubtedly delivers in this regard and therefore has the potential to provide the catalyst for a series of interrelated long term impacts.