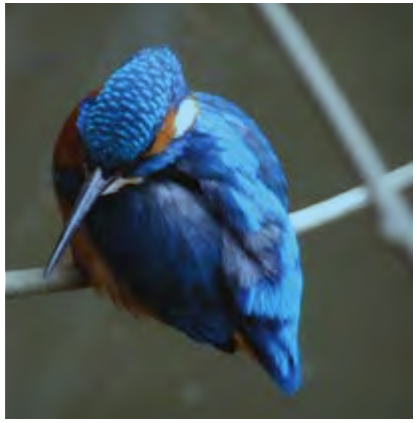
WaterSpace

WATERSPACE STUDY

SEPTEMBER 2017



DUNDAS BATH HANHAM
WaterSpace
REVITALISING OUR WATERWAYS

This Study has been prepared by the WaterSpace Partnership

Bath & North East Somerset Council

Essex Water
a YTL company

Environment Agency

Canal & River Trust

For more information on the *WaterSpace Study* please contact the Environment & Design team at environment&design@bathnes.gov.uk

This document can also be viewed on our website www.waterspacebath.org.uk. *WaterSpace Study* can be made available in a range of languages, large print, Braille, on tape, electronic and accessible formats by contacting the Council on:

Telephone: 01225 477548
Fax: 01225 394199

Design by SteersMcgillanEves
www.steersmcgillaneves.co.uk

This Study has been produced by Bath & North East Somerset Council's Environment & Design Team working together with Atkins.

Environment and Design

ATKINS

This project has been recognised for its contribution to planning for the Natural Environment:

RTPI SOUTH WEST AWARDS FOR PLANNING EXCELLENCE WINNER 2017

RTPI AWARDS FOR PLANNING EXCELLENCE FINALIST 2017

THANK YOU

The Study partners would like to thank all those who have taken part in the preparation of this Study over the last two years, including: the Strategic River Group, the WaterSpace Partnership Steering Group, the River Avon Consultative Committee, the River Safety Group, and outreach officers from charity Julian House.

Thanks to all of those who have engaged with the project, attending and running waterways related events, putting forward project ideas, providing photos and reviewing drafts.

We look forward to working with partners and local people to deliver and develop further the aspirations in this study.

CONTENTS

FOREWORDS

BATH & NORTH EAST SOMERSET COUNCIL

The waterways of Bath and North East Somerset are a fantastic natural and economic asset. They have been shaped by people over generations, with interventions including the creation of the Kennet & Avon Canal over 200 years ago, the installation of flood defences in the 1970s and more recently in the creation of new public parks in Bath, at Quays Waterside and Bath Riverside.

Historically the River Avon has been integral to the growth of the World Heritage City of Bath, facilitating trade and development. In modern times, both the Kennet & Avon Canal and the River Avon offer opportunities for recreation, leisure, sport, angling and boating, and urban regeneration.

The WaterSpace project was identified as a priority in the Council's Green Infrastructure Strategy – the waterways provide green routes, green spaces and water bodies for people to safely enjoy. In addition, the river and canal corridors are designated as protected sites of nature conservation interest. They bring wildlife into the heart of Bath, and allow people to access the countryside on their doorstep. The waterways and the green routes that follow them provide a lifeline for a range of wildlife – including rare and protected species.

The River Avon corridor is undergoing significant redevelopment of brownfield sites, and is the focus for major new development in Bath – the Bath Enterprise Zone, is a 98ha riverside development area which will see the delivery of 9,000 new jobs and 3,400 new homes over the next 20 years. Development within this Enterprise Zone, has the potential to increase the value of the Bath Economy by £620 million per annum. Regeneration is being delivered via the allocation of river corridor sites in the B&NES Local Plan and can be seen with on-site delivery on key riverside development projects such as Bath Riverside and Bath Quays.

We are delighted to have the opportunity to work with our partners to develop this Study. Its completion will help us to identify specific priority projects, develop funding bids and realise opportunities for the Partnