# Pontarddulais to Grovesend Economic Impact Study

## Wales Rural Development Programme

September 2018


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# Pontarddulais to Grovesend improvements – Economic Impact Study

***The following document provides an assessment of the economic benefits of improving the cycling and walking link between Pontarddulais and Grovesend.***

The proposed scheme provides a traffic free link between Pontarddulais and Grovesend. This contributes to the overall work being conducted by City and County of Swansea (CCS) to connect Pontarddulais with Gowerton, which in itself is intended to create links with National Cycle Network (NCN) route 4.

This document provides economic evidence to accompany wider feasibility study of the proposed developments that is being undertaken by Sustrans Cymru as part of the Wales Rural Development Programme.

# 1 Executive Summary

## 1.1 Key outputs from the economic appraisal

The economic benefits of the traffic free link between Pontarddulais and Grovesend have been appraised based on expected annual cyclist and pedestrian usage across the proposed improved routes after construction is completed. The economic benefits of this annual usage have been appraised as if observed for the next 20 years (i.e. a 20-year appraisal period has been used).

The following figures are key outputs related to the estimated current and future usage on the route, and the associated economic benefits from the economic appraisal. For a full description of these outputs, including the methodology used to arrive at these values, please see the main body of the report.

This analysis estimates a baseline level of annual cycling and walking usage by local users before estimating usage on the constructed route based on uplift seen in previous infrastructure projects. The post-construction cycling usage estimates are derived from the Cycling Infrastructure Impact Tool (IIT), and the post-construction walking usage estimates are based on a single historic case study, that more closely resembles the pre-construction provision for pedestrians seen in this case (i.e. parts of the route have no provision for pedestrians). The post-construction usage scenarios include an estimated annual number of trips and are presented as low, middle and high scenarios.

**Current annual usage estimate**

The current estimated Annual Usage Estimates (AUEs) are:

- 6,424 cycling AUE
- 442 walking AUE

**Forecasted/future annual usage estimate (cyclists)**
These estimated values are based on scenarios that have been developed around the cyclist Infrastructure Impact Tool (IIT) output.

*Table 1: Cyclist usage scenarios (Executive Summary)*

| Baseline AUE | Percentage increase in cyclist usage | Post-scenario AUE |
|---|---|---|
| 6,424 | 52% | 9,764 |
| | 72% | 11,049 |
| | 92% | 12,334 |

**Forecasted/future annual usage estimate (pedestrians)**

These estimated values are based on scenarios that have been developed using a single case study with similar attributes to the proposed Pontarddulais to Grovesend scheme.

*Table 2: Pedestrian usage scenarios (Executive Summary)*

| Baseline AUE | Post-scenario AUE |
|---|---|
| 442 | 25,606 |
| | 27,815 |
| | 30,025 |

**Estimated economic benefits (including health)**
The following economic benefits have been estimated using the Benefit-Cost Ratio tool, and using the usage information in the previous tables as inputs.

*Table 3: Estimated economic benefits (Executive Summary)*

| | Post-scenario AUE (cycling) | Post-scenario AUE (pedestrian) | Economic benefits | Benefit-cost ratio |
|---|---|---|---|---|
| Low usage change | 9,764 | 25,606 | £922,435 | 1.20 |
| Medium usage change | 11,049 | 27,815 | £1,049,706 | 1.37 |
| High usage change | 12,334 | 30,025 | £1,176,928 | 1.54 |

Under the middle scenario, where the shared use route sees a 72% increase in cycling and 6,195% increase in walking trips above baseline:

- 4,625 additional cycling trips and 27,373 additional walking trips per year
- Total economic benefits of £1,049,706
- Health benefits of £696,597
- Recreational expenditure of £262,525

Given the estimated costs of construction and maintenance, this level of usage results in a Benefit-Cost Ratio of 1.37.

