Wiltshire Council

The Economic and Tourism Benefits of the Melksham Link

Final Report

AMEC Environment & Infrastructure UK Limited

April 2014

Copyright and Non-Disclosure Notice

The contents and layout of this report are subject to copyright owned by AMEC (©AMEC Environment & Infrastructure UK Limited 2014). save to the extent that copyright has been legally assigned by us to another party or is used by AMEC under licence. To the extent that we own the copyright in this report, it may not be copied or used without our prior written agreement for any purpose other than the purpose indicated in this report.

The methodology (if any) contained in this report is provided to you in confidence and must not be disclosed or copied to third parties without the prior written agreement of AMEC. Disclosure of that information may constitute an actionable breach of confidence or may otherwise prejudice our commercial interests. Any third party who obtains access to this report by any means will, in any event, be subject to the Third Party Disclaimer set out below.

Third-Party Disclaimer

Any disclosure of this report to a third party is subject to this disclaimer. The report was prepared by AMEC at the instruction of, and for use by, our client named on the front of the report. It does not in any way constitute advice to any third party who is able to access it by any means. AMEC excludes to the fullest extent lawfully permitted all liability whatsoever for any loss or damage howsoever arising from reliance on the contents of this report. We do not however exclude our liability (if any) for personal injury or death resulting from our negligence, for fraud or any other matter in relation to which we cannot legally exclude liability.

Document Revisions

No.	Details	Date
1	Draft Report	7th March 2014
2	Draft Report (editorial revisions)	19th March 2014
3	Final Report	11th April 2014

Wiltshire Council

The Economic and Tourism Benefits of the Melksham Link

Final Report

AMEC Environment & Infrastructure UK Limited

April 2014

Report for

Ken Oliver, Countryside Officer
Environment Services
Monkton Park
Chippenham
SN15 1ER

Main Contributors

David Tyrer
John Pomfret
Ilona Kirhensteine
Colin Carter

Issued by

.....
David Tyrer

Approved by

.....
Colin Carter

AMEC Environment & Infrastructure UK Limited

17 Angel Gate, City Road, London EC1V 2SH,
United Kingdom
Tel +44 (0) 207 843 1400
Fax +44 (0) 207 843 1410

Doc Reg No. 35261

h:\projects\35261 - pp economic impact of melksham link canal project\c000\april 2014 final draft\final draft sent to client\35261 - report melksham link amec20140411.docx

ISO 9001 - FS 13881
ISO 14001 - EMS 69090
OHSAS 18001 - OHS 600064

In accordance with an environmentally responsible approach, this document is printed on recycled paper produced from 100% post-consumer waste, or on ECF (elemental chlorine free) paper

© AMEC Environment & Infrastructure UK Limited
April 2014
Doc Reg No. 35261

Executive Summary

This study has been prepared by AMEC Environment & Infrastructure UK Ltd ("AMEC") for Wiltshire Council, Melksham Town Council, Melksham Trust and the Wilts & Berks Canal Trust. It sets out the estimated economic and tourism benefits of a proposed inland waterway – the Melksham Link, Wiltshire. The proposal is to construct three kilometres of new canal, towpath and associated infrastructure linking the existing Kennet and Avon Canal at Semington with Melksham town centre. The new canal section would then join to an existing 0.75 km section of the River Avon in the town centre downstream of the existing weir. The water level of this section would be raised 0.5m by a new weir downstream of the proposed junction and into this weir, a fish pass and a canoe passage will be incorporated. At the existing weir, a new lock will be built enabling inland waterway craft to travel a further 1.25 km further upstream, the existing ineffective fish pass will be replaced and a 50kW hydro electric power generation scheme is also proposed.

Overall, a total of 5km of new navigable waterway will be created. It will include four locks, foot and road bridges new access points, visitor moorings, a towpath and cycleway along the entire stretch, along with landscaping and environmental improvements. The construction of the new waterway constitutes a major investment in Melksham, estimated at approximately £14 million for the core elements and a further £7 million for additional infrastructure (some £21 million in total). Once complete, the longer term aspiration is that the Melksham Link will form part of a fully restored Wilts & Berks Canal connecting the Kennet & Avon to the Thames at Abingdon and, via the North Wilts Canal, to the Cotswold Canals at Cricklade.

Inland waterways such as the proposed Melksham Link can provide considerable economic and tourism benefits to the local and regional economy. First, they attract day and overnight visitors in boats and on foot. These visitors spend money on local goods and services. This expenditure means that existing business may require additional staff and/or supplies. These staff and business, in turn, spend at least a proportion of their salaries/procurement with other local businesses in the local area. The direct benefits of the canal restoration are thus 'multiplied' into the local and regional economy.

The assessment also examines the economic effects arising from ambitious regeneration proposals in the town centre and along the proposed route. These proposals are subject to detailed design, planning and consultation and are indicative only. In total the assessment has examined the effects from: the construction of a new marina in the vicinity of Semington; a total of 620 additional residential units (houses or equivalent) – on six different plots and at different densities; a new camping/caravan site; a new restaurant, cafe and public house; and 6,250m^2 of retail floorspace proposed on the waterfront in Melksham town centre. These facilities assessed are either on greenfield plots or are underused and could, subject to detailed design and planning, be released by their occupants without any adverse effects on their existing operations. Therefore, the assessment is based on two components.

First, an assessment of the economic effects arising from the expenditure from new day and overnight visitors associated with the link. This is expected to include private commercial hired or trip/business boats as well as other leisure and recreation users. The scale of the effects has been estimated under three scenarios and so is provided within a range. The scenarios draw on the recent and relevant data on the economic effects from the Kennet and Avon Canal prepared in 2010 cross referenced with similar studies from elsewhere. Overall, the assessment suggests that the Melksham Link could attract annual (gross) visitor expenditure from all sources (including

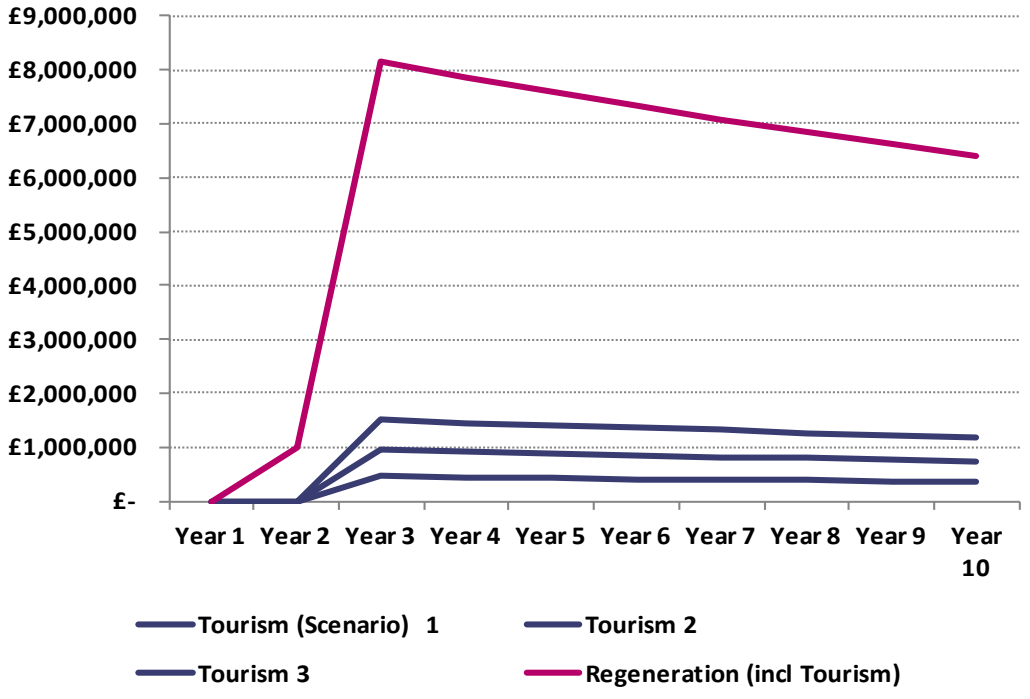
© AMEC Environment & Infrastructure UK Limited

everyday usage by local people) of between £0.75 million and £2.7 million annually assuming all regeneration opportunities are developed. In employment terms, this would lead to between 20 and 75 new Full Time Equivalent (FTE) jobs with a greater number of jobs in total (up to 100 net additional jobs) when part time working is accounted for. Based on average Gross Value Added (GVA) per filled job in Wiltshire, this could inject between £0.5 million and £1.7 million into the local economy each year, or between £3.5 million and up to £10.5 million over the next ten years, mainly dependent on the number of visitors.

Second, the assessment considers the economic effects from both the construction of the waterway and the regeneration opportunities, alongside employment opportunities, once these have been built. These are in addition to the visitor effects described above, but are interdependent – the conclusions of the study do not hold if one component is excluded.

If all the potential regeneration opportunities are developed, this would constitute an investment in Melksham of £55 million, a substantial signal of confidence in the town and implying a material increase in its resident population. This investment is estimated to create up to 250 job opportunities during the temporary construction stage. These are likely to include employment training opportunities for local people and new contracts for contractors both locally and further afield. Once operational, substantial new employment opportunities could be created, in particular within the proposed retail facilities. To avoid double counting, the economic effects from the regeneration opportunities are taken to include the visitor effects described above.

In total, from both tourism and regeneration opportunities, up to 500 (gross) job opportunities in total could be created in Melksham, some 430 net additional job opportunities in total across the local economy. This could ultimately inject up to £7.5 million pounds into the economy per year and in the region of £55 million into the local economy over the next ten years. The estimated path of benefits over the next ten years that could accrue to the local economy from the regeneration opportunities (both construction and operation) alongside those of the visitor spending is set out below.



© AMEC Environment & Infrastructure UK Limited

Regeneration opportunities might be developed at a slower rate or at a more modest scale which would delay or reduce the overall benefits.

There is also strong evidence to suggest other private and social benefits. First, residential property tends to command a price premium of between 5% and 25% of the property's initial value depending on its proximity to a waterway and the degree of improvements. Analysis of the locality suggests that a proportion of the 2,960 properties nearest the route could see an increase in average value of between £9,000 and £47,000.

The Melksham Link also provides wider environmental benefits such as contributing to reductions in car journeys and to nature conservation as well as supporting the significant historical and heritage value of canals and their associated locks, buildings, tunnels and bridges. There are new opportunities for improvement to health and well-being and social benefits of access to a range of recreational and leisure opportunities from walking, cycling and boating as well as education and volunteering opportunities.

© AMEC Environment & Infrastructure UK Limited

Contents

© AMEC Environment & Infrastructure UK Limited

© AMEC Environment & Infrastructure UK Limited

1. Introduction

1.1 Purpose of this Report

This study prepared by AMEC Environment & Infrastructure UK Ltd ("AMEC") for Wiltshire Council, Melksham Town Council, Melksham Trust and the Wilts & Berks Canal Trust sets out the estimated economic and tourism benefits along with the social and environmental impacts of the proposed 'Melksham Link' to construct three kilometres of new canal, towpath and associated infrastructure, from the existing Kennet and Avon Canal at Semington to Melksham, Wiltshire. At Melksham the new canal section would join an adapted 0.75 km section of the River Avon in the town centre and, above the existing weir, an additional 1.25 km upstream providing a total of 5 km of new navigable waterway and towpath.

1.2 Context and scope of work

1.2.1 Geographical context

The historic route of the canal from Semington to Melksham has been lost as a result of development since its closure. The proposed route, chosen after feasibility of several routes was assessed, is the subject of a current planning application and Environmental Impact Assessment (EIA).

Site of proposed new junction with Kennet & Avon Canal at Semington - the Melksham Link would leave to the right

The Melksham Link is part of a wider restoration of the historic Wilts & Berks Canal, which was formally abandoned in 1914. The Canal was derelict for many years until the Wilts & Berks Canal Amenity Group was formed in 1977 and commenced its efforts to conserve and restore the waterway. The Amenity Group became part of the Wilts & Berks Canal Trust, which involved Local Authorities along its route.

To date, a number of sections have been put back in water, locks restored and a new junction with the River Thames constructed at Abingdon. The Wilt & Berks Canal Trust is an active fundraiser and funder and typically raises around £100,000 to £150,000 per year. Partners have also provided funding for a number of projects and volunteer work has also contributed significantly to the restoration. Examples of projects already funded and implemented or in progress along the canal include:

- the £10 million Wichelstowe development, which includes a sections of new and restored canal and a new lock;

© AMEC Environment & Infrastructure UK Limited

- a new canal culvert included in the road reconstruction project of Thamesdown Drive near Swindon, on the North Wilts Canal, where partners contributed £400,000;
- development of the Cricklade Country Way along the North Wilts Canal, supported by a £250,000 grant from the Big Lottery Fund in 2006;
- purchase of land near Lyneham to safeguard the future of seven locks on the Wilts & Berks main east-west route;
- dredging and restoration at Pewsham Locks, near Chippenham;
- rebuilding of Chaddington Lock and spillweir, supported by a community grant from the former North Wilts District Council, and
- creation in 2006 of the Jubilee Junction with the Thames near Abingdon, supported by match funding from WREN and constructed with assistance from volunteers of the Waterway Recovery Group [1].

Construction works under way at the site of the new Jubilee Junction between the Wilts & Berks and the River Thames

In parallel with the restoration of the waterway itself, the Wilts & Berks Canal Towpath project aims to restore the towpath to public access along its entire 106 kilometre length between Semington, Abingdon and Cricklade.

The longer term aspiration is to link the adapted section of the River Avon in Melksham to newly constructed/restored sections of the Canal north of the town, ultimately providing wider links to regional waterways and tourist attractions.

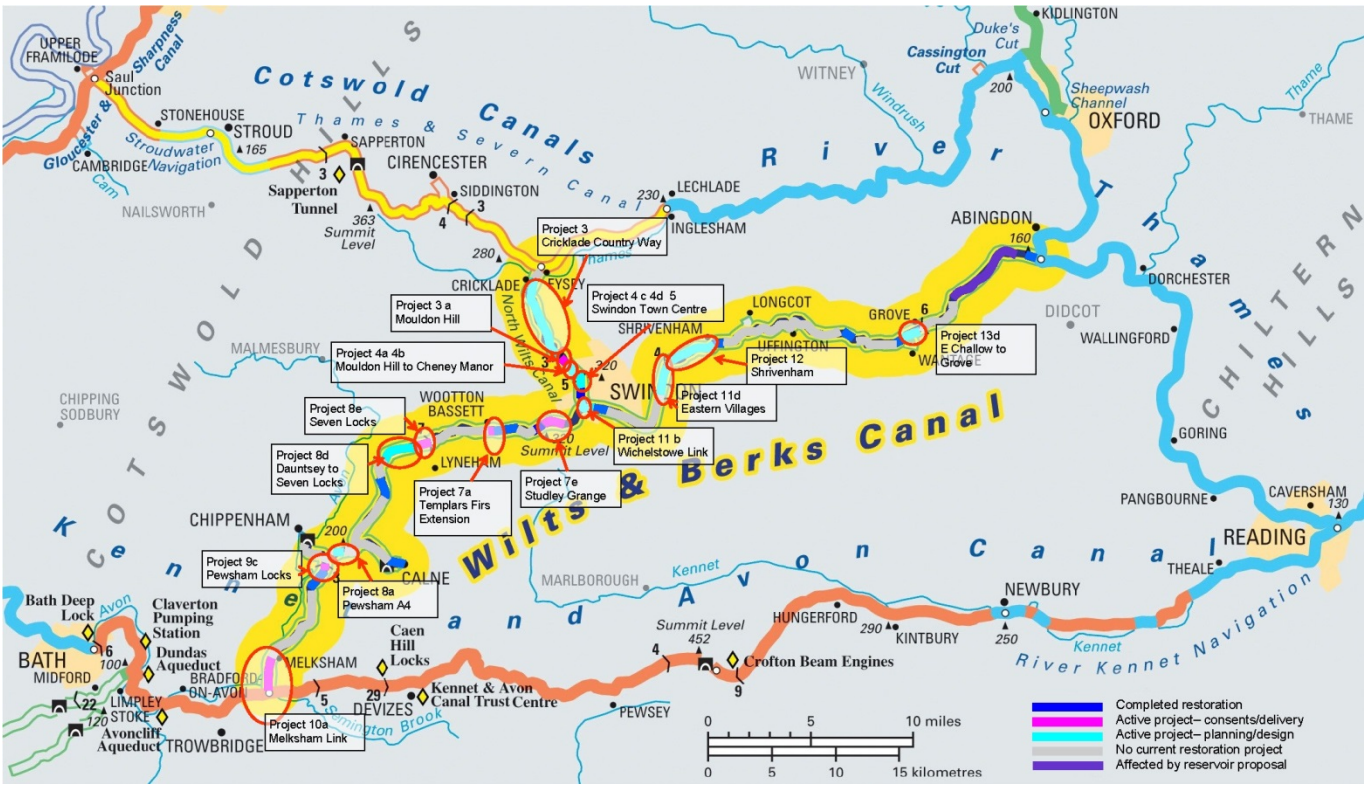
The completed Jubilee Junction, a month after the previous photo, showing the new section of the Wilts & Berks Canal

Figure 1.1 shows the former Wilts & Berks Canal and North Wilts Canal routes, under restoration by the Wilts & Berks Canal Trust and the Wiltshire, Swindon & Oxfordshire Canal Partnership, in the context of operational waterways (the Kennet & Avon Canal, River Thames and Gloucester & Sharpness Canal) and the Cotswold Canals (comprising the former Stroudwater Canal and the Thames & Severn Canal and currently under restoration by the Cotswold Canals Trust). It also shows the large number of restoration projects taking place along the lines of the Wilts & Berks Canal and the North Wilts Canal.

[1] Source: Wiltshire Council and WBCT

© AMEC Environment & Infrastructure UK Limited

Figure 1.1 The Wilts & Berks in the context of operational waterways and proposed restorations



Source: The Wilts & Berks Canal Trust.

1.2.2 Economic benefits

Inland waterways such as the proposed Melksham Link can provide considerable economic and tourism benefits to the local and regional economy. First, they attract day and overnight visitors in boats and on foot. These visitors spend money on local goods and services. This expenditure means that existing business may require additional staff and/or supplies. These staff and business, in turn, spend at least a proportion of their salaries/procurement with other local businesses in the local area.

The proposed canal route would pass through the village of Berryfield - to the left of the lamp standard and pub in the photo - providing regeneration opportunities along its route

The direct benefits of the canal restoration are thus 'multiplied' into the local and regional economy.

Along the proposed route, subject to detailed design, consultation and planning consents, the opportunity exists for wider commercial 'regeneration' development from Semington to the River Avon at Melksham. The study also assesses the economic impacts associated with current aspirations for the scale and nature of development along the proposed route.

© AMEC Environment & Infrastructure UK Limited

1.2.3 Approach

The study was prepared using publicly available data, in line with government approaches to economic and socio-economic analysis[2] and in consultation with various stakeholders involved with the management and delivery of the project. The study does not draw upon new primary survey information, which was not considered practicable within the time available for the study. Nevertheless, public consultation has been undertaken as part of the planning application and EIA[3].

The existing weir and flood gate on the River Avon would be bypassed by a new lock (to the right of the photo), as well as a hydropower turbine and a fish pass

1.3 Report Structure

Following this introduction, the report is structured as follows.

- Chapter two describes the scheme in further detail including all the components that form a part of this economic impact assessment, documenting any assumptions made for the purpose of the study.
- Chapter three summarises the economic effects that are considered likely to be generated as a result of tourism visits to the Melksham Link. This assessment assumes that the Canal is constructed and relates to visitor expenditure across Wiltshire as result of the Melksham Link.
- Chapter four summarises the economic effects that are considered likely to be generated as a result of the construction of the Melksham Link and commercial development (hereafter referred to as "regeneration opportunities") that may be developed in the vicinity of the canal link and river section. The assessment examines economic effects generated by the Melksham Link's construction - and the effects generated at both construction and operational stages of regeneration opportunities.
- Chapter five summarises social and environmental benefits from the proposed scheme.
- Appendix A contains a brief review of some socio-economic data on Melksham to provide context to the economic benefits identified.
- Appendix B contains maps which are referred to in the text.
- Appendix C contains statistical information and analysis used in the assessment of tourism effects.
- Appendix D contains maps showing the locations of indicative sites which form the basis of the assessment of potential regeneration opportunities.

[2] HM Treasury Green Book: Appraisal and Evaluation in Central Government.
https://www.gov.uk/government/publications/the-green-book-appraisal-and-evaluation-in-central-governent
Further guidance on assessing economic 'additionality' of project or programmes is here:
https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/191511/Additionality_Guide_0.pdf

[3] See for example the statement of community involvement and other planning documents here:
http://www.wiltsandberkscanal.org.uk/projects/melksham-link

© AMEC Environment & Infrastructure UK Limited

2. The Melksham Link

2.1 Scheme Summary

This chapter describes the scheme components that form the basis of the economic and tourism assessment. In summary, a new canal section would join the existing Kennet and Avon Canal at Semington. The route would go through the village of Berryfield joining an adapted stretch of the River Avon at Melksham where the water level of 750m of river would be raised to enable navigation. A new lock would allow passage of craft at an existing weir giving access to about a further 1.25km of river. The scheme would not require the demolition of any existing property. An existing children's play area would need to be removed, although this would be replaced with a new play area nearby, and Berryfield Village Hall would be refurbished or relocated. At a later stage, the canal would rejoin a restored section of the Wilts & Berks canal to the north of the town, ultimately providing a through link within the wider canal network.

For the purposes of this report, the area between Semington and where the canal joins the River Avon at Challymead is referred to as the 'Canal section'. The short adapted section of the River Avon is referred to as the 'River Section'. In addition to the waterway and associated infrastructure, potential exists for new commercial and property development alongside the proposed route, within both Canal and River sections.

2.2 Scheme components and assumptions

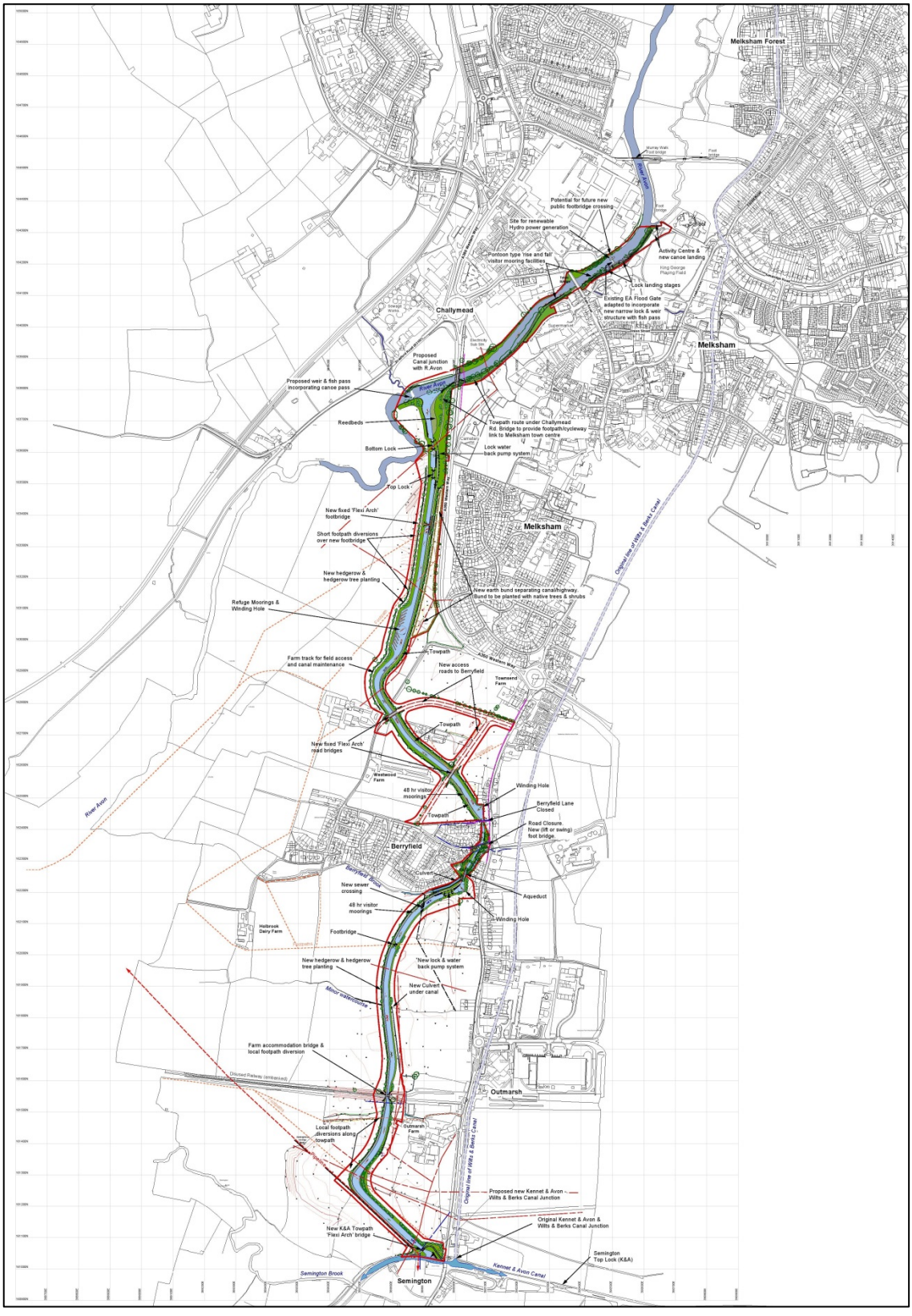
A plan of showing the overall scheme is shown in Figure 2.1. The components of the scheme and any assumptions made for the study are listed in Table 2.1. Scheme component information taken from publicly available sources and more detailed plans showing route sections are also available[4]. Given the stage of the scheme, certain assumptions are made and noted below. These include the size of the marina, the number of moorings and berths, for instance, where detailed design is yet to be undertaken.

In addition to the waterway itself, wider commercial and property development opportunities exist along the route of the waterway. This wider development is contingent on several factors. First, some – but not necessarily all – of this wider development is contingent on the waterway construction itself; creating new waterside access along the canal and increasing the use of existing riverside walkway at Melksham. Second, the wider development is contingent on the outcome of ongoing discussions with stakeholders alongside detailed masterplanning/design and achieving planning permission. The wider development summarised in Table 2.1 and considered in the report is thus an illustration of potential and potential plots used as the basis for the assessment are shown in Appendix D.

[4] See all information at: http://www.wiltsandberkscanal.org.uk/projects/melksham-link These plans are used as the basis for some of the assumptions – noted in the text.

© AMEC Environment & Infrastructure UK Limited

Figure 2.1 Proposed Route and Structures



Source: http://www.wiltsandberkscanal.org.uk/projects/melksham-link

© AMEC Environment & Infrastructure UK Limited

Table 2.1 Melksham Link scheme components

Waterway Components – Canal Section	Potential Wider Commercial Development
New junction with Kennet and Avon and Semington, with DDA accessible towpath bridge over new link. **Construction of 3 kilometre stretch of new canal including**: • 3 new locks (fall to River Avon) each 23m x 4.25m, with back-pumping facilities; • two new fixed road bridges for access to Berryfield village; • new fixed farm access bridge near Outmarsh Farm; • three new foot (swing or lift) bridges to maintain access at Berryfield village and for two public footpaths; • moorings to accommodate 25 craft [Note 1] and three winding holes (to allow canal boats to turn); • two culverted stream crossings (Berryfield Brook and a minor watercourse); • new 2-3 metre wide towpath and cycle path along 3km stretch, with native hedgerow planting; • tree screening planting; • relocated Berryfield village hall and children's playground; • reed bed habitat creation; • Possible new access point at Avon Top Lock (may comprise fishing and/or public car park), subject to highway authority negotiation.	**Construction of new Outmarsh Marina**, incorporating habitat creation into the design in accordance with best practice. [Note 4] **Potential housing development** on Greenfield sites adjoining the Canal. A total of four plots have been identified for potential housing development. [Note 5] Leisure use **camping/caravan site**.[Note 6] A **new hotel or restaurant** and **a new cafe and expanded public house**. [Note 7] '**Campus site**' *(not included in assessment of direct effects).* [Note 8]
Waterway Components -River Section	**Potential Wider Commercial Development**
New junction between River Avon and newly constructed Canal at Melksham to include widened canal section and navigation channel markers. Raise existing water height to retain a 750m navigable section of River Avon at Melksham through the **construction of new weir**. To include fish pass and white water canoe passage incorporated into the weir to enable canoe use downstream on River Avon. **Construction of a new narrow lock (23m x 2.2m)** at the existing weir, to the side of the existing flood gate and weir, retaining water for navigation for up to a further 1.25km (i.e. a total 2 km of river section). **Construction of 2 km stretch of new towpath and cycle path** along stretch of waterway. **Construction of visitor moorings** on the River section at Melksham Town centre east and west of existing bridge [Note 2] **Construction of a 50 kilowatt hydro electric power scheme** to be accommodated at the existing weir at Melksham Town centre. **Newly constructed canoe landing** at existing canoe centre [Note 3]	Three potential areas for development are considered: • **Area 1**: Land currently occupied by existing business on a large site. Discussions with land owner indicates that a proportion of the site, can be released that can accommodate some 25,000m2 of mixed use floorspace. Of this, It is assumed that 75% (18,750 m2) is housing (or a total of some 65 units) and 25% (6,250 m2) is retail. [Note 9] • **Area 2**: The site currently occupied by a range of existing business uses. Potential exists for the site to be redeveloped for mixes use including retail, but no net gain in employment at this site has been assumed. *[Note: A further site in the town centre has also been identified as offering possible development opportunities, but again is currently occupied. No net gain has been assumed in the number of jobs likely to be generated in either Area 2 or the additional site.]* • **Area 3**: Site is currently a Greenfield site earmarked for housing development of 15,000 m2. Density is assumed to be the same as in the 'Canal section above which suggests 35 dwellings in the site.

© AMEC Environment & Infrastructure UK Limited

Notes to Table 2.1

[1] The following assumptions have been made: Visitor moorings to accommodate 5 boats at any one time to the North of Berryfield Village, see annotated plan at http://www.wiltsandberkscanal.org.uk/files/melklinkplanning/wbct.10.003a-0_26.04.12.pdf . 'Refuge moorings' to accommodate up to 18 narrow boat berths at any one time, see annotated plan at: http://www.wiltsandberkscanal.org.uk/files/melklinkplanning/wbct.10.004-0_26.04.12.pdf It is assumed, based on discussion with stakeholders that 10% of these (i.e. 2 moorings) should be assumed to be residential moorings – this is subject to further discussion. Note the estimate (23 moorings) has been rounded.

[2] Assume that the rise and fall mooring can accommodate a total of 5 narrow boats at any one time. This is based on visual inspection of plans. These moorings would not be available for permanent mooring and would not be available during flood conditions.

[3] A new landing for the Canoe club has recently been built. The river, canal and white water canoe section is expected to support increased use/participation.

[4] The size, number and type of mooring spaces as well as construction cost are not known. It is assumed that very broadly, the range of services would be similar to those at Hilperton Marina, which appears reasonable given its location on the Kennet and Avon canal. Hilperton Marina contains a shop, chandlery, fuel and sanitary services and boat repair refit including crane and slipway. Day boat hire, holiday boat weekly hire and long-term mooring berths (about 100) are also available. The indicative waterspace area on plan for the proposed Outmarsh marina is 2.5ha, which could accommodate up to 200 boats (based on British Waterways Marina Guide), which could provide a mooring income of around £400,000 *per annum.*

[5] The following assumptions have been made on housing units. Total housing units on sites adjacent to the canal 520. This is based on a housing density of 30 dwellings per hectare and a potential developable area of some 23ha. Allowance has been made for non developable areas/open space and community facilities, so it is assumed 75% is developed for housing, resulting in 520 units in total. *They are illustrative only and based on discussions with Wiltshire Council.*

[6] The size of this is unknown and has been estimated for the purpose of this assessment. Jobs and services provided in this potential facility have been estimated with reference to similar facilities elsewhere, described in section 4 .

[7] A more conservative estimate is made that a restaurant rather than hotel is developed for the purposes of this assessment. The sizes of these new facilities are not known. Potential jobs created within them have been estimated with reference to similar facilities elsewhere, described in section 4.

[8] A planning application has been submitted to Wiltshire Council for a major redevelopment; the 'Campus site'. It involves the 'demolition of modern extensions to Melksham House, removal of existing swimming pool, internal alterations and extensions to Melksham House to provide a new community campus including leisure facilities (2 swimming pools, sports hall, fitness suite, activity studio, indoor bowls, climbing wall) public services (library, multi purpose rooms, offices, cafe) health facility and associated car parking and landscaping. Planning application 14/00726/FUL. Note that as this development has already applied for planning permission, it cannot be assumed that this investment is as a direct result of the canal development. It will however form part of the wider attraction for residents and visitors increasing footfall in the town centre. This is discussed in section 3.

[9] These assumptions are for illustrative purposes, based on discussions with Wiltshire Council. The potential site is in close proximity to the town centre so a higher housing density is assumed here than elsewhere. The houses are likely to consist of one and two bedroom town houses, built at a density of 40 dwellings per hectare with 85% of floorspace developed for housing (i.e. 18,750 m^2 equates to 1.9 ha. Assuming 85% is developed for housing equates to 1.6 ha at 40 units per ha, or 63 housing units. Note numbers have been rounded.

