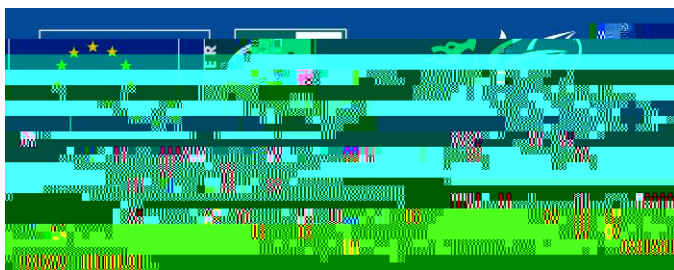


Conwy Estuary Trail Economic Impact Study

Wales Rural Development Programme

February 2019



About Sustrans

6XVWUDQV \ZpU HOXVHQ V\pQ HL JZQHxG \Q KpZyWlltu pDIE O JHUGGH
OOHI\GG \Q FUHX F\PXQHGDx E\Z \Q WUDZVQHxZLG \ GDLWK LpU \
LDFKDFK LpU JZDLWK

Ymunwch â ni ar ein siwrne. www.sustrans.org.uk

Sustrans is the charity maki

Table of contents

Conwy Estuary Trail =

Conwy Estuary Trail zEconomic Impact Study

1 Executive Summary

1.1 Key outputs from the economic appraisal

The economic benefits of the Conwy Estuary route upgrade have been appraised based on expected annual cyclist and pedestrian usage on the proposed route 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 usage estimates are derived from the Infrastructure Impact Tool (IIT), see section 3 for more details on tools. 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

Current usage on the route is estimated using data from a Route User Intercept Survey (RUIS) conducted on site in August/September 2017. The estimated Annual Usage Estimates (AUEs) are:

- x 48,337 cycling AUE
- x 381,534 walking AUE

Table 1 Cyclist usage scenarios

Baseline AUE	Percentage increase in cyclist usage	Post-scenario AUE
48,337	152%	73,472
	172%	83,140
	192%	92,807

Forecasted/future annual usage estimate (pedestrians)

These estimated values are based on scenarios that have been developed around the pedestrian Infrastructure Impact Tool (IIT) output.

Under the IIT scenario, where the shared use route sees a 72% increase in cycling and 26% increase in walking trips above baseline, the benefits are:

- x A total of 480,733 walking trips and 83,140 cycle trips being made on the route each year
- x Total economic benefits (PVB) of £ 1,320,611
- x Health benefits of £ 767,819
- x Overall tourism economic benefits of £ 4,072,674 (walking and cycling combined)

Given the estimated costs of construction and maintenance, this level of usage results in a Benefit-Cost ratio of 0.71 for the average cost scenario.