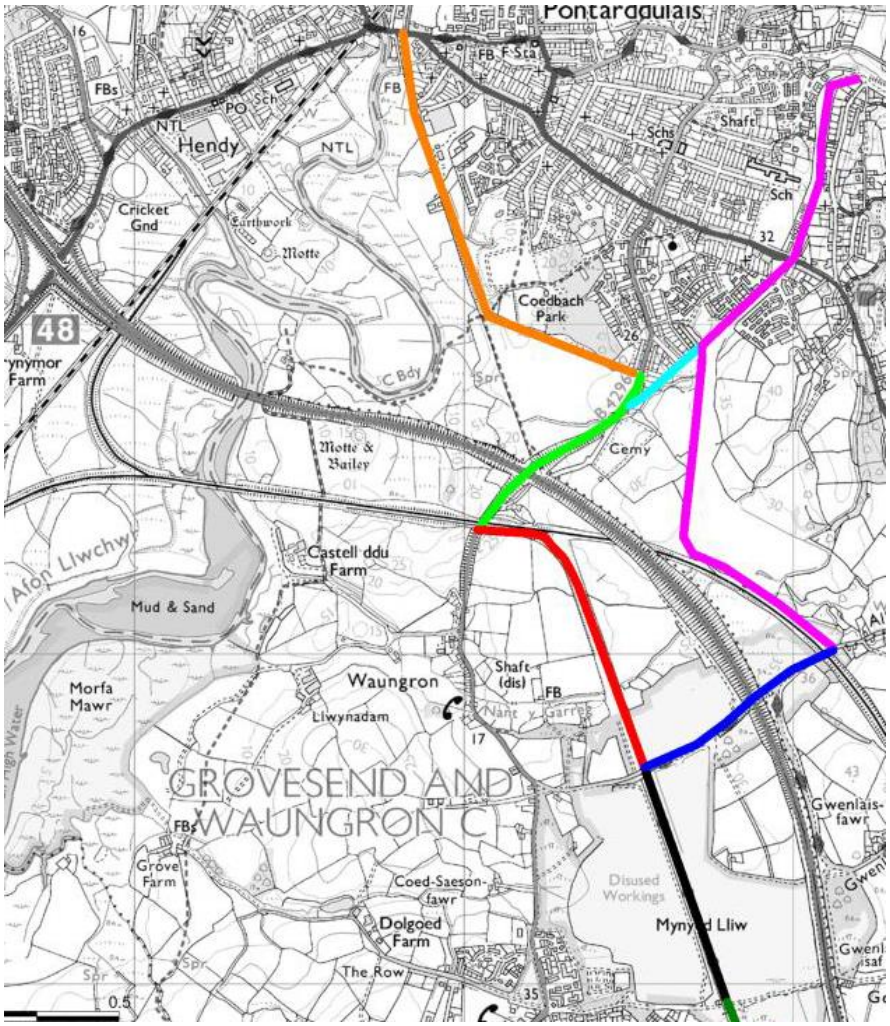
# 2 Background

Sustrans' Research and Monitoring Unit (RMU) have undertaken economic analysis for three scenarios for the proposed development of an improved link between Pontarddulais and Grovesend.

This document outlines the economic benefits of the proposed improvements for the three usage scenarios.

## 2.1 Study area

*Figure 1: Map overview of proposed improvements*




The proposed scheme route is comprised of the red, green, black and orange sections shown in Figure 1, totalling approximately 3km in length.
This route contributes to the overall work being conducted by City and County of Swansea (CCS) to connect Pontarddulais with Gowerton, which in itself is intended to create links with National Cycle Network (NCN) route 4.

The scheme will provide a traffic free means of travel between Pontarddulais and Grovesend for pedestrians and cyclists.

The economic benefits of this route have been evaluated from usage estimates from local manual count data, a case study with similar features and Route User Intercept Surveys (RUIS) from proxy locations. This was then appraised using the Infrastructure Investment Tool (IIT) for cyclists, the WebTAG based Benefit Cost Ratio (BCR) tool and the Leisure Cycling and Leisure Walking Expenditure Models (LCEM and LWEM) to determine the economic benefits for both cyclist and pedestrians.

# 3 Methodology

## 3.1 Economic Appraisal Tools

### Infrastructure Investment Tools (IIT)

The cycling IIT (CIIT) is based on a database of past infrastructure scheme interventions delivered across the UK. This approach adopts a forecasting approach based on comparable schemes, as recommended by the Department for Transport (DfT) in their WebTAG Unit A5.1 for Active Mode Appraisal[1]. This approach is also consistent with the Welsh government Transport Appraisal Guidance (WelTAG). In adopting a case study approach, assumptions have been made that infrastructure developments are likely to perform similar to what was observed in the past. This approach is not specific to the local context evaluated here and may not fully integrate all of the unique aspects of the proposed development. It is a generalised approach based on evidence from past schemes and as such should not be considered a definitive calculation of the expected outcomes of a scheme.