Typical canal locks on the Kennet & Avon at Semington show the type of environment that could be created by the new link

© AMEC Environment & Infrastructure UK Limited

2.3 Approach

The economic effects of a development can be estimated in a number of ways. This study will examine the impact on employment, income generation and also examine the impact of visitor expenditure on the local and regional economy. Some of the 'softer' economic impacts are also set out, such as the contribution to health, the potential for locally unemployed people to access some of the job opportunities created or intergenerational benefits.

This study is desk-based, with key economic data supplied by the key stakeholders involved in the project alongside data provided by the Canal and River Trust and VisitWiltshire. In the absence of primary data, the assessment is based on what we consider reasonable assumptions using the evidence to hand – and accepted approaches to economic assessment.

The following section explains the methodology we have followed and the rationale behind it.

- First, we have defined the ***primary area of economic impact.*** This relates to geographical area over which additional expenditure may take place, this will be similar to the ***labour catchment area*** (i.e. the area within which employees are expected to live). This may differ somewhat between tourism related spending and that arising from the regeneration opportunities. For the regeneration opportunities, the primary area of impact will be the place of residence of employees expected to work at the site. To identify this, commuting patterns of employees who work in Melksham have been reviewed. This indicates that around 57% of people who work within Melksham also live there. Over 90% of employees working in Melksham town centre live in the remaining parts of Wiltshire (predominantly the former Local Authority Area of West Wiltshire). On this basis, the primary area of economic impact has been assumed to be the Wiltshire UA, but with the distribution of the effects likely to be concentrated in the former area of West Wiltshire – and in Melksham itself. This is hereafter referred to as the 'local area or local economy'. Clearly, economic effects will also be felt across the South West but this has not been examined explicitly.

- Second, before we can assess the economic impact of specific site or facility we need to assess the likely level of ***displacement***. Displacement can be defined as 'the proportion of outputs/outcomes (i.e. employment and expenditure) accounted for by reduced outputs/outcomes elsewhere in the local area'. In this case, displacement could occur when the development takes market share (called product market displacement) or labour and capital (called factor market displacement) from other tourism facilities or commercial development in the area. For instance, if people visit Melksham does this mean that they will not visit Bradford on Avon or Lacock and will an increase in spending witnessed in the town simply reflect reductions (displacement) from elsewhere?

- In this case we are concerned with potential displacement in the economic impacts from tourism spending and in the effects identified from the regeneration opportunities. Factors affecting levels of displacement include 'local factors' and 'market factors'. Local factors requires some analysis of the local tourism sector: are visitor numbers and their spending increasing or falling, how does the Melksham Link fit with the wider Canal network in the area, will it complement or detract from wider usage? Market factors may involve consideration of growth in retail spending, or investment in narrow boating, for example. If spending is increasing, by definition displacement will be lower. These are discussed, as appropriate, below.

© AMEC Environment & Infrastructure UK Limited

- Finally, once we have estimated the ***net-additional economic effects*** (i.e. that is 'new' to the economy) generated by the Melksham Link and regeneration opportunities, a ***combined or 'composite' economic multiplier*** is used to estimate the indirect and induced effects on the local and regional economy. Multipliers quantify the further economic activity (jobs/expenditure or income) resulting from additional local income and supplier purchases. These are multiplied because of the knock on effects of this type of expenditure. Two types of multiplier are typically identified:

  - a supply linkage multiplier (the indirect multiplier) due to purchases made as a result of the Melksham Link and regeneration and further purchases made by firms along their supply chain made as a result. An example here would be the purchase of construction materials for the new housing; and

  - an income multiplier (the induced multiplier) associated with local expenditure as a result of those who receive income from the direct and supply chain linkages of the Melksham Link. An example here would be a new employee purchasing a new washing machine that they may have postponed had they not found employment. The scale of multipliers differs based on many factors and these are judged and explained in the report below.

- Economic ***leakage*** has not been considered. This relates to the proportion of output (i.e. employment and expenditure) that benefit those outside of the target area. Leakage is typically considered where there is a particular geographical focus (for example Objective One or Two European Regional Development Funding) or where the very local effects of development are considered. Whilst we are focussed on local impacts – if positive economic effects spread beyond Melksham, this is not a negative thing. It is likely that some spending will take place outside of the local area and outside of the region, for example electricity, gas bills, but this is taken into account in multiplier used which accounts for leakage in later spending rounds.

- Once additional employment is estimated – an estimate is made of the ***Gross Value Added***[5] (economic output) created by these jobs. This is based on applying GVA per filled job estimates, available from ONS. The jobs have been converted into FTE jobs – i.e. jobs that are full time and permanent – hence they are expected to be sustained over time. This requires ***discounting*** future benefits by a standard rate (HM Treasury recommends 3.5%, per year). Future benefits are discounted for two main reasons. First people generally prefer to receive goods sooner, rather than later. This is termed 'time preference 'or 'social time preference'[6]. Second, the employment of resources tends to have an opportunity cost, i.e. the resources committed to a project may not be used for another investment that may have generated a return[7]. To induce investment the expected return should be at least as high as the opportunity cost of funding it. These discounted values are 'present values' which enables benefits to be compared. They are expressed at ***net present value – or NPV***.

[5] GVA is a measure of economic output. It is the measure of Gross Domestic Product (GDP) that economic growth rates are conventionally drawn. Source: The Dictionary of Economics 2003, The Economist.

[6] HM Treasury; The Green Book: https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/220541/green_book_complete.pdf

[7] Florio, M (2014) Applied Welfare Economics, Cost Benefit Analysis of projects and Polices, Routledge.

© AMEC Environment & Infrastructure UK Limited

3. Tourism Benefits

3.1 Introduction

This section evaluates the potential economic effects associated with day and overnight visitors to the Melksham Link. The approach estimates potential visitor numbers on an annual basis broken down by type of activity. Information on average expenditure associated with these activities from previous studies is then used taking into account local geographic and economic characteristics. This expenditure is then converted into employment and economic output (Gross Value Added – GVA) to consider the overall economic effect over time, assuming that the benefits from tourism arise during the 'operational stage' after construction is completed. The approach requires a number of assumptions which are discussed as they arise. The estimate is not based on a survey of visitors or population, as the range of uses and potential users are too wide for this to be accurate. Nevertheless, the assessment is based on accepted economic techniques and on the wealth of publicly available data – alongside specific and recent data on boating movements that are available from the Canal and River Trust and national and local studies on the economic effect of Canal restoration and on the visitor economy in Wiltshire.

3.2 Tourism in Wiltshire

VisitWiltshire publish an annual assessment of the visitor economy in the County. The most recent data (which includes Swindon), from 2012, are summarised below. Clearly the visitor economy is particularly influenced by wider economic conditions; as such the VisitWiltshire evidence suggests a continued recovery in the value and volume of the Wiltshire visitor economy. Overall, trips involving an overnight stay increased by 10%, spending by visitors who stayed overnight increased by 19% and day visitor spending increased by 16%, compared to 2011.

The number of domestic (i.e. from the UK) staying trips in 2012 stood at just under 1.5 million and has increased by 11% since 2011 and up 4% from 2010. The number of domestic staying nights stood at some 3.9 million in 2012 and had also increased since 2011 by 2%. On average, domestic visitors spent an average of 2.69 nights in Swindon/Wiltshire. The expenditure associated with these domestic based overnight visitors was estimated at £248 million in 2012 alone. Per night, this equated to an average spend per visitor across Wiltshire and Swindon of £63.10 per night and £169.86 per trip. This is an increase on the corresponding figures from 2011 (of £51.29 and £149.24 respectively)[8].

Overseas staying visitor numbers stood at 239,000 in 2012, an increase of 6% from 2011, but still down on numbers from 2010, which may reflect wider economic conditions. Overseas visitor staying nights stood at just under 1.6 million. Together these overseas overnight visitors injected some £73 million into the Wiltshire and Swindon economy. Average expenditure per person amongst these visitors stood at £45.66 per night and some £305.48 per trip.

Overall, from all sources Wiltshire and Swindon accommodated some 1.7 million overnight trips; some 5.5 million staying nights with expenditure of £321 million.

[8] VisitWiltshire. The Economic Impact of Wiltshire Visitors Economy (2012). Pages 1-10.

© AMEC Environment & Infrastructure UK Limited

Turning to day visitors, the most recent data suggests some 18 million visitors in 2012 – the volumes remaining the same as in 2011. Total expenditure associated with this stood at just under £959 million. When additional turnover to businesses is considered – alongside indirect and induced effects - the value to business of the sector is estimated at some £1.4 billion.

Table 3.1 Wiltshire Tourism Context: Total Visits and Value (2012)

	Total Trip Volume	Total trip expenditure	Total business turnover generated by Tourism (2012)
Wiltshire (including Swindon)	19,748,000	£959,408,000	£1,422,074,000

Source: VisitWiltshire. The Economic Impact of Wiltshire Visitors Economy (2012). Pages 17, 18 and 21.

National forecasts for overseas visitors to the UK assume steady growth in the number of overseas visitors to the UK to 2020. In terms of domestic tourism, the data indicate year on year growth exceeded expectations (8.7% over recent years, although the period isn't specified) compared to 5% expected growth. More locally, the expectation is that, as the economy continues to recover, so too will the Wiltshire visitor economy. Forecasts produced on behalf of VisitWiltshire assume strong increases in visitor related spend, of 6.7% for domestic trips and 4% in overseas trips per year to 2015[9].

3.3 Activity on the Kennet and Avon Canal

Figure 1.1 above showed the position of the Melksham Link in the wider context of regional waterways. In the short term, the link will effectively serve as an 'arm' of the existing 87 mile (139 kilometre)[10] Kennet and Avon waterway. Beyond the section of retained waterway, the River Avon at Melksham will not be navigable - further extension of the Wilts & Berks Canal route to the north of the town is to be undertaken in the longer term (this is discussed further below). On this basis, usage of the link will be determined by a) the extent of existing traffic on the Kennet and Avon and b) the extent to which the novelty of the new link will generate additional journeys that would not have otherwise occurred.

The most recent assessment of economic impacts or restoration of the Kennet and Avon Canal are from the Canal and River Trust (formerly British Waterways) taken from a British Waterways Study in 2010[11]. This suggested that there were 1,286 privately owned boats based on the Kennet and Avon Canal and that this figure had changed little from 2003. In addition, the study identified 93 hire boats, 16 day hire boats and a range of other business boats, such as trip/passenger boats and craft businesses for instance. Latest figures (for March 2014), obtained from the

[9] All data in this section are taken from: VisitWiltshire. The Economic Impact of Wiltshire Visitors Economy (2012). P. Growth forecasts are set out on page 36.
[10] Source: British Waterways (Economic Development Unit). Economic and Social Impact of the restoration of the Kennet and Avon Canal (2010 Update).
[11] British Waterways (Economic Development Unit). Economic and Social Impact of the restoration of the Kennet and Avon Canal (2010 Update).

© AMEC Environment & Infrastructure UK Limited

Canal and River Trust, on licenced boats with a home mooring or operating base on the Kennet & Avon Waterway are very similar, as shown in Table 3.2.

Table 3.2

	2010 report	2014 data	Number within 3 hours of Semington	% of boats on canal	% of waterway length
Licenced boats on Kennet & Avon Waterway					
Private pleasure craft	1286	1255	405	32%	16%
Holiday hire (i.e. with accommodation)	93	114	82	72%	16%
Day hire	16	29	15	52%	16%
Community boats		8	2	25%	16%
Passenger boats		7	3	43%	16%
Residential		2	0	0	16%
Trading boats		7	2	29%	16%
Work boats		3	2	N/A	N/A
Not assigned		15	4	N/A	N/A

On this basis, the results used as the basis for the assessment in the 2010 study are comparable with current figures, so the conclusions of the 2010 study are considered applicable to the present situation.

Table 3.2 also shows the number and percentage of boats based within a three hour cruise (typical timing) of the location of the proposed new junction with the Melksham Link at Semington, taken as the stretch of canal between Dundas (including the Somerset Coal Canal) and Lower Foxhangers. Such vessels could readily visit Melksham in a weekend trip. The four day hire boats based at Bradford-on-Avon and Hilperton could reach Melksham within a day trip. In addition there are typically significant numbers of boats without a home mooring (continuous cruisers) present along this stretch. Counts made at regular intervals of boats present on each kilometre of waterway during 2013 (excluding boats at their home moorings) recorded the presence of four times as many boats without home moorings as boats with home moorings. These continuous cruising boats represent a further but unquantified potential body of users of the proposed Melksham Link.

Bradford on Avon's canal, historic buildings, shops, pubs and restaurants make it an attractive tourist destination.

Overall, the statistics show that this stretch of canal is the base for a very much higher density of boats than the canal

© AMEC Environment & Infrastructure UK Limited

as a whole, in additional to which many boats without home moorings congregate in this area. All of these boats would have ready access to Melksham via the new link within a short cruise.

The 2010 study identified annual visitor numbers across a range of categories, indicating some 11 million visits of all types in 2009. It should be noted that the study is an update on a study developed in 2005 and the authors have updated visitor numbers identified in that study to the year 2009. Note that licensed craft with a home mooring excludes those privately owned boats without a mooring (which are captured in the 'cruising boats' data category below). The estimate below is based on 'boat days' on the stretch of canal taken from lock counter data. Journey time assumptions taken from surveys are then applied to estimate the number of days spent cruising by the boats and their crews. The study estimates total spend for each category of user, which implies the following average expenditure per visitor type (Table 3.3).

Table 3.3 Type and Frequency of Visit – Kennet and Avon Canal

Type/Category Visit	Number of Visits (2009)	Annual visits per 'canal kilometre'	Annual expenditure (2009)	Implied Expenditure per Visit £(2009)
Privately owned boats	23,148	166	£8,891,000	£384
Cruising boats	168,099	1,208	£2,343,000	£14
Trip/business boats	122,500	880	£2,280,000	£19
Canoeing	135,000	970	£654,000	£5
Angling	107,000	769	£324,000	£3
Cycling	657,000	4,720	£1,664,000	£3
Other informal visitors	10,003,000	71,861	£24,439,000	£2
Total	11,215,747	80,573	£42,113,000	£4

Source: Reproduced from British Waterways (Economic Development Unit). Economic and Social Impact of the restoration of the Kennet and Avon Canal (2010 Update).

Note that this is the impact identified across the whole of the Kennet and Avon Canal; however impacts are apportioned across Local (Unitary) Authority areas which illustrates the proportion of total impacts accrued to Wiltshire. Again the detailed methodology for this is sent out in the report appendices and is not available; however some analysis has been done on the figures (Table 3.4).

© AMEC Environment & Infrastructure UK Limited

Table 3.4 Annual tourism Impacts in Wiltshire generated by the Kennet and Avon Canal (2009)

Impact	Wiltshire	Total K&A	Notes
Direct Visitor Spend	14,459,000	42,113,000	Wiltshire accounts for around 35% of all spending identified
Direct, Indirect and Induced Spend	18,796,000	54,747,000	This implies an expenditure multiplier across Wiltshire of 1.3 - the same as across the K&A as a whole
Visits per Annum	3,334,000	11,216,000	Direct spend is about £4.50, rather more than the average across the K&A (of £4). When all indirect/induced effects are included average spend is some £6, compared to £5 across the K&A as a whole.
Implied Visits per head of population [Note 1]	7 visits per year (all categories)		Based on 2009 Wiltshire population of 466,700
Jobs supported	444	1,306	Direct spend of £32,500 supports one job in Wiltshire, across the K&A the figure is slightly less - £32,250. This was based on figures from 2009 – updated to the 2012 prices, in line with the rest of the report, the figures would be £34,900 (Wiltshire) and some £34,600 (K&A) note figures are rounded. The figure for the K&A as a whole is used.

Source: Reproduced from British Waterways (Economic Development Unit). Economic and Social Impact of the restoration of the Kennet and Avon Canal (2010 Update).'Notes' are based on analysis by AMEC.

[1] Source for population estimate is the 2009 Mid Year Estimate from the Office of National Statistics www.nomisweb.co.uk

3.4 Estimating activity on the Melksham Link

This section estimates potential tourism/visitor activity on the Melksham Link. Clearly there is uncertainty associated with any estimate of future activity. Reflecting this, estimates have been undertaken in a number of ways and are provided in ranges.

