# Bedford & Milton Keynes Waterway

## Economic Analysis

On behalf of **Bedford & Milton Keynes Waterway Trust**

Project Ref: 41799 | Date: May 2018

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# Document Control Sheet

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| **For and on behalf of Peter Brett Associates LLP** | | | | |

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# Foreword

***Foreword from Jane Hamilton***
*Chair of the Bedford and Milton Keynes Waterway Trust*

The proposed Bedford Milton Keynes Waterway Park aims to link the River Great Ouse at Bedford to the Grand Union Canal at Milton Keynes running through the central section of the Oxford/Milton Keynes/Cambridge Corridor. We, at the Bedford and Milton Keynes Waterway Trust, believe that the proposed new Waterway Park can be transformational and will bring economic benefits, increased tourism, environmental and public health benefits along its route.

It will act as a focus for placemaking for new communities, help mitigate the environmental impacts of East/West rail and the proposed Oxford to Cambridge Expressway and establish new natural capital within the Oxford/Milton Keynes/Cambridge corridor.

This Economic Analysis is a big step forward in making a strong and robust case for investment in the Waterway Park. It demonstrates that the projects potential impact is wide-ranging, from accelerating development at Marston Valley to stimulating tourism, bringing in up to 800,000 new visitors each year and encouraging healthy lifestyles for those who live and work in the area.

The Waterway Park will provide links between new and existing communities in Milton Keynes, Bedford and Central Bedfordshire. It will create new natural capital and provide essential green infrastructure which has the potential to provide flood mitigation and water storage in high risk areas.

We are pressing for the Waterway Park to be integrated into the future planning of the Oxford/Milton Keynes/Cambridge Corridor as we see it as essential infrastructure which will create a strong sense of place and identity as well as delivering on many of the targets set by the Government's 25 Year Plan for the Environment.

I hope this Economic Analysis will start to explain why we have a strong belief in this transformational project and the benefits it can bring. We may have more work to do to fully demonstrate the potential of the Bedford and Milton Keynes Waterway Park but I very much hope this will help encourage a wide range of partner organisations, agencies and individuals to support us and ensure our vision is realised for the benefit of all.

**Jane Hamilton**
Chair

***The Bedford & Milton Keynes Waterway Trust*** ***www.b-mkwaterway.co.uk***

B&MK
BEDFORD & MILTON KEYNES WATERWAY TRUST
PATRON
Sir Samuel Whitbread KCVO

# Executive Summary

## Background

The proposed Bedford Milton Keynes Waterway (B&MKW) is a 26 km canal connecting the Grand Union Canal at Campbell Park in Milton Keynes to the head of navigation of the River Great Ouse at Kempston, west of Bedford. The project is being led by the Bedford and Milton Keynes Waterway Trust (B&MKT)[1] and through the B&MKW Consortium comprising: Bedford Borough Council; Bedford & Milton Keynes Waterway Trust; Canal and River Trust; Central Bedfordshire Council; Environment Agency; Forest of Marston Vale Trust; Milton Keynes Council; South East Midlands Local Enterprise Partnership (SEMLEP) and The Parks Trust.

Protected in three local plans and with planning permission achieved on sections of the waterway, it aims to provide benefits locally and regionally. It will link the wider regional Anglian waterway network thereby generating major tourism opportunities and local and wider economic benefits.

## The Opportunity

Several major factors are helping to reposition the area and enhance the prospect of the canal's realisation. The B&MK Waterway will provide a strategic green infrastructure link between major population centres in Milton Keynes and Bedford. It can also provide effective links between key nodal points at planned and committed developments along the canal corridor, including Campbell Park, Marston Valley, and Bell Farm. There are opportunities for the canal to link to future development sites, particularly in growth areas east of Milton Keynes. This reflects the currently strong positioning of the canal in some local authority Development Plans and in the SEMLEP Strategic Economic Plan.

There are wider strategic initiatives that waterway construction will help achieve, including the major economic opportunities offered by investment in the Cambridge-Milton Keynes -Oxford Arc, recently recognised by the National Infrastructure Commission as a 'national priority'.

## Contribution to Stakeholder Objectives

The canal has the potential to meet a variety of stakeholder organisations' strategic objectives, meeting local authority objectives with respect to encouraging active travel, promoting employment land development, encouraging housing growth, promoting active travel, and supporting the infrastructure priorities of the Cambridge-Milton Keynes-Oxford Growth Corridor.

## Headline Economic Impacts

The waterway has the potential to deliver significant benefits to the project area and wider region. The impact is wide-ranging, from accelerating development at Marston Valley and household spending effects to stimulating tourism activity to achieve greater visitor and spending impacts in the project area. These impacts include:

- **Job Creation and Training Opportunities:** The canal will result in 1,418 temporary construction workers and 101 direct FTEs. Construction of the B&MK Waterway will create opportunities for nearly 100 apprenticeships;
- **Gross Value Added** - The B&MK Waterway will result in £118.9m construction related Gross Value Added over the course of the build programme and £4.1m operational GVA per annum;
- **Residential Premiums** of up to £44.1m at key housing sites on the Waterway;

[1] Established in 1995 to promote and assist the provision of a new 16-mile Waterway Park

- **Stimulating Tourism Trips and Spending** – the B&MK Waterway will stimulate an additional £7.1m to the local economy annually, with 790,000 m additional visits annually;

- **Health and Wellbeing Impacts** – potential for addressing health inequalities in the local area and promoting sustainable travel methods. Impact on modal change and monetised health benefits of £281,000 per annum;

- **Managing Flood Risk** – Integration of flood mitigation and water storage in high risk areas as part of new developments;

- **Connectivity and Active Travel** – A new towpath will provide key active travel links between new, existing and potential communities in Milton Keynes, Bedford and Central Bedfordshire. The waterway itself will provide a strategic connection between the River Great Ouse and the Grand Union Canal, creating a wider cruising ring linking to the wider Middle Level Navigations via Huntington, St Ives, and connecting north to the River Nene and south to Cambridge via the River Cam waterways;

- **Infrastructure Provision** - the B&MK Waterway can help provide essential digital infrastructure, district heating, and energy technologies to support new communities; and

- **Green Infrastructure, Biodiversity and Natural Capital** – the B&MK Waterway will provide a key piece of green infrastructure, contribution to Local Plans, the SEMLEP's Strategic Economic Plan, and fulfilling priorities of a forthcoming Natural Capital Investment Plan for the Cambridge-Milton Keynes-Oxford Growth Corridor.

## Headline Impacts Summary

**790,000**
additional visits

**£7m**
extra spend

**£385m**
additional local spend

**5,000**
homes

**£44.1m**
value uplift

**£64m**
Council Tax revenue

**£119m**
construction GVA

**1,418**
temporary construction jobs

**99**
training and apprenticeships

**£281,000**
monetised health benefits per annum

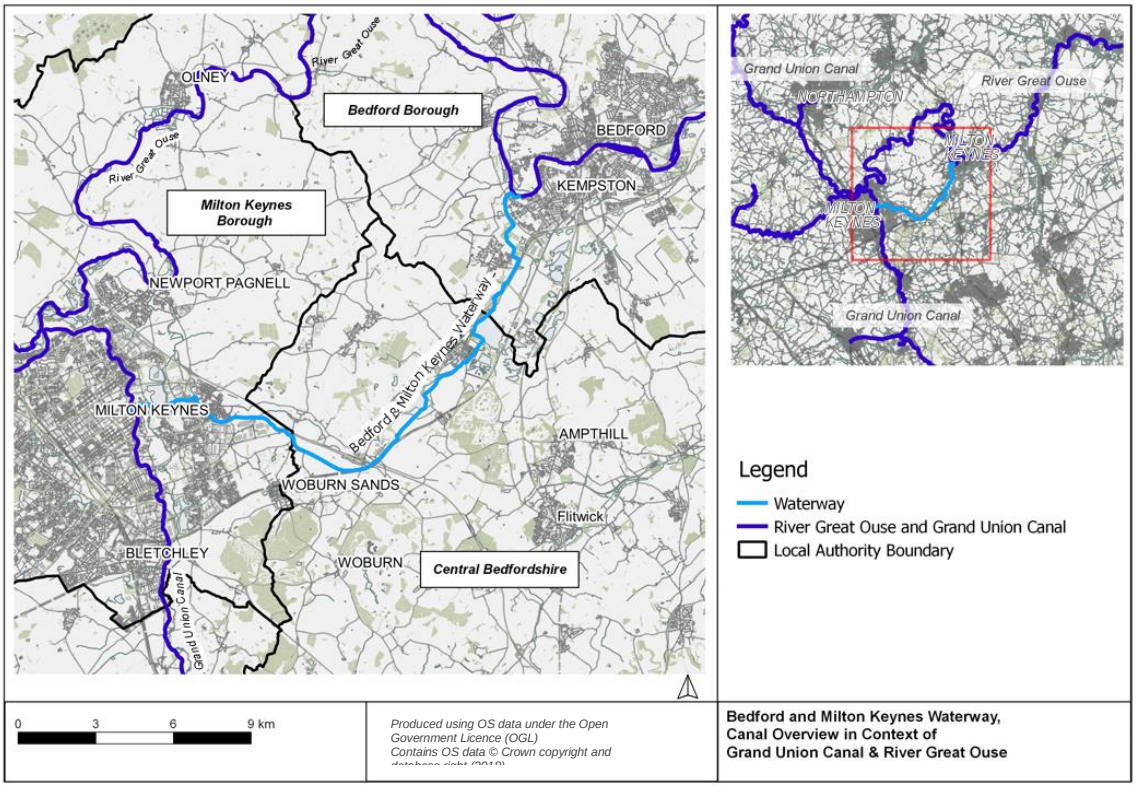
**131**
permanent FTE jobs

# 1 Introduction

## 1.1 Project Background

1.1.1 The proposed Bedford Milton Keynes Waterway (B&MKW) is a 26 km canal connecting the Grand Union Canal at Campbell Park in Milton Keynes to the head of navigation of the River Great Ouse at Kempston, west of Bedford.

Figure 1.1: B&MK Waterway in the Context of the Grand Union Canal




1.1.2 The project is led by the Bedford and Milton Keynes Waterway Trust (B&MKT)[2] and through the B&MKW Consortium comprising: Bedford Borough Council; Bedford & Milton Keynes Waterway Trust; Canal and River Trust; Central Bedfordshire Council; Environment Agency; Forest of Marston Vale Trust; Milton Keynes Council; South East Midlands Local Enterprise Partnership (SEMLEP) and The Parks Trust.[3]

1.1.3 The waterway aims to provide benefits locally and regionally. As the first new waterway in 100 years in England, and a source of interest and innovation, it will link the wider regional Anglian waterway network thereby generating major tourism opportunities and local and wider economic benefits. The waterway will provide benefits for regional water management, including opportunities to attenuate or convey surface water runoff, reduce fluvial flood risk, and transfer water resources. The wider Waterway Park will create a new natural capital asset, provide new leisure opportunities, opportunities for healthy living and, at the same time, increase biodiversity as it links major wetland sites.[4]

[2] Established in 1995 to promote and assist the provision of a new 16-mile Waterway Park

[3] The consortiums remit is to deliver the waterway and engage with wider private and public sector bodies

[4] Bedford and Milton Keynes Waterway Trust, 2017. "B&MK Business Plan, 2017/2018"

1.1.4 The route is protected in three local plans, and planning permission has been achieved along sections of the waterway, including Bedford Business Park and at Campbell Park in Milton Keynes. Additional allocations in draft local plans include the safeguarding of the Waterway, including at Aspley Guise, Bell Farm, and Marston Valley.

## 1.2 Report Structure

1.2.1 The report is structured as follows:

- Chapter 2: Project Description;
- Chapter 3: Policy Context;
- Chapter 4: Socio-economic & Tourism Baseline;
- Chapter 5: Planned Development & Key Nodal Points;
- Chapter 6: Methodology;
- Chapter 7: Economic Impact;
- Chapter 8: Health & Wellbeing;
- Chapter 9: Project Contribution to Stakeholder Objectives; and
- Chapter 10: Conclusions.

# 2 Project Description

## 2.1 Route

2.1.1 Several project delivery programmes have been produced since 2010, the most recent completed in 2014. This A-Z Project Delivery document[5] focused on the synergies generated by each section of the canal but has not been updated since 2014. The B&MKT aims to update and develop a digital version of the project delivery plan.

## 2.2 Project Parameters

2.2.1 An assessment of publicly available development information provided by B&MKW Trust and local planning authorities, visitor data, project parameter information and comparable projects—along with Peter Brett Associates, LLP ('PBA') experience of canal and leisure development elsewhere in the UK—has informed development quantums and assumptions used in the economic impact model. The project assumes the eventual development of several canal elements, shown in **Figures 5.1 to 5.3** in Section 5:

- Three marinas:
  - 150 berths at Brogborough Lake (assumed as not currently proposed as part of Marston Valley);
  - 150 berths at Box End on the River Great Ouse in Bedford;
  - A 100-berth marina at Campbell Park;
- Iconic boat lift at Brogborough Hill;
- 43 new locks;
- 19 km of new channels; and
- At least 32 km of new towpath (i.e. a route for pedestrian and cyclists), linking to key active travel and local routes.[6]

## 2.3 Linkages to Key Nodal Points

2.3.1 The waterway will create or enhance key nodal points in Milton Keynes, Central Bedfordshire and Bedford. New nodal points are considered below and are shown in **Figures 5.1 to 5.3** in Section 5.

- **Campbell Park Marina:** potential for marina services and amenities, assessment assumes there will be a public house and marina service buildings[7];
- **Marston Valley:** There is currently a submission Draft Local Plan allocation, with potential for houses and waterfront businesses, assessment assumes there will be waterside shops, cafes and other amenities for towpath users;

[5] Bedford & Milton Keynes Waterway Consortium, 2014. "Bedford & Milton Keynes Waterway: Project Delivery Plan"

[6] Such as NCN Route 51

[7] Note that construction is underway for this development.

- **Brogborough Hill & Lake:** marina on Brogborough Lake with ancillary facilities. The requirement for an iconic boat lift will become an attraction, potentially with a visitor centre and café[8]; and

- **Box End:** potential for marina identified for the head of navigation at Box End.[9]

## 2.4 Economic Opportunity

2.4.1 A number of factors will help drive economic growth in the area and enhance the added value of the Bedford to Milton Keynes Waterway Park. Integration of the waterway in key spatial policies will have an impact on investment decisions given its contribution to creating attractive living and working environments and creating a sense of place.

2.4.2 There is clear potential for the project to be positioned in view of other infrastructure projects and investment. The National Infrastructure Commission recently argued that the Cambridge-Milton Keynes-Oxford Arc must be a national priority.[10] It recognises key infrastructure projects that would be key to enabling new settlements, enhancing connectivity, expanding labour markets, and improving strategic connections. Key projects include:

- **East-West Rail (EWR):** Enhancements are proposed to the existing station Ridgmont. This is part of the Government-led initiatives within the Oxford-Cambridge Growth Corridor and would unlock land for new settlements, including the first new towns to be built in a generation. The line from Bicester to Bedford is anticipated to open in 2022; and

- **Oxford-Cambridge Expressway (OCE):** This would complement the EWR and support the continued growth and attractiveness of the corridor as a place to live and work. It would provide "network resilience, improved local, regional and strategic connectivity and support the delivery of planned growth across the corridor." The project is expected to commence in 2020.[11]

2.4.3 The National Infrastructure Commission notes that Bedford & Milton Keynes Waterway park offers an opportunity to create a green infrastructure asset which contributes to wider placemaking objectives. It could also help achieve the 'net gain' approach to biodiversity and natural capital and offsetting the impacts of the EWR and OCE schemes.

2.4.4 Other factors contribute to the economic opportunity, including:

- Meeting unmet and latent demand for boating and other water related and waterside activities in the local area (e.g. canoeing, angling, power boating, etc.);

- Linking key paid and free local attractions (e.g. Millennium Country Park, Gulliver's Land); and

- Links to the University towns at Oxford, Cranfield and Cambridge.

## 2.5 Delivery Opportunities

2.5.1 The Waterway could be delivered in conjunction with a number of developments along the waterway. As detailed in Section 3, policy variably recognises the complementary role of the waterway and development.

[8] This estimates new leisure facilities in addition to those proposed as part of the Marston Valley development.

[9] Note: two possible locations identified the 2011 Bedford Waterspace Study

[10] Partnering for Prosperity: A New Deal for the Cambridge-Milton Keynes-Oxford Arc. National Infrastructure Commission, 2017.

[11] England's Economic Heartland, Buckinghamshire County Council.

## Main Funding Opportunities

2.5.2 The main opportunities for contributions from development fall within Central Bedfordshire – at Marston Valley, Hayfield, Ridgmont and Brogborough Hill. Policies in the emerging Central Bedfordshire Local Plan support integration of the Waterway into development projects. In Bedford Borough Council and Milton Keynes Councils' proposed plans, the opportunities are limited (see **Table 3.1** for more detail). Significant contributions towards the waterway are not expected from canalside developments, though the route is 'safeguarded' in both local plans.

2.5.3 Bedford Borough Council may use Community Infrastructure Levy (CIL) payments to contribute towards the waterway but opportunities are limited as the local plan currently focuses on development outside the proposed Waterway corridor. In Milton Keynes most of the opportunities for development along the route are gone without any contribution, which including Brooklands, Atterbury and Eagle Farm South.

## Anticipated Deliveries

2.5.4 There are only a few developments which already include delivery of sections of the Waterway.

2.5.5 In Bedford provision for the waterway has been included in the recently consented Bedford Business Park where it is integrated as part of the flood management. However, this site makes up a small section of the proposed Waterway.

2.5.6 The recently consented Campbell Park Marina in Milton Keynes includes the construction of a small section of the route. There is a further development site at Newlands but since this is allocated for open space and recreation it is unlikely that any proposals will be sufficiently commercial in nature to contribute to the waterway other than protecting the route.

# 3 Policy Context

## 3.1 Policy Support

3.1.1 The B&MK Waterway has broad policy support from constituent local authorities. The proposed alignment is recognised in statutory spatial planning documents. Significantly the waterway can also help fulfil the broader strategic objectives of wider stakeholders.

3.1.2 **Table 3.1** shows how the waterway can deliver economic, social, community and environmental benefits that help further the strategic objectives in the region and within the constituent local authorities.

3.1.3 It should be noted that the Local Plans for Milton Keynes Council, Central Bedfordshire Council and Bedford Borough Council, are being revised. Milton Keynes' Proposed Submission Plan was approved on 18 October 2017, Bedford's Plan for Submission was approved in January 2018, and Central Bedfordshire's Pre-Submission Local Plan closed to consultations in February 2018. The Examinations in Public are expected in Autumn 2018.

Table 3.1: Policy Context and Contribution to Wider Stakeholder Objectives

| Document | Key Policies and Priorities | Implications for B&MK Waterway |
|---|---|---|
| **National and Regional Strategy** | | |
| **National Infrastructure Commission: Priorities for National Infrastructure** | The NIC Report, forming a phase of the UK's National Infrastructure Assessment, identifies several priorities for action, including:<br>▪ **Building a digital society**: fast, reliable data services everywhere;<br>▪ **Connected, liveable city-regions:** linking homes and jobs;<br>▪ **New homes and communities:** supporting delivery of new homes;<br>▪ **Low-cost, low-carbon:** ending emissions from power, heat and waste;<br>▪ **Revolutionising road transport:** seizing the opportunities of electric and autonomous vehicles;<br>▪ **Reducing the risks of extreme weather:** making sure the UK can stand up to drought and flooding; and<br>▪ **Financing infrastructure in efficient ways:** getting the right balance between public and private sectors. | In March 2016, the National Infrastructure Commission was asked to consider how to maximise the potential of the Cambridge – Milton Keynes – Oxford corridor as a single, knowledge-intensive cluster that competes on a global stage, protecting the area's high quality environment, and securing the homes and jobs that the area needs. The final report was published in November 2017.<br><br>In Partnering for Prosperity: a new deal for the Cambridge – Milton Keynes – Oxford Arc the Commission identifies opportunities to create well-designed, well-connected new communities and deliver one million new homes and jobs in the area by 2050.<br><br>The NIC report sets out infrastructure priorities to address the threats of congestion, lack of capacity and carbon. Relevant to the B&MK Waterway, the priorities emphasise the importance of sustainable links between homes and jobs, opportunities for providing digital infrastructure, sustainably financing |

| Document | Key Policies and Priorities | Implications for B&MK Waterway |
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| | | infrastructure, and reducing flood risk. |
| **SEMLEP Strategic Economic Plan (SEP)** | The South East Midlands Local Enterprise Partnership (SEMLEP) Strategic Economic Plan[12] sets out how to ensure the South East Midlands economy reaches its full potential for the future prosperity of its communities. It sets the key priorities for strategic investments and actions required to transform the area into a "hub" of knowledge intensive industry, including through the development of the Cambridge-Milton Keynes-Oxford Growth Corridor.<br>Relevant priorities include:<br>▪ Boosting innovation and enterprise, including business start-ups, growth in and finding suitable employment premises;<br>▪ Fostering research-skills-business links to promote the commercialisation of innovative ideas, facilitating trade and attracting investment;<br>▪ Commercialising innovation[13], delivering private sector investment[14] and greater trading between companies in the area and elsewhere;<br>▪ Developing the labour market by addressing employer skills attainment needs, and encouraging employment progression; and<br>▪ Investing in physical capital, in the form of transport links, housing, and energy, and digital, green and social infrastructure.<br>It recognises the importance of ensuring socially inclusive and environmentally sustainable growth. The SEP aims to promote the SE Midland's environmental assets and working with partners to consider improvement for future resilience, environmentally, economically and | The B&MK Waterway is specifically mentioned in the Strategic Economic Plan as a key environmental infrastructure project that can increase biodiversity and improve water management. The B&MK Waterway can therefore help meet these growth objectives.<br>The development of key sites along the watercourse in Milton Keynes (e.g. Eagle Farm South), Bedford (e.g. and Central Bedfordshire (e.g. Marston Valley) can help meet the economic objectives set out in the Strategic Economic Plan.<br>The waterway may encourage further development the waterway in the future owing to the attractiveness of the green-blue network.<br>Ultimately, the SEP provides a strategic basis for the project, noting the need to ensure that growth is inclusive and environmentally sustainable. |

[12] SEMLEP, 2017. *"South East Midlands: Where Innovation Fuels Growth"*

[13] Based on strengths in high performance technology, driving growth within the Cambridge-MK-Oxford corridor

[14] Including FDI. Key goals in the area include expanding businesses, encouraging relocation within the region and new businesses setting up in the area.

| Document | Key Policies and Priorities | Implications for B&MK Waterway |
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| | socially. The B&MK Waterway is specifically mentioned as a key environmental infrastructure project that can help increase biodiversity and improve water management in the middle of the Growth Corridor. It is an essential part of the SEP's 'Growing Places' initiative[15] with respect to investing in physical capital.<br>Key actions within the document include supporting relevant projects such as East-West Rail and the Oxford-Cambridge Expressway in addition to the B&MK Waterway.<br>SEMLEP also supports the development of a Natural Capital Investment Plan for the Cambridge-Milton Keynes-Oxford Growth Corridor, led by a group of Local Nature Partnerships, which will provide a set of overarching environmental priorities. | |
| **Local Plans and Core Strategies** | | |
| **Milton Keynes Core Strategy (2013)** | The spatial plan for the Borough identifies cross-boundary proposals that would require a consistent approach to planning with neighbouring local authorities; this includes developments which safeguard sections of the B&MK Waterway.<br>It aims to retain ease of movement across the city as the population grows. It supports Milton Keynes becoming a centre of the region, with opportunities for employment, shopping, leisure medical facilities, training and education, with facilities of international, national and regional status.<br>There will also be an emphasis on reducing carbon footprint, particularly in transport and building projects.[16] It foresees improved transport links into other towns[17] and rural areas will have limited development.[18]<br>Policy CS5- Strategic Land Allocations- safeguards the proposed alignment of the B&MK Waterway in | The Milton Keynes Core Strategy supports the delivery of the canal and developments which incorporate the canal. It provides a policy basis for delivering sections of the B&MK Waterway.<br>The development of the B&MK Waterway will enhance the overall sustainability of Milton Keynes, providing key active travel routes in high growth areas of the city.<br>Allocations set out in CS5 have been carried over into the Submission Local Plan. |

[15] This initiative focuses on "investing in, and ensuring the provision of physical capital - transport links, housing, and energy, digital, green and social infrastructure. I.e. all the components that allow our places, and businesses and communities within them, to work effectively together"

[16] Objective 6 of Bedford Core Strategy
[17] Objective 11
[18] Objective 14

| Document | Key Policies and Priorities | Implications for B&MK Waterway |
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| | areas of major employment and housing allocations (including Eagle Farm North and South). | |
| **Bedford Borough Council Core Strategy and Rural Issues (2008)[19]** | The key objectives of the Core Strategy and Rural Issues Plan provide specific objectives to provide plan direction.<br>Relevant objectives include planned housing and employment growth in Bedford, Kempston and the northern Marston Vale in line with sustainable development principles [20]. There is an emphasis on non-car modes, improving east-west communication and transport interchange.[21]<br>Reflecting the rural nature, the Core Strategy prioritises protecting and enhancing the countryside, biodiversity and geodiversity, and the quality and connectivity of green infrastructure in the borough with particular emphasis on enhancing the Marston Vale.<br>In practice, these are supported by policies regarding sustainable development[22], job creation and employment land, [23] and housing delivery[24]**.** Specifically, **Policy CP22** of the Strategy supports the creation of the Waterway Park. It is recognised as a contributor to the greenspace network, tourism and to the vitality of the Bedford town centre. | The Core Strategy sets out policy justification for safeguarding and creation of the Waterway. It recognises the importance of the waterway in delivering wider tourism and recreational benefits. |
| **Bedford Borough Council Allocations and Designations Local Plan (2013)** | This document identifies sites for development to meet the borough's needs to 2021 based on the scale and general locations already agreed and explained in the adopted Core Strategy and Rural Issues Plan.<br>**Policies AD12 & AD13** note that developments at Land at Bell Farm, Kempston, Marston Vale Innovation | The Allocations Local Plan identifies key sites which are central to the delivery of the Local Plan and the waterway park. It recognises the waterway park as a regional asset central to the delivery of developments in Northern Marston Vale. |

[19] Bedford Borough Council, 2008

[20] Objectives 1,2, 4 and 5
[21] Objective 8.
[22] CP2-Sustainable Development Principles. These emphasis, among other things, protection of biodiversity and
[23] CP10 and CP11.
[24] CP6-8, and CP16-CP17

| Document | Key Policies and Priorities | Implications for B&MK Waterway |
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| | Park Phase 2, Wootton, will deliver a section of the B&MK Waterway Park, incorporating canal, cycle and pedestrian paths (possibly Sustrans Route 51) through the site.<br>Policy AD24 identifies Green Infrastructure Opportunity Zones to maintain and enhance multi-functional green infrastructure across themes of landscape, historic environment, biodiversity, accessible green space and access routes. Zone 4 includes the canal itself, which will create a green corridor accessing routes and linking green spaces.<br>Policy AD27 recognises the B&MK Waterway Park as key for sustainable growth in the Northern Marston Vale, considering the incorporation of sections of the canal at Marston Vale Innovation Park and Bell Farm. | |
| **Central Bedfordshire Local Development Framework, Core Strategy and Development Management Policies (2009)** | This document sets out key council policies, providing the long term vision and direction to 2026. The vision, objectives and policies in the CS provide an overarching approach supporting detailed development management policies.<br>Key objectives include planning for sustainable developments, such that developments meet design and sustainability criteria, supported with an appropriate range of jobs, transport, affordable housing, community and leisure assets.[25]<br>New development will also be located in the most accessible locations.[26]<br>This is supported by greater number of people walking and cycling.[27]<br>The Framework aims to deliver environmental regeneration in the Marston Vale—it will remain a growth location, and delivery of the Waterway Park will be supported where new development is planned. [28] The delivery is supported in CS17: Green Infrastructure, which aims to promote priority areas for provision of new infrastructure and will require that developments contribute towards its delivery and management. | The Local Development Framework and Core Strategy set out the strategic context for land development and management of the built environment. It provides specific land use policies around the proposed Waterway and recognises the importance of green infrastructure in connecting settlements to the countryside, providing multifunctional networks and enhancing quality of life. |

[25] This includes the delivery of a significant amount of housing from 2001 to 2026 and provision of at least 17,000 jobs in the same period.
[26] Strategic Objective 3
[27] Strategic Objective 7
[28] Paragraph 3.85.

| Document | Key Policies and Priorities | Implications for B&MK Waterway |
|---|---|---|
| **Central Bedfordshire Pre-Submission Local Plan 2035 (2017)** | The Central Bedfordshire Local Plan includes **Policy SA2**, which recognises the land for Marston Vale Villages, including 5,000 dwellings and a minimum of 40 hectares of employment land. **Development Principle 3** notes that development will maximise opportunities to create Green Infrastructure corridors, delivering a multifunctional Green Corridor through the entire length of the site to form the Bedford and Milton Keynes Waterway Park including between Brogborough and Stewartby Lakes and deliver a cycleway from Stewartby Lake to Ridgmont railway Station following the route of the Green Corridor.<br>The Waterway will link Brogborough Lake and Stewartby Lake and will provide opportunities to manage fluvial flood risk from the Elstow Brook & the risk of flooding from surface water runoff arising from the development proposed.<br>**Policy EE10** similarly recognises the Bedford and Milton Keynes Waterway Park, noting that development within its route will deliver a section of the waterway channel and towpath for non-motorised users within a multifunctional green network. The policy protects against development adversely affecting the Waterway. | Recognition of the waterway in proposed statutory spatial policy. Waterway central to the delivery of Marston Valley. |
| **Milton Keynes Proposed Submission Plan (2017)** | The key objectives of the draft local plan include:<br>▪ To reflect the recommendations of the MK Futures 2050 Commission Report, the land use planning implications of the Strategy for 2050 and its Six Big Projects, which includes making Milton Keynes the hub of the Cambridge-Milton Keynes-Oxford Growth Corridor;<br>▪ To deliver land for at least 26,500 homes to 2031;<br>▪ Supporting the development of the Cambridge-Milton Keynes-Oxford Growth Corridor;<br>▪ To work jointly with neighbouring authorities and other key organisations on the planning of any development located on the edge of Milton | The B&MK Project is recognised and safeguarded in planning policy and is essential in delivering strategic objectives of the Local Plan. Consistent with the NIC priorities, it views the Waterway as essential for green infrastructure delivery and in complementing the strategic projects planned within the Growth Corridor. Canal-related policies have implications for the nature of development proposed along the Waterway.<br><br>The route is safeguarded though there is at current no obligation that developers deliver sections of the Waterway. Indeed, many developments along the watercourse have already been delivered without contribution to the delivery of the Waterway. |

| Document | Key Policies and Priorities | Implications for B&MK Waterway |
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| | Keynes (but outside the Borough boundary) so that these areas are integrated with the city and contribute to its role and character;<br>■ allocate and manage development of employment land and pursue a vigorous economic development strategy and ensure opportunities for learning; promoting and recognising cultural attractions; reduce health inequalities, deprivation and housing quality;<br>■ facilitating housing delivery; manage increased travel demands in part through improvements to public transport and new infrastructure projects, but also focusing on active travel;<br>■ mitigating climate change impacts by locating development away from areas with flood risk and biodiversity value and supporting sustainable transport initiatives;<br>■ encouraging healthy lifestyles; protecting, maintaining and enhancing linear parks;<br>■ employing 'placemaking' as an overarching design objective for new developments, ensuring new developments create safe, healthy and sustainable environments; and<br>■ work with public service and infrastructure providers to ensure that social and economic growth is facilities by timely provision of required facilities.<br><br>The Draft Local Plan recognises the B&MK Waterway as an essential green corridor in the heart of new development. It notes that it represents an opportunity for development proposals along the route particularly in terms of place-shaping.<br>In achieving these objectives, the Eastern Expansion Area (SD6) notes that land is safeguarded as part of the B&MK Waterway. This is also noted in | |

| Document | Key Policies and Priorities | Implications for B&MK Waterway |
|---|---|---|
| | SD8 'Strategic Land Allocations', the Strategic Reserve Areas at Glebe Farm and Eagle Farm (SR2 & SR3) should preserve the route of the Waterway.<br>Policy D5- 'Canalside Development' notes that developments along the proposed Waterway should safeguard the route for future delivery and maximise the opportunity to deliver aspects of the project which are of mutual benefit. | |
| **Bedford Borough Council Plan for Submission (2018)** | Relevant strategic objectives of the Draft Local Plan include:<br>▪ Delivering high quality growth facilitating sustainable and inclusive places for local communities,<br>▪ Provide appropriate amounts and types of housing to meet the needs of the borough's urban and rural communities<br>▪ Support a stronger local economy delivering economic growth, broadening employment opportunities and attracting and enabling high value businesses to prosper for the benefit of the borough's existing and future residents.<br>▪ Where social and cultural wellbeing is supported, enabling all residents to lead healthy and independent lives.<br>▪ Deliver existing and future infrastructure needs to support growth in both the urban and rural areas.<br>▪ Improve the borough's transport infrastructure in order to support growth in the local economy and to make the borough more attractive as a place to live and do business. Reduce congestion in the borough, particularly into and around the town centre and by making journeys by public transport, walking and cycling more attractive to encourage an increase in more sustainable and healthy modes of transport.<br>▪ Develop a strong and multifunctional urban and rural green infrastructure network | There is clear emphasis on the development of the Waterway, though the plan does not afford the same policy protection for the Waterway with respect to planned development.<br><br>The delivery of the Waterway can help meet Bedford's strategic objectives, offering opportunities for leisure and recreation, active travel, supporting cultural wellbeing, providing employment opportunities, expanding the green network, positively influencing place-shaping, and protecting natural resources. |

| Document | Key Policies and Priorities | Implications for B&MK Waterway |
|---|---|---|
| | through protecting, enhancing, extending and linking landscapes, woodland, biodiversity sites, heritage sites, green spaces and paths.<br>■ Support and create a high quality, inclusive and safe built environment which values local landscape and settlement character and which conserves and enhances the historic environment.<br>■ Protect and enhance our natural resources including air, soil minerals and water to minimise the impacts of flooding, climate change and pollution.<br><br>The 'Vision' supporting the Local Plan recognises the B&MK Waterway as essential to the delivery of a multifunctional green network in the Borough.<br>Policy 36S- Green Infrastructure, identifies the B&MK Waterway as a key strategic green infrastructure project. It expects that the Council work with developers and partners to deliver it. Policy 45- River Great Ouse, also recognises the role of the Waterway in enabling boating on the Head of Navigation at Kempston Weir.<br><br>The Local Plan recognises the Oxford-Cambridge Growth Corridor and identifies its key transport improvements. | |
| **Economic Strategies** | | |
| **Milton Keynes Draft Economic Development Strategy (2017)** | Economic Development Strategy will provide a focus on key interventions over the next ten years which contribute to the overarching vision of the Council's Corporate Plan and the ambitions of the MK Futures 2050 Commission, made up of a combination of local stakeholders and expert 'outsiders' with specific knowledge. It will support the aims of the Council Plan and will support the initial delivery of the MK Futures 2050 | The Waterway will provide opportunities for innovation and business growth while also increasing the attractiveness of the area for housing, businesses, tourism and recreation. |

| Document | Key Policies and Priorities | Implications for B&MK Waterway |
|---|---|---|
| | six big projects[29], providing a strong platform on which the projects can continue to build.<br>The key priorities of the Draft Economic Development Strategy include:<br>• Creating a 'brand' that encapsulates the Milton Keynes sense of place;<br>• Capitalise on opportunities developed through the Cambridge-Milton Keynes- Oxford corridor to expand business and relocation;<br>• Provide an environment where businesses can start, thrive and grow, particularly in new sectors; and<br>• Ensuring high levels of skills attainment and ensure access by local businesses to a highly skilled workforce. | |
| **Bedford Growth Plan (2014)** | The Bedford Growth Plan was developed in line with the Borough's Economic Development Strategy (2011-2014) and sets out a 30-point plan to deliver economic growth in key priorities areas.<br>Priority areas include:<br>• Promote key infrastructure to support job growth delivery across the Borough;<br>• Develop a business rates policy to incentivise and encourage business growth;<br>• Reduce time, cost and uncertainty with planning applications;<br>• Facilitate and promote job growth; and<br>• Create a distinctive, attractive and multi-functional town centre for the future.<br>Across these areas, relevant actions include providing opportunities for employment growth. | This Plan creates a Framework for delivering Economic Growth within the Council Area. There are no actions specifically related to the B&MK Waterway but there are actions which would prioritise investment in employment sites. |
| **Central Bedfordshire Economic Development Plan (2011)** | The Central Bedfordshire Economic Development Plan focuses on creating the right conditions to attract, retain and grow businesses to provide more employment opportunities and support our residents to access and benefit from such opportunities. | The B&MK Waterway can help deliver on these key themes insofar as it supports business growth particularly in tourism and recreation, enables development of key sites at Marston Valley, supports skills |

[29] Including the Learning 2050 focussed on raising attainment, the MK:IT (a new university), the city centre renaissance, the Oxford-Cambridge Arc, smart shared mobility, and the creative and cultured city.

| Document | Key Policies and Priorities | Implications for B&MK Waterway |
|---|---|---|
| | There are four key themes identified in the Economic Development Plan, specifically:<br>• Supporting Business;<br>• Land and Premises;<br>• Into Work; and<br>• Skills for Growth. | delivery and training, and promotes outdoor learning. |

# 4 Socio-economic & Tourism Baseline

## 4.1 Socio-economic Summary

4.1.1 This section provides key socio-economic and tourism related indicators for each of the three local authority areas and a 60-minute drive time catchment (taken as the centre of the proposed route). The majority of benefits are likely to occur within a 60-minute drive time area. The indicators included below are contained in the tables in Appendix A.