The cycling IIT is used to estimate a potential increase in usage from any currently observed usage (i.e. a baseline estimate) to any change that results after a scheme has been constructed. This post-construction estimate is based on evidence of observed cyclist usage pre- and post- infrastructure delivery in the past. The tool does not give estimates in reference to a specific time period over which this usage change is observed or occurs. All outputs from the cyclist IIT is in the form of an annual number of cyclist trips.

### Benefit-cost ratio (BCR) Tool

Sustrans RMU have developed an economic appraisal tool which is used to estimate the economic benefits of capital investments in walking and cycling based on information provided about the location and usage of the investment .The tool was initially developed to comply with the Department for Transport (DfT)'s guidance, WebTAG (Web-based Transport Appraisal Guidance). In Wales, the Welsh government's Transport Appraisal Guidance (WelTAG) is used, as this is adapted to Welsh-specific objectives and the outcomes and strategic priorities of the Wales Transport Strategy. There are no specific adaptations to the Sustrans RMU BCR tool mandated in the latest version of WelTAG, therefore the BCR tool developed in accordance with WebTAG is compatible for the Welsh context.

The BCR tool requires the following inputs:

- Trip frequency

[1] WebTAG Unit A5.1 for Active Mode Appraisal. Available at: https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/427098/webtag-tag-unit-a5-1-active-mode-appraisal.pdf

- Journey purpose
- Trip distance
- Proportion not using a car for any part of their journey
- Proportion who could have used a car for their journey but have chosen not to

The BCR tool provides an estimate of the monetised economic benefits for the following impact areas related to cycling and walking:

- Health (using the WHO HEAT tool)
- Absenteeism
- Amenity
- Greenhouse Gas Emissions Reduction
- Accidents Savings
- Decongestion
- Air Quality Improvement
- Noise Pollution Reduction
- Infrastructure Development
- Indirect Taxation (disbenefit)

All economic benefits appraised through the BCR tool are based on a 20 year appraisal time period. This provides an estimate of the economic benefits of a specific level of scheme usage being observed over the next 20 years. All benefits are discounted over the 20-year time period to provide a present-day value.

## Health Economic Assessment Tool (HEAT)

The (WHO) Health Economic Assessment Tool (HEAT) is used to evaluate the health-related economic benefits of walking and cycling. The benefits calculated through HEAT relate to the reduced mortality generated through a specific number of walking and cycling trips. All health-related economic benefits are calculated over a 20 year appraisal time period, to maintain compatibility with the WebTAG-generated economic outputs.

The version used in this appraisal is not the most current as the BCR tool currently still uses the previous version of the tool. Further information on the HEAT tool used can be found on the HEAT website[2].

[2] The WHO HEAT tool and associated guidance are available at: http://www.heatwalkingcycling.org

### Leisure Expenditure Model Tools: Cycling and Walking

Sustrans RMU has developed two models which calculate the economic benefit to an area from recreational cycling and walking in terms of 'spend per head' and the job roles these activities create.

The **Leisure Cycling Expenditure Model**[3] was originally developed in 2007 in association with the University of Central Lancashire (UCLAN) to estimate the impact of cycle tourism. It has been iteratively updated, most recently in 2017.

The model was developed based on an extensive data collection exercise undertaken between 2001 and 2006 on long-distance routes in the North of England, using user surveys, automatic counter data and travel diaries. The model can be used to estimate the economic impact of cycle tourism based on an estimate of annual 'spend per head' for all recreational cyclist users on the route. This estimate of cycle tourism-related expenditure is differentiated according to home-based and recreational tourist users. The outputs are indicative, rather than precise, estimates of the potential direct economic impact of investing in recreational cycling and give an estimate of the annual tourism-related economic benefits of recreational cycling usage on a proposed route. This is in terms of tourism expenditure and the social value of tourism per year.

The **Leisure Walking Expenditure Model** (LWEM) is a tool for estimating the economic benefit of leisure walking in terms of the expenditure it contributes to the local economy. This model originated from the Recreation Expenditure Model (now the LCEM) and builds on expenditure data collected from route users over a number of years.