Scenario 1: K&A Benchmarks

First, the evidence from the British Waterways study of the economic effects from the Kennet and Avon Canal is used to develop 'benchmarks'. These set out estimates of the economic impact per canal kilometre from all activities, along the Kennet and Avon. They are derived by simply dividing all identified benefits by the length of the existing Canal. This assumes that activity at Melksham is no different to average activity identified elsewhere along the route. It also assumes that the 2km of navigable river section is used to a similar extent by boaters and by towpath users/visitors as the remaining stretch of the Melksham Link. This would appear reasonable given that this is the closest location to the town centre and its amenities. It is assumed that visitor moorings are provided here, as planned.

The figures build on an estimate provided by British Waterways which were themselves updated from an earlier study; however this is the most recent study that has focussed on the Kennet and Avon Canal.

Overall, this approach, used to illustrate the scale of potential activity, suggests a total of some 80,500 visits of all kinds per year, per km of canal (note that this includes all forms of canal users, from joggers/dog walkers who may spend half an hour on the canal every day - spending very little on average, to boat users who may stay on the boat for several days once or twice a year, but using local marinas, pubs and restaurants). It is assumed that a 'visit'

© AMEC Environment & Infrastructure UK Limited

means each person on board a craft, rather than the number of craft (i.e. 830 visitors per year, on private craft). The average expenditure per visit in these categories would imply this is the case. Assuming an average of two people per boat, this equates to a little over one per day on average – which appears reasonable, given the seasonality of this activity. The 'other informal uses' – does appear to suggest relatively frequent use, however this includes people who walk along the towpath for work, for instance.

These annual figures are applied to the 5 kilometres of additional canal/river route to provide a simple estimate of visitor/activity volumes on the new link. Table 3.3 above provides estimates of average spend per visitor – these are updated to 2012 prices and are then multiplied by the number of visits to estimate additional expenditure. This provides an annual (gross) estimate of visitor spending of around £1.7 million pounds. In employment terms this would equates to some 50 FTE jobs (or a total of 79 job opportunities in total – see Table 3.5 below)[12].

Table 3.5 Annual impacts of tourism – Melksham Link (Scenario 1: based on average activity along Kennet and Avon Canal)

Type/Category Visit	Annual visits per 'canal kilometre'	Implied visits - Melksham Link	Expenditure per Visit £(2012)	Implied (Gross) expenditure - Melksham Link	Jobs (FTE)
Privately owned boats	166	830	£412	£342,000	10
Cruising boats	1,208	6,040	£15	£90,500	<5
Trip/business boats	880	4,400	£20	£89,500	<5
Canoeing	970	4,850	£5	£26,000	<5
Angling	769	3,845	£3	£12,500	0
Cycling	4,720	23,600	£3	£76,000	<5
Other informal visitors	71,861	359,305	£2	£770,000	20
Total	80,573	402,865	£4	£1,730,500	50

Source: The numbers of visits are reproduced from British Waterways (Economic Development Unit). Economic and Social Impact of the restoration of the Kennet and Avon Canal (2010 Update). These visit numbers have been divided by the length of the K&A Canal (139 km). Expenditure per visit is based on the 2009 data shown above in Table 3.3 updated to 2012 prices. These are then applied to the number visits to estimate gross expenditure. Note the job estimates in individual categories have been rounded and are indicative only. Note expenditure figures and total FTE figures have been rounded.

Scenario 2: Semington Hotspot

However, British Waterways and Canal and River Trust data suggests that existing activity in the area is *already* somewhat higher than the average for the canal as a whole. Compared to the average 2013 lockage along the Kennet and Avon Canal (of 2,188), the number at Semington lock was 3,432, some 157% of the average of the canal as a whole, implying that when local characteristics are taken into account, Scenario 1may underestimate activity somewhat.

[12] This is based on average spend of £34,500 per FTE job (

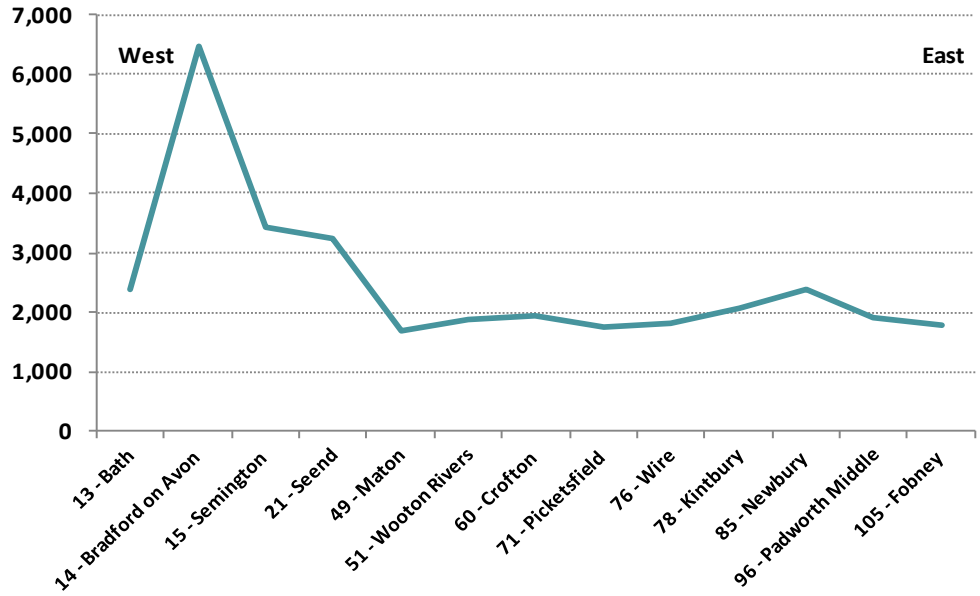
Table 3.4). Note this is gross spend.

© AMEC Environment & Infrastructure UK Limited

Figure 3.1 below shows 'Annual Lockage Totals' for various locks along the Kennet and Avon Canal. Lockage can be defined as the empty and filling of a lock chamber, allowing the movement of water and boats. It is not the same as boat movements through the locks. The lockage boat ratio can be between 1 (i.e. only one boat is carried through for every lockage) and 4 (meaning that the lock is full in each direction for each and every lockage). A conservative estate would be that on average 1.5 boat movements per lockage – suggesting existing traffic at Semington of around 5,148 boat movements per year.

The lockage totals are shown geographically, from 'west' at lock number 13 at Bath to 'east' at Fobney lock, number 105 near Reading. Overall it shows higher lockage numbers (and by implication greater traffic) between Bath and Seend lock and in particular around Bradford on Avon, where lockage figures in 2013 were roughly double those at Semington. The 2011 and 2012 data show very little change for the canal as a whole (although data for Bradford are only available for 2013). This is likely to reflect a number of local factors. First to the east of Semington, some 3km from the proposed junction with the new Melksham Link, is an attractive destination at Seend Locks, with a well known pub and attractive village. Beyond here is a flight of 30 locks up to Devizes, which acts as a barrier to at least some forms of short term boating activity (but not those travelling through or many of the towpath activities). Maton Lock, within this flight shows the lowest count from any of the locks monitored on the canal.

Figure 3.1 Annual lockage activity on the Kennet and Avon Canal in 2013

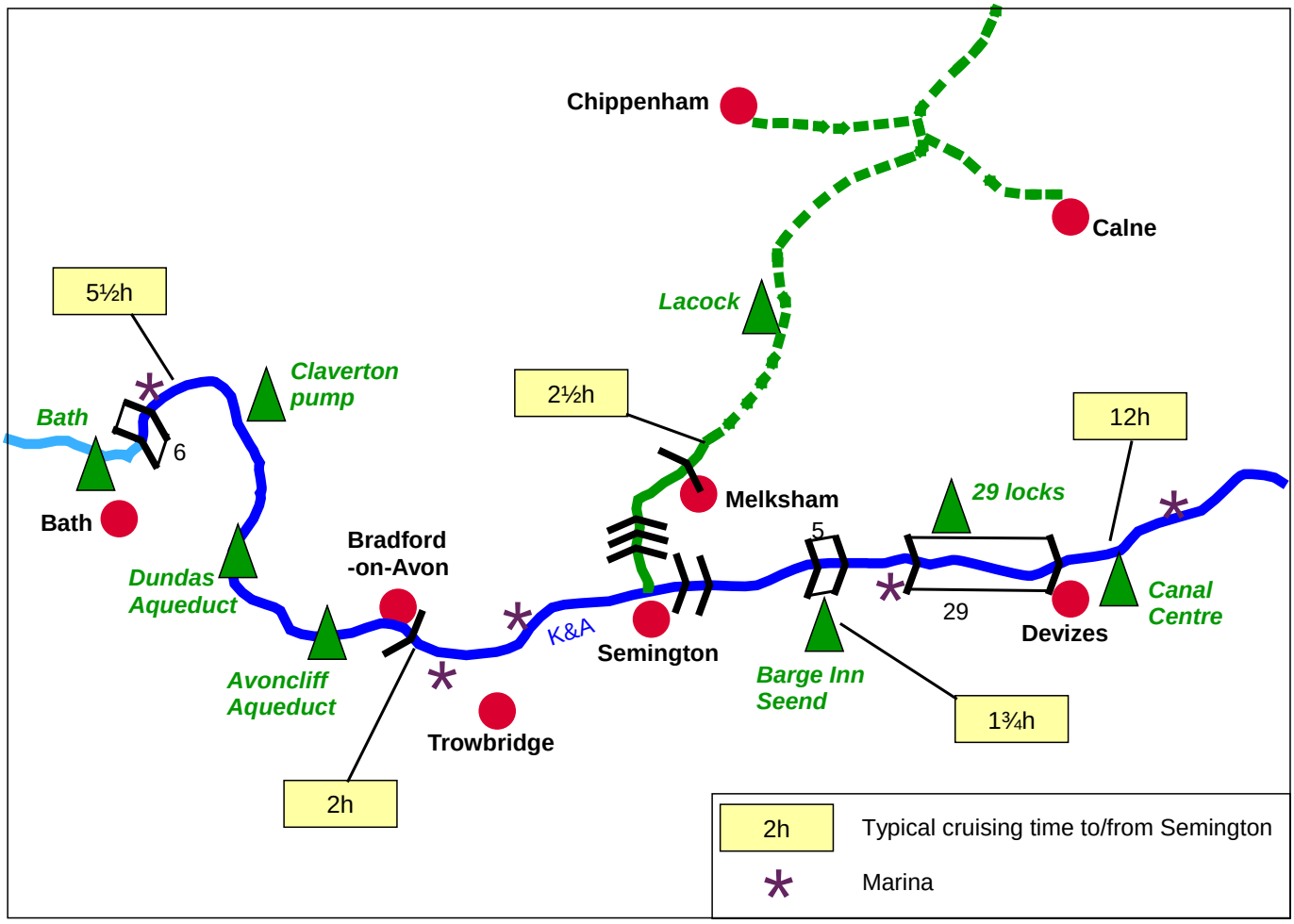


Notes: Lock Numbers have been mapped with reference to http://canalplan.org.uk/waterway/7l8a . Lockage data are taken from 'Canal and River Trust Annual Lockage Report 2013 (Produced in January 2014). The average boat movements per lock are a conservative estimate based on a feasible range presented in the Canal and River Trust report. Note that the data for Bradford and Avon lock (Number 14) is only available and presented for 2013.

© AMEC Environment & Infrastructure UK Limited

To the west Hilperton Marina, Bradford on Avon and Bath are within relatively close proximity (within a day's return cruise in the case of Bradford on Avon) and day boat hirers from Hilperton are advised that Seend is a suitable destination for a day boat trip. Thus the usage data from Semington Lock – immediately to the east of the proposed junction from the Kennet and Avon Canal onto the Melksham Link - provides a sound basis to estimate current level of traffic along that specific stretch of canal (and hence the potential scale of usage of the Melksham Link – at least in the short term, where Melksham would also provide a suitable destination for day boat hirers from Hilperton or Bradford-on-Avon marinas). Routes and an indication of times are shown in Figure 3.2. These are average times but may vary considerably between individual boaters.

Figure 3.22 Cruising routes, times and destinations around Semington



This scenario assumes that the Melksham Link effectively forms an eastern destination for boating activity on the largely lock free Bath-Bradford on Avon – Semington (Melksham) route. Applying this percentage increase to the scenario 1 estimates, above suggests activity and expenditure could be greater – around up to £2.7 million, per year (Table 3.6) – which equates to some 80 FTE jobs, using the same method to estimate employment numbers as above (or a total of 125 job opportunities in total – see Table 3.7 below).

© AMEC Environment & Infrastructure UK Limited

Table 3.6 Annual Impacts of Tourism – Melksham Link (Scenario 2: Based on above average lockage activity at Semington)

Type/Category Visit	Annual visits per 'canal kilometre'	Implied visits - Melksham Link	Expenditure per Visit £ (2012)	Implied (Gross) expenditure - Melksham Link	Jobs (FTE)
Privately owned boats	166	1,303	£412	£537,000	15
Cruising boats	1,208	9,483	£15	£142,500	5
Trip/business boats	880	6,908	£20	£141,000	5
Canoeing	970	7,615	£5	£41,000	<5
Angling	769	6,037	£3	£19,500	<5
Cycling	4,720	37,052	£3	£119,000	5
Other informal visitors	71,861	564,109	£2	£1,210,000	35
Total	80,573	632,498	£4	£2,714,500	80

Source: The numbers of visits are reproduced from British Waterways (Economic Development Unit). Economic and Social Impact of the restoration of the Kennet and Avon Canal (2010 Update).

Notes: Visit numbers have been divided by the length of the K&A Canal (139 km). Gross expenditure is based on number of visits multiplied by expenditure per visit (from Table 3.3) updated to 2012 prices, giving an estimate of 157% of the expenditure in Table 3.3. 'Total' reports the weighted average where appropriate. Small discrepancies in totals reflect the source data which states them as attributed to differences in methodologies. "Jobs (FTE)" and Expenditure per Visit" have been rounded.

Table 3.7 Additional Direct Visitor Related Jobs (Gross)

Calculation	Total FTEs	Implied Full Time	Implied Part Time	Total Jobs
Visitor related jobs (average activity on K&A)	50	23	56	80
Visitor related jobs (above average activity at Semington)	80	37	89	125

Source: Total FTEs are based on those identified in Table 3.5 and This scenario assumes that the Melksham Link effectively forms an eastern destination for boating activity on the largely lock free Bath-Bradford on Avon – Semington (Melksham) route. Applying this percentage increase to the scenario 1 estimates, above suggests activity and expenditure could be greater – around up to £2.7 million, per year (Table 3.6) – which equates to some 80 FTE jobs, using the same method to estimate employment numbers as above (or a total of 125 job opportunities in total – see Table 3.7 below).

Table 3.6. These are converted into total job opportunities by using the average full time/part time split of the operational jobs identified in the next chapter in Table 4.3. These figures were 46% full time and 56% part time. The majority of these jobs are based in visitor related sectors/activities which tend to have higher proportions of part time employment. It is assumed that one part time job equates to 0.5 of an FTE. Note totals have been rounded.

Scenario 3: Cross-check (with Bedford and Milton Keynes Waterway)

It is important to note that the two scenarios above both draw on a previous study of the effects of the Kennet and Avon Canal along its entire route. Moreover the two scenarios above draw on data from the same study, albeit boat numbers and lock use figures are consistent over several years. This third scenario checks these estimates through comparison with a study which examined the visitor effects of another canal link, the Bedford and Milton Keynes

© AMEC Environment & Infrastructure UK Limited
April 2014
Doc Reg No. 35261

Waterway[13]. There are methodological differences in the studies as well as intrinsic differences in the schemes and the nature of the local and regional visitor economy. The Bedford and Milton Keynes Waterway study was of a proposal for a 26km stretch of waterway linking the Grand Union Canal at Milton Keynes with the Great Ouse at Bedford via a number of pre-existing artificial lakes. The link passes through predominantly rural areas as does the Melksham Link; however the start and end points are located in relative proximity to Milton Keynes and Bedford with larger populations. As the route is much longer, it is reasonable to assume that although informal activity such as short walks will be higher near these towns, it will be lower in rural areas in between and average per kilometre densities are broadly comparable. In addition, many of the same facilities considered for Melksham (a marina, pub, cafes and restaurants, hotel and B&B accommodation) are also expected[14].

The study estimated identified annual expenditure associated with both visitors and boating activity – along similar categories to those examined in scenarios 1 and 2 above. This expenditure was divided along the 26 km stretch of waterway and these averages have been applied to the 5km stretch at Melksham. Note that certain categories of spend, as well as gross to net adjustments differ. The calculations and further explanation are set out in Appendix C.

This cross-check estimates net additional spend of between £750,000 and £1.2 million would be generated annually as a result of the Melksham Link (Table 3.8).

Table 3.8 Net annual additional spend along Melksham Link from all uses

Net annual spending on Melksham Link (£ per year)	
Low range	£750,000
High range	£1,200,000

Source: Based on 'Bedford and Milton Keynes Waterway, Economic Impact Assessment, September 2009'. SQW Consultants.