4.1.2 Key indicators include:

- **Population**: Growth is expected above regional and national levels to 2030 (12% compared to 10% and 8% respectively);
- **Age Profile**: Age profile reflects national average within a 60-min drive time. On a local authority basis, the proportion of pensionable-age residents is expected to increase above regional levels to 2030;
- **Economic Activity**: Higher than regional and national levels, at 73% within the study area compared to 71% in the East of England and 70% in England;
- **Skills**: Within the study area, a higher proportion of people are in skilled occupations compared to England (45% compared to 42%). On the local authority level, the proportion of unskilled labour is higher in Milton Keynes and in Bedford compared to England;
- **Qualifications**: Residents in the study area are better educated, with 32% obtaining Level 4 qualifications and above, higher than in the East and in England (28% and 29% respectively);
- **Employment**: The employment profile of the study reflects the regional level, though a greater proportion of people are employed in wholesale & retail, professional scientific & technical activities, and manufacturing, compared to the East of England and to England; and
- **Income & spending:** Income per head is lower than the regional and national average across local authorities. However, comparison, convenience and leisure spending per household in the study area is estimated to be above regional and national levels.

4.1.3 The baseline assessment shows the study area has above average levels of population growth, economic activity and benefits from a highly skilled and qualified workforce. Given levels of employment in the construction and tourism sectors which broadly consistent with the national average and high levels of labour mobility[30], the proposed B&MK Waterway should be able to be delivered without creating any negative distortions to the labour market and tourism economy (i.e. avoiding wage and price increases).

## 4.2 Tourism

4.2.1 Tourism is an important driver in the study area but it variably developed. The area is highly accessible via the M1 and A1 from London, with more variable accessibility via rail. However, the rural tourism offer in Central Bedfordshire and Bedford impacts the volume of tourism to the local area. Among the local authorities, Milton Keynes draws the most visitors and

[30] CITB Mobility in Construction Survey 2016 & 2011- Census-based travel to work data.

expenditure, ranking within the top 20% of all local authorities for total visits and expenditure. Bedford ranks within the top 50% for visits and expenditure.

Table 4.1: Tourism- ranked by decile among all local authorities

| | Visits | Expenditure | Expenditure per Visit |
|---|---|---|---|
| Central Bedfordshire | Top 30% | Top 50% | Bottom 30% |
| Bedford | Top 50% | Top 50% | Bottom 50% |
| Milton Keynes | Top 20% | Top 20% | Top 30% |

4.2.2 There are some 32,200 tourism jobs in the local authority areas, accounting for 9% of all local jobs.[31] These jobs are concentrated in retail businesses, transport, and accommodation and food services. The tourism infrastructure of the area is defined by a number of attractions, including historic properties, museums, wildlife parks, and country parks. Those identified by VisitEngland, and their annual visitors, include:

- Chicksands Priory (13km from Canal): 292;
- Woburn Safari Park (2km from Canal): 17,016;
- Milton Keynes Museum (5km from Canal): 34,503;
- RSPB The Lodge Nature Reserve (17km from Canal): 62,000;
- Wrest Park (11km from Canal): 124,305; and
- ZSL Whipsnade Zoo (20km from Canal): 672,851.

4.2.3 The majority of these attractions are not within the study area for the B&MK Waterway (see **Figures 5.1-5.3** in Section 5). Other attractions not considered in the VisitEngland audit including Centre Parcs at Woburn Forest (4km), Marston Vale Forest Centre and Millennium Country Park (<500m, attracting some 160,000 visitors per annum), Gulliver's Land Theme Park/ Gullivers Dinosaur and Farm Park (<500m, comparable sites attract some 500,000 visitors per annum). There are several additional low level green infrastructure assets which may attract day visits, including Stewartby Lake (attracting 93,768 visitors), Ouzel Valley Park and Willen Lake Park. Water-based activities in the local area have specifically targeted the local boating market. The Bedford & Milton Keynes Waterway Trust operated-hire boat, the John Bunyan, has carried over 30,000 passengers on the River Ouse over the four years since its launch.[32]

4.2.4 The availability of outdoor attractions suggests the importance of outdoor activities to the local economy. Recent data from VisitEngland suggests outdoor activities account for 37% of day visit expenditure in the local area while outdoor activities account for 20% of overnight domestic visit expenditure nationally.[33]

4.2.5 Tourism trips in the local authority areas have seen both growth and decline in recent years. Total trips to Bedfordshire, for example, fell to 92% of average levels witnessed in the 2006-2008 period. Similarly, Milton Keynes has experienced a decline in trips from 2011 to the 2013-2015 period. Central Bedfordshire, however, has experienced growth. Total nights spent

[31] BRES Statistics, 2018.

[32] This is not a significant limitation to the analysis.

[33] VisitEngland, 2015.

in each region have experienced a decline as well, with the greatest fall from the period between 2006-2008 in Milton Keynes. [34]

4.2.6 Holiday trips to the local authority areas have increased significantly across each local authority, however, particularly in Central Bedfordshire, where 30,000 holiday trips in 2006-2008 have grown to 64,000 in 2013-2015.[35] Holiday nights have similarly increased significantly in Bedford and Central Bedfordshire, from 89,000 in 2006-2008 to 156,000 in 2013-2015. Despite growth in Central Bedfordshire and Bedfordshire outperforming Milton Keynes, the latter still attracts the greatest number of trips (384,000), holiday trips (86,000) and spend, which reached £65 million annually in 2013-2015, possibly owing to the size of its shopping and leisure offer relative to the adjacent local authority areas.

4.2.7 The overnight economies in the area are relatively well developed, though the volume stock is limited. There are some 250 serviced and non-serviced establishments in the combined local authority area, accounting for 39% of the total accommodation providers in Bedfordshire and Buckinghamshire. Regional data shows that the East of England (and South East of England, which incorporates sections of the study area), perform well below England in terms of the capacity of bed spaces and rooms.

## 4.3 Water-based Activity

4.3.1 There is little publicly available data describing local water-based activity along the Great Ouse or the Grand Union Canal.

4.3.2 Within proximity to the waterway there are a number of marinas. These include:

- **Priory Marina**, which offers wide-beam and narrow-beam berths for residential and leisure boaters. It offers 235 berths;
- **Cosgrove Marina** on the Grand Union Canal at Cosgrove;
- **Milton Keynes Marina** on the Grand Union Canal, west of Ouzel Park; and
- **Willowbridge Marina** on the Grand Union Canal at Bletchly, which includes a chandlery and inline moorings;

4.3.3 There are other opportunities for water-based activities for residents and visitors. Watersports activities are currently offered at:

- **Willen Lake Park Watersport Centre** provides facilities for sailing, paddlesports, windsurfing, wakeboarding, and powerboating. Other leisure activities include a multi-use ball court, fishing, outdoor playspaces, zorbing and Segway rentals;
- **Stewartby Lake:** Stewartby Water Sports Club on a 220-acre (89 ha) lake with a RYA Approved training centre, storage for boats, site for angling, and facilities including toilets, showers, members bar, secure parking and a gallery. Also offers powerboat racing;
- **Box End Park on the Great River Ouse:** Includes Box End Lake, purpose-build water sports lakes, featuring an aqua park for open water swimming, stand up paddles, cable-wakeboarding, a ski boat, and various classes offered onsite;
- **John Bunyan Boat:** Owned and operated by the B&MK Waterway Trust, the Boat operates from Priory Marina, Sovereign's Quay and Newnham Steps. It offers regular

[34] Note: Visit Britain data is adjusted to account for any boundary changes since 2006.

[35] Centre Parcs at Woburn Sands might have influenced these figures.

public trips, and provides a venue for social outings, business use and other private events**;**

- **Brogborough Lake:** Home to the Brogborough Windsurfing Club and dedicating to the activity and stand up paddle surfing**;**
- **Grand Union Canal:** There are clubs based in Milton Keynes which offer opportunities for angling. There are opportunities for walking and cycling along the length of the canal and links to several parks including Ouzel Valley Park, Caldecotte Lake, Great Linford Park and Willen Park; and
- **River Great Ouse:** There are clubs based in Bedford which offer opportunities for angling. At the head of navigation there are opportunities for canoeing, links to the John Bunyan Trail, and Ouse Valley Way.

# 5 Planned Developments & Key Nodal Points

## 5.1 Introduction

An audit of key nodal points and planned development activity is provided in **Table 5.1** and mapped in **Figure 5.1**.

## 5.2 Planned Developments

5.2.1 The Marston Valley development accounts for nearly half[36] of known residential developments and planned employment floorspace within Bedfordshire, Milton Keynes, and Central Bedfordshire.[37] Development information as come from consultation with B&MK Waterway Trust (B&MKWT) and Local Authorities' Local Plans[38], and Local Authority websites and planning portals.

Table 5.1: Planned Developments and Key Engineering Works

| Map Ref | Planned Development | Planning Status | Funding | Residential Units (Total Capacity) | Employment (Sq. M) | Other (Sq. M) | Type |
|---|---|---|---|---|---|---|---|
| 1 | Brooklands (*Milton Keynes*)<br><br>Approx. 750m of canal | Recognised in Policy SD6, SD8 & ER15 in the draft submission local plan. 1,184 dwellings completed to 1 January 2018. | Policy SD8 notes only that waterway route is 'safeguarded'. Policy D5 notes that canalside developments should "maximise the opportunity to deliver aspects of the Waterway Park which are of mutual benefit to the Waterway project and development proposals".<br>MK Council is current procuring a crossing of the Broughton Brook and the design for the bridge includes provision for the waterway to pass beneath it. | 2,50039 | n/a | n/a | Residential |
| 2 | Newlands & Campbell Park Marina (*Milton Keynes*) | Recognised in Policy SD18. | Planning permission 17/00967/OUTEIS would see delivery of marina. Policy D5 | 383[40] | 507 | 1,294 | Mixed Use |

[36] 5,000/ 11,391 = 44%

[37] 222,500/ 466,009 = 48%

[38] Milton Keynes Proposed Submission Plan, Bedford's Draft Plan for Submission, and Central Bedfordshire's Pre-Submission Local Plan

[39] Note that this is the anticipated total.

[40] Associated with 'Canalside' development in Crest Nicholson scheme.

| Map Ref | Planned Development | Planning Status | Funding | Residential Units (Total Capacity) | Employment (Sq. M) | Other (Sq. M) | Type |
|---|---|---|---|---|---|---|---|
| | Approx. 200m of canal | Applications 17/00967/OUTEIS and 04/00586/OUT (and subsequent modifications relating to Crest Nicholson's 'Canalside' development) have been approved.<br><br>The scheme includes provision for the initial 'break out' of the Grand Union Canal to create a small first section of the waterway (to be used as part of the marina for this current scheme). | notes that canalside developments should "maximise the opportunity to deliver aspects of the Waterway Park which are of mutual benefit to the Waterway project and development proposals".<br><br>Route is safeguarded though a landscaped corridor, and potentially could provide a mechanism to 'mark the route' through other S106 funding. | | | | |
| 3 | Broughton & Atterbury (*Milton Keynes*)<br><br>Approx. 215m of canal | Recognised in Policy SD6.<br><br>Application 17/00541/FUL (Land off Tongwell Street) not yet approved. | Policy D5 notes that canalside development proposals should safeguard the route for future delivery and should "maximise the opportunity to deliver aspects of the Waterway Park which are of mutual benefit to the Waterway project and development proposals". | 130[41] | n/a | n/a | Residential |
| 4 | Eagle Farm South (*Milton Keynes*)<br><br>Approx. 80m of canal | Recognised as a Strategic Land Allocation in Policy SR3. | Policy SD8 notes only that waterway route is 'safeguarded'. Policy D5 notes that canalside developments should "maximise the opportunity to deliver aspects of the Waterway Park which are of mutual benefit to the Waterway project and development proposals".<br>This site is under the MK Tariff and there is no provision for a financial contribution. | 378 | 350 | n/a | Mixed Use |

[41] Relating to application 17/00541/FUL.

| Map Ref | Planned Development | Planning Status | Funding | Residential Units (Total Capacity) | Employment (Sq. M) | Other (Sq. M) | Type |
|---|---|---|---|---|---|---|---|
| | | | The route has, however been safeguarded through the site in the Development Framework. | | | | |
| 5 | Bedford Business Park (*Bedford)*<br><br>Approx. 1.2km of canal | Planning application 17/000666/MAO is being determined. The proposal for B1 B2 B8, A3, A4, Hotel and crèche incorporates structural landscaping including woodland planting, habitat creation and SuDS plus provision for the route of the waterway through the centre of the site.<br><br>Saved policy AD13 from Local Plan (2013) | Draft Policy 36S notes that the council will work with developers and others to deliver the Waterway. Adopted Policy AD13 includes the delivery of a section of the Waterway, incorporating canal, cycle and pedestrian paths. | n/a | 79,745 | n/a | Commercial |
| 6 | Hayfield Park/ Aspley Guise (North of the Railway Line)<br><br>(*Central Bedfordshire*)<br><br>Approx. 2.8km of canal | Safeguarded for future development though not contributing to Local Plan. | Policy EE10 notes that the development along the Waterway "will be expected to deliver the section of the Waterway Park within the development boundary, incorporating a Waterway channel and 'towpath' for non-motorised users. | 3,000 | n/a | n/a | Residential |
| 7 | Eagle Farm North (*Milton Keynes*)<br><br>Approx. 540m of canal | Recognised as a Strategic Land Allocation in Policy ER1. | Policy D5 notes that canalside development proposals should safeguard the route for future delivery and should "maximise the opportunity to deliver aspects of the Waterway Park which are of mutual benefit to the Waterway project and development proposals".<br><br>The S106 for the site includes a corridor to | n/a | n/a | 86,000 | Industrial |

| Map Ref | Planned Development | Planning Status | Funding | Residential Units (Total Capacity) | Employment (Sq. M) | Other (Sq. M) | Type |
|---|---|---|---|---|---|---|---|
| | | | be safeguarded and handed over to the Council. | | | | |
| 8 | Bell Farm (Bedford) | This has reserved matters approval for layout, appearance and landscaping which includes the provision of footway cycle way through the site. Currently the employment uses have O/L planning permission. There is an agreement in place for the delivery of the canal through Marston Vale Trust land to the south west of Bell Farm. Saved policy AD12 from Local Plan (2013) | Draft Policy 36S notes that the council will work with developers and others to deliver the Waterway. Adopted Policy AD12 includes the delivery of a section of the Waterway, incorporating canal, cycle and pedestrian paths | n/a | 69,863 | n/a | Industrial B8 storage and distribution |
| 9 | Marston Valley (*Central Bedfordshire*)<br><br>Approx. 1. 8 km of canal | Protected in Policy SP1 and SA2. | Policy EE10 notes that the development along the Waterway "will be expected to deliver the section of the Waterway Park within the development boundary, incorporating a Waterway channel and 'towpath' for non-motorised users. Policy SA2 notes that development should integrate and connect existing public rights of way, including crossings over the waterway. | 5,000 | 222,500 | 5,750 | Mixed Use |
| a | A421 Dualling | Planning permission has been granted for a culvert to run under the road, when it is dualled. | There is no funding in the A421 dualling scheme to deliver culvert accommodating Waterway. | n/a | n/a | n/a | Infra-structure |
| b | Brogborough Hill Boatlift and Brogborough Lake Marina | n/a | n/a | n/a | n/a | n/a | Infra-structure |

| Map Ref | Planned Development | Planning Status | Funding | Residential Units (Total Capacity) | Employment (Sq. M) | Other (Sq. M) | Type |
|---|---|---|---|---|---|---|---|
| c | Brooklands Bridge | n/a | n/a | n/a | n/a | n/a | Infra-structure |
| d | Head of Navigation Expansion | n/a | n/a | n/a | n/a | n/a | Infra-structure |
| e | Ridgmont Station (East-West Rail) | Supported in Milton Keynes' Policy CT1, Bedford's Policy 94S | n/a | n/a | n/a | n/a | Infra-structure |
| f | Oxford-Cambridge Expressway | Supported in Milton Keynes' Policy CT1 | n/a | n/a | n/a | n/a | Infra-structure |
| **Total** | | | | **11,391** | **303,102** | **93,044** | |

*Source: PBA following consultations and via Local Authority Planning Portals*

## 5.3 Key Nodal Points

5.3.1 Key nodal points are areas of increased recreational, leisure and commercial opportunity and convergence of movement routes. shows a number of existing marinas, employment sites, parks and attractions that could be positively affected through increased connectivity, additional footfall and extending the area of influence.