It is based on data collected from Route User Intercept Surveys (RUIS) across the UK (though mainly in Wales and Scotland). The model estimates the total annual spend for all home- and holiday-based based leisure walkers. It also calculates the number of full time equivalent (FTE) roles this spend would support. In order to further understand the effect of the expenditure, spend and FTE roles are split by sector.

# 4 Assessment of Economic Benefits

This section outlines the economic benefits of the proposed route including:

- The economic value of congestion, greenhouse gas (GHG) emissions, noise pollution and amenity benefits accrued through mode shift encouraged by the route
- Health-related benefits of increased walking and cycling on the proposed routes
- Direct and indirect job creation from infrastructure works and increased recreational walking on the routes
- Overall positive return on investment

[3] Previously titled the Recreational Expenditure Model (REM)

## 4.1 Annual Usage Estimate

An Annual Usage Estimate (AUE)[4] is required to calculate the expected economic benefits from a proposed route development.

### 4.1.1 Cycling

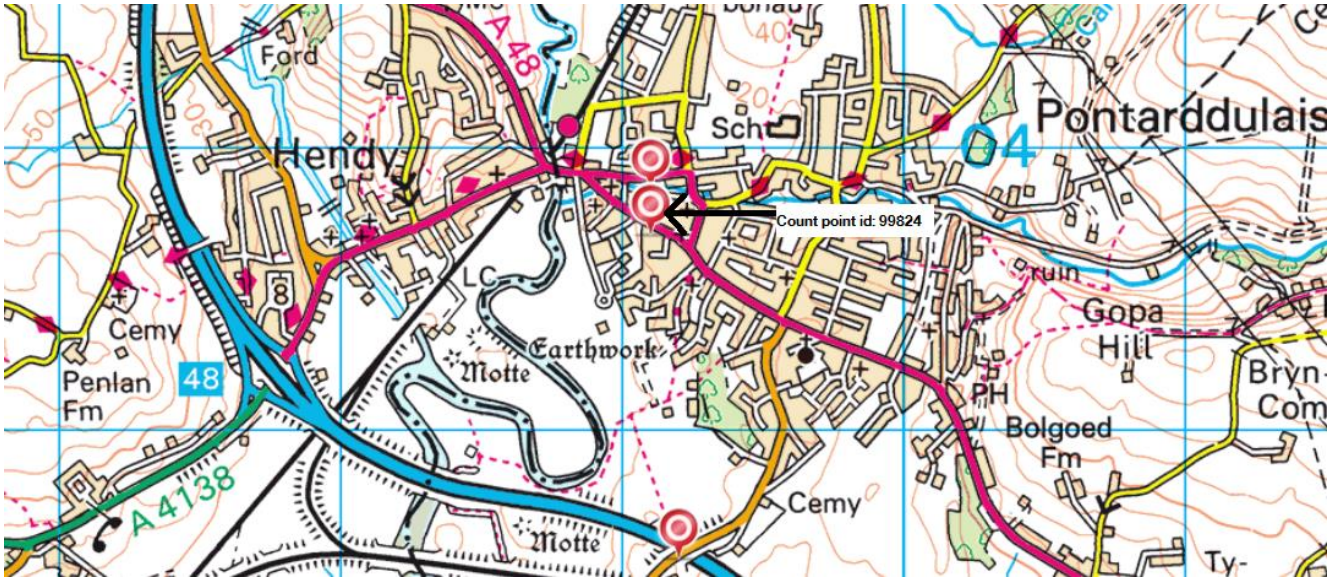
Sustrans does not hold any usage data for routes that are relevant to the scheme.

The Department for Transport (DfT) conducts manual counts of traffic on a sample of roads across the UK. There are approximately 8000 of these manual counts conducted per year, and the duration of a count is 12 hours over a single day. The locations at which these take place are referred to as Count Points (CPs). The DfT generate an Average Annual Daily Flow (AADF), which is multiplied by 365 to obtain an AUE, for each count point. The AADF is calculated using data from a series of Automatic Cycle Counters (ACC), which collect a full year of data (24 hours a day 365 days a year), to expand the 12 hour counts to 24 hours and account for variability in usage across the year (seasonality).