Notes: Implied spend at Melksham figures have been rounded. 2009 spending per head figures identified in the study have been updated to 2012 prices. Further details are in Appendix C.

Note that the figures have been rounded.

3.5 Indirect Economic Effects

Although there may more jobs in Melksham (and a net increase overall) from visitor related expenditure, there may be fewer jobs in the wider area as they are drawn into Melksham. The economic term for this effect is 'displacement' and it is an indirect effect of the link. In this case, it is difficult to assess potential displacement rates accurately as each tourist activity may have a very different distribution across Melksham and the wider area.

Displacement effects could arise from several sources. First, 'land based' visits from those outside of the town 'switched' from other destinations and visited Melksham – not undertaking visits elsewhere, for example Lacock.

[13] Bedford and Milton Keynes Waterway, Economic Impact Assessment, September 2009.

[14] Bedford and Milton Keynes Waterway, Economic Impact Assessment, September 2009. SQW Consulting Page 11.

© AMEC Environment & Infrastructure UK Limited

This would be offset if visitors undertook linked trips (i.e. to both Lacock and Melksham) and spent rather more on average on the visit overall. Second, if boat users switched destinations and moored at Melksham rather than further east/west along the Kennet and Avon. Again this would be offset by additional day/hire boat activity emanating from Melksham onto the Kennet and Avon (even if the distance travelled was relatively small).

More generally displacement would be mitigated if a) the resident population increased b) if the average expenditure of visitors increased and c) if the novelty of the link generates visits/activities by people who would not otherwise have undertaken day trips at all – the third category may in particular include local people. Forecasts produced on behalf of VisitWiltshire indicate strong growth in tourism expenditure is expected (and these forecasts have not taken into account the Melksham Link). Community consultation suggested strong support for the link from local people and surveys from canal links have suggested increased use from local people (see section 5.2 later in the report). It is understood that the existing use of the riverside walkway in the town centre is relatively limited, at least to the south of the town centre and Sainsbury's superstore.

On this basis, a relatively low local displacement rate of 30% has been assumed[15].

In addition to displacement of economic activity within the area, there is additional economic activity from the spending of employees in the new jobs and from demand created further up the supply chains (e.g. for fuel for boats). These are known respectively as 'induced' and 'indirect' impacts and are represented through use of a multiplier which scales up the direct impacts of the scheme. In this case, a sub-regional multiplier of 0.3 (meaning 30% extra above the Total Direct Jobs and direct impacts estimated in the scenarios above) is used which is in line with the evidence (see Table 3.9 and table notes).

The employment effects from Scenario 3 have also been assessed but in a slightly different way (Table 3.10). Here, total net additional expenditure has been identified which has been converted into FTE jobs based on the visitor expenditure per FTE job figure derived from the British Waterways 2010 Study on the Kennett and Avon[16]. This suggests a more modest figure of between 20 and 35 FTE jobs per year (note that the total number of jobs would be somewhat higher). This suggests a more modest scale of economic impact, the number of jobs in the high range is similar to those identified in Scenario 1 (see Table 3.9).

[15] Evidence in BIS Occasional Paper Number 1, Research to improve the assessment of additionality, October 2009 has been referred to. This document collates evidence from economic impact evaluations commissioned by regional development agencies. The category referred to is 'regeneration through physical infrastructure'. The average displacement figure shown is 39% at sub regional level (typically one or more Local Authorities). However, this includes a low range (0%) and a high range (80%), which illustrates the range of findings in research such as this and hence the uncertainty associated with such estimates. Moreover many of the physical regeneration interventions that have been assessed are in areas where the economy is performing poorly (hence the need for public regeneration investment) which typically results in a higher displacement rate as economic activity is relatively subdued. Given the proximity of Melksham to locations such as Bath and Bradford on Avon, this is not necessary the case here. Overall rather lower local displacement assumptions are considered reasonable.

[16] British Waterways (Economic Development Unit). Economic and Social Impact of the restoration of the Kennet and Avon Canal (2010 Update). This is based on total expenditure in Wiltshire arising from the K&A of £14,459,000 per year and 444 FTE jobs created. The figure has been updated from 2009 to 2012 prices, which equates to £34, 427 per FTE job.

© AMEC Environment & Infrastructure UK Limited

Table 3.9 Indirect and Induced Employment – Tourism Employment (Scenarios 1 and 2)

Calculation	Multipliers	Scenario 1: Benchmarks		Scenario 2: Semington Hotspot	
		Total Jobs	Total FTE	Total Jobs	Total FTE
Total Direct Jobs Estimated		79	50	126	80
Less Displacement Local (30%)		24	15	38	25
Net additional employment Local		***55***	***35***	***88***	***55***
Indirect and Induced Employment**	Local: 0.3	10	10	15	15
Total	Local: 0.3	65	45	105	75

* The basis for this estimate is explained above and is somewhat lower than the average.

**Multipliers are taken from BIS Occasional Paper Number 1, Research to improve the assessment of additionality, October 2009. The 'Local' is the average sub regional multiplier from two categories of project: 'promoting image and culture' (1.36) and 'public realm investment;' (1.26'. The figure used is 'mean' figure from 16 and 12 studies respectively. An average of the two has been used (actual figure is 1.31). (Page 27). Note total FTE jobs have been rounded.

The additional FTE employment identified can be translated into economic output and expressed in terms of Gross Value Added (GVA - in very simple terms, GVA is a measure of profit). On average, GVA per filled job in Wiltshire was £22,952[17]. The assessment identifies a total of between 20 and 35 FTE jobs (from scenario 3) and between 45 and up to 75 additional FTE jobs (Scenarios 1 and 2) could be created locally arising from tourism/visitor and boating activity, once the canal is constructed.

Table 3.10 Indirect and Induced Employment – Tourism Employment (Scenario 3)

Calculation	Unit	Notes
Spend per FTE (K&A 2010 Study)	£34,585	Based on analysis of Wiltshire economic effects from the Kennet and Avon Canal - updated to 2013 prices.
Total Spend Identified (Low)	£750,000	See Appendix C – note numbers have been rounded
Total Spend Identified (High)	£1,200,000	See Appendix C - note numbers have been rounded
Number of FTE Jobs (Low)	20	Spend divided by spend per FTE
Number of FTE Jobs (High)	35	Spend divided by spend per FTE

Source: Derived from analysis of economic impacts identified in 'Bedford and Milton Keynes Waterway, Economic Impact Assessment, September 2009'. SQW Consultants. Note job numbers have been rounded. Further details are in Appendix C.

Note that the figures have been rounded.

[17] Derived as follows: the population of Wiltshire at the 2011 Census was 470,987 (Source 2011 Census: www.nomisweb.com). Workplace employees (2009) was 356,700 (Source: Annual Population Survey (www.nomisweb.com) GVA per head of population in Wiltshire was £17,900, note this includes those that are not economically active). The total GVA of the Wiltshire economy was £8,187 billion. Source for both figures: Wiltshire Council 'Gross Value Added' (Undated – figures are from 2008).The GVA figure is divided by the number of employees to derive GVA per employee job of £22,952.

© AMEC Environment & Infrastructure UK Limited

3.6 Range of Estimates

Table 3.11 summarises the estimates from the three scenarios and suggests an overall range based on them. Operational jobs are assumed to be created two years after construction starts and result in an overall stream of future benefits. The "Grand Total GVA (over the next 10 years)" is the sum of these benefits using a standard financial discounting process. An important assumption is the "average annual GVA per filled job" which reflects the value of an average job within Wiltshire. With this as an assumption, between £0.5 and £1.7 million of additional economic activity will be created per year by the link. The discounted value of this level of annual benefits, over 10 years, is between £3.5 million and £10.5 million according to the scenario. Note that this excludes effects from the regeneration opportunities discussed in the next chapter.

Table 3.11 Estimating economic output from jobs created through visitors/tourism (Operational Stage)

Calculation	Unit
Average annual GVA per filled job (Wiltshire 2011)	£22,952
Operational Stage (Visits to and associated with Canal)	
Number of FTE Jobs generated at operational stage (Local) (Scenario 1)	45
Number of FTE Jobs generated at operational stage (Local) (Scenario 2)	75
Number of FTE Jobs generated at operational stage (Local) (Scenario 3)	20 - 35
Annual GVA (Local – Operational stage – Scenario 1)	**£1,000,000**
Annual GVA (Local – Operational stage – Scenario 2)	**£1,700,000**
Annual GVA (Local – Operational stage – Scenario 3)	**£500,000 - £800,000**
Net Present Value of GVA over 10 year period (Local – Operational Stage – Scenario 1)	£6,500,000
Net Present Value of GVA over 10 year period (Local – Operational Stage – Scenario 2)	£10,500,000
Net Present Value of GVA over 10 year period (Local – Operational Stage – Scenario 3)	£3,500,000 - £6,000,000
Grand Total GVA (over next 10 years)	***£3.5 million - £10.5 million.***

Source: GVA figures taken from Office of National statistics GVA per filled job (2011) http://www.ons.gov.uk/ons/publications/re-reference-tables.html?edition=tcm%3A77-303281. Net present value is estimated based on a 10 year period at a discount rate of 3,5% in line with HM Treasury Green Book. Note numbers have been rounded. *Note it is assumed the operational jobs start two years after construction starts and have been discounted accordingly.

3.7 The Future Restoration of the Wilts & Berks Canal

The Melksham Link is part of a longer term aspiration to extend and restore the full stretch of the Wilts & Berks Canal. Figure 1.1 in the introduction to the report show the regional waterways that could ultimately be linked, providing access to Melksham from several waterways (see Figure 1.1). Following completion of the Melksham Link, the priority would be to extend the navigable canal to Lacock, already a major visitor attraction. After Lacock, the next target destination currently envisaged is Chippenham, which would be reached via a branch canal along a new alignment and a connection to the River Avon to provide access to the town centre. Some sections of the canal between Melksham and Stanley, near Chippenham, are already undergoing restoration work.

© AMEC Environment & Infrastructure UK Limited

Ultimately, the intention is to restore navigation along the complete route between Semington and Abingdon (on the Thames) by restoring the original line of the canal where possible and creating new diversionary routes where this is not possible. This would create a two-week cruising 'ring' along the Kennet and Avon, Wilts & Berks and River Thames – undoubtedly resulting in greater amounts of through and stopping boat traffic as well as ramblers, cyclists, anglers and holiday markers. Cruising rings are particularly popular with hire boaters and many such rings are heavily marketed as cruising routes, with information provided on tourist destinations along the way. The timescales for full restoration are unclear but likely to be well beyond 10-15 years. Restoration of a link to the Cotswold Canals at a new junction at Eisey, near Cricklade, via the former North Wilts Canal route, is also included in the plans in the longer term.

The existing riverside path in Melksham would ultimately become part of the Wilts & Berks towpath from Semington to Abingdon.

It is difficult to estimate with any accuracy what the economic effects might be – and harder still to distinguish the effects of this wider link on Melksham itself. It will depend on national and local economic growth as well as demographic changes. However the evidence clearly supports the fact that people like to live on and visit inland waterway and this is highly unlike to change.

In broad terms it appears there are three development scenarios for Melksham over the longer term, assuming the link and regeneration opportunities are successfully delivered and linked to the wider inland waterway network.

- The first is that Melksham experiences 'increased activity' but doesn't undergo a step change. The canal brings additional visitors, particularly in summer and is well used by local people. The additional visitors support some additional investment in existing Bed and Breakfast accommodation in the town but this isn't sufficient for a new hotel. There is some increased uptake in canoeing, walking, cycling and angling, and the housing development around Berryfield has attracted more families to the town, supporting the thriving local canoe club. The town's waterfront is much more accessible and over time several successful retail, restaurant businesses establish themselves, supported by a small increase in the resident population living in town houses along the waterfront – these command rather higher prices than the average. Additional job opportunities are created and sustained; many of these are part time – suitable for local people at a range of skill and qualification levels. A new Marina at Semington supports increased private and commercial boating activity and these boats regularly travel through the town - benefiting local businesses.

- The second is that Melksham becomes a 'thriving stopping point' on an extended branch from Semington to Lacock and potentially Chippenham. In addition to the above, the well used stretch of canal between Bradford and Avon and Semington supports expanded hire and day boat activity which is sufficient to support the expansion of both the existing marinas at Hilperton and Bradford-on-Avon and a new marina at Semington. Day, weekend and evening excursions both north of Melksham and between Melksham and Bradford on Avon are common, supporting existing town centre leisure and food businesses which have benefited from an increase in those staying overnight on the visitor moorings near to Melksham town centre. The footpaths are well used by cyclists and ramblers and by local people, supporting a new cafe, restaurant and an expanded pub, which holds regular events – particularly in the summer when the canal and towpaths can become busy. There is evidence that an

© AMEC Environment & Infrastructure UK Limited

increasing volume of visitors to nearby Lacock extend their visit to spend time in Melksham including, in particular, short walks along the river section in the town centre.

- The third is that Melksham becomes a destination on the Southern Waterways Network . The canal is well used both by private and commercial hire boats with steady volumes of through traffic from Swindon, Chippenham and further afield such as Abingdon on the Thames and Cirencester via the North Wilts Canal and Cotswold Canals, travelling to Bradford and Avon and Bath and vice versa. The initial regeneration programme has proved successful supporting a series of local business on the waterfront, increasing footfall from Melksham town centre to the river. In turn this has supported existing businesses on the routes between the river/canal and town centre, creating and sustaining a number of new jobs and supporting further investment in retail and leisure facilities. Housing development around Berryfield has proved popular and additional houses come forward for development many of them aimed at young professional families. Taken together, this sufficient for investment in a family run hotel in addition to the existing bed and breakfast and other accommodation on offer in town, which have increased visitors. Joint visits to Lacock and Melksham are widely advertised in promotional literature supporting significant increase in the volumes of day – and in particular overnight - visitors.

© AMEC Environment & Infrastructure UK Limited

4. Benefits from Canal Construction and Regeneration Opportunities

4.1 Introduction

This section examines the economic effects arising from the construction of the Melksham Link, in terms of both the direct and indirect jobs created. The constructional and operational effects of the commercial development are also assessed in a similar way. This covers the areas for commercial use and housing and as well as leisure facilities outside the town (See Table 2.1).

4.2 Employment

4.2.1 Canal Construction

A technical study prepared in 2007 estimated the total construction costs of the Melksham Link at £18.5 million which equates to £21 million[18] in 2013 prices. It is understood that this total construction cost comprises some £14 million for the core elements, with a further £7 million for additional infrastructure. This estimate excludes operational and maintenance costs. Construction duration is not known at this stage of the project. For the purposes of the assessment, it is assumed construction would commence in 2015 and take two years to complete[19].

Labour costs typically account for some 30% of total construction cost[20], suggesting labour costs for the development of some £6.5 million.

Based on the average 2011 gross salary of South West employees involved in 'construction'[21] the development would create some 190 person years of construction work; or some 100 employment opportunities per year. A standard assumption is that 1 Full Time Equivalent (FTE) construction job is equivalent to ten part time jobs[22], so that in FTE terms, up to 10 FTE jobs may be generated by the proposed development (note the numbers have been rounded).

[18] Prices have been updated to 2013 prices to take account of inflation in construction inputs using HM Treasury GDP deflators.

[19] This is based on estimates of the construction duration of the Wilts & Berks extension at Swindon; here the construction cost is some £50 million, with construction duration of between five and 7 years (assumed 6 years). Source: http://www.wbct.org.uk/branches/swindon/town-centre-route The cost of the Melksham Link is 37% of this – which equates to a little over two years.

[20] See for example assumptions made in Social Impact Assessment for redevelopment proposals in West London (Page 23): http://www.pam.ealing.gov.uk/PlanNet/documentstore%5CDC11124680-104-1_AF_A.PDF

[21] Source: Annual Survey of Hours and Earnings 2011. Mean earnings in construction of buildings, civil engineering and specialised construction was £32,841. The figures have not been updated to 2013 as the 2011 figures are the latest data and it is considered likely that earnings in the sector have not increased in line with inflation, given economic conditions.

[22] See for example assumptions made in Social Impact Assessment for redevelopment proposals in West London (Page 23): http://www.pam.ealing.gov.uk/PlanNet/documentstore%5CDC11124680-104-1_AF_A.PDF

© AMEC Environment & Infrastructure UK Limited

These jobs will be required for a range of occupations and skill levels, from earthworks associated with the canal channel, environmental works and landscaping and constructing the towpaths, locks and infrastructure. Whilst some specialist jobs may be filled by contractors – who may be passed from further afield – at least a proportion of the additional jobs will be available to local people – including young people – and these may include training and/or apprenticeship opportunities. Moreover an addition of up to 100 additional employees in the town will create further opportunities for local businesses such as B&B, food and retail businesses.