Table 5.2: Nodal Points along Proposed Waterway Corridor

| Map Ref. | Name | Category |
|---|---|---|
| 1 | Milton Keynes Marina | Boating |
| 2 | Priory Marina | Boating |
| 3 | Marston Vale Millennium Country Park | Country Park |
| 4 | Marston Gate Distribution Centre | Employment Site |
| 5 | Magna Park | Employment Site |
| 6 | Kingston Business Park | Employment Site |
| 7 | Brinklow | Employment Site |
| 8 | Northfield | Employment Site |
| 9 | Marsh Leys Business Park | Employment Site |
| 10 | Woburn Road Industrial Estate | Employment Site |
| 11 | Woburn Abbey | Historical Monument |
| 12 | Xscape | Leisure |
| 13 | Aerial Extreme Adventure Sport Centre | Leisure |
| 14 | Water Sports Centre | Leisure |
| 15 | Stewartby Water Sports Club | Leisure |

| Map Ref. | Name | Category |
|---|---|---|
| 16 | Centre Parcs- Woburn Forest | Leisure |
| 17 | Marston Thrift | Local Nature Reserve |
| 18 | Woburn Safari Park | Park |
| 19 | Willen Lakeside Park | Park |
| 20 | Broughton Brook | Park |
| 21 | Campbell Park | Park |
| 22 | Ouzel Valley Park | Park |
| 23 | Poplar Plantation | Park |
| 24 | Kingston Centre | Retail Centre |
| 25 | Gulliver's Land | Theme Park |
| 26 | Proposed Brogborough Hill Boat Lift | Tourist Attraction |

Figure 5.1: Milton Keynes (West Section) - Planned Development Activity & Key Nodal Points

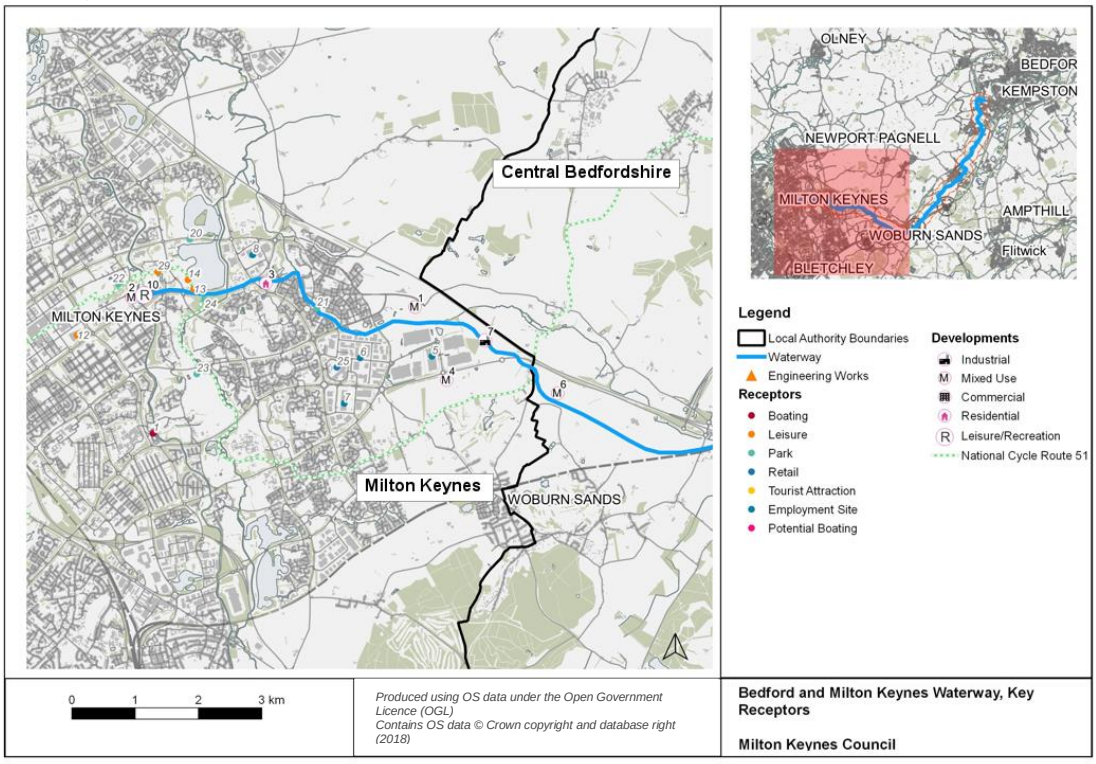


Figure 5.2: Central Bedfordshire (Mid-Section)- Planned Development Activity & Key Nodal Points

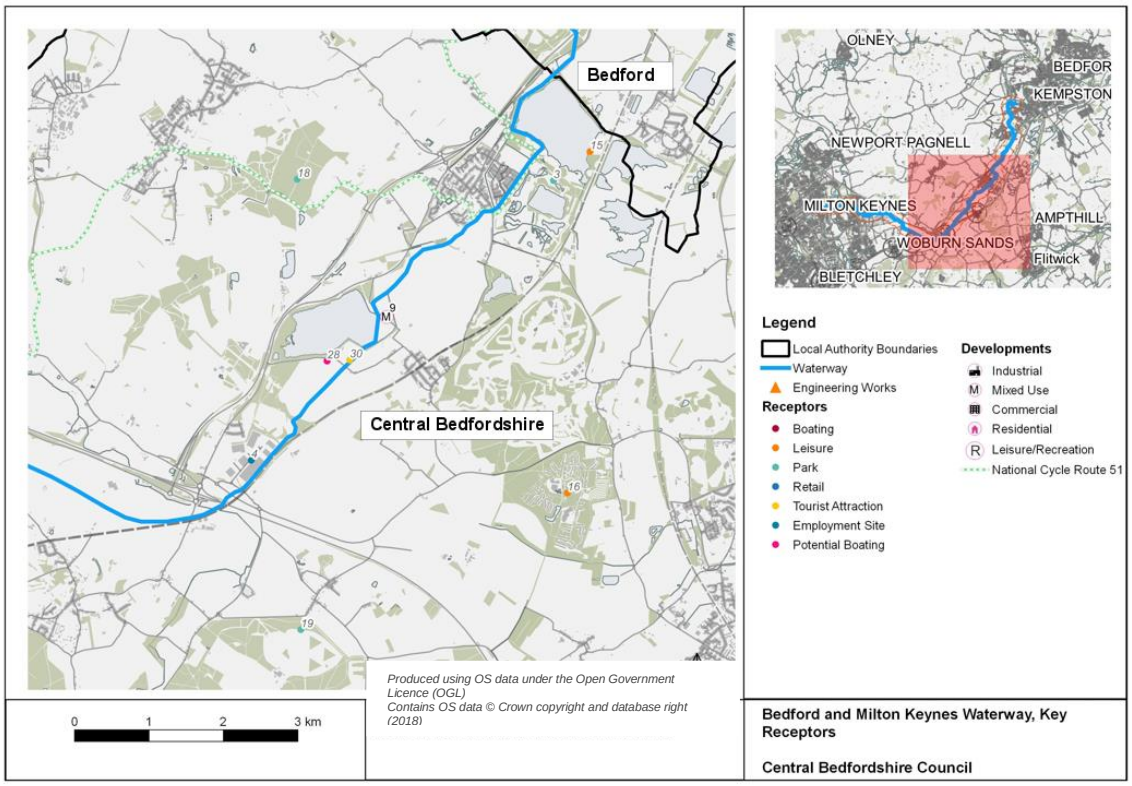
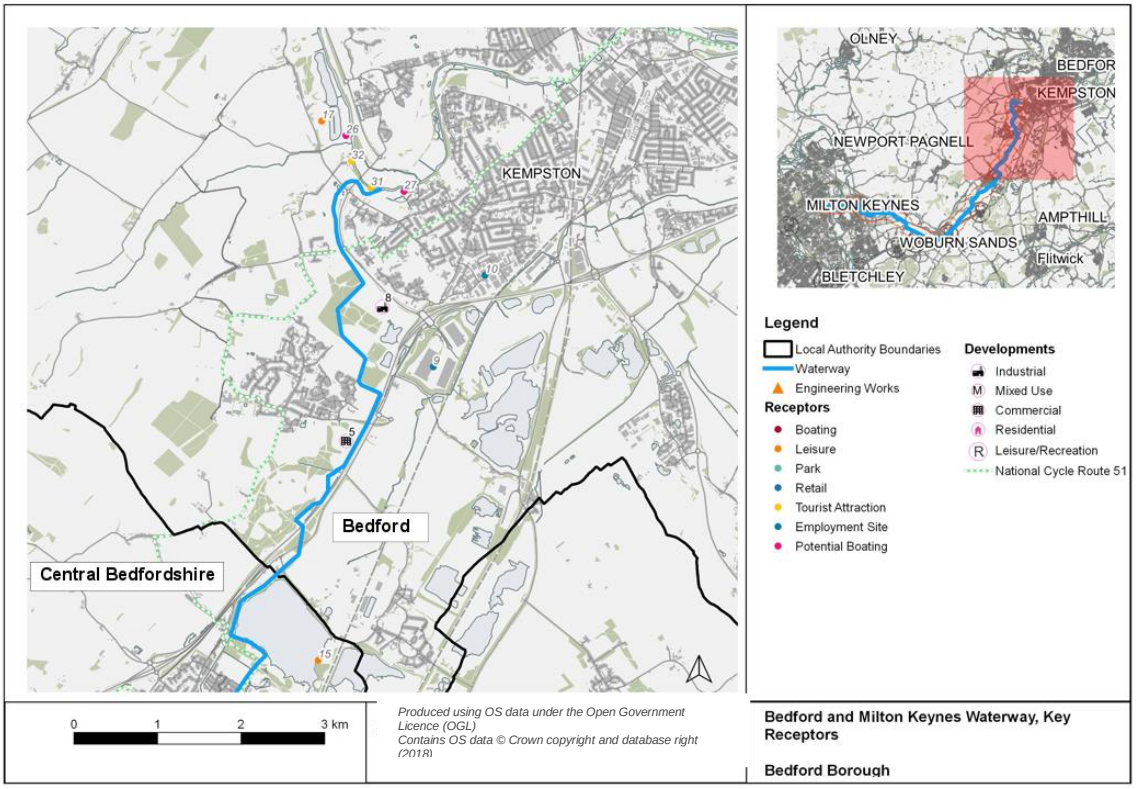



Figure 5.3: Bedford (East Section)- Planned Development Activity & Key Nodal Points

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# 6 Methodology

## 6.1 Introduction

6.1.1 This section sets out the approach to the assessment along with key data sources and comparator research used to inform this study.

## 6.2 Bespoke Economic Model

6.2.1 A bespoke economic impact model has been built based on a review of development information provided by local authorities and the client, consultation feedback and PBA's experience of canal and leisure development elsewhere in the UK.

## 6.3 Consultations

6.3.1 Key nodal points and developments that could be affected by the waterway have been identified through discussions with B&MK Waterway Trust, Central Bedfordshire Council, Bedford Borough Council and Milton Keynes Council.

## 6.4 Comparator Studies

6.4.1 The following comparator studies have been reviewed:

- A Review of the Impact of Waterway Restoration, University of Northampton, (2014);
- Value of Inland Waterways Study, Defra and Inland Waterways Advisory Council ('IWAC') commissioned study (2011);
- The Benefit of Inland Waterways, Defra and IWAC commissioned study (2011); and
- Swindon Borough Council-commissioned study (2007), Swindon Central Canal Route Study.

6.4.2 These studies have informed this Assessment's assumption, along with additional PBA studies examining canal restoration undertaken in Staffordshire (2017), Nottinghamshire (2016), Stroud (2016).

## 6.5 Data Sources

6.5.1 Key data sources include:

- Construction costs provided by B&MK Waterway Trust[42];
- Comparator studies (to assess uplift and visitor impact—see studies cited in **Table 7.1**);
- VisitBritain and VisitEngland statistics for 2017;
- Milton Keynes, Central Bedfordshire and Bedford Planning Portals for development data on planning applications;
- RYA Activities & Participation Survey (2015);

[42] Price base 2014

- CoStar Sales Value Comparators (2017);
- Office of National Statistics NOMIS data sources (dates variable);
- Building Cost Information Service Data (BCIS) rebased to 2018; and
- Experian 2017 Labour Market Statistics.

## 6.6 Comparator Research

### Waterside Premium

6.6.1 There is a wide range of comparator research that demonstrates waterside developments adds a quantifiable premium to residential property prices of between 3%-40%.[43]

6.6.2 Uplift figures quoted range from 3% to 40% and are influenced by:

- Enhanced living environment;
- Closer and more direct access to the towpath and waterway for recreation; and
- Enhanced marketability.

Table 6.1: Studies Reporting Premiums Associated with Waterway Development

| Study | Feature | Description |
|---|---|---|
| Garrod & Willis, 1993 | Canal | Value of new residential properties beside canals is enhanced by an average of 19% |
| Garrod & Willis, 1994 | Canal | Study suggests that a waterfront location added a premium of 3%-5% to the sale price of a property. |
| Garrod & Willis, 2000 | Waterway development | The waterside premium is between 9% and 20%. |
| Wood & Handley, 1999 | Waterfront regeneration | In terms of enhanced rental rates, this equated to some 10-40% (mean nearer 20%) for residential property. |
| Ecotec, 1998 | Waterfront development | Waterway enhancement clearly contributes to the marketability of many properties, sometimes providing the unique selling point, although it is difficult to translate this into monetary values. |
| Ecotec Case Studies, 2001 | Waterfront development | *Market Harborough:* Waterside residential values are generally higher than those for equivalent properties elsewhere in Market Harborough.<br>*Tower Wharf, Chester:* Minimum 5-10% premium for residential properties.<br>*Newark*: Waterside properties have fetched premiums of 18% over prices for detached houses in Newark centre. |
| IWAC 2007 | Inland Waterways | Increases of 10%, 19% and 21% have being recorded in urban settings |

[43] Note that while many of these studies are nearly 20 years old, they are still considered authoritative. Conservative estimates have been applied to this study to allay concerns of overestimation.

## 6.7 Justification for Impacts

6.7.1 The proposed waterway will provide beneficial impacts through:

- Construction impacts;
- Enabling residential development (contributing to Oxford Cambridge corridor objectives, a national priority);
- Adding a premium and value to residential developments;
- Stimulating additional tourist trips and spending;
- Adding value to planned commercial developments; and
- Positive impacts on health and wellbeing.

6.7.2 **Table 6.2** provides a review of related evidence.

Table 6.2: Justification for Impacts

| Impacts | Justification |
|---|---|
| Construction Impacts | The new waterway will directly support temporary construction workers and provide a positive stimulus to supply chain businesses. This will include constructing the waterway itself in addition to associated amenities. |
| Enabling Residential Development to Happen Sooner | The proposed Waterway will add a premium to the residential element of the proposed Marston Valley development that would not occur without the B&MK Waterway. It will provide an essential placemaking element and a sense of identity for proposed allocations, particularly at Marston Valley.<br>The B&MK Waterway is likely to have following positive effects on the Marston Valley residential element:<br>▪ Sales and occupancy will be completed more rapidly;<br>▪ Beneficial impacts (construction jobs & GVA and council tax) will happen sooner; and<br>▪ Residential premiums will be achieved leading to a higher spec. |
| Adding a Premium and Value to Residential Developments | Comparator research shows strong evidence supporting residential premiums for waterside properties. Studies (Garrod and Willis, 1993; Garrod and Willis, 1994; Garrod and Willis, 2000; Wood and Handley 1999; Ecotec, 1998; IWAC, 2007). These range from a minimum of 3% to around 20% for sales values (See **Table 7.2** for further detail). |
| Stimulating Additional Tourist Trips and Spending | Waterway will provide a sustainable travel corridor that creates additional visitor activity. Many studies point to uplifts in visitor numbers to key attractions, towpath users, and boaters (Jacobs, 2011; Canal and Rivers Trust/IWAC, 2014; Ecotec 2003; Ecotec 2005). Studies showed growth in local economic impact of up to nearly 50% (e.g. for the 87-mile Kennet and Avon Canal).<br>Halcrow noted in its 2008 study for the Swindon Canal that several direct benefits relating to informal visitors, walkers, anglers, cyclists, boaters, canoeists, hire boats, and more, would arise from canal restoration. The Report projected a significant increase in visitor expenditure.<br><br>A review of case studies set out in University of Northampton's review of waterway impacts (2014) suggests significant increases in dwell-time and spend, though it is clear that this is tied to local circumstances. For |

| Impacts | Justification |
|---|---|
| | example, the Canal and River Trust (CRT) reported that the restoration of the Montgomery Canal—including a restored 56 km of towpath and navigable channels, 27 ha of brownfield land brought into use, and incorporation of 20ha of nature reserves—expected a 45% increase in visitors and spend. This increase was tied mainly to additional visits to new destinations and nearby attractions. |
| Adding Value to Planned Commercial Developments | Comparator research (Garrod and Willis, 1993) shows that, while not as significant as residential premiums, there are clear uplifts attached to commercial developments. These range from 1.5% for retail and 3% for leisure and other commercial developments to a maximum of 10% for properties within 25m of a canal. Premiums are normally up to 5% for developments between 25m and 225m of a waterway. 5% is considered conservative as other studies (Wood and Hanley 1999) suggest that enhanced values for offices and leisure developments can reach up to 15 and 25%, respectively. |
| Health & Wellbeing Impacts | Additional tow path users with result in positive health impacts. Waterways have been shown to improve health through increased modal shifts to more sustainable forms of transport which reduced factors related to obesity, stress, absenteeism and exposure to poor air quality.[44] The Canal and River Trust (CRT) also note the impact of waterways and the organisations that use and promote them on community cohesion and sense of belonging arising from waterside activity, volunteerism and positive placemaking.[45] This is corroborated by research undertaken by the Centre for Sustainable Healthcare (2016) suggests benefits to use of waterway as a resource for improving mental health. |
| Flood Mitigation | The project has the potential to provide flood mitigation and water storage solutions in high flood risk areas. This could be provided through SUDS provision as part of new development which is supported in draft policy through the provision of flood management and flood risk mitigation.[46] It has been argued by CRT that the managed nature of water levels on canals and accepting surface water runoff means that canals have the potential to contribute to flood mitigation.[47] |
| Connectivity and Active Travel | The Waterway will provide links to existing and planned communities, capitalising on strategic connectivity with East-West Rail and the Oxford to Cambridge Expressway. It also has the potential to link into Sustrans National Route 51. |
| Infrastructure Provision | Waterway bodies have promoted the use of existing and proposed waterways and towpaths as routes for infrastructure and connectivity, with the potential for digital fibre along towpaths, district heating schemes, and through new energy technologies (biomass capacity, waste streams, abstraction for cooling and heating).[48,49] |
| Green Infrastructure, Biodiversity and Natural Capital | Planning policy (**Table 3.1**) notes the importance of the Waterway in establishing a green infrastructure asset for communities in each local authority area. It can link into initiatives associated with the Forest of Marston Vale, where forest expansion has led not only to growth in |

[44] Scottish Canals, 2010. "Health Impact of Canals Survey"

[45] Canal and Rivers Trust, 2017.

[46] Milton Keynes Submission Plan Policy SD8, Central Bedfordshire's Pre-Submission Local Plan CC3; and

[47] Canals and Rivers Trust, 2016. Routes to Growth: Northern Powerhouse Waterways Prospectus

[48] Ibid.

[49] According to the 'National Heatmap', the River Ouse has a heat capacity of 3,962 kW, compared to 1,142kW on the Grand Union Canal.

| Impacts | Justification |
|---|---|
| | coverage but also provision ecosystem services (e.g. resource provision; flood & noise regulation; aesthetic, recreation and education; and biodiversity and soil formation).[50] It can link into well-established pedestrian and cycle assets, including the John Bunyan Trail. |

## 6.8 Logic Model

6.8.1 The 'Logic Model' in **Figure 6.1** identifies the area's strategic priorities and shows how the anticipated project deliverables provide the required wider benefits and outcomes that reinforce the strategic need.

[50] Hold, Alison and Rouquette, Jim (2017). "The Quantification and Valuation of the Environmental, Social and Economic Impacts fo the Forest of Marston Vale". Report prepared for the Forest of Marston Vale.