A manual count is not conducted at every CP every year. In cases where a manual count has not been conducted at a CP, the change in AADF between years is estimated based on changes in usage from the ACCs.

There is one CP that is relevant to the Pontarddulais to Grovesend scheme. This is shown in Figure 2.

***Figure 2**: Map of relevant DfT CP*




At this CP the AADF for every year between 2000 and 2017 is available, with the last manual count being taken in 2013. After 2013, the estimated AADF is based on applying trends from similar CPs to the 2013 count.

The estimated annual cycling usage in 2017 this count point is 8,030. Seeing as the route that this count point is on could also lead to Bolgoed (carrying on along the A48) or to Grovesend (turning right onto the B4296), we cannot assign all of this usage to travel between Pontarddulais and Grovesend.

[4] An Annual Usage Estimate (AUE) refers to the number of individual cycling trips made annually on a route

However it is expected that Grovesend would be the more appealing destination for the following reasons:

- it's on the way to Swansea, where many people living in Pontarddulais work
- it's on the way to Gowerton, where you have more frequent trains to Swansea and to the coast
- it's connected to Gorseinon via a traffic free path

As such it would be appropriate to expect the majority of trips coming from the south east of Pontarddulais to be heading towards Grovesend, and so 80% of the trips are deemed to be between Grovesend and Pontarddulais. Therefore the estimated annual cycling usage between Pontarddulais and Grovesend is **6,424**.

### 4.1.2 Walking

In the current case it is apparent that there are parts of the existing route between Pontarddulais and Grovesend that would prevent pedestrians from making a journey. The bridge over the railway line does not have any provision for pedestrians. The bridge over the M4 on the B4296 has a pavement. As a result, it is estimated that the current annual usage for pedestrians on this route is close to zero. The pedestrian IIT is mainly comprised of schemes where there is already some sort of route option for pedestrians in the pre-construction stage, and so the baseline usage is often much more than zero. As such the percentage changes in usage suggested by the pedestrian IIT are unlikely to be an appropriate means of forecasting post-construction usage. As such, a case study with similar features to the Pontarddulais to Grovesend scheme has been used.

The case study that has been used is the traffic free route between Pontesbury and Minsterley, near Shrewsbury, which was delivered as part of the DfT's Linking Communities programme.

There were several similarities between the Pontesbury and Minsterley scheme and the current case:

- Both cases lacked an option for pedestrians pre-construction. In the Pontesbury scheme pedestrians would need to walk on a verge on the side of an A road to travel between Pontesbury and Minsterley
- Both cases exhibit a large proportion of leisure usage amongst route users
- Both cases deliver a traffic free route between the locations being linked

The Pontesbury scheme had a pre-construction walking AUE of 202, and a post-construction AUE of 12,716. The relevant population sizes around Pontarddulais (population of 10,480 across Pontarddulais and Grovesend[5]) is almost double that around Pontesbury (population of 4,791 across Pontesbury and Minsterley[6]). As such it is likely that both the pre and post construction usage levels would be higher in the case of the current scheme compared to the Pontesbury scheme, and so a scaling factor of 2.1874, based on the difference in population sizes, has been applied to the Pontesbury usage figures to arrive at the final pedestrian usage figures for the Pontarddulais to Grovesend scheme.

[5] Population of 9,361 in Pontarddulais and 1,119 in Grovesend (based on 2016 estimates)
[6] Population of 3,227 in Pontesbury (based on 2011 census) and 1,564 in Minsterely (based on 2016 estimates)

This provides a pre-construction pedestrian AUE of **442** (202 * 2.1874).

### 4.1.3 Summary

The baseline pedestrian and cyclist AUEs for travel between Pontarddulais and Grovesend are shown in **Table 4**.

*Table 4: Summary of Baseline AUEs*

| Scheme section | Cycling AUE | Walking AUE |
|---|---|---|
| Pontarddulais to Grovesend | 6,424 | 442 |

The baseline is an estimation of 'current usage' relevant to the proposed route i.e. usage that exists but is not currently facilitated due to route not existing. Therefore it is an estimation of the current number of journeys which may be occurring in the local area that could be using the proposed route.

## 4.2 AUE increase scenarios

To forecast the expected economic benefits of the route, a range of post-intervention scenarios where usage has increased above the baseline are set.