4.2.2 Employment through regeneration opportunities

As above, the approach to estimating construction employment associated with the regeneration programme for residential units, commercial developments and other activities (see Table 2.1) is based on indicative construction costs. In turn these are based on average building costs per square metre, as shown below[23]. For certain scheme components, building costs cannot be estimated easily or there is uncertainty over the potential development size. Assumptions are explained in the footnotes. Overall, if all components are developed, the size of the investment in Melksham could be in the region of £55 million (Table 4.1). Alongside the potential Campus site development, for which an application was submitted in early 2014, these developments would constitute a significant investment in the town and a major signal of investor confidence after several years where economic conditions have been extremely difficult, both locally and nationally.

Table 4.1 Estimated construction cost

Facility / Proposed Floor space m^2	Use Class	Cost per Unit (2013)	Cost per square metre (2006) Note [1]	Cost per square metre (2013) Note [2]	Implied total investment
520 Residential units (Canal Plots)	C3	£78,500 [Note 3]			£41,000,000
65 Residential units (River Area 1)	C3	£67,500 [Note 3]			£4,000,000
35 Houses (Greenfield Plot – Canal)	C3	£78,500 [Note 3]			£3,000,000
New Marina	Sui Generis	£2,200,000 [Note 4]			£2,000,000
Camping/Caravan Site	Sui Generis	£50,000 [Note 5]			£50,000
Restaurant (assumed 100 m^2)	A3		£699 – £1,060 (£890)	£1,018	£100,000
Cafe (assumed 50 m^2)	A3		£699 – £1,060 (£890)	£1,018	£50,000
Public House (assumed 100m^2) [Note 6]	A4		£699 – £1,060 (£890)	£1,018	£100,000
Retail (6,250 m^2)	A1		£576- £658 (£617)	£714	£4,500,000
Total potential construction cost if all components are developed:					**£55,000,000**

[23] Source: Indicative Building Costs. 3rd Quarter 2006. http://www.publicarchitecture.co.uk/knowledge-base/files/indicative_building_costs.pdf. These have been updated to 2013 prices.

© AMEC Environment & Infrastructure UK Limited

Notes to Table 4.1

[1] Source: EC Harris Indicative Building Costs. 3rd Quarter 2006. http://www.publicarchitecture.co.uk/knowledge-base/files/indicative_building_costs.pdf.These.

[2] All costs have been updated to 2013 prices using HM Treasury's GDP deflators. 2011 has been used as it is consistent with the wage data contained below. Note floor space figures are assumed to be gross external areas, but cost information is indicative only.

[3] Costs are taken from DCLG (2011). Page 21, updated to 2013 prices. The 'canal' and 'greenfield' plots are based on average costs for 2 bed flats to 4 bed semi detached houses. The costs for 'River Area 1' is based on the average of 2 bed flats and 2 bed terraces. https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/6378/1972728.pdf

[4] The estate construction costs for the marina has been based on several assumptions in the absence of detail on size/facilities and costs. The estimate is based on the construction components for the canal works (Semington to Melksham section) described in the Black and Veatch 2007 feasibility study. (Appendix A. Page A.7). The following assumptions have been made: (all costs have been updated and are expressed in 2013 prices). Earthworks £6 per m2 (assumed 1.5 ha (15,000 m2) site costing £85,000); Highway access £200,000; Mooring (internal works) £550,000; environmental works £100,000; miscellaneous (fencing and utility/services £70,000; land and legal costs (£25,000 assuming 1.5 ha site). Engineering costs are assumed at 17.5% of costs already identified and 'contractors/preliminaries, waste and plant at 90% of existing costs – a total of £2.2 million. The estimate has been rounded down to £2 million.

[5] A nominal cost has been assumed for a camp site, it is based on the costs of 'Fencing and services' for the canal works (Semington to Melksham section) described in the Black and Veatch 2007 feasibility study. (Appendix A. Page A.7). The figure is rounded down from £62,500.

[6] Conservative assumptions have been made on the potential size of the new restaurant, cafe and public house, in the absence of any detailed feasibility assessments/masterplans.

Table 4.2 uses the size of the investment as a basis to estimate employment creation. As above, assuming around 30% of total costs are spent on construction labour and using data on average salaries in the sector, around 500 person years of construction work would be created, creating some 250 construction job opportunities in the town, per year over the course of a two year construction period. The actual number will depend on phasing and the study has assumed a two year construction period. A longer or shorter construction period would mean less or more job opportunities, respectively. This equates to around 25 FTE jobs.

Table 4.2 Estimated Construction jobs (Person years and FTEs)

Estimated Construction Value	Cost of Construction Labour (at 30%)	Average Salary (2011)	Implied Construction Workforce (Person Years)	Workforce per year (assuming two year construction period)	FTE Jobs
£55,000,000	£16,500,000	£32,841	500	250	25

Note: Construction cost comprises 30% of the total figure described above. Salary is Mean Gross Annual salary, South West Construction sector (2011). The data have not been updated to 2013. Source ONS Annual Survey of Hours and Earnings (ASHE) 2011. NOTE: Numbers have been rounded.

These jobs are likely to result in indirect employment generated though both the business to business spending associated with the construction firms contracted to complete the development, alongside the expenditure of the additional employees. These additional jobs are typically estimated using employment multipliers[24].

[24] The Department for Business Innovation and Skills (BIS), publish the results of research assessing 'additionality' (i.e. the extent to which investment results in net additional economic impact) providing guidance on appropriate multipliers. The mean multiplier at the sub-regional level (labour catchment area) for 'regeneration through physical infrastructure' is approximately 1.3 (i.e. for every 1 FTE created 0.3 of an FTE is indirectly created in the labour catchment area and region).

© AMEC Environment & Infrastructure UK Limited

Taking the construction jobs from the canal (described above) and the regeneration opportunities together equates to some 350 job opportunities in total over a two year period (some 35 FTE jobs). This suggests the development may create an additional 10 FTE jobs indirectly across the labour catchment area, as a result of activities at the construction stage. This results in a total number at construction stage of 45 FTE in total, assuming all the regeneration opportunities are delivered.

4.3 Operational Employment

Further jobs will be created at operational stage and these have been estimated with reference to employment densities[25] or consultation with similar facilities elsewhere (see footnotes). In the absence of finalised floorspace, conservative assumptions have been made for some of the scheme components, shown below (Table 4.3). Overall, the development may create up to some 500 gross job opportunities between Semington and Melksham. Based on the working hours of people in similar jobs in Wiltshire, some 280 of the jobs may be part time, with a further 230 full time jobs, or up to some 370 full time equivalent jobs in total.

Table 4.3 Employment at Operational Stage

Facility	Floorspace	Area per FTE	Total FTEs	Implied Full Time	Implied Part Time	Total Jobs
New Marina	N/A	N/A	15	12	6	15
Camping/Caravan Site	N/A	N/A	10	5	9	10
Restaurant	100	18	6	3	5	8
Cafe	50	18	3	1	3	4
Public House	100	18	6	3	5	8
Retail	6,250	19	329	204	251	454
Total*	6500		370	230	280	500

*Note total jobs have been rounded.

[1] Marina job estimates based on [Confidential] Marina in the North West of England. A total of 15 people are employed in Accounts and Administration, Sales, Engineering/Repair. The Marina accommodates some 60 residential moorings and up to 110 other boats (although the number is typically lower in the winter months).

[2] Camping/Caravan Site job estimates will vary with size. Numbers based on a conservative assumption – assuming seasonal employment in occupations including cleaning/administration, wardens and managerial/ownership.

[3] Restaurant, Cafe, Public House and Retail Jobs estimates based on Employment Densities Guide 2nd Editions (2010), Homes and Communities Agency. https://www.homesandcommunities.co.uk/download-doc/6155/10397 Note these employment densities are based on Net Internal Area whilst floorspace figures are approximate and are likely to be gross external area. The figures are approximate.

Note: Full and part time splits are taken from 2011 Census 'Industry by Economic Activity' for Wiltshire for employees and the self employed in the following sectors: Marina (Agriculture, energy and water); Camping/Caravan Site, Restaurant, Public House (Accommodation and food service activities); Retail (Wholesale and retail trade; repair of motor vehicles and motor cycles). It is assumed that a full time job equates to 1 FTE (i.e. 37.5 hours per week) and a part time job equates to 0.5 of an FTE (i.e. 18.75 hours per week).

[25] These have been taken from guidance published by the Homes and Communities Agency to aid the estimation of employment generated by property development. They estimate the typical number of employees per square metre based on published research and empirical data. https://www.homesandcommunities.co.uk/download-doc/6155/10397

© AMEC Environment & Infrastructure UK Limited

As noted above a proportion of these jobs may simply displace economic activity elsewhere in the local or regional area. Given that the jobs are those in retail, leisure and some accommodations facilities. In this case displacement effects would be mitigated if the amount of visitors to the local area increased and/or if average expenditure increased.

The CooperTires site (seen here with the river in flood) provides 25,000m^2 of land for regeneration, while retaining the tyre operation and existing employment

Forecasts produced on behalf of VisitWiltshire indicate strong growth in tourism expenditure is expected (and these forecasts have not taken into account the Melksham Link). Any displacement effects would be limited by an increase in the local resident population, however any population increase is likely to be relatively limited compared to the existing size of the town. On his basis a displacement rate of 30% has been assumed – this is somewhat lower than the average figure published by the UK government for sub regional displacement effects for similar schemes but is considered reasonable in this case[26] (Table 4.4).

Table 4.4 Indirect and Induced Employment – Regeneration Opportunities (Operational Stage)

Calculation	Multipliers	Total Jobs	Total FTE
Total Direct Jobs Estimated		500	370
Less Displacement Local (30%)		150	110
Net additional employment Local		***350***	***260***
Indirect and Induced Employment**	Local: 0.3	75	75
Total *	Local: 0.3	430	335

*Note that the figures have been rounded.

* The basis for this estimate is explained above and is somewhat lower than the average.

**Multipliers are taken from BIS Occasional Paper Number 1, Research to improve the assessment of additionality, October 2009. The 'Local' is the sub regional multiplier from 'regeneration through physical infrastructure'. The figure used a 'mean' figure from 35 economic impact assessments of such schemes (actual figure is 1.33). (Page 27).

[26] Evidence in BIS Occasional Paper Number 1, Research to improve the assessment of additionality, October 2009 has been referred to. This document collates evidence from economic impact evaluations commissioned by regional development agencies. The category referred to is 'regeneration through physical infrastructure'. The average displacement figure shown is 39% at sub regional level (typically one or more Local Authorities) whilst the regional average displacement figure is very similar (39%). However, the figures acknowledge uncertainty and present a low range (0%) and a high range (80%). Moreover many of the physical regeneration interventions that have been assessed are in areas where the economy is performing poorly (hence the need for public regeneration investment) which typically results in a higher displacement rate as economic activity is relatively subdued. Given the proximity of Melksham to locations such as Bath and Bradford on Avon, this is not necessary the case here. Overall rather lower local displacement assumptions are considered reasonable.

© AMEC Environment & Infrastructure UK Limited

4.4 Economic Output

4.4.1 Estimates

The additional FTE employment identified can be translated into economic output (expressed in GVA). The office of national statistics publishes 'GVA per filled job' statistics on a sub-regional basis. Using the same figure as above, which indicates GVA per filled job in Wiltshire was £22,952[27]. The assessment identifies a total of some 335 additional FTE jobs locally at operational stage. It is assumed that these jobs are filled two years after construction starts and the benefits are discounted accordingly. Based on the annual GVA figure this would create some £7.5 million of additional economic impact per year. Over a 10 year period, this would equate to benefits of up to around £55 million to the local economy when construction effects are included the figure increases to a total of up to £65 million (Table 4.5).

Note that these figures assume the Melksham Link is developed in full and that all regeneration opportunities are delivered at the same time, which would constitute a major investment in the town. The report has not assessed the feasibility of the development which is subject to detailed masterplanning and will need to obtain planning consent. Any delays or modifications to the scheme components will affect the figures.

Table 4.5 Estimating economic output from jobs created through regeneration opportunities (Operational Stage)

Calculation	Unit
Average annual GVA per filled job (Wiltshire 2011)	£22,952
Effects at construction stage (Canal and Regeneration)	
Number of FTE Jobs generated at construction stage (Local)	45
Annual GVA (Local – Construction stage)	£1,000,000
Net Present Value of GVA generated by FTE jobs over 10 year duration (Local – Construction Stage) **	£8,500,000
Effects at operational stage (Regeneration)	
Number of FTE Jobs generated at operational stage (Local)	335
Annual GVA (Local – Operational stage)	£7,500,000
Net Present Value of GVA over 10 year period (Local – Operational Stage)	£56,000,000
Grand Total GVA (over next 10 years)	***£65,000,000***

Source: GVA figures taken from Office of National statistics GVA per filled job (2011) http://www.ons.gov.uk/ons/publications/re-reference-tables.html?edition=tcm%3A77-303281. Net present value is estimated based on a 10 year period at a discount rate of 3,5% in line with HM Treasury Green Book. Note regional estimates include local estimates. Note numbers have been rounded. *Note it is assumed the operational jobs start two years after construction starts and have been discounted accordingly. **Note the calculation is applied to FTE jobs – not all job opportunities – hence why a 10 year period is used. Construction jobs are converted into FTEs and applied to the full 10 year period.

[27] Derived as follows: the population of Wiltshire at the 2011 Census was 470,987 (Source 2011 Census: www.nomisweb.com). Workplace employees (2009) was 356,700 (Source: Annual Population Survey (www.nomisweb.com) GVA per head of population in Wiltshire was £17,900, note this includes those that are not economically active). The total GVA of the Wiltshire economy was £8,187 billion. Source for both figures: Wiltshire Council 'Gross Value Added' (Undated – figures are from 2008).The GVA figure is divided by the number of employees to derive GVA per employee job of £22,952.

© AMEC Environment & Infrastructure UK Limited

4.4.2 A note on double counting

The approach used in this assessment is based on the economic value of jobs associated with visitor and regeneration opportunities to the local economy. It has been assumed that these jobs are created and sustained over at least a ten year period. The majority of jobs – and hence of economic activity- identified at the regeneration stage are generated in the proposed retail floorspace. Conversely the majority of jobs from the visitors arise through the expenditure of 'informal visitors'. These are likely include expenditure in local shops and other leisure facilities – along with ad hoc and low intensive uses such as dog walking or jogging. There is therefore significant overlap between effects from visitors and from the regeneration opportunities. Moreover the visitors are likely to be required to sustain these operational jobs. On that basis, to avoid double counting – the total economic effects from the regeneration opportunities are taken to *include* those of the Tourism effects estimated in Section 3– they are not in addition.

4.5 Other Private Benefits

A number of studies have examined the effect on local property prices of proximity to inland waterways. Values have been derived through 'revealed preference' studies (i.e. people reveal their preference to living near to waterways by paying more for such properties, on average). Other studies have examined the effects on property prices resulting from marginal changes in existing waterways. It is important to highlight that many factors influence the price paid for a property and hence any premiums may vary significantly. This section is included to highlight that the evidence strongly suggests that existing homeowners in the vicinity of the link may benefit from its construction in terms of house price increases. The evidence suggests that residential property is affected to the greatest extent, but that commercial premises may also be affected (i.e. offices and/or restaurants with a waterside view, for example) (Table 4.6).

There are four Lower Level Super Output Areas (LLSOA – the smallest area at which socio-economic data from the Census is available) that broadly follow the proposed route of the new canal link and the proposed navigable stretch of the River Avon. In total there are just fewer than three thousand properties within these areas. Not all of these properties are likely to be privately owned, prices will clearly differ and an estimate of distances from the proposed route is not known. Applying the marginal effect premiums above may increase the average price by up to some £50,000 for those properties closest to the canal and some £30,000 for those closest to the raised stretch of the River Avon (Table 4.7).

Existing and potential new properties in Berryfield would benefit from premium values associated with location by a waterway.

© AMEC Environment & Infrastructure UK Limited

Table 4.6 Property Price Premium- a review of evidence

Waterside Property Premiums	Premium	Source
Value added to new properties by the canal side	18% (a range of 3-20%)	British Waterways (2008) and Powe et al (2000).
Existing properties within 25 metres of the canal side	1.5% - 8%	Powe et al (2000).Willis and Garrod (1994), DTZ 2001
Marginal effects of changes to existing Waterways	**Premium**	**Source**
Properties on or direct adjacent to Canal		
- from no water to navigational canal - non navigable canal to fully navigable canal	- 25% - 15%	Jacobs Gibb (2001)
Properties within 100 metres of Canal		
- from no water to navigational canal - non navigable canal to fully navigable canal	- 15% - 10%	
Properties within 500 metres of Canal		
- from no water to navigational canal - non navigable canal to fully navigable canal	- 10% - 5%	

Source: All evidence is reproduced from Jacobs (2009) The Benefits of Inland Waterways, Defra and the Inland Waterways Advisory Council. The evidence review in the report, suggests the effect on rental prices is low or negligible – although this will depend significantly on the local market.