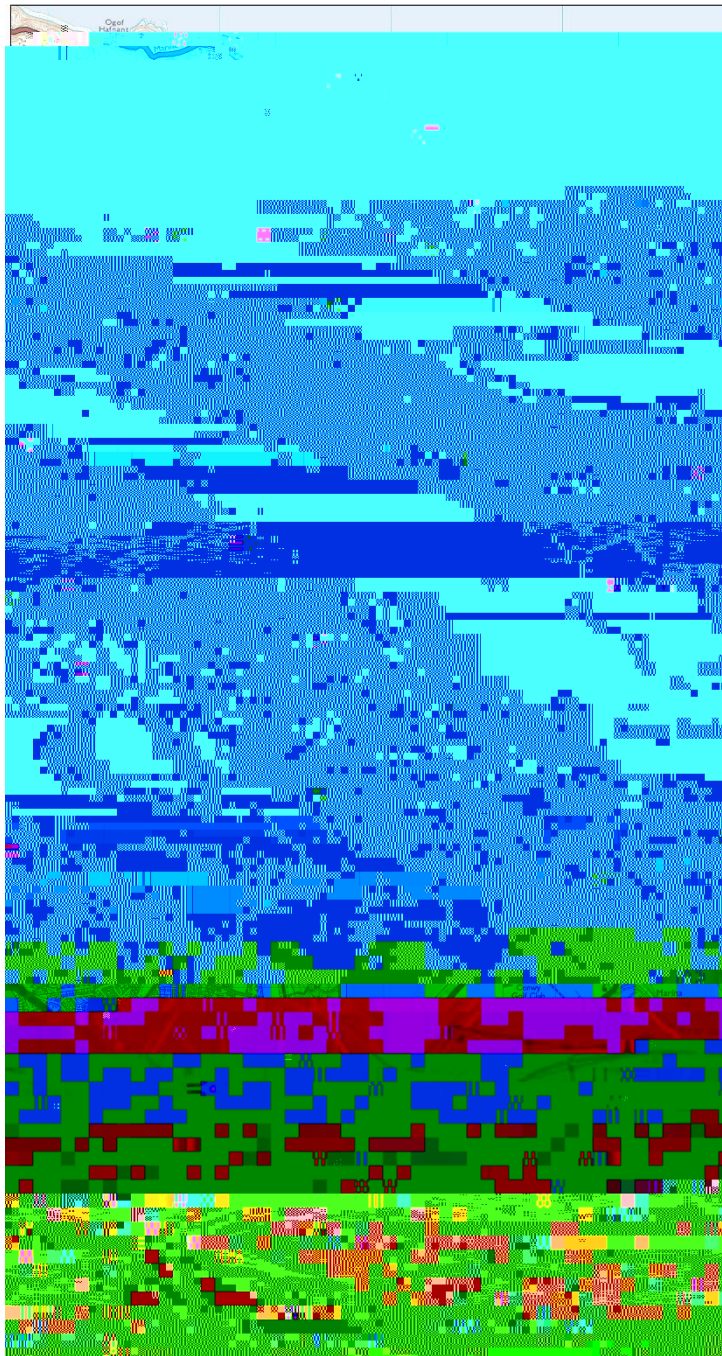
2 Background

6XVWUDQVp 5HVHDUFK DQG 0RQLWRULQJ 80LW 508 KDYH XQG HU
scenarios for the proposed development of the route between Deganwy and Llandudno along the
Conwy Estuary.

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

2.1 Study Area

Figure 1 Map overview of proposed route



The proposed upgrade will follow a 3km section of the Conwy Estuary, North towards the West shore of Llandudno. The work would be done in conjunction with the Beach Management Plan currently being developed by Conwy County Borough Council (CCBC) and Llandudno Coastal Forum (LCF). It would address the issues of windblown sand from the dunes which blocks the path for most of the year as well as bringing the section up to current standards.

The upgrade is expected to help tourism in the area due to the appeal of the coastal scenery, Conwy castle and existing NCN links in the area.

The economic benefits of this route have been evaluated from usage estimates from local counter **GDWD DQG 5RXWH 8VHU , QWHUFHSW** appraised using the Infrastructure Investment Tool (IIT) for cyclists and pedestrians, the Benefit-Cost Ratio 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) and the pedestrian IIT (PIIT) are 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 Appraisal¹. 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.

J R Y H U Q P H Q W p V 7 U D Q V S R U W \$ S S U D L V D O * X L G D Q F H : H O 7 \$ L V X

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 WeITAG, therefore the BCR tool developed in accordance with WebTAG is compatible for the Welsh context.

The World Health Organisation issued HEAT 4.0 in November 2017 as an update to the previous tool. HEAT 4.0 is currently under review by the WHO and likely to be reissued with further amends.

As a result, the version of HEAT used in this appraisal is the previous version of HEAT, available at: <http://old.heatwalkingcycling.org>

Leisure Expenditure Model Tools: Cycling and Walking

Sustrans RMU has developed two models which calculate the economic benefit to an area from **UHFUHDWLRQDO F\FOLQJ DQG ZDONL** and the **Leisure Walking Expenditure Model** **SHU**

The Leisure Cycling Expenditure Model² 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 **DQ HVWLPDWH RI DQQXDO oVSHQG SHU KHDGp IRU DOO UHFUHDW** 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

This was calculated from Route User Intercept Surveys conducted on the Conwy site on four days in August (3rd and 5th) and September (5th and 9th), between 0700h and 1900h.

5 Assessment of Economic Benefits

This section outlines the economic benefits of the proposed Conwy Estuary Trail, including:

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

5.1 Annual Usage Estimate

An Annual Usage Estimate (AUE)³ is required to calculate the expected economic benefits from a proposed route development. This comes from the RUIS conducted on the route in August/September 2017.

The AUE calculation draws on historical data, automatic counter data and takes into account seasonality. Results are shown in Table 4.

Table 4 RUIS annual Usage Estimate (AUE) data

Site	Region	Year	Cycling AUE	Walking AUE
Conwy Estuary RUIS	Wales	2017	48,337	381,534

5.2 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 and pedestrians which provides an estimate of the expected cycling and pedestrian usage increases based on a database of past schemes where infrastructure of a similar type has been delivered. The IIT models were run using the baseline AUE and the infrastructure category **o&\FOH DQG SHGHVWU IRU WKH XUEDQ UXUDO FODVVLILFDWLRQ RI o8UEDQ WRZQ DQG F**

The IIT provides an indication of usage increase that is likely to be expected from construction of the route. This is the estimate of annual usage once the scheme has been constructed, accounting for mode shift and growth in cycling usage that is encouraged through the route development. To account

³ An Annual Usage Estimate (AUE) refers to the number of individual cycling trips made annually on a route

5.4 Health-related economic benefits

The health-related economic benefits of the Conwy

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 - Multi-scenario economic benefits

	Cycling AUE increase	Pedestrian AUE increase	Post-scenario AUE (cycling)	Post-scenario AUE (pedestrian)	Economic benefits
Lower scenario	52%	21%	73,472	461,656	£964,275
Middle scenario	72%	26%	83,140	480,733	£1,320,739

Higher scenario 66 695.02