These scenarios are based on outputs from the Infrastructure Investment Tools (IIT) for cyclists which provides an estimate of the expected cycling usage increases based on a database of past schemes where infrastructure of a similar type has been delivered.

For cycling, the IIT model was run using the baseline AUE and the infrastructure intervention category 'Cycle and pedestrian tracks' with the urban rural classification of 'Urban town and city'.

To account for potential uncertainty and the possibility that usage change may be higher or lower than what was observed in the past, a range of three post-usage scenarios are used.

The three scenarios for cycling uplift are shown in **Table 5**. The three scenarios are as follows. The upper scenario is set above the IIT percentage increase and the lower scenario is set below the IIT percentage increase scenario. The IIT scenario is represented in green.

*Table 5 Post-scenario cycling AUEs*

| Baseline AUE | Percentage increase in cyclist usage | Post-scenario AUE |
|---|---|---|
| 6,424 | 52% | 9,764 |
| 6,424 | 72% | 11,049 |
| 6,424 | 92% | 12,334 |

For walking, the increase in usage for the central scenario was estimated by taking the post scheme usage level on the Pontesbury scheme and multiplying it by the same scaling factor that was applied for the calculation of the baseline AUE (12,716 * 2.1874).

The scenarios for pedestrian usage, including low and high estimates around the central estimate, are shown in **Table 6**.

*Table 6 Post-scenario pedestrian AUEs*

| Baseline AUE | Post-scenario AUE |
|---|---|
| 442 | 25,606 |
| 442 | 27,815 |
| 442 | 30,025 |

Together, the post-scenario cycling and pedestrian usage calculations represent the three scenarios that are appraised.

## 4.3 WelTAG and monetised economic benefits

The BCR tool provides an appraisal of the economic benefits of an infrastructure development and requires specific inputs in order to provide a monetised value for the expected benefits under the three post-construction usage scenarios.

For this route, the BCR appraisal tool has been used to calculate the expected economic benefits based on the post-scenarios for both pedestrians and cyclists. All economic benefits presented have been calculated using the WelTAG appraisal tool over a 20-year time period.

In addition to the baseline and post-scenario AUEs, all necessary BCR tool inputs were taken from three proxy RUIS carried out at sites in Wales, Gar Valley, Conwy and Narberth. These proxy sites were used as no RUIS was carried out in Pontarddulais. No variation in these additional inputs has been made between the baseline and post-scenario cases as it is not possible to predict how these might change as a result of the development.

Depending on what occurs in practice and how these variables change in reality, the valuations obtained through WelTAG using these fixed inputs may reflect an economic value that is either higher or lower than the reality.

## 4.4 Health-related economic benefits

The health-related economic benefits of the Pontarddulais to Grovesend scheme have been estimated using the World Health Organisation's (WHO's) Health Economic Appraisal Tool (HEAT)[7]. All health-related economic benefits are calculated over a 20 year appraisal period.

The BCR tool includes health-related economic benefits that have been generated using HEAT. The HEAT outputs that have been calculated are outlined in **Table 7**.

*Table 7: HEAT outputs*

| | Post-scenario cycling AUE | Post-scenario pedestrian AUE | HEAT output (cyclists) | HEAT output (pedestrians) | HEAT output (combined) |
|---|---|---|---|---|---|
| Post-scenario 1 | 9,764 | 25,606 | £79,723 | £521,407 | £601,130 |

[7] The WHO HEAT tool is available at: http://old.heatwalkingcycling.org/

| | | | | | |
|---|---|---|---|---|---|
| Post-scenario 2 | 11,049 | 27,815 | £129,285 | £567,312 | £696,597 |
| Post-scenario 3 | 12,334 | 30,025 | £178,831 | £613,216 | £792,047 |

The combined HEAT output for both pedestrian and cyclist usage is used as the health economic benefit input in the WelTAG tool.

## 4.5 Overall economic benefits

The overall economic benefits of the proposed route include both the BCR tool and HEAT outputs.

**Table 8** displays the range of economic benefits that could be expected under all possible combinations of the three cycling and pedestrian usage scenarios that have been examined. All of these economic benefits include the HEAT outputs displayed in Table 7.