Table 4.7 House Price Increases – Approximate extent of local effects (See Maps in Appendix B).

Houses	Maximum number of dwellings potentially affected	Average house price Melksham (all tenures)	Potential (Illustrative) gains to home owners		
			Adjacent to canal (or river)	Within 100 metres of canal (or river)	Within 500 metres of canal (or river)
Wiltshire 020A	797	£188,135	£47,000 (£28,000)	£28,000 (£19,000)	£19,000 (£9,000)
Wiltshire 021D	701				
Wiltshire 022A	798				
Wiltshire 022C	664				

Source: 2011 Census: Dwellings in Lower level Super Output Areas (KS401EW - Dwellings, household spaces and accommodation type) www.nomisweb.co.uk Average house prices in Melksham are an average of all tenure types sold in the last year (January 2013-Janaury 2014- data are taken from the land Registry). Data reproduced from http://www.rightmove.co.uk/house-prices/Melksham.html/svr/2708;jsessionid=F1B98A41DD0158FE6EDABD7F3162C3DB

© AMEC Environment & Infrastructure UK Limited

5. Social and Environmental Benefits

5.1.1 Introduction

Beyond economic effects the projects aims to deliver arrange of social and environmental benefits and these are briefly examined in this section. Selected case studies of similar schemes are also summarised overleaf.

5.1.2 Social and environmental benefits

Inland waterways have benefits beyond simply their potential economic value and various studies have examined these. It is increasingly common for these to be given monetary values; for example the value of ecosystems services or the value of recreational opportunities or of higher local environmental quality through 'willingness to pay', 'contingent valuation' or 'benefits transfer studies'. The approach taken here is to discuss qualitatively these potential benefits. One of the most authoritative and detailed was prepared for the Department for the Environment, Food and Rural Affairs (Defra) and the Inland Waterway Advisory Council in 2009[28] which categorised these benefits into three areas:

- Provisioning Services: these result in products being provided by the environment. In this case the proposals allow production of renewable energy from a 50 kilowatt hydro-electric facility located next to the existing weir near to the town centre. The proposals also include a fish pass at the new weir and improvements to the fish pass at the existing weir to support the movement of fish between the different river reaches. This will create economic benefits by supporting angling activity – but also sustain fish populations across a wider area. The evidence in the Defra report also suggests inland waterways support increased local volunteers.

- Regulating Services: These may include carbon savings arising from reduced car journeys. At present only a proportion of the river is accessible by foot. The construction of a new towpath and cycle path may, in addition to providing recreational opportunities, create opportunities for more journeys to be taken on foot and/or by cycle.

- Cultural Services: It is likely that the principle social benefits could be classed under this category. A wider range of new recreation and leisure opportunities are likely to be created. These include walking, jogging, cycling, bird watching, angling, canoeing and other boating activity. The link will as provide an opportunity for community engagement through education, annual festivals and events – both related to the waterway and not. The historical and heritage value of canals including their associated locks, buildings, tunnels and bridges is also significant. It may also provide new opportunities for improvement to health and well-being and encourage community pride in the locality. Property prices near to or overlooking waterways are typically more expensive than equivalent properties that are not. Alongside this research for IWAC estimated that over half the nation's population visited an inland waterway in 2009 contributing some £8 billion to the economy [29] demonstrating the amenity value placed on waterways by those that use them. Inland waterways provide extensive education[30] and volunteering opportunities[31]. There are various potential socio-

[28] The Benefits of Inland Waterways Department for the Environment, Food and Rural Affairs (Defra) and the Inland Waterway Advisory Council 2009, Jacobs.
[29] https://www.waterways.org.uk/pdf/iwac/waterside_paths_report
[30] http://www.stokebruerneboats.co.uk/

© AMEC Environment & Infrastructure UK Limited

economic benefits such as access to new employment and training opportunities which are discussed in Appendix A.

5.1.3 Biodiversity

Any development has the potential to change the flora and fauna of an area. Controls are in place through statutory protection of designated protected areas and planning guidance to avoid adverse effects and in many cases there is an opportunity for incorporation of biodiversity enhancement measures into development plans.

In the case of water bodies, targets in terms of hydromorphological conditions, water chemistry and biology are set by the Water Framework Directive. The Directive aims to prevent deterioration and to protect, enhance and restore water bodies to 'good ecological status' or, where this cannot be achieved due to modification of a water body for a particular use or purpose, such as water supply, flood risk management or navigation, the water body must achieve 'good ecological potential'. The GES target applies to the River Avon in Melksham, to be achieved by 2027, and the Melksham Link proposals are being assessed and developed in detail to ensure that the scheme complies fully with the Directive. Thus no loss of value is predicted.

Aquatic habitat, particularly wetland areas, is regarded as being of particular value because its extent has decreased significantly over the last 50 years or so, due to urban development and intensive agriculture. Any creation of new aquatic habitat should be capable of being designed so as to achieve benefit. Similarly, hedgerows have suffered significant losses over recent years and creation of new hedgerows using appropriate native species followed by appropriate maintenance will provide benefit in terms of the hedgerow plants themselves and the bird and small mammal fauna the hedge will support.

The Melksham Link proposals thus provide potential for the nature conservation benefits summarised in Table 5.1.

Table 5.1 Some opportunities for biodiversity benefits from the Melksham Link proposals

Habitat	Location	Benefit
Open water (canal)	Semington to Challymead	Habitat for fish and limited range of submerged water plants - benefit can be increased by appropriate channel design and substrate
Canal margins	Unpiled sections of canal	Marginal emergent vegetation can be encouraged on the offside. Where possible, use of soft bank protection can support a range of flora and species of conservation interest such as dragonflies and water voles.
Towpath hedgerow	Adjacent to towpath and offside track along canal	Native hedgerow plants with standard hedgerow trees and traditional (layed hedge) maintenance can provide important hedgerow habitat
Screening trees	Alongside canal and at riverside development site 3	Use of suitable native species for screening belts and copse areas can provide valuable habitat for bats and birds, as well as amenity value
Reedbed	Near confluence of canal and river at Challymead	Development of reedbed areas would be facilitated by the new weir and the widened area at the canal mouth. This would provide additional habitat for bird species using the wetland areas at Conigre Mead Nature Reserve.
Open water (river)	Existing weir	Improvement of the existing fish pass.

[31] http://canalrivertrust.org.uk/volunteering

© AMEC Environment & Infrastructure UK Limited

Habitat	Location	Benefit
River margins	Alongside regeneration sites	Development of the riverside site without a river wall (Area 1) would provide an opportunity for bank enhancement, including use of soft bank protection techniques.
River bank habitat for particular species	Riverbank around Challymead	River works required will give the opportunity for habitat creation for species of conservation important, including artificial otter holts and habitat for water vole and kingfisher.
Marina	Outmarsh, near junction of Melksham Link and Kennet & Avon Canal	Design involving offset pontoons, marginal vegetation, inlets for vole habitat and reedbed areas can contribute significantly to valued aquatic habitat

5.2 Case Studies

Below a number of case studies of the effects of similar projects, locally and nationally, are summarised.

Box 1 Canal redevelopment and restorations – Case Studies

The Restoration of the Kennet and Avon (K&A) Canal

- Stretching from the River Thames at Reading to the River Avon at Bath, the K&A Canal was closed to navigation in 1955 but reopened in 1990. The Heritage Lottery fund subsequently provided a grant of £27 million to secure the long term future of the Canal. After 10 years the project had resulted in an increase of visitors by some 22%, and increase in expenditure by 59% and an increase in boat activity by 40%, to some 1,400. The restoration created or safeguarded a total of 3,780 jobs – including major waterside development (of around £400 million) and over 2,000 jobs around Reading. Outside of Reading some 385 jobs were created and a further 700 safeguarded jobs along the canal as a result of recreation and tourism related jobs; some (1,085 in total).
- The Canal restoration has generated strong support from local communities. In local survey results 55% of people stated they had visited the canal more frequently since the restoration.

Bradford (Leeds and Liverpool Canal) Restoration as a driver of regeneration

- The Bradford Canal is a 5 kilometre arm of the Leeds and Liverpool Canal. A 2003 masterplan for the cities regeneration focussed on the use of water as a catalyst for regeneration. A range of routes was explored – aiming to limit costs and maximise development potential. The Bradford Economic Strategy estimates development potential for up to 5,000 homes and £1.2 billion worth of development opportunities on 80 Hectares of derelict/Brownfield land. Note [1]

Oxford Canal Walks (Oxford Canal) – Partnership working to promote recreation use

- Several Canals and routes are accessible from Oxford and Banbury Stations – offering Canal-side walks from 3km upwards either circular 'rings' or between stations. The North Oxford Canal Partnership together with Local Authorities and rail operators together have published a series of walking route maps to encourage greater uptake. The partnership support cycle carriage on the train and the routes pass through numerous town and villages. The railway itself has been promoted as the 'Oxford Canal Line'.

Scottish Canals – Three fold return on investment in ten years

- Canals Scotland publish a gallery of projects on their website and indicate that Canal investment has helped deliver as three fold return on public investment over a decade. It is estimated that by 2020 Canals can contribute £1.84 billion of investment, support 16,000 jobs and 14,000 new homes. Note [2]

Boating in the South West – A high value sector

- Boating tourism accounted for over 16,000 FTE jobs in the South West Region bringing in £626 million to the regional economy Note [3].

Source: Association of Inland Navigation Authorities – AINA (unless otherwise specified).

[1] http://www.bradford.gov.uk/NR/rdonlyres/34E1EA39-D4A7-45D4-AF7F-4ADE307672C8/0/BradfordEconomicStrategy20112013.pdf

[2] http://www.scottishcanals.co.uk/about-scottish-canals/economic-impact

[3] http://www.westerndailypress.co.uk/Boating-lets-tourism-feel-buoyant/story-20579300-detail/story.html

© AMEC Environment & Infrastructure UK Limited

Appendix A
Local socio-economic characteristics

This section briefly examines data on local socio-economic issues, such as the extent of local unemployment, to provide context to some of the benefits described above and to demonstrate economic need for an investment such as this.

Table A1 is included to assess the local labour catchment area (i.e. the area from which Melksham business draw their employees). This can be used to assess the area from which any new or expanding business may recruit additional employees created through the link (some specialist roles will require labour from further afield, such as some construction activities). It can also be used to examine the area in which any additional employees may spend at least a proportion of their earnings. This is captured in the economic multipliers refereed to earlier. Overall the data suggests that just fewer than 8,000 people work in Melksham each day (defined as the 2003 wards of Melksham Without, Melksham Spa, Melksham North and Melksham Woodrow). Of these some 57% also live in Melksham – a 'self containment rate' (i.e. the proportion of employees that both live and work locally) of some 57%.Just under 3,000 people live outside of Melksham but within the rest of Wiltshire (with most of these in the former Local Authority District area of West Wiltshire). This data suggests that new employees for new and expanding businesses are likely to be locally based. This is particularly the case given that the jobs likely be created are in retail and leisure based sectors, with many roles being part time.

Conversely, Melksham loses some 1,800 people who leave the town to work elsewhere per day, not unusual for a town this size. Again, the evidence suggests that many of these work locally, with the majority commuting to jobs elsewhere in the former Local Authority District areas of West Wiltshire and North Wiltshire. Whilst many of these jobs are likely to be professional and/or specialist occupations – the creation of additional jobs in the town may claw back at least a proportion of out-commuters to work locally with associated economic benefits for the town alongside reduced congestion and emissions.

Table A2 Labour Catchment Area – Melksham (2001)

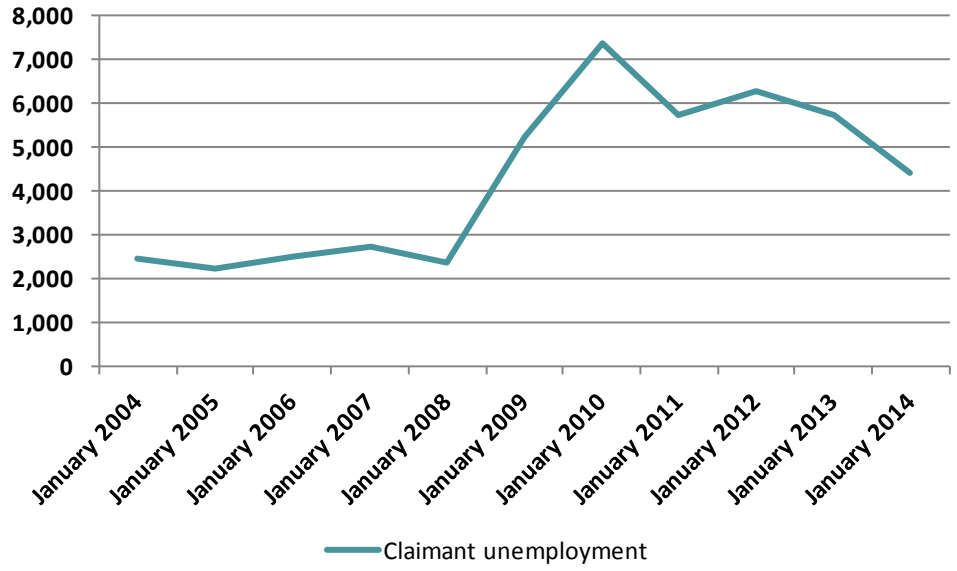
(In Commuting) Place of Residence of Melksham employees	Number	Cumulative % of total Employees
Melksham*	4,503	57%
Rest of Wiltshire	2,921	93%
Total	***7,955***	***100%***
(Out Commuting) Workplace of Melksham Resident Employees	**Number**	**Cumulative % of total Resident Employees**
Melksham*	4,503	46%
Rest of Wiltshire	4,105	89%
Total	9,717	100%

Source: 2001 Census: Travel Flows. www.nomisweb.co.uk. NOTE data from 2011 census not yet available.

© AMEC Environment & Infrastructure UK Limited

Although recovering, unemployment across Wiltshire – and indeed much of the Country are at high levels relative to much of the last decade (Figure A1). Claimant unemployment (i.e. those that are out of work, actively seeking employment and claiming job seekers allowance), stood at some 4,500 people across Wiltshire in January 2014, a rate of 1.5% - marginally below that of the South West and of England. However unemployment rates have remained high since 2009 and have yet to return to pre recession levels. More locally, the data suggests over 250 people were unemployed in Melksham itself in 2014 and unemployment rates are decreasing rather more slowly. The ILO measure of unemployment – not presented here, includes all those unemployed, activity seeking employment but not necessarily claiming job seekers allowance, this measure is often significantly higher.

Figure A1 Claimant unemployment– Wiltshire (2004-2014)



Source: Claimant Count Data from Jobcentre plus. www.nomisweb.co.uk. NOTE Youth Unemployment is defined as those claiming between the ages of 18 and 24.

Table A2 below compares job vacancies (i.e. an illustration of the extent of local demand for additional employees) with claimant unemployment rates (i.e. the supply of labour) in both Melksham and Wiltshire. The data suggests more than two unemployed residents on average, for every job advertised job, a greater level of competition than across Wiltshire where the figure is 1.6, suggesting a need for additional jobs available to local people.

Table A2 Competition for Jobs – Melksham and Wiltshire

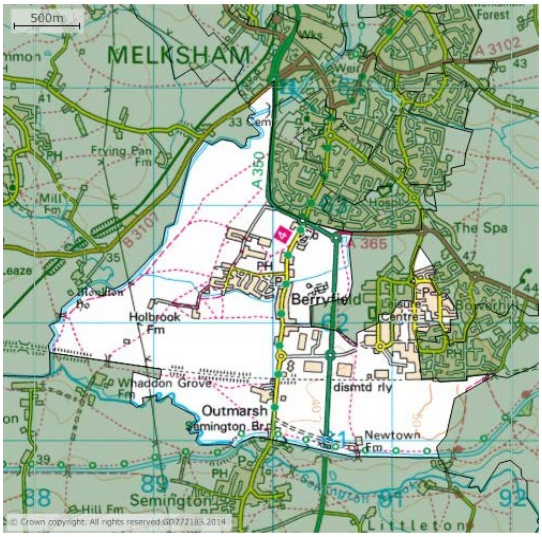
Location	Unemployed persons	Advertised Job Vacancies	Unemployed persons per vacancy
Melksham*	247	103	2.4
Wiltshire	4,421	2,781	1.6

Source: Claimant Count Data from Jobcentre plus. Vacancy data are from the office of National Statistics. www.nomisweb.co.uk.