Figure 6.1: B&MK Waterway Logic Model

**Strategic Need for B&MK Waterway**

- An asset that can enable sustainable growth in the area's economic performance and tourism economy

**Corridor identity:**

- High growth corridor, forming part of the Cambridge-Milton Keynes-Oxford Growth Corridor, with strong strategic connections to London.
- High levels of commuting from Bedford and Central Bedfordshire to Milton Keynes, Cambridgeshire, Northamptonshire, and London.
- Need to create an environment where people want to live, work and play—promoting living/working patterns rather than out-commuting.
- Proposed canal corridor is predominantly is becoming increasingly urbanised with a number of consented residential and employment allocations.
- Potential to expand on economic, tourism and green and blue corridor assets in the area
- Skilled population with an expected population growth above regional and national levels.
- Relatively limited tourism profile in Bedford and Central Bedfordshire
- High housing demand and planned delivery in Milton Keynes and Central Bedfordshire
- Clear priority in policy to deliver a recreational and green/blue infrastructure asset for the region.

→

**Bedford & Milton Keynes Waterway Vision[51]**

*The Bedford & Milton Keynes Waterway will provide a green corridor at the heart of new developments in the area, linking communities and creating a unique sense of identity and place.*
*It is a Waterway for All - serving local people and enhancing the local environment, and at the same time connecting the Fenland waterways with the main canal network.*

*The waterway will exemplify the best of 21st century engineering, landscaping and design, becoming a truly sustainable development. It will have a wide appeal, designed as a 'broad canal' capable of accommodating a wide range of boats and different users on paths beside it.*

→

**Deliverables**

**Canal**

- Establish a linear canal park for all uses
- Accessible towpaths
- A green/blue link between Bedford and Milton Keynes

**Tourism & recreation**

- Marinas with visitor moorings, storage & servicing facilities
- Expansion of commercial boat trips (John Bunyan Boat)
- Centres and supporting facilities for related outdoor activities (water & non-water related)
- Create a new 'Fenland Cruising Ring'
- Supporting accommodation and leisure infrastructure
- Visitor attraction at the Brogborough Boat Lift
- Clear signage & interpretation
- Potential for public art at key junctions (e.g. Box End, Marston Valley, Brogborough Hill, Newlands, Hayfield)
- Promotional material and a regional brand

**Environment**

- Walking and nature routes
- Retention of habitats balanced with other deliverables
- Canal has opportunities to attenuate surface water runoff, reduce fluvial flood risk and transfer water resources.
- Towpaths maintained and integrated into active travel networks

- **Economy & development**
- Appropriate residential &/or leisure & other development
- Supporting apprenticeship & volunteer networks
- Education & training programmes
- Focus for community development in new communities (e.g. Marston Valley)
- Consistent approach to canal-related opportunities in planning, economic development & related policy

**Organisation**

- Active public private sector partnership
- Recognition of canal contribution in planning, economic development & transport policy

→

**Outcomes**

- The Bedford & Milton Keynes Waterway Park integrates with regional boating markets, providing a new navigable route between the Ouse and Grand Union Canal.
- New villages at Marston Valley, Brooklands and Hayfield (Aspley Guise) linked to Bedford and Milton Keynes via a green/blue network.
- Sustainable canal management & development secured
- B&MK Waterway Park recognised as a regional leisure and recreation resource
- Increased visitor potential for the region and local authority areas
- Health outcomes (morbidity and perception) improved through accessibility of canal for active pursuits and travel.
- Improved appreciation of the local environment
- Development of regional profile for the corridor
- Integrated as part of the regional visitor and business profile
- Enhanced profile for existing visitor facilities
- Quality of life improvements in corridor settlements through improved access to facilities and infrastructure.
- Canal viewed as an enabler of development
- Opportunities for potential medium to long term housing growth and development of sustainable canalside locations
- Improved sub regional and regional tourism & economic development co-ordination

→

**Wider Impact**

- Generating boating and waterway visitors from the local and wider area;
- Use by surrounding community;
- Rising visitor numbers to the local area, including waterway-side villages, key visitor attractions
- Extensions to average lengths of stay in the area;
- Increased expenditure associated with canal-based & other activities;
- Increased investment in visitor & leisure infrastructure
- Supply chain business and employment benefits
- Construction investment & related employment and training in canalside areas
- Sub regional construction employment & training opportunities
- Enabled population and settlement growth across the corridor
- Wider opportunities for participation in sporting activity

→

**Benefits**

- Increased tourism
- Significant investment and spending in the canal corridor and wider area
- Growth in sustainable local employment associated with leisure expenditure
- Active management of the canal corridor
- Improved health outcomes
- Improved accessibility for canal communities
- Training and education opportunities
- Profile and promotional benefits

[51] B&MK Waterway Trust Website

# 7 Economic Impact

## 7.1 Marston Valley

7.1.1 The Marston Valley development is the largest single proposed development along the proposed route (within the Oxford Cambridge corridor). Residential development requires a sustainable drainage system (SUDS) to enable development. The SUDS could be an independent system or be part of a navigable waterway that is incorporated into the proposed B&MK Waterway.

7.1.2 The B&MK Waterway project aims to maximise the value of development activity and maximise socio-economic and health benefits associated with future use. The project therefore envisages a fully integrated navigable waterway throughout with good linkages to key nodal points and planned developments.

## 7.2 Planning Scenarios

7.2.1 Planning scenarios have been developed to avoid overstating the benefits associated with the Marston Valley residential element. Both scenarios envisage Marston Valley being developed however Scenario 1 has a fully navigable waterway whereas Scenario 2 has a non-navigable waterway. More specifically, Scenario 2 assumes that a significant proportion of the B&MK Waterway is delivered, though no navigable section at Marston Valley is established (i.e. assuming that there may be delays in delivering the section of the waterway or if there are potential constraints in linking Stewartby Lake and Brogborough Lake).

7.2.2 In practice Scenario 2 is unlikely to be fully implemented. Scenario 2 is intended to demonstrate the difference in the value of the full navigable waterway as we understand that the waterway through the Marston Valley Project will be fully navigable. **Table 7.1** describes the planning scenarios that have been modelled.

Table 7.1: Planning Scenarios

| Scenario | Description | Impacts |
|---|---|---|
| **Scenario 1:** Fully integrated waterway at Marston Valley *Full Waterway Benefit* | ▪ Marston Valley residential element incorporated into high value surrounding canalised environment; and<br>▪ Premium and full value achieved. | ▪ Impacts happen sooner;<br>▪ Residential premium achieved;<br>▪ Increased visitors and boating activity by connecting Brogborough Lake and Stewartby Lake; and<br>▪ Wider area of influence. |
| **Scenario 2:** No fully integrated waterway at Marston Valley *Partial Benefit* | ▪ Marston Valley residential element with alternative SUDS and interrupted waterway. | ▪ Residential premium is not achieved;<br>▪ Units built, sold and occupied slower (2 years slower PBA working assumption);<br>▪ Visitor and boating activity limited by non-navigation; and<br>▪ Narrower area of influence. |

7.2.3 **Table 7.2** and the main body of this report provides the key headline impacts for Scenario 1 and 2 above.

7.2.4 A full Technical Economic Impact Assessment with data sources and working is provided in Appendix C. Appendix D shows the impact of a fully integrated waterway as a central component of the Hayfield Park residential development (c.3,000 units). This scenario

assumes that the proposed development at Hayfield integrates the waterway such that there is a further increase in residential values.

## 7.3 Headline Impacts

7.3.1 **Table 7.2** presents headline construction, residential, commercial and tourism impacts associated with each Scenario. The main difference is in the residential value uplift that would accrue from a fully integrated waterway.

### Construction

7.3.2 Canal construction would support an estimated 1,400 person years of construction employment, equivalent to 5% of construction jobs in the combined local authority areas. The construction period will also provide £112m - £120m GVA per annum and support around 100 training and apprenticeship places.

### Residential Impacts

7.3.3 It is estimated a fully integrated waterway will deliver some £44 million in residential value uplift. A fully integrated development will also lead to higher council tax receipts per household and earlier occupancy. This will generate an estimated additional c.£18 million in Council Tax over a 20-year period and significant additional leisure and retail spending. This is assumed to be 'net additional' assuming all homes built are occupied.

### Commercial Uplift

7.3.4 Commercial uplift and additional business rate revenue (based on comparator studies) is identical for each scenario. The fully integrated residential element at Marston Valley does not affect the potential uplift elsewhere on the route.

### Tourism Impacts

7.3.5 The fully integrated waterway will deliver an estimated additional 0.79 million visitors per annum mainly from new towpath uses and visitors to attractions. An estimated £7.1 million in additional spending will support around 131 FTE jobs. Impacts for the non-fully integrated waterway will be around half this level.

## Quantitative Impacts

Table 7.2: Net Additional Quantitative Economic Impacts

| | Scenario 1: High Value – Fully integrated Waterway at Marston Valley | Scenario 2: Moderate – No fully integrated waterway at Marston Valley |
|---|---|---|
| **Construction Impacts** | | |
| Cost/ investment | £148.0m | £139.4m |
| Construction jobs (person year equivalent[52]) | 1,418 | 1,336 |
| GVA (£m) | £118.9m | £112.1m |
| Apprenticeships | 99 | 94 |

[52] Temporary construction jobs each lasting one year (1-person year of construction employment is equivalent to one person working for a full year or two people being employed in a construction activity for half a year)

| | Scenario 1: High Value – Fully integrated Waterway at Marston Valley | Scenario 2: Moderate – No fully integrated waterway at Marston Valley |
|---|---|---|
| **Residential Impacts (over a 20-year period)** | | |
| Residential units developed | 5,000 | 5,000 |
| Value uplift (£m) | £44.1m | £14.7m |
| Council tax revenue (£m) | £63.7m | £45.6m |
| Additional retail spend (£m) | £550.4m | £394.2m |
| Additional leisure spend (£m) | £281.4m | £201.51m |
| **Commercial Developments** | | |
| Value uplift | £0.70m | £0.70m |
| Commercial Business Rates | £0.12m | £0.12m |
| **Tourism** | | |
| **Towpath** | | |
| Net Additional Visits | 237,090 | 174,100 |
| Net Additional Expenditure | £592,720 | £392,040 |
| Indirect Full-Time Equivalent (FTE[53]) jobs supported | 11 | 7 |
| **Visits to Attractions** | | |
| New Visitors | 528,950 | 151,060 |
| Expenditure | £6,084,730 | £1,777,020 |
| Indirect Full-Time Equivalent (FTE) jobs supported | 113 | 33 |
| **Boating** | | |
| Net Additional Visits | 23,480 | 16,770 |
| Net Additional Expenditure | £346,540 | £199,350 |
| Indirect FTE jobs supported | 6 | 3 |
| **Angling** | | |
| New Users | 2,820 | 1,800 |
| Expenditure | £20,640 | £10,300 |
| Indirect Full-Time Equivalent (FTE) jobs supported | 0 | 0 |
| **TOTAL** | | |
| **New users** | **0.79 m** | **0.34 m** |
| **Expenditure (£m)** | **£7.1** | **£2.4** |
| **Indirect Full-Time Equivalent (FTE) jobs supported** | **131** | **44** |

[53] A full time equivalent (FTE) job is equivalent to one workers working full-time or two workers working part-time

## Value for Money

7.3.6 **Table 7.3** provides the Net Present Value (NPV) of future revenue flows to show the projects estimated cost benefit ratio. The Fully Integrated Waterway has a cost benefit ratio of 2.6 while the non-fully integrated waterway has a cost benefit ratio of 1.7.

Table 7.3: Quantitative Economic Impacts

| | Scenario 1: High Value – Fully integrated Waterway at Marston Valley | Scenario 2: Moderate – No fully integrated waterway at Marston Valley |
|---|---|---|
| Costs | £148,000,000 | £139,425,000 |
| **NPV of Future Benefits** | | |
| Council Tax | £63.7 | £45.6 |
| Retail spend | £550.4 | £394.2 |
| Leisure spend | £281.4 | £201.5 |
| Tourism spend | £100.2 | £34.1 |
| **Spent in Local Authority Area *(conservative working assumption)*** | | |
| Council Tax | 100% | 100% |
| Convenience Spend[54] | 46% | 46% |
| Comparison Spend | 20% | 20% |
| Leisure spend | 20% | 20% |
| Tourism Spend | 100% | 100% |
| **Additional to Local Area** | | |
| Council Tax | £63.7 | £45.6 |
| Retail spend | £165.4 | £118.5 |
| Leisure spend | £56.3 | £40.3 |
| Tourism spend | £100.1 | £33.8 |
| Total | £385.6 | £238.2 |
| **Benefit Cost Ratio** | | |
| **BCR** | **2.6** | **1.7** |

## Qualitative Impacts

7.3.7 Related development will also provide benefits that cannot be measured in quantitative terms. Wider qualitative impacts likely to arise from the B&MK Waterway are indicated below.

### Increased Competitiveness

7.3.8 The B&MK Waterway will create a major focus of economic growth and will help maximise the value of existing and future housing, business developments and tourism and recreation facilities. This waterway will help attract further investment that will contribute to the physical

[54] Central Bedfordshire Retail Capacity and Leisure Study, 2017

regeneration of the canal corridor and improve Central Bedfordshire, Bedford and Milton Keynes infrastructure and competitiveness.

7.3.9 The B&MK Waterway will also improve the region's competitiveness by contributing to the area's tourism product and make the canal corridor a more attractive and accessible place to visit. Transport links with town centres and communities will further improve connectivity (i.e. active travel corridors, extending labour market reach) and competitiveness and extend the projects area of influence. The development of waterfront amenities and the provision of high quality residential and visitor facilities will provide further image, appeal and competitiveness improvements.

**Enhancement of Socio-economic Profile**

7.3.10 Growth in direct and indirect employment opportunities will help reduce unemployment rates in the surrounding area. Connectivity is a central feature of the B&MK Waterway and will help promote social inclusion.

7.3.11 The waterways role in providing high quality residential accommodation and quality open space will help attract professional and high paid workers who may otherwise have chosen to live elsewhere. Attracting higher paid and higher qualified workers will help improve the areas socio-economic profile.

7.3.12 The provision of a limited amount of affordable homes will ensure the area will have a diverse and vibrant mix of residents. Increased commercial opportunities will also improve business health indicators in the area.

**Increased Labour Market Accessibility**

7.3.13 The long-term unemployed from surrounding areas may benefit from Intermediate Labour Market (ILM) programmes associated with the increased commercial activity and maintenance and upkeep of the canal-side area.[55] Additional jobs will also provide opportunities in the study area that help retain and expand the existing workforce.

**Enhanced Quality of Life**

7.3.14 Various features of the B&MK Waterway and canal-side area will make the area a pleasant and attractive place to work, live and visit. An important aim of the B&MK Waterway is to create significant features which local residents and visitors value. Key features will include marinas and an iconic boat lift structure.

**Health and Wellbeing**

7.3.15 Providing towpaths and accessible waterways will enhance opportunities for physical activity for communities along the waterway. This can help address issues affecting key issues in the area such as localised inequalities, opportunities to increase physical activity, and more.

7.3.16 The Waterway may also become a focal point for community activities and volunteerism, providing an accessible and healthy environment for socializing and learning new skills. This may take the form of activities for communities of interest (e.g. birding, walking/running clubs, or clubs for water based activities). Volunteering may be provided through CRT or through the B&MK Waterway Trust or other local organisations, focusing on widening access or towpath

[55] ILM programmes help people moving from long-term unemployment to sustained employment by providing paid work on a temporary contract.

maintenance. Evidence shows that the volunteering[56] can provide a positive impact on mental and physical wellbeing.

### Enhanced Market Activity – Consolidating and Increasing Values and Rental Activities

7.3.17 The developments will enhance market activity through the sizeable increase in the volume of supplies and services required to build the waterway and nearby residential premises. The increase in quality residential and also nearby commercial premises will help increase residential and commercial values in the area. Higher value accommodation will result in higher council and non-domestic business rate revenues for local authorities.

### Attraction of Investment in High Quality Value Activities

7.3.18 The B&MK waterway will be a flagship project that will encourage substantial investment into the area and provide quality developments and attractions that will contribute to the physical and economic regeneration of the area.

### Creating Critical Mass of Tourism & Recreation Activities

7.3.19 The iconic boatlift along with planned marina developments with associated leisure facilities will help to create a critical mass of tourism and recreation activities. This critical mass will help the area become more sustainable in its own right by providing jobs and recreational facilities alongside high quality residential accommodation.

### Increased Sustainability

7.3.20 A greater concentration of jobs, homes and retail and leisure facilities will reduce the need to travel and make the region more sustainable. The B&MK waterway project aims to develop improved links with road networks and public transport as well as constructing pedestrian walkways and cycle paths. The project also provides a sustainable transport corridor that will help reduce car trips and enhanced resource efficiency.

### Environmental Effects

7.3.21 The B&MK waterway will deliver positive environmental enhancements along the canal corridor. It also helped to enhance the environmental impacts for the Forest of Marston Vale. A recent report prepared on behalf of the Forest of Marston Vale[57] quantifies and monetises annual benefits at £12.8 million based on contribution to air quality, reductions in carbon, timber production and health and well-being.

[56] University of Ulster and Volunteer Now, The Impact of Volunteering on the Health and Wellbeing of over 50s in Northern Ireland.

[57] The quantification and valuation of the environmental, social and economic impacts of the Forest of Marston Vale (March 2017)

# 8 Health & Wellbeing

## 8.1 Health Benefits Associated with Waterway Activities

8.1.1 A review of the health of Milton Keynes, Bedford and Central Bedfordshire presents a generally positive picture against the English average. Life expectancy is similar to England in both Bedford and Milton Keynes, though slightly better in Central Bedfordshire compared to England average. Health inequalities (i.e. the difference between life expectancy between the least deprived and most deprived areas) is most acute in Bedford.[58] However, each profile notes that the most common causes of death are avoidable, including (cancer), heart disease and stroke. A review from local authority Joint Strategic Needs Assessments and Local Health Profiles shows:

- Poor health and life chances based on geography (i.e. localised deprivation);
- Unhealthy lifestyles which lead to long-term, preventable conditions such as heart disease, strokes, cancer and COPD; and
- Broader 'determinants' of health, such as education, income, employment, the built & natural environment and crime.

8.1.2 The Bedford's JSNA recognises the need to create environments that promote physical activity and lifestyle choices, for children and adults.[59] In Central Bedfordshire, promoting resilience, emotional wellbeing and good mental health of children and young people is a priority. This priority is reflected in Milton Keynes' JSNA which notes that good mental health and wellbeing is essential for both young people and adults. Bedford's JSNA points the access to the natural environment and green spaces to promote physical activity to promote mental health and overall wellbeing as a key determinant to long term health objectives.