***Table 8*** *WebTAG and HEAT – Economic benefit*

| | | **Walking AUE increase** | | |
|---|---|---|---|---|
| | | 5695% | 6195% | 6695% |
| **Cycling AUE increase** | 52% | £922,640 | £977,246 | £1,031,849 |
| | 72% | £995,339 | £1,049,946 | £1,104,549 |
| | 92% | £1,067,991 | £1,122,598 | £1,177,201 |

As well as viewing the estimated economic benefits as an array of possible scenarios, these economic benefits can be displayed as three scenarios: a low usage change scenario, a middle usage change scenario and a high usage change scenario. This corresponds with how the economic benefit outputs for the Pontarddulais to Grovesend route are presented. These three scenarios will be input into the LCEM and LWEM. The three scenarios are outlined in **Table 9** below.

***Table 9:*** *WebTAG and HEAT – AUEs and economic benefits*

| | Post-scenario AUE (cycling) | Post-scenario AUE (pedestrian) | Economic benefits |
|---|---|---|---|
| Low usage change | 9,764 | 25,606 | £922,640 |
| Medium usage change | 11,049 | 27,815 | £1,049,946 |
| High usage change | 12,334 | 30,025 | £1,177,201 |

## 4.6 Benefit-cost ratios

The total construction cost of the proposed Pontarddulais to Grovesend scheme is estimated at £599,900. Annual (routine) maintenance costs for the route length of 3km are estimated to be £2,344 per year. Over the 20 year appraisal time period, the total scheme costs (construction and maintenance) are estimated at £765,824.

**Table 10** below shows the estimated economic impact, including health benefits from HEAT, for each of the different increase scenarios. These economic benefits have not been discounted over a

20 year appraisal period. The benefit to cost ratio for each scenario is included under the 'BCR' column.

***Table 10*** *Estimated economic benefits*

| | Cycling | Walking | Total Benefits | Cost (inc. maintenance over 20 years) | BCR |
|---|---|---|---|---|---|
| **Lower scenario (5695% Cycling, 52% Walking)** | £302,145 | £620,495 | £922,640 | £765,858 | **1.20:1** |
| **Middle scenario (6195% Cycling, 72% Walking)** | £374,845 | £675,101 | £1,049,946 | £765,824 | **1.37:1** |
| **Higher scenario (6695% Cycling, 92% Walking** | £447,497 | £729,704 | £1,177,201 | £765,790 | 1.54:1 |

Any BCR above 1 signifies that the economic benefits of constructing the route are equal or greater than the provided cost. All scenarios have positive BCRs, signifying that the economic benefits are such that they outweigh the costs. It is not possible to select any one scenario as the most likely to materialise. The range of scenarios is intended to provide an indication of potential outcomes.

## 4.7 Tourism-related economic benefits

The Leisure Cycling Expenditure Model (LCEM) and Leisure Walking Expenditure Model (LWEM) tools have been used to generate an estimate of the combined tourism-related economic benefits of the proposed scheme.

The LCEM and LWEM tools have been run using the recreational usage inputs from the Gar Valley, Conwy and Narberth RUIS sites. The economic benefits captured are excluded from appraisals of cycling and walking usage according to WebTAG and therefore, can be considered to be additional to those benefits outlined in **Table 9**. These tourism-related economic benefits are derived from a different approach to the economic benefits generated through the RMU WebTAG tool and therefore, should not be combined.

The LCEM and LWEM tools provide an estimate of the annual recreational spend by both home-based and tourist leisure cyclists on accommodation, food and drink, retail, car costs, cycle costs and public transport. This provides an estimate of the direct contribution that leisure cycling and walking generated through the proposed route developments will make on the local economy on a yearly basis.

The tools also provide an estimate of the annual social value of recreational trips made by home-based or tourist leisure users on the traffic free route between Pontarddulais and Grovesend. This is a measure of the 'public good' or value placed on the route by leisure users that is not captured in their expenditure.

*Table 11: Combined Leisure Cycling Expenditure Model (LCEM) outputs*

| | Annual recreational spend - HOME | Annual recreational spend - HOLIDAY | Overall tourism economic benefits |
|---|---|---|---|
| Based on existing route usage levels | £ 3,219 | £ 4,437 | £ 7,656 |
| Low usage change | £ 4,808 | £ 6,628 | £ 11,435 |
| Medium usage change | £ 5,440 | £ 7,500 | £ 12,940 |
| High usage change | £ 6,073 | £ 8,372 | £ 14,445 |

*Table 12: Combined Leisure Walking Expenditure Model (LWEM) outputs*

| | Annual recreational spend - HOME | Annual recreational spend - HOLIDAY | Overall tourism economic benefits |
|---|---|---|---|
| Based on existing route usage levels | £ 1,521 | £ 2,444 | £ 3,965 |
| Low usage change | £ 88,137 | £ 141,624 | £ 229,761 |
| Medium usage change | £ 95,742 | £ 153,843 | £ 249,585 |
| High usage change | £ 103,346 | £ 166,062 | £ 269,408 |

The LCEM and LWEM tools also provide an estimate of the direct and indirect full-time equivalent (FTE) jobs supported in the local economy through recreational cycling. Details of this are provided in **Table 13** and **Table 14.**

*Table 13: Leisure cycling usage and employment support*

| | Direct employment (FTEs) | Indirect employment (FTEs) | Total employment (FTEs) |
|---|---|---|---|
| Based on existing route usage levels | 0.11 | 0.06 | 0.17 |
| Low usage change | 0.16 | 0.10 | 0.26 |
| Medium usage change | 0.18 | 0.11 | 0.29 |
| High usage change | 0.20 | 0.12 | 0.32 |

*Table 14: Leisure walking usage and employment support*

| | Direct employment (FTEs) | Indirect employment (FTEs) | Total employment (FTEs) |
|---|---|---|---|
| Based on existing route usage levels | 0.06 | 0.03 | 0.09 |
| Low usage change | 3.24 | 1.93 | 5.17 |
| Medium usage change | 3.52 | 2.10 | 5.62 |
| High usage change | 3.80 | 2.27 | 6.06 |

# Considerations

There are a number of considerations relevant to the assessment of economic benefits that has been carried out for this scheme**.**

**Baseline AUE Data Selection**

- The DfT Manual counts have a very limited data collection period of 12 hours over one day, and in years where a manual count doesn't take place the change in usage is based on the change in usage from counters in a similar type of location. The most recent estimate has been used in this case, but the last manual count at this location was taken 5 years ago (2013).
- It is possible that some of the estimated cycling usage at the DfT Manual count location is cycling being done within Pontarddulais or heading from the south east side of Pontarddulais to places to the north or west, and so some of the usage may not be attributable to journeys to/from Grovesend or Bolgoed.

  Due to the likely large proportion of leisure usage on both the Pontarddulais and Pontersbury schemes, using the local population size to scale up the pedestrian AUEs between the two schemes may not be completely appropriate. This is because some of the leisure usage will be from tourists visiting the area, which is not usage tied to the local population size. In this case it is assumed that the proportion of leisure usage that is done my locals vs tourists is similar between the Pontesbury and Pontarddulais schemes, but this isn't necessarily the case.

**Post-scenario AUEs**

- The rate of uplift in the high and low usage scenarios were calculated as +/- 20% of the mid usage scenario for cycling. 20% was used as there is no other evidence to suggest you should vary substantially from the IIT output but there is a need to illustrate that a range of scenarios is possible. This is equivalent to +/- 11.5% of the estimated value of post-intervention usage. For walking, the rate of uplift in the high and low usage scenarios were calculated as +/- 500% of the mid usage scenario. This was due to the much larger scale of percentage change seen in the pedestrian usage in the mid usage scenario. This is equivalent to +/- 8% of the estimated value of post-intervention usage.

**Analysis – BCR Tool and Leisure Expenditure Model Tools**

- The LCEM, LWEM and BCR tools were run using inputs from three RUIS carried out at proxy sites in 2017, Garw Valley, Conwy and Narberth. These sites were used as no RUIS has been conducted at Pontarddulais. The proxy sites were all part of the Wales Rural Development Programme, and as such have similar characteristics to the proposed route in that they are shorter, strategic links between the existing NCN and rural tourism destinations.

- The same proportions of trip frequency and trip purpose in the pre and post scenarios in the BCR tool were used as in the absence of any evidence to suggest otherwise i.e. actual data we have to assume the trip purpose and frequency would not change.