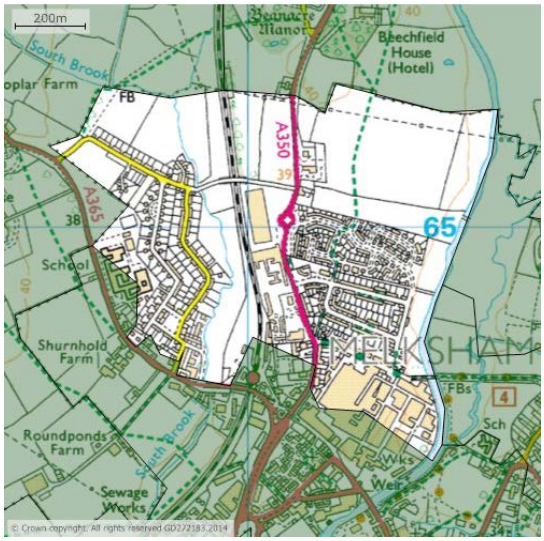
© AMEC Environment & Infrastructure UK Limited

Appendix B
Super Output Areas

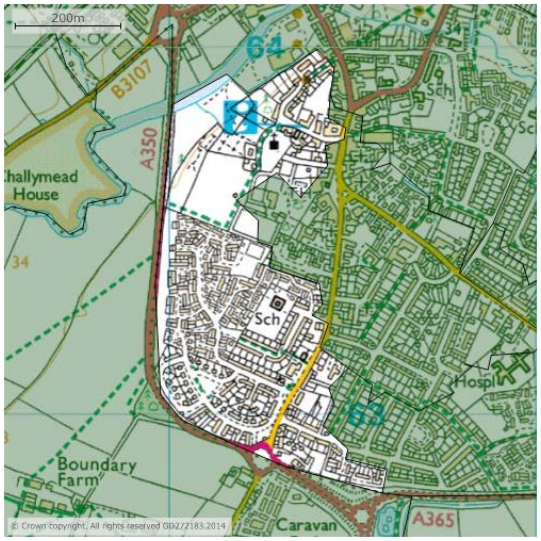
Four Lower Level Super Output Areas from the 2011 Census have been used to identify the number of existing dwellings that may benefit from the new link.



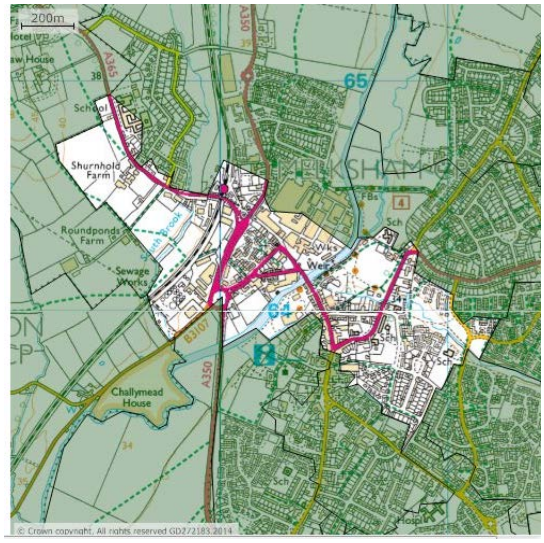
Wiltshire 021D (Semington to North of Berryfield



Wiltshire 020A (North of Proposed Weir, River Avon)



Wiltshire 022C (North of Berryfield to River Avon)



Wiltshire 022A (Melksham Town Centre)

Appendix C
Tourism Assessment Scenario 3 Cross-Check Calculations

This section uses figures derived from a similar assessment of a larger waterway extension connecting Milton Keynes and Bedford developed in 2009. The approach used was similar and estimated gross and net additional annual expenditure arising from the development of the link (although the assessment did not examine FTE jobs and Gross Value Added).

The tables below show how the estimates of spend have been used to derive estimates for Melksham. This is intended as a cross-check against which to compare the results derived from the 2010 British Waterway Study (see scenarios 1 and 2 in section 3).

The study estimated low and high ranges of the number of day and tourist visitors – applying average spend to each of these visits. The study identified between some 78,000 and up to 155,000 day visitors – along with between some 40,000 and 80,000 tourist visitors). It should be noted that this assumes two marina developments, whilst the proposals at Melksham is for one.

Table C1 Estimating Visitor Numbers and Spend based on Bedford and Milton Keynes waterway assessment (2009)

	Day Visitors		Tourists	
	Low	High	Low	High
Waterway with towpath picnic sites	35,000	70,000	7,400	14,800
Marina/basin development	42,750	85,500	32,250	64,500
Total	77,750	155,500	39,650	79,300
Spend per head (2009)	13.38	13.38	46.64	46.64
Spend per head (2012)	14.35	14.35	50.02	50.02
Total Spend	1,115,765	2,231,531	1,983,436	3,966,871
Distance				26 (Km)
Total spend per km, per year.	42,914	85,828	75,286	152,572
Melksham Distance				5km
Implied Spend at Melksham, per year	214,500	430,000	380,000	765,000

Source: Based on 'Bedford and Milton Keynes Waterway, Economic Impact Assessment, September 2009'. SQW Consultants. Implied spend at Melksham figures have been rounded. 2009 spending per head figures identified in the study have been updated to 2012 prices.

Overall, using the average gross per kilometre spending impacts identified, suggests overall (gross) day visitor and tourist spend along the 5km Melksham Link in the region of between £600,000 and £1.2 million per year. The study also examined boating activity and associated expenditure from private boats, from hire boating activity and from the expenditure associated with two marinas (on fuel/repairs and maintenance etc). As above, the expenditure identified in the study is analysed on a per kilometre basis and applied to the 5km length of the Melksham Link. The study examined effects of two marinas, assuming around 150 berths in each. This study assumes one - rather smaller – marina of 100 berths. Overall the comparative analysis suggests annual expenditure in the region of £390,000, per year from boating activity.

Table C2 Estimating Boating Activity and Spend based on Bedford and Milton Keynes waterway assessment

Type of Activity	Calculations	Unit
Private Boats	Number of boats	4,800
	'Boat movement days'	7,200
	Spend (£2009)	£633,600
	Spend (£2012)	£676,500
	Implied spend per boat £, per year	£141
	Implied spend per KM, per year	£26,0000
	Implied annual spend on Melksham link	**£130,100**
Hire Boating Activity	Gross spend based on activity (2009)	559,300
	Gross spend based on activity (2012)	£600,000
	Implied spend per KM, per year	£5,026
	Implied annual spend on Melksham Link	**£25,000**
Marina (150 berth)	Two 150 berth Marina - annual spend (2009)	£652,500
	Two 150 berth Marina - annual spend (2012)	£699,837
	Implied spend per berth	£2,333
	Implied annual spend on Melksham Link, assuming one Marina (100 berth) at Semington	**£233,500**

Source: Based on 'Bedford and Milton Keynes Waterway, Economic Impact Assessment, September 2009'. SQW Consultants. Implied spend at Melksham figures have been rounded. 2009 spending per head figures identified in the study have been updated to 2012 prices.

Note that the implied spend at Melksham figures have been rounded.

As with the other scenarios considered in section 3, allowance is made for displacement effects and multipliers. In the Bedford and Milton Keynes Study, a local level displacement rate of 25% was assumed, but no multiplier effects were taken into account. For comparison – the same assumptions have been made to the expenditure total identified above. However, allowance was allowance for 'leakage – of 25% – which has not been factored in to this assessment or the two scenarios in chapter three. Overall this suggest net additional spend of around £740,000 and up to £1.2 million, generated as a result of the Melksham Link, per year. *Note the numbers in the main report are rounded.*

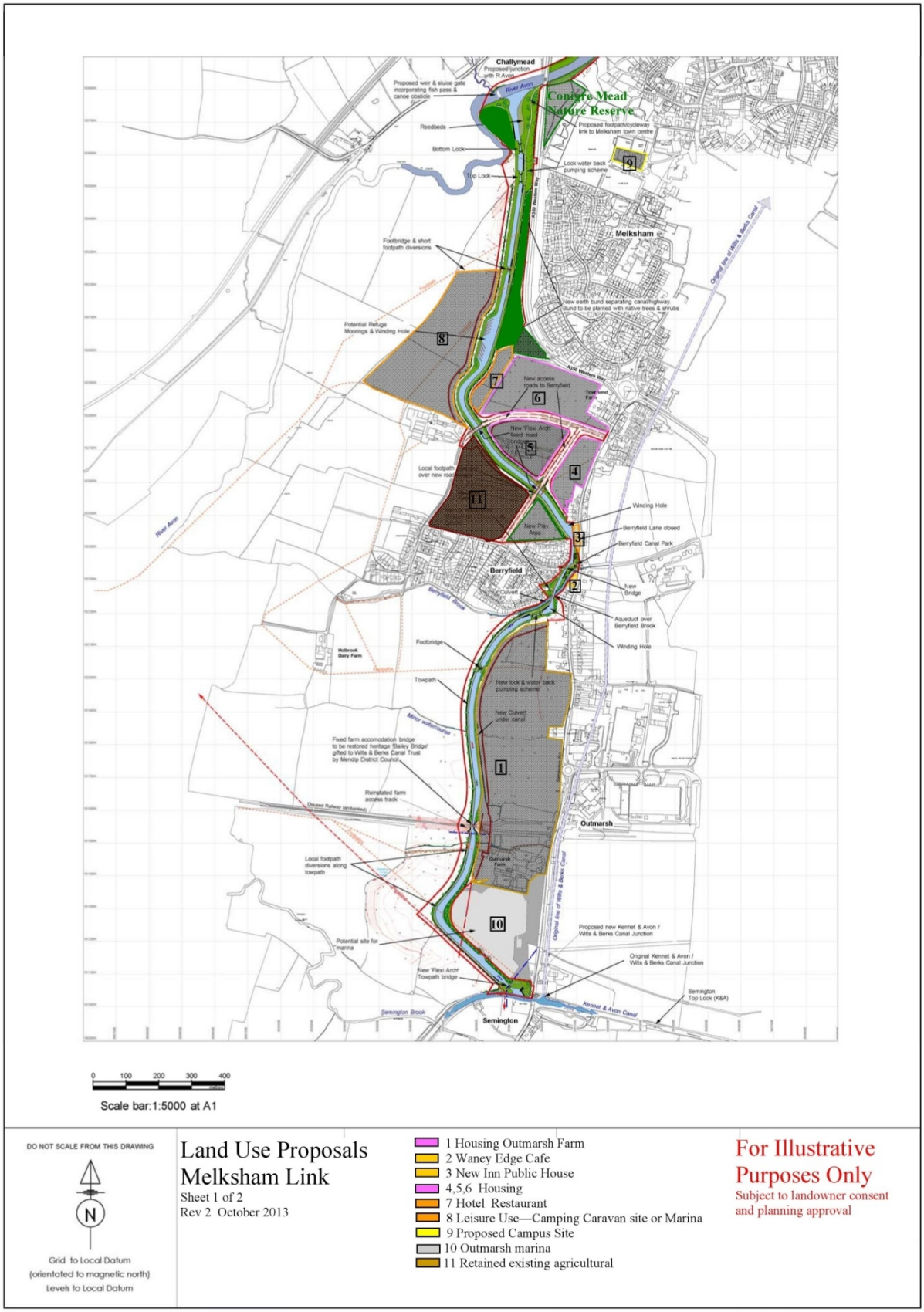
Table C3 Gross to net assumptions

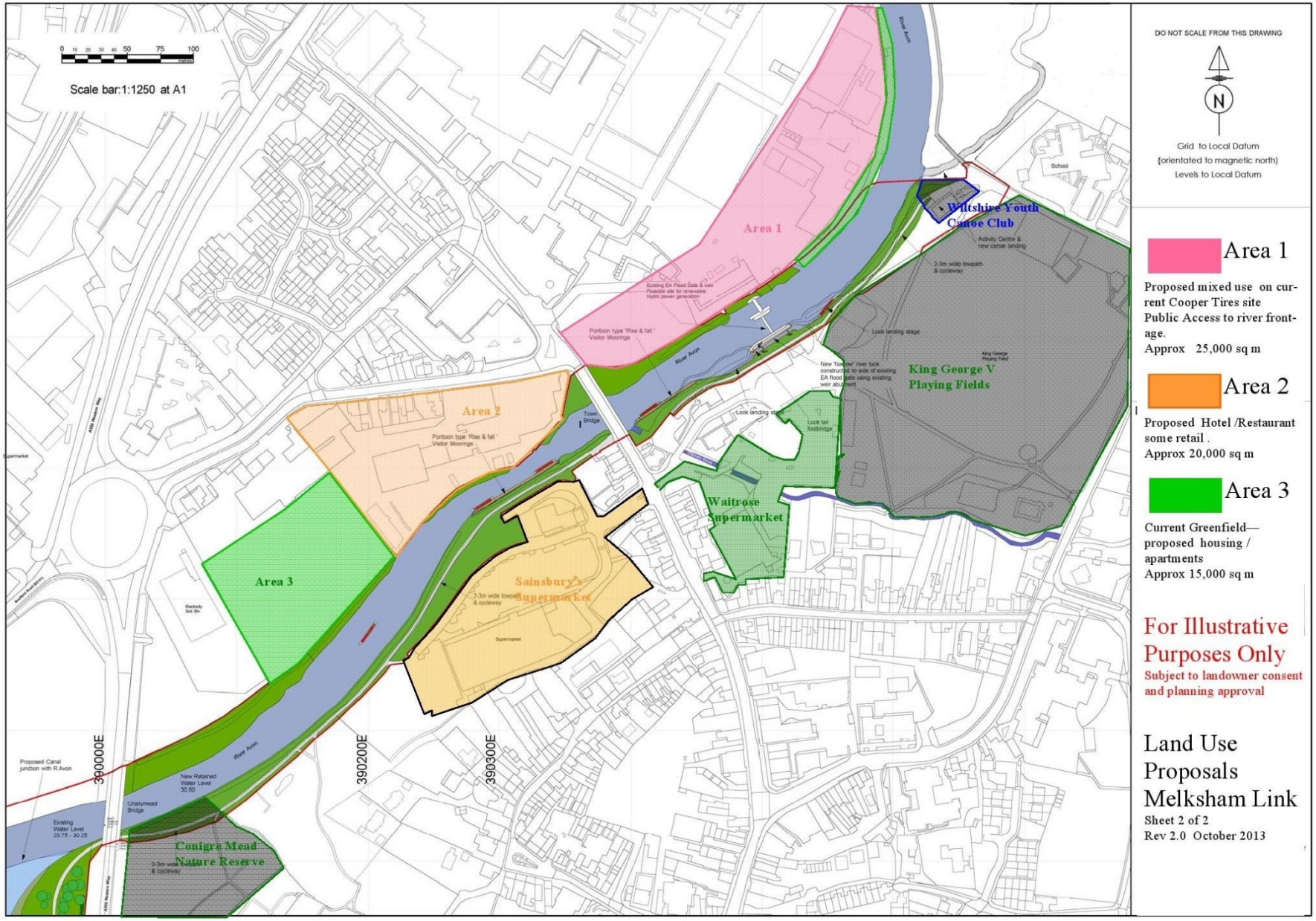
Total Gross Spend (£ per year)	***Low***	***£985,000.***
	High	***£1,580,000.***
Gross to net assumptions	Displacement	25%
	Multiplier	None
	Note: leakage of 25% assumed in SQW report - not included in this assessment.	0%
Net Gross spend (£ per year)	***Low***	***£740,000***
	High	***£1,185,000***

Source: Based on 'Bedford and Milton Keynes Waterway, Economic Impact Assessment, September 2009'. SQW Consultants. Implied spend at Melksham figures have been rounded. 2009 spending per head figures identified in the study have been updated to 2012 prices.

Note that the figures have been rounded.

Appendix D
Indicative regeneration opportunity sites




Scale bar:1:1250 at A1
Area 1
Area 2
Area 3
Wiltshire Youth Canoe Club
King George V Playing Fields
Waitrose Supermarket
Sainsbury's Supermarket
Conigre Mead Nature Reserve
River Avon
390000E
390200E
390300E
DO NOT SCALE FROM THIS DRAWING
N
Grid to Local Datum
(orientated to magnetic north)
Levels to Local Datum
Area 1
Proposed mixed use on current Cooper Tires site
Public Access to river frontage.
Approx 25,000 sq m
Area 2
Proposed Hotel /Restaurant some retail .
Approx 20,000 sq m
Area 3
Current Greenfield— proposed housing / apartments
Approx 15,000 sq m
For Illustrative Purposes Only
Subject to landowner consent and planning approval
Land Use Proposals Melksham Link
Sheet 2 of 2
Rev 2.0 October 2013