8.1.3 Additional to the potential for health benefits associated with 'modal shifts' (i.e. people switching from car-based travel to cycling or walking and the long-term impact on morbidity and mortality)[60], and increased physical activity, waterways can have positive impacts on mental health. CRT emphasises the potential for canals and waterways, and crucially the organisations promoting them, to allow people to feel more connected to their communities and to improve perceptions of wellbeing and happiness.[61]

8.1.4 In 2016 the Centre for Sustainable Healthcare[62] prepared an assessment of health and mental benefits of waterways. Of relevance to this assessment is the Milton Keynes case study and its literature review which found a strong link between benefits to mental health and increased levels of physical activity. The study recommends using artwork to promote activity on the canal.

8.1.5 The study also identified key physical, environmental, social and economic differentiators of waterside environments. These differentiators have been shown in previous case studies to influence health in a variety of ways, including:

- Access to water - demonstrated as having a therapeutic impact;

[58] Public Health Profile, Bedford, Central Bedfordshire and Milton Keynes Council (2017)

[59] Bedford Borough Council's Joint Strategic Needs Assessment (2018)

[60] As set out in WebTAG Guidance, Active Mode Appraisal A5.1

[61] CRT cite a project, 'Coast-to-coast', a 150mile cross country canoe trail, as improvement perception of young peoples' happiness and wellbeing. 92% of those surveyed said they felt their "wellbeing and happiness" had improved and that an equal proportion "felt more connected to their local community".

[62] working on behalf of the Canal & River Trust

- Water activities - potential to include “on-water” activities in the provision;
- Ecology - waterside environment hosts a large range of habitat types and species not commonly found in other areas;
- Heritage - canals form an integral part of the industrial development of Britain’s towns and cities, and a significant connection to local cultural identity;
- Topography - the majority of canal side environments being characterised by shallow, if any, gradients and good quality footpaths;
- Accessibility - many canals passing through urban centres, and frequently intersecting with roads and other transport links;
- Links to communities - with canals often passing through post-industrial areas linked to deprivation and an increased prevalence of mental ill health; and
- Access for all - towpaths open to all users.

## Milton Keynes Case Study

8.1.6 The findings of the Milton Keynes Case Study are provided below.

**Case Study: Milton Keynes**

‘The health priorities in Milton Keynes are a reduction in the health inequalities found in areas of deprivation in the town and a focus on work place health to reduce levels of stress and increase physical activity.

‘**Arts on Prescription’ has been a successful scheme in Milton Keynes and it could be adapted to run a series of art courses using the canal as inspiration for patients with general mental health problems in areas of deprivation in the town**. In addition, art work could be used along the canal to encourage more businesses to engage their employees in taking exercise at lunchtime using the canals for a walk. There is little evidence for the benefits of art therapy in green space. However, the existing Arts on Prescription project in Milton Keynes was found to improve mental health outcomes and could be considered here for further projects, including better evaluation.

Conservation activities are another intervention to consider for Milton Keynes and would be appropriate for use in both a preventative and therapeutic context. However, a number of other case study sites have scope for this type of intervention and, as numbers of participants are often small, it might be best suited to those areas whose health priorities focus on specific mental health illnesses.

The art work would contribute to CRT’s wellness and therapeutic outcomes whereas any related art walks would be likely to help towards prevention targets.

## Monetised Health Benefits

8.1.7 A high level health impact assessment has been carried using a PBA in-house model that was built using Web-Tag Transport Appraisal Guidance.[63] The figures are based on the estimated towpath users figures in **Table 7.4** and are provided for illustrative purposes only.

8.1.8 **Table 8.1** shows the monetised health benefit from new towpath users that use the towpath for walking and cycling while **Table 8.2** shows the monetised benefit from new canal users associated with a modal shift from road users.

[63] https://www.gov.uk/guidance/transport-analysis-guidance-webtag

Table 8.1: Monetised Health Impacts

| | Monetised Health Benefits |
|---|---|
| **Usage** | **Visits per Annum** |
| Walkers | 98,809 |
| Cyclists | 80,160 |
| Runners | 26,998 |
| **Monetised health benefit** | **£ per Annum** |
| Walkers | £19,024 |
| Cyclists | £14,123 |
| Runners | n/a |

## Monetised Benefits (Associated with Modal Shift)

Table 8.2: Monetised Benefits (Associated with Modal Shift)

| | Monetised Benefits |
|---|---|
| Congestion | £293,642 |
| Infrastructure | £2,281 |
| Accident | £72,984 |
| Local Air quality | £2,281 |
| Noise | £4,561 |
| Greenhouse Gases | £19,404 |
| Indirect taxation (fuel) | -£114,145 |
| **Net Total** | **£281,008** |

# 9 Project Contribution to Stakeholder Objectives

## 9.1 Introduction

9.1.1 As indicated in the review of policy, the B&MKW will fulfil local, regional and national strategic objectives. It will also help address the organisational objectives of key stakeholders. This section sets out the key stakeholders and how the waterway will meet their respective objectives.

## 9.2 Stakeholder Categorisation

9.2.1 Stakeholder organisation (see **Table 9.1**) objectives can be split into the following broad categories:

### Waterway & Environmental Development

- Creating a new waterway route and 'cruising ring', and associated leisure related to walking and cycling;
- Environmental enhancement;
- Increase boating activity along a growing network of sustainable inland waterways; and
- Creating natural capital for residents and visitors.

### Economic Development

- Promote area development and stimulate investment activity;
- Create employment opportunities and unlock commercial opportunities; and
- Provide leisure and tourism development.

### Social Development

- Deliver social impacts to local communities;
- Provide opportunities for work experience, skills development and volunteering; and
- Reduce deprivation, crime and antisocial behaviour.

### Physical Development

- Improve surrounding built infrastructure and placemaking.

## 9.3 Meeting Stakeholder Objectives

9.3.1 **Table 9.1** demonstrates how the Bedford to Milton Keynes Waterway may help achieve stakeholder strategic organisational objectives. The table is informed by a review of key strategy and policy documents, the economic impact assessment and an understanding of similar waterway projects throughout the UK. It is significant that the majority of stakeholders have common objectives which reflect the themes in Section 9.2 which are considered to be met in part by the B&MK Waterway. This indicates that there is strategic alignment amongst stakeholders and that the Project is well-placed to meeting most of these objectives.

Table 9.1: Project Contribution to Stakeholder Objectives

| Stakeholder Organisation | Stakeholder Objectives | Project Contribution to Stakeholder Objective |
|---|---|---|
| **National Infrastructure Commission** | The objectives of the National Infrastructure Commission are to:<br>▪ Support sustainable economic growth across all regions of the UK;<br>▪ Improve competitiveness; and<br>▪ Improve quality of life. | The Waterway will help promote job creation through short term construction of the Waterway itself. It may also encourage business formation or relocation in the area. The Waterway will contribute to a regional 'brand' that will lead to lead to increased recognition of the area.<br>The connectivity offered by the BKMW support sustainable travel patterns and provide opportunities for physical activity and recreation, thereby improving the quality of life for residents. |
| **South East Midlands Local Enterprise Partnership (SEMLEP)[64]** | ▪ Ensure that strategic pieces of East-West transport infrastructure, and transport connectors into them, are built;<br>▪ Have world-class broadband and wireless networks in place to respond to rapidly changing business needs and capabilities;<br>▪ Put current and future employer needs at the heart of skills development; and<br>▪ Deliver sufficient homes to meet the housing needs of our ever-growing population. | Project can to help to:<br>▪ Contribute to active travel links between significant new communities and places of employment;<br>▪ Provide potential opportunities for delivering utilities to support the roll-out of important infrastructure to existing and planned communities and employment sites;<br>▪ Deliver a destination and contribute to economic wellbeing of the region;<br>▪ Create a source of natural capital; and<br>▪ Form new, sustainable housing developments with connections to green infrastructure. |
| **Milton Keynes Council[65]** | ▪ Every person in Milton Keynes has the opportunity to achieve their ambitions, a good, well-paid job, and the skills to achieve it;<br>▪ Every person can live in a good home to buy or rent at a price people can afford in a great environment; and<br>▪ Ensuring lifelong well-being for all in an active, vibrant place with people living long, healthy and fulfilling lives. | ▪ The project will improve the attractiveness of key employment sites and can encourage investment. This in turn will create employment opportunities for local people; and<br>▪ The canal will provide active travel links and recreational opportunities for new and existing communities. |
| **Bedford Borough Council [66]** | ▪ Bedford borough is seen as a place to grow; | ▪ The waterway will contribute significantly to the regional 'brand' |

[64] SEMLEP Website

[65] Milton Keynes Council (2015). Council Plan 2016-2020

[66] Bedford Borough Council (2016), Corporate Plan 2017-2021

| Stakeholder Organisation | Stakeholder Objectives | Project Contribution to Stakeholder Objective |
|---|---|---|
| | ▪ Businesses are coming and expanding;<br>▪ Schools and colleges are realizing potential and enhancing skills;<br>▪ People are coming and staying, choosing to live, work and enjoy life here;<br>▪ Our diverse communities have strong social interactions;<br>▪ The most vulnerable people of all ages are supported as we ourselves would want to be treated;<br>▪ The quality of the local environment and ease of getting around is highly valued; and<br>▪ People contribute and engage in building the positive changes they want to see for their community. | and will provide an impetus for a sustained tourism economy;<br>▪ The waterway will provide opportunities for skills and training through waterway maintenance and other outdoor learning activities; and<br>▪ The Project's impact on accessibility and placemaking will improve the desirability of employment and housing sites, thereby promoting Bedford as an area for growth. |
| **Central Bedfordshire Council**[67] | Creating a great place to live and work through:<br>▪ Enhancing Central Bedfordshire, in terms of more and better jobs, improved, infrastructure, and quality and types of housing;<br>▪ Deliver great resident services, including libraries parks, and leisure services;<br>▪ Improving education and skills;<br>▪ Protecting the vulnerable and improving well-being; and<br>▪ Creating stronger communities. | ▪ The Project will help create significant benefits to existing and proposed communities along the proposed watercourse. This will include access to a key green infrastructure asset, new tourism and leisure jobs, and access to existing and proposed employment sites along the waterway;<br>▪ The waterway could encourage increased use of outdoor resources, contributing to healthy lifestyles; and<br>▪ The visitor economy will be enhanced particularly through the creation of an iconic structure at Brogborough Hill. |
| **Canal & River Trust (CRT)** | ▪ To breathe new life into their canals & rivers;<br>▪ Ensure canals and rivers are cherished by and make a difference to the communities they serve;<br>▪ Help more people discover and enjoy the magic of the waterways; and<br>▪ Increase access to canals and rivers for current and future generations. | ▪ Project helps residents realise employment and health benefits by providing the infrastructure to link communities with employment sites and the Canal and a wider active travel corridor; and<br>▪ Waterside development helps improve development values and primes area for inward investment. |

[67] Central Bedfordshire (2014), Our Five Year Plan, 2015-2020

| Stakeholder Organisation | Stakeholder Objectives | Project Contribution to Stakeholder Objective |
|---|---|---|
| **Environment Agency (EA)** | ▪ A cleaner, healthier environment which benefits people and the economy;<br>▪ A nation better protected against natural threats and hazards, with strong response and recovery capabilities; and<br>▪ Higher visibility, stronger partnerships and local choices. | ▪ Project proposals will deliver environmental improvements in the canal corridor providing flood mitigation benefits, improved green infrastructure and active travel assets, and potential for habitat creation or expansion; and<br>▪ Collaborative partnership working is a central component of the project to ensure Strategic objectives and synergies are achieved. |
| **Bedford & Milton Keynes Waterway Trust (Main Promoter)** | ▪ Create a waterway that is a source of pride now and for generations to come;<br>▪ Provide a green corridor at the heart of new developments in the area;<br>▪ Serve local people and enhance the local environment; and<br>▪ Connect the Fenland waterways with the main canal network. | ▪ The project will meet each of these objectives in providing a recreational and green infrastructure asset while providing a functional link within the waterway network. It will increase the attractiveness of the local environment, encouraging investment and promote the area as a great place to live, work and play. |
| **Inland Waterway Association Volunteer Network (IWAVA)** | ▪ A thriving, growing network of sustainable inland waterways for everyone; and<br>▪ For IWAVA to be a powerful champion of inland waterway causes, to protect and expand our waterways for the millions of people who enjoy and benefit from using them. | ▪ Project will extend canal network and deliver new key nodal points and attractions; and<br>▪ The project provides a wide range of volunteer opportunities. |
| **Marston Vale Trust** | • Aim to improve the protection and provision of recreational and other facilities in the Marston Vale and surrounding area; and<br>• Advocates for the better development of the rural development. | • The waterway will improve the provision of recreational facilities in a waterway context, whilst encouraging development sympathetic to the local environment. |
| **The Parks Trust** | • The Parks Trust is committed to safeguarding the land and environment for future generations. They aim to provide, maintain and equip green spaces in and around Milton Keynes;<br>• To advance public education; and<br>• To provide facilities for leisure and recreation. | • The Project will create opportunities for recreation and leisure within Milton Keynes; and<br>• The canal will provide opportunities for learning and stewardship associated with existing biodiversity assets, and waterway maintenance and construction. |

| Stakeholder Organisation | Stakeholder Objectives | Project Contribution to Stakeholder Objective |
|---|---|---|
| **Waterway Recovery Group (WRG)** | ▪ To breathe new life into canals & rivers;<br>▪ Ensure their canals and rivers make a difference to the communities they serve;<br>▪ Help more people discover and enjoy waterways; and<br>▪ Increase access to canals and rivers for current and future generations. | ▪ Project will deliver a waterway with strong linkages and benefits for the local community; and<br>▪ Project will ensure strong linkages through school engagement and activity programmes, linkages with HE and FE initiations and provide volunteer programmes. |

*Source: Stakeholder organisations websites*

# 10 Conclusions

10.1.1 This assessment demonstrates the project will provide significant opportunities during its construction and operational phases.

10.1.2 **Table 10.1** summarises the principal economic and tourism impacts which involve direct jobs, training and apprenticeships, GVA, and a significant uplift in visitor numbers and residential properties along the proposed route. Importantly the assessment shows the project will have a cost benefit ratio of 2.6. For every £1 invested £2.6 of additional value will be created from the original investment.

Table 10.1: Summary of Effects (based on a Fully Integrated Waterway)

| | Consideration | Benefits | Time Period |
|---|---|---|---|
| **Economic** | | | |
| Job Creation | Creation of jobs during construction phase | ▪ 1,418 Gross Construction Jobs<br>▪ 99 apprenticeship places | During construction period only |
| GVA | The amount of GVA created | ▪ £119m Construction GVA | During construction period only |
| Training | Potential for onsite training in construction | ▪ Potential development of local skills which in turn will benefit the local economy | During construction period only |
| **Tourism and Recreation** | | | |
| Tourism and Recreation Uplift | How much additional expenditure will the proposed waterway bring | ▪ £7.0 m increase in annual visitor expenditure, up to £100.1 m 20 years after construction.<br>▪ Annual visitor expenditure supports 131 additional Indirect FTEs | Annually and up to 20 years from full operation |
| **Residential** | | | |
| Residential Property Uplift | Increase in residential value from increased proximity to waterway (and associated increase in visitor amenity and towpath and recreational access) | ▪ Value uplift of up 5% - 15%<br>▪ c.£44 million additional value may be achieved | Permanent |
| **Cost Benefit Analysis** | | | |
| Cost benefit ratio (Increased value/ increased cost) | Cost versus NPV of future benefits | ▪ The waterway would create 2.6 times the value of the original investment (£384.6 million/ £148million = 2.6)<br>▪ The cost benefit ratio is therefore 2.6<br>▪ This means that for every £1 invested £2.6 of additional value will be created from the original investment | N/A |

# Appendix A Baseline Data

## A.1 Population

| | Central Bedfordshire | Bedford | Milton Keynes | 60-min Drive Time | South East | East of England | England |
|---|---|---|---|---|---|---|---|
| **Population** | | | | | | | |
| Population (2017) | 276,408 | 168,857 | 272,311 | 2,884,633 | 9,083,816 | 6,172,992 | 55,578,944 |
| Population (2030) | 316,140 | 190,056 | 311,453 | 3,230,586 | 9,946,376 | 6,819,920 | 60,268,872 |
| Pop'n growth | 14% | 13% | 14% | 12% | 9% | 10% | 8% |

## A.2 Age Profile

| | Central Bedfordshire | Bedford | Milton Keynes | 60-min Drive Time | South East | East of England | England |
|---|---|---|---|---|---|---|---|
| **Age Profile** | | | | | | | |
| 0-15 | 19% | 20% | 23% | 20% | 19% | 19% | 19% |
| 15-64 | 63% | 62% | 64% | 63% | 62% | 62% | 63% |
| 64+ | 18% | 17% | 13% | 16% | 19% | 19% | 18% |
| State Working Age (16-74) | 73% | 72% | 72% | 72% | 72% | 72% | 73% |
| % Increase in Pensionable Age (65+) to 2030 | 44% | 38% | 53% | N/A | 34% | 32% | N/A |

## A.3 Economic Activity

| | Central Bedfordshire | Bedford | Milton Keynes | 60-min Drive Time | South East | East of England | England |
|---|---|---|---|---|---|---|---|
| **Economic Activity** | | | | | | | |
| Economic Activity (%, 2017). | 74% | 72% | 76% | 73% | 72% | 71% | 70% |

## A.4 Skills

| | Central Bedfordshire | Bedford | Milton Keynes | 60-min Drive Time | South East | East of England | England |
|---|---|---|---|---|---|---|---|
| **Skills** | | | | | | | |
| Skilled | 44% | 42% | 43% | 45% | 45% | 42% | 42% |
| Semi-skilled | 33% | 31% | 29% | 30% | 32% | 33% | 32% |
| Unskilled | 23% | 27% | 28% | 25% | 23% | 26% | 26% |

## A.5 Qualifications

| | Central Bedfordshire | Bedford | Milton Keynes | 60-min Drive Time | South East | East of England | England |
|---|---|---|---|---|---|---|---|
| **Qualifications** | | | | | | | |
| No Qualifications | 18% | 19% | 17% | 18% | 18% | 21% | 21% |
| Level 1 Qualifications | 14% | 13% | 15% | 13% | 13% | 14% | 13% |
| Level 2 Qualifications | 16% | 14% | 16% | 14% | 15% | 15% | 14% |
| Apprenticeship (not counted as separate variable in Scotland) | 5% | 4% | 3% | 3% | 4% | 4% | 4% |
| Level 3 Qualifications | 14% | 13% | 12% | 13% | 14% | 13% | 13% |
| Level 4 Qualifications and Above | 29% | 30% | 30% | 32% | 32% | 28% | 29% |

## A.6 Industry of Employment

| | Central Bedfordshire | Bedford | Milton Keynes | 60-min Drive Time | South East | East of England | England |
|---|---|---|---|---|---|---|---|
| | | | | | | | **Industry of Employment** |
| Agriculture, Forestry and Fishing | 1% | 1% | 0% | 1% | 1% | 1% | 1% |
| Mining and Quarrying | 0% | 0% | 0% | 0% | 0% | 0% | 0% |
| Manufacturing | 9% | 8% | 7% | 8% | 6% | 8% | 8% |
| Electricity, Gas, Steam and Air Conditioning Supply | 0% | 1% | 0% | 0% | 0% | 0% | 1% |

| | Central Bedfordshire | Bedford | Milton Keynes | 60-min Drive Time | South East | East of England | England |
|---|---|---|---|---|---|---|---|
| Water Supply; Sewerage, Waste mgt. and Remediation | 1% | 1% | 0% | 1% | 1% | 1% | 1% |
| Construction | 9% | 7% | 6% | 7% | 9% | 8% | 8% |
| Wholesale and Retail; Repair of Motor Cycles and Vehicles | 15% | 15% | 19% | 16% | 15% | 15% | 15% |
| Transport and Storage | 5% | 6% | 6% | 5% | 5% | 5% | 5% |
| Accommodation and Food Service Activities | 5% | 5% | 4% | 5% | 5% | 5% | 6% |
| Information and Communication | 5% | 4% | 7% | 5% | 6% | 4% | 4% |
| Financial and Insurance Activities | 3% | 3% | 6% | 4% | 5% | 5% | 4% |
| Real Estate Activities | 2% | 1% | 1% | 2% | 2% | 2% | 2% |
| Professional, Scientific and Technical Activities | 7% | 7% | 7% | 9% | 8% | 7% | 8% |
| Administrative and Support Service Activities | 6% | 6% | 6% | 6% | 5% | 6% | 5% |
| Public Administration, Defence, Compulsory Social Security | 6% | 6% | 4% | 4% | 5% | 5% | 5% |
| Education | 11% | 12% | 11% | 10% | 10% | 10% | 10% |
| Human Health and Social Work Activities | 10% | 13% | 9% | 11% | 11% | 12% | 12% |
| Industry: Other | 5% | 5% | 5% | 5% | 6% | 5% | 5% |

## A.7 Income & Spending

| | Central Bedfordshire | Bedford | Milton Keynes | 60-min Drive Time | South East | East of England | England |
|---|---|---|---|---|---|---|---|
| **Income & Spending** | | | | | | | |
| Income (per head of pop) | £19,577 | £19,092 | £19,373 | N/A | £21,808 | £19,796 | £19,447 |
| Deprivation (% of LSOAs in top 10% most deprived) | 0.0% | 4.9% | 5.9% | N/A | 3.2% | 4.3% | N/A |
| **Expenditure per Household** | | | | | | | |
| Comparison | £8,583 | £7,929 | £8,055 | £8,417 | £8,669 | £7,896 | £7,623 |

| | Central Bedfordshire | Bedford | Milton Keynes | 60-min Drive Time | South East | East of England | England |
|---|---|---|---|---|---|---|---|
| Convenience | £5,439 | £5,208 | £5,216 | £5,272 | £5,468 | £5,177 | £5,054 |
| Leisure | £7,607 | £7,146 | £6,666 | £7,980 | £7,606 | £7,179 | £6,938 |

## A.8 Tourism Employment & Expenditure

| | Central Bedfordshire | Bedford | Milton Keynes | 60-min drive time | South East | East of England | England |
|---|---|---|---|---|---|---|---|
| **Tourism** | | | | | | | |
| % in Tourism Employment (work-place based) | 12% | 8% | 8% | N/A | 0% | 10% | N/A |
| Expenditure (£m) | £29 | £34 | £65 | N/A | £- | £- | £18,788 |

## A.9 Tourism

| | 2006-2008 | 2007-2009 | 2008-2010 | 2009-2011 | 2010-2012 | 2011-2013 | 2012-2014 | 2013-2015 |
|---|---|---|---|---|---|---|---|---|
| | | | | | | | | **Trips (Thousands)** |
| Central Bedfordshire | 171 | 147 | 141 | 134 | 204 | 217 | 214 | 194 |
| Bedford | 278 | 236 | 218 | 256 | 220 | 231 | 203 | 256 |
| Milton Keynes | 435 | 427 | 463 | 497 | 479 | 466 | 422 | 384 |
| England | 98,265 | 98,724 | 97,516 | 100,682 | 101,418 | 103,500 | 99,604 | 99,028 |
| Total as % of England | 0.9% | 0.8% | 0.8% | 0.9% | 0.9% | 0.9% | 0.8% | 0.8% |
| | | | | | | | | **Nights (Thousands)** |
| Central Bedfordshire | 507 | 704 | 544 | 358 | 507 | 506 | 500 | 500 |
| Bedford | 625 | 551 | 560 | 622 | 530 | 549 | 471 | 522 |
| Milton Keynes | 1131 | 1102 | 1303 | 1335 | 1138 | 1034 | 890 | 830 |
| England | 301,044 | 302,767 | 296,377 | 300,915 | 300,922 | 304,912 | 293,391 | 289,850 |
| Total as % of England | 0.8% | 0.8% | 0.8% | 0.8% | 0.7% | 0.7% | 0.6% | 0.6% |
| | | | | | | | | **Spend (£million)** |
| Central Bedfordshire | 13 | 13 | 12 | 18 | 29 | 32 | 31 | 29 |
| Bedford | 28 | 30 | 27 | 29 | 26 | 29 | 32 | 34 |
| Milton Keynes | 81 | 74 | 65 | 65 | 59 | 67 | 61 | 65 |
| England | 16,044 | 16,414 | 16,314 | 16,924 | 17,751 | 18,707 | 18,763 | 18,788 |
| Total as % of England | 0.8% | 0.7% | 0.6% | 0.7% | 0.6% | 0.7% | 0.7% | 0.7% |

# Appendix B Itemised Construction Costs

## B.1 Canal Construction

B.1.1 The canal's construction is expected to cost £148 m over the course of the build period. This is set out by Section in **Table B.1**

Table B.1: Cost of Waterway by Section

| Canal Section | Budgeted Cost |
|---|---|
| GU to Willen Lake | £11,092,000 |
| Willen Lake to Broughton Brook | £12,116,000 |
| Broughton Brook to A513 | £4,960,000 |
| Broughton A513 to Lock 11 (Brooklands) | £4,200,000 |
| Lock 11 to MK/Beds Boundary | £7,552,000 |
| MK/Beds Boundary to Bedford Road | £13,372,000 |
| Bedford Road to Brogborough Marina | £7,866,000 |
| Brogborough Marina and Boatlift | £32,500,000 |
| Boatlift to Brogborough Lake | £13,865,000 |
| Link the Lakes | £9,950,000 |
| Stewartby Lake to Green Lane | £2,420,000 |
| Green Lane to A421 Underpass | £3,350,000 |
| A421 Underpass | £600,000 |
| A421 Underpass to Homeless Wood | £7,137,000 |
| Homeless Wood to Ridge Road | £8,255,000 |
| Ridge Road to Cemetery Road | £5,040,000 |
| Cemetery Road to Kempston Junction | £3,725,000 |
| Total | £148,000,000 |

*Source: B&MK Waterway*

# Appendix C Economic Impact Technical Appendix

## C.1 Introduction

C.1.1 This Technical Impact Appendix provides more detailed impacts and further information on the approach and data sources. It can be read alongside the Headline Impacts Table (**Table 7.2** in Chapter 7) and the Summary Infographics.

## C.2 Impact Assessment Methodology

C.2.1 The main stages of the approach are as follows:

- **Baseline Conditions:** Standard receptors have been analysed (as considered in Appendix A), including population, economic activity, qualifications, workplace and resident employment. In addition, the study area's visitor market has been profiled68 including: visitor attractions; tourism volume and value; and the local tourism economy;
- **Assessment of Construction Effects:** A detailed assessment of likely significant effects on the local and regional economy during construction of the waterway has been undertaken, covering jobs and Gross Value Added (GVA)[69] created;
- **Assessment of Tourism Effects**: An assessment of how many additional visitors will be attracted to the area as a result of the waterway has been carried out along with an assessment of the uplift in tourism spend; and
- **Residential Effects:** The assessment will also look into the uplift in residential values associated with the waterway, i.e. the increase in sales values as a result of the waterway creating a more attractive living environment.

## C.3 Impacts by Phase

C.3.1 The waterway will provide the following impacts during the construction and operational phase:

### Construction Phase

- Construction impacts
  - Construction jobs;
  - Construction GVA; and
  - Training and apprenticeship opportunities.

[68] VisitEngland and VisitBritain

[69] GVA is a measure in economics of the value of goods and services produced in an area

### Operational Phase

- Residential impacts
    - Uplift in residential property prices;
    - Additional council tax revenue; and
    - Additional retail and leisure spending.
- Commercial impacts
    - Uplift in commercial property values; and
    - Uplift in non-domestic business rate revenue.
- Tourism impacts
    - Additional towpath users and spend;
    - Additional boat users and spend; and
    - Additional tourism related employment associated with additional users.

## C.4 Construction Phase

### Construction Impact

C.4.1 The Office of National Statistics data shows £104,380[70] of construction expenditure supports one-person year/ temporary construction job. Experian Labour Market Data shows the Gross Value Added (GVA) per head[71] value for the construction sector in the East of England region is £83,892. Office of National Statistics data shows c.7% of a typical construction workforce is typically made up of training and apprenticeship positions. This information along with the construction cost can be used to estimate the construction impacts associated with the project (**Table C1**).

Table C1: Construction Impacts

| | Scenario 1: High Value – With Fully Integrated Waterway at Marston Valley | Scenario 2: Moderate – Without Fully Integrated Waterway at Marston Valley |
|---|---|---|
| Cost (investment)[72] | £148.0 | £139.4 |
| Person years of construction employment | 1,418 | 1,336 |
| Gross Value Added (GVA) | £118.9 | £112.1 |
| Apprenticeships | 99 | 94 |

[70] in 2017 prices

[71] Gross value added (GVA) is the measure of the value of goods and services produced in an area, industry or sector of an economy. GVA per head is result of total GVA in an industry in the region, divided by the total number of jobs in an industry in a region.

[72] Note that the full cost of the waterway may be borne in part through contributions associated with waterside.

## C.5 Operational Phase

C.5.1 There are a number of beneficial impacts associated with the operational phase of the B&MK Waterway. These include residential impacts (uplifts, council tax, resident expenditure) and commercial impacts (non-domestic rates income).

C.5.2 Residential and commercial uplift values have been estimated using comparator research and information on proposed developments sourced from CoStar Commercial Property, Local Authority Development Plans and planning applications via each Local Authority's Planning Portal.

### Residential Impacts

*Residential Uplift*

Based on comparator evidence, it is assumed that **properties within 50m will attract an average premium on sales values of 15%** reflecting: an enhanced living environment; marketability; and enhanced access to the waterway and towpath for recreation. The average premium is reduced **to 5% for properties from between 51-100m** distance of the waterway. These estimates are considered to be relatively conservative compared to the uplift values identified in the comparator research which ranged from 3% to 40%.

The estimate further assumes that units outside this buffer would not witness a canal related uplift. In practice it is likely that branding and marketing of the area would emphasise the canal as part of the comprehensive development and have a positive effect on values.

C.5.3 Marston Valley and seven other residential sites are located within these uplift areas. Applying the assumptions above show estimated uplift would be:

- £14.7 million excluding Marston Valley; and
- £44.1 million including Marston Valley.

*Additional Council Tax*

C.5.4 Appropriate Council Tax band have been sourced from individual local authority websites. Note that residential effects are only relevant for Marston Valley (Central Bedfordshire). Resident units at Marston Valley are assumed to be in Council Tax Band D, at £1,617 per annum.[73]

*Additional Resident Expenditure*

C.5.5 Household spending statistics on comparison and convenience retail have been sourced from Experian (2017). Assumed expenditure for comparison, convenience and leisure are set out in **Table C2**.

Table C2: Estimated Annual Retail Spend per Household, Central Bedfordshire

| Retail Category | Annual Spend per Household |
|---|---|
| Convenience | £5,401 |
| Comparison | £8,565 |
| Leisure | £7,140 |

**Commercial Developments**

*Commercial Value Uplift*

C.5.6 Comparator research shows commercial developments within close proximity of a waterway attract a sales premium and value uplift similar to residential premiums. Floorspace and sales value information on proposed developments was sourced from CoStar Commercial Property database. **Table C3** shows the level additional value that could be attributed to proposed industrial, office and retail premises associated with close proximity of the canal. Conservative assumptions have been used. Commercial properties within 50 metres are assumed to experience a 5% uplift in value while properties within 51-100 metres received a 2.5% value uplift due to distance decay.

Table C3: Commercial Sales Values Uplifts (£m)

| Use Class | 50m | 51-100m | Total (0-100m) |
|---|---|---|---|
| | 5% Uplift | 2.5% Uplift | |
| **Industrial** | £380,183 | £175,778 | £555,961 |
| **Office** | £48,443 | £44,073 | £92,516 |
| **Retail** | £4,578 | £3,583 | £8,161 |
| **Total** | **£433,203** | **£223,435** | **£656,637** |

*Source: PBA Calculations using Comparator Research and CoStar database (2017) & data in Section 6.*

*Non Domestic Business Rate Revenue*

[73] Note that this figure has been carried over from a previous assessment.

C.5.7 The waterway could increase sales values by c.£656,600. Around 84% of this is attributable to industrial premises. Business rates are calculated by multiplying a rateable value of an individual property by the appropriate non-domestic multiplier. With this in mind, this study assumes that average business rates for the local area are uplifted in proportion to the increase in potential rateable values for commercial or industrial properties. This shows the waterway could lead to an increase in non-domestic business rates of around £112,800 per annum.

Table C4: Commercial Business Rates

| Use Class | Total uplift p.a. |
|---|---|
| Industrial | £98,429 |
| Office | £11,784 |
| Retail | £2,594 |
| Total (£m) | **£112,807** |

*Source: PBA Calculations; CoStar 2017*

## C.6 Tourism & Leisure Impacts

### Visitor Appeal

C.6.1 The B&MK Waterway will increase the number of visitors to the study area. The assumed iconic boat lift at Brogborough Hill also has the potential to increase visitor numbers and act as a visitor destination in its own right. Visitor activities include:

- Visiting attractions and key nodal points (including Brogborough Hill);
- Walks, cycle trails, or rambles along the canal towpath and adjacent walking routes;
- Water sport activities along the watercourse and at key nodes;
- Visiting canalside towns & villages for local food, drink or other local products; and
- Participating in other outdoor activities including fishing, birding and angling.

C.6.2 There will be regular users from the local and wider area who use the canal as a recreational resource. The expenditure associated with these activities[74] will have a positive impact on expenditure for local businesses offering amenities to visitors. Those who use the canal as a means of non-leisure travel are excluded from this assessment as they will not have a local spending impact.

### Attractions

C.6.3 The B&MK Waterway Park has the potential to increase the number of visitors to key attractions. The most relevant attractions likely to benefit from canal use include Millennium and Forest Country Park, Willen Lake Park, and Box End Park. Increased visits to attractions and use of the waterway associated with these visits would be enabled by a number of factors including:

[74] An average spend per head per visit has been assumed based on comparator research.

- **Potential for linked trips**: The waterway will enable regular users and visitors to reach key attractions and access amenities along the waterway. Proximity to Center Parcs, for example, has the potential to make the waterway a strategic destination in its own right;

- **Increased accessibility and expanded local catchments**: key attractions (noted above) will be able to accessible by a linked walking/cycling routes. This will enable greater penetration in new and existing communities. Connectivity will be further enhanced by the East-West rail project and the Oxford-Cambridge Expressway; and

- **Improved marketing and brand recognition**: As the newest waterway in Britain for 100 years, the B&MK Waterway Park will be a draw for tourists. This is expected to have an impact on visitors to nearby attractions.

## C.7 Key Tourism Nodal Points

C.7.1 **Figure C1** identifies existing and proposed key nodal points along the waterway. The B&MK Waterway will build on the existing visitor attractions at Box End Park, Center Parcs, Millennium Country Park, and Milton Keynes city centre and its attractions.

C.7.2 The nature of leisure and recreation assets to be delivered as part of the canal's development are yet to be finalised. PBA experience of canal and leisure development elsewhere in the UK has therefore been used to inform the development quantums and assumptions used in the economic impact model. The assessment assumed the B&MK Waterway will lead to the following canal-side developments and amenities:

### Brogborough Lake

- Marina and attraction;
- Visitor Centre, focussed on the Brogborough Boat Lift;
- Café or Restaurant;
- Cycle Hire;
- Chandlery; and
- Marina Office.

### Marston Valley (canalside)

- Pub/café/ restaurant;
- Cycle Hire; and
- Shops.

### Box End Park[75]

- Marina;
- Chandlery; and
- Office.

### Campbell Park[76]

- Marina;
- Pub/ café/ restaurant; and
- Marina facility.

[75] There is potential for the marinas as Campbell Park and Box End to be delivered without the canal. However, delivery of the B&MK waterway would be expected to accelerate these waterway improvements and their associated amenities.

[76] Milton Keynes planning application 17/00967/OUTEIS

C.7.3 It is assumed that activity at Stewartby Lake will continue and there will be no additional facilities provided as part of the waterway development.

## C.8 Direct Impacts

C.8.1 **Table C5** provides an estimated level of floorspace, construction costs and associated employment with each of the above developments and facilities. The above uses will provide an estimated 101 gross Full Time Equivalent jobs and provide an estimated £4.0million of GVA (**Table C6**).

Table C5: Commercial Developments & Estimated Costs & FTE jobs

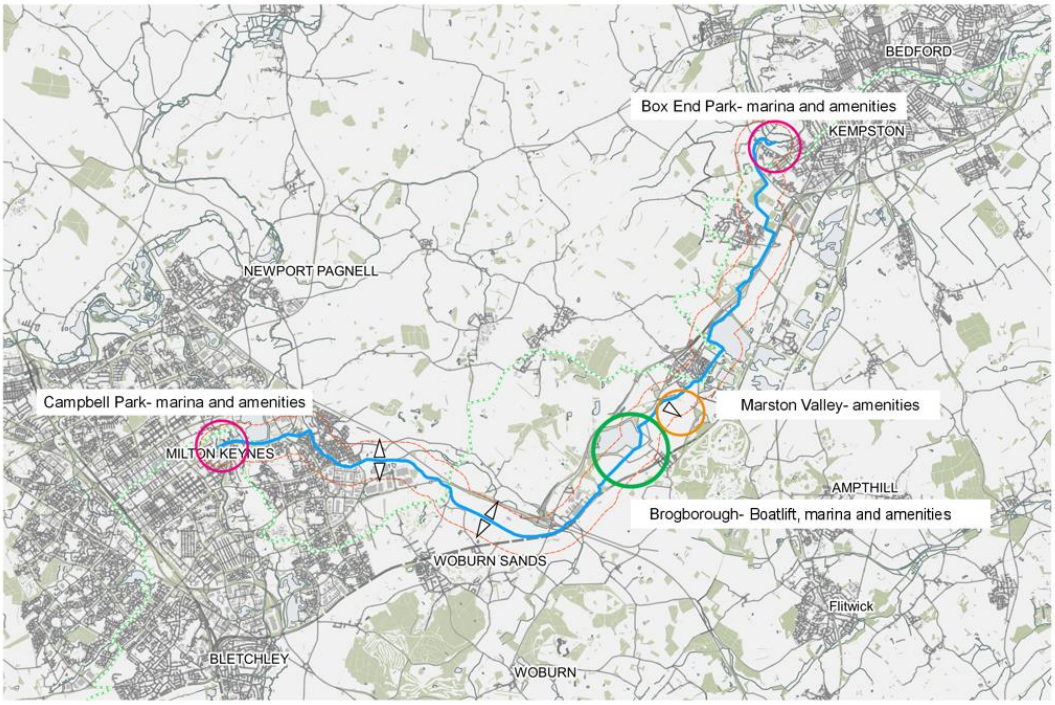
| | Assumed (sq.m) | Cost (£m) | Operational Gross FTE |
|---|---|---|---|
| **Marina and attraction at Brogborough Lake** | | | |
| Visitor Centre (linked to Brogborough Boat Lift) | 1,500 | £3.6 m | 4 |
| Café or Restaurant | 450 | £1.0 m | 17 |
| Cycle Hire | 50 | £0.1 m | 1 |
| Chandlery | 500 | £1.2 m | 4 |
| Marina Office | 150 | £0.2 m | |
| **Marina at Box End Park** | | | |
| Chandlery | 500 | £1.2 m | 4 |
| Office | 150 | £0.2 m | |
| **Marina at Campbell Park** | | | |
| Pub/ restaurant | 950[77] | £2.3 m | 32 |
| Marina facility | 145 | £0.2 m | 4 |
| **Canalside amenities at Marston Valley** | | | |
| Pub/café | 450 | £1.0 m | 17 |
| Cycle Hire | 50 | £0.1 m | 1 |
| Retail | 400 | £0.4 m | 15 |
| Community Hub | 1,200 | £1.9 m | 3 |
| **Total** | **6,500** | **£13.3m** | **101** |

[77] Planning application

Table C6: Commercial Developments: GVA per FTE & FVA

| | FTEs | GVA per FTE | GVA |
|---|---|---|---|
| Accommodation & Food Services | 69 | £37,727 | £2,593,701 |
| Retail | 20 | £49,575 | £1,012,149 |
| Leisure related | 12 | £37,727 | £440,143 |
| **Total** | **101** | **-** | **£4,045,993** |

Figure C1: Key Nodal Points

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## C.9 Indirect Impacts

### Volume and Value

C.9.1 This assessment calculates the estimated canal use by using local population, survey and visitor attraction data to estimate potential use within the project area (i.e. the area defined within **Figure C1** and key nodal points These sources include:

- Experian Population statistics;
- VisitEngland visitor attraction statistics;

- VisitEngland Day Visitor Survey data (2016): These statistics provide an indication of the activities undertaken by day visitors in the regions, including
- Royal Yachting Association (RYA) Statistics: These provide a breakdown of boat ownership in the region and estimated use per person per annum.

*Towpath Users*

C.9.2 The B&MK Waterway Park will provide a recreational resource for pedestrians and cyclists. The waterway's towpath will enable effective linkages between existing and proposed attractions, retail areas, and provides key linkages to nationally and locally important walking and cycling routes.

C.9.3 It is recognised that 'towpath users' can represent a wide variety of activities along the waterway in addition to accessing the waterway and mooring sites. Using day visitor categories from VisitEngland, it has been assumed that towpath users include those walking, cycling, running, and exploring the countryside.[78]

*Boating*

C.9.4 The new waterway will create an environment for existing, unmet and latent demand for boating. Hire boats, canal boats with residential moorings, canal boaters using short term moorings, will use the waterway with opportunities to 'stop off' in key locations.

C.9.5 The B&MK Waterway will not only facilitate trips east and west from Bedford to Milton Keynes, but will link to the wider East Anglia waterway network. The linkages to the Grand Union Canal and River Great Ouse and the wider Middle Level Navigations via Huntington, St Ives, and connecting north to the River Nene and south to Cambridge via the River Cam, will create a continuous cruising circuit. Once fully operation the cruising ring will attract a number of boaters and hire boats from further afield.[79]

*Water Sports*

C.9.6 The canal will capitalise on proximity to several sites currently offering water sport activities, including Stewartby Lake, Box End Park and Willen Lake Park. Waterway connections to these sites will provide an additional impetus and opportunity for these activities.

Table C7: Net Additional Canal Visitors Volume and Value

| Activity | Tourists | | Local Users | | Wider Area Users | |
|---|---|---|---|---|---|---|
| | **Visits** | **Spend (£)** | **Visits** | **Spend (£)** | **Visits** | **Spend (£)** |
| **Towpath users** | | | | | | |
| Tourists | 13,195 | £32,987 | - | - | - | - |
| Residents | 0 | £0 | 96,808 | £242,021 | 113,891 | £284,726 |
| Sub Total | **13,195** | **£32,987** | **96,808** | **£242,021** | **113,891** | **£284,726** |
| **Visitors to Attractions** | | | | | | |

[78] Extrapolated from RYA Survey Data

[79] This has been estimated using RYA survey-based data on boat use and average annual participation.

| Activity | Tourists | | Local Users | | Wider Area Users | |
|---|---|---|---|---|---|---|
| | **Visits** | **Spend (£)** | **Visits** | **Spend (£)** | **Visits** | **Spend (£)** |
| Visitors to Iconic Attraction (Brogborough Hill) | 250,000 | £2,845,563 | 150,000 | £1,707,338 | 100,000 | £1,138,225 |
| Additional visitors to existing attractions | 14,477 | £196,801 | 8,686 | £118,081 | 5,791 | £78,720 |
| **Sub Total** | 264,477 | £3,042,364 | 158,686 | £1,825,418 | 105,791 | £1,216,945 |
| **Water-based users** | | | | | | |
| Canal Boating | 444 | £13,862 | 7,986 | £95,824 | 7,829 | £93,944 |
| Motor/Power Boating | 646 | £29,082 | 4,563 | £78,981 | 2,013 | £34,844 |
| Fishing/Angling | 565 | £6,786 | 1,740 | £10,709 | 512 | £3,150 |
| **Total water-based users** | 1,656 | £49,729 | 14,289 | £185,514 | 10,354 | £131,937 |
| **Total** | **292,523** | **£3,158,066** | **269,784** | **£2,252,953** | **230,036** | **£1,633,609** |

*Source: PBA Calculations*

C.9.7 VisitBritain Research show £54,000 of tourism and leisure related expenditure typically supports one tourism and leisure related FTE. Combining this figure with estimated spending by sector shows the waterway will support an estimated 130 additional FTE tourism and leisure related jobs in the project area (**Table C8**).

Table C8: Total & Net Additional Spend Canal Visitors Volume and Value

| | **Total spend (£m)** | **FTEs** | **Total spend (£m)** | **FTEs** |
|---|---|---|---|---|
| | Total spend | FTEs | Total spend | FTEs |
| Towpath Users | £0.8 | 15 | £0.6 | 11 |
| Water-based Users | £0.8 | 15 | £0.4 | 7 |
| Visits to attractions | £73.1 | 1,354 | £6.1 | 113 |
| **Total** | **£74.8** | **1,385** | **£7.0** | **130** |

### Marston Valley Employment

C.9.8 The Marston Valley development contains a significant employment element.[80] A high level assessment of the project shows it will provide c.6,865 FTE jobs of which an estimated 1,737 (25%) would be net additional to the local area.[81] The development therefore provides a potentially high level of users, assuming good levels of connectivity.

## C.10 Monetised Health Benefits

C.10.1 A high level health impact assessment has been carried using a PBA in-house model that was built using Web-Tag Transport Appraisal Guidance.[82] The figures are based on the estimated new towpath users figures in **Table C7** and are provided for illustrative purposes only.

C.10.2 **Table C9** shows the monetised health benefit from new towpath users that use the towpath for walking and cycling while **Table C10** shows the monetised benefit from new canal users associated with a modal shift from road users.

Table C.9: Monetised Health Impacts

| | Monetised Health Benefits |
|---|---|
| **Usage** | **Visits per Annum** |
| Walkers | 98,809 |
| Cyclists | 80,160 |
| Runners | 26,998 |
| **Monetised health benefit** | **£ per Annum** |
| Walkers | £19,024 |
| Cyclists | £14,123 |
| Runners | n/a |

### Monetised Benefits (Associated with Modal Shift)

Table C.10: Monetised Benefits (associated with Modal Shift)

| | Monetised Benefits |
|---|---|
| Congestion | £293,642 |
| Infrastructure | £2,281 |
| Accident | £72,984 |
| Local Air quality | £2,281 |
| Noise | £4,561 |

[80] Comprising of: Retail (2,000 sq. m); Food stores (2,500 sq. m); Financial and Professional Services (2,000 sq. m); Restaurants (3,000 sq. m); Warehousing, Distribution, Industrial and Manufacturing (168,000 sq. m); Offices (40,000 sq. m); Hotel (5,000 sq. m); Leisure Uses (4,000 sq. m); and Community Centre (1,750 sq. m).

[81] 1,098 FTEs nationally

[82] https://www.gov.uk/guidance/transport-analysis-guidance-webtag

| | Monetised Benefits |
|---|---|
| Greenhouse Gases | £19,404 |
| Indirect taxation (fuel) | -£114,145 |
| **Net Total** | **£281,008** |

## C.11 Education and Training Impacts

### Volunteering &Training

C.11.1 The B&MK Waterway Trust has a longstanding relationship with research and teaching institutions which has enabled students to develop skills in marketing and engineering.[83] The waterway's construction phase will provide opportunities to deliver training and education programmes with local schools, businesses, Cranfield University, Open University (in Milton Keynes), Milton Keynes College, the Bedfordshire, Cambridgeshire & Northamptonshire Wildlife Trust and the Parks Trust.

[83] including the University of Bedfordshire.

# Appendix D Sensitivity Analysis Scenario 3

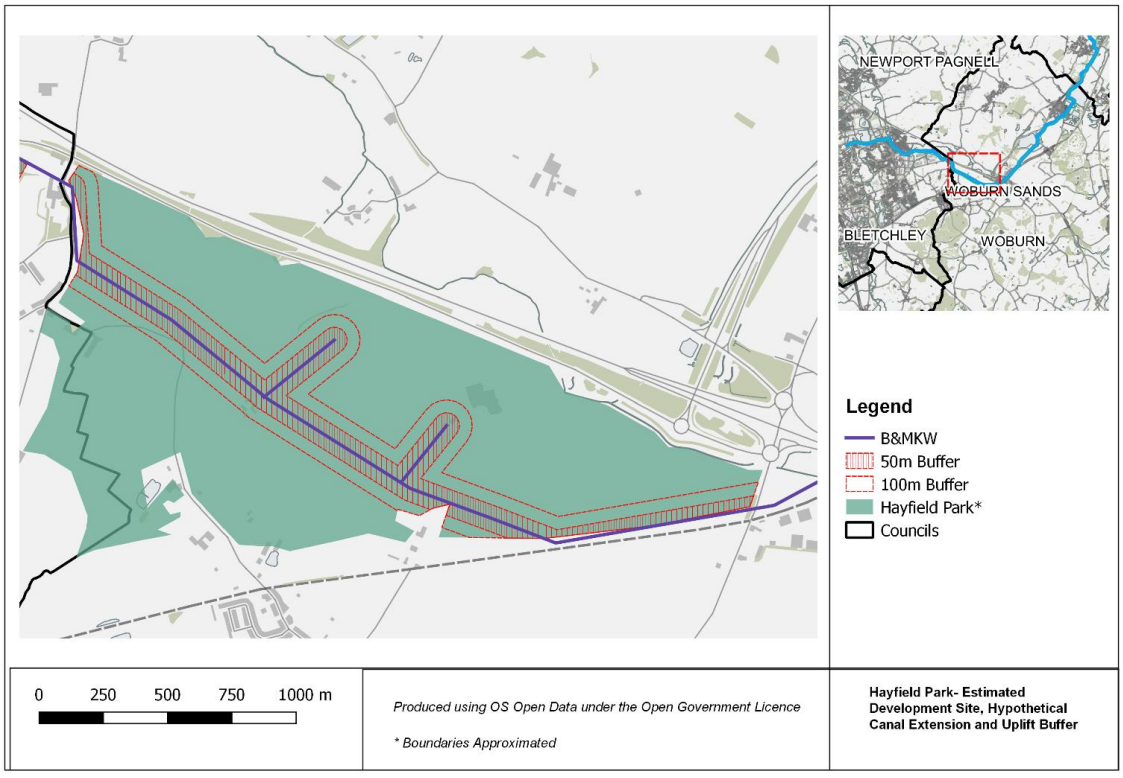
## D.1 Scenario 3: Fully Integrated Canal at Hayfield Park

D.1.1 This Report has considered two principle scenarios, assuming greater and lesser integration of the development at Marston Valley with the proposed waterway. The proposed development at Hayfield similarly has the potential to generate significant household impacts and uplifts.

D.1.2 A sensitivity analysis has been carried out to assess the potential residential uplift associated with Hayfield Park (c.3,000 residential units) were the development to be fully integrated with the waterway (similar to Marston Valley). The waterway is currently expected to run through the development though there are no existing plans for canal-side uses. Representations to the Milton Keynes Draft Plan suggest that at current there is a view to safeguard land for the canal—no waterway-based facilities are mentioned.

D.1.3 **Figure D1** illustrates where channels may integrate the waterway with the development.[84] The parameters and value ranges are identical to the main assessment (15% for 0-50 metres and 5% for 51-100 metres). **Table D1** shows the residential uplift at Hayfield Park with and without a fully integrated canal.

Figure D1: Hayfield Park

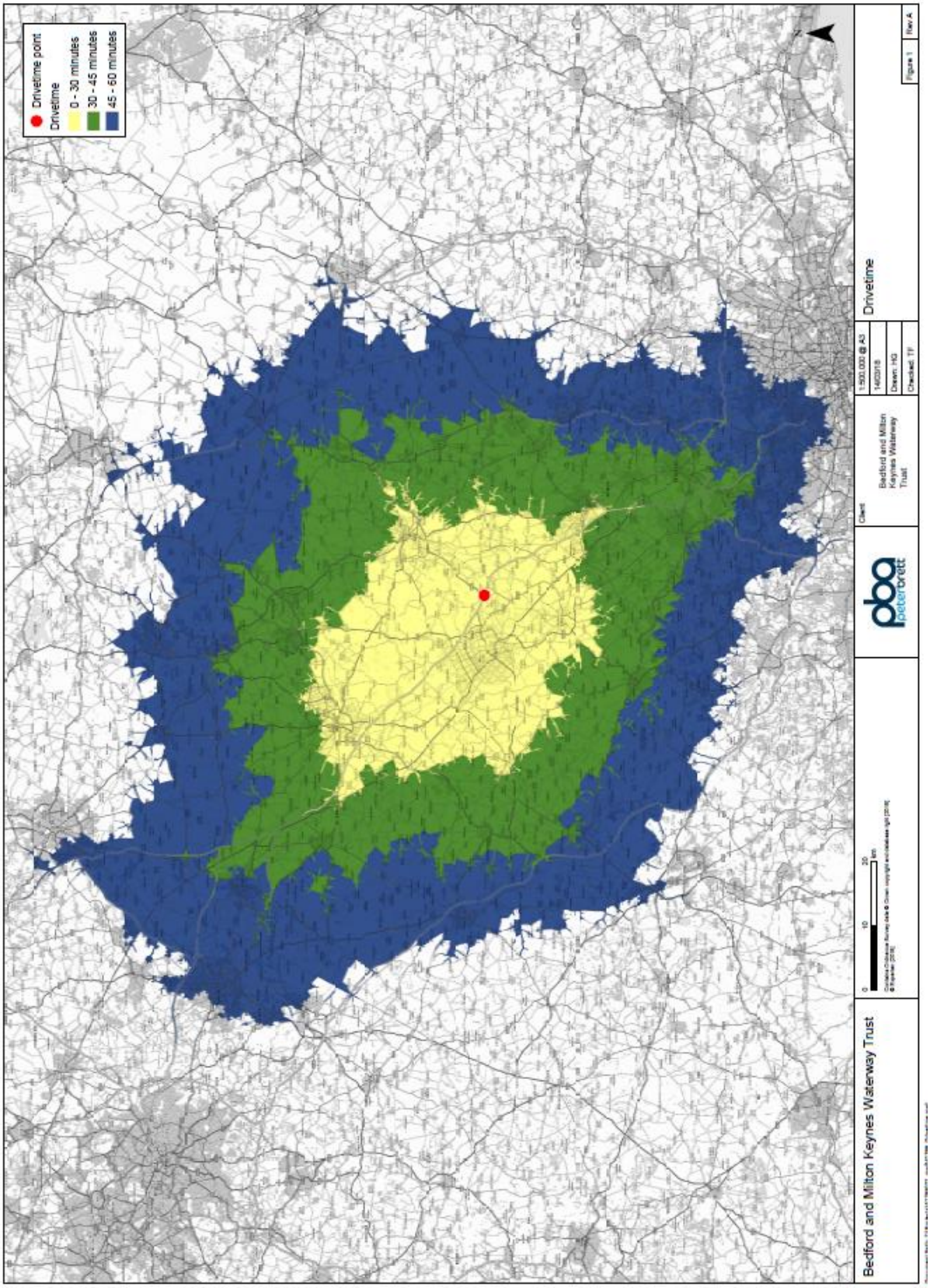



[84] Note that current masterplans do not contain such a feature—this is for illustrative purposes.

Table D1: Residential Uplift at Hayfield Park (with and without canal)

| | Units within 50m of Canal | Units within 100m of Canal. | Total Uplift |
|---|---|---|---|
| | **15% Uplift** | **5% Uplift** | - |
| **Value Uplift at Hayfield Park** | | | |
| With fully integrated canal (£m) | £11.2m | £3.8m | £ 15.0m |
| Units | 225 | 228 | |
| Without fully integrated canal (£m) | £ 8.4m | £2.6m | £11.0m |
| Units | 159 | 169 | |
| % change with/ without | +33% | +43% | +36% |
| **Total Canal Uplift** | | | |
| Uplift **without** Integrated Canal at Hayfield (£m) | | | £44.1m |
| Total Canal Uplift **with** Integrated Canal at Hayfield (£m) | | | £48.1m |
| % change without and with integrated canal (full corridor) | | | +9% |

# Appendix E Drivetime Map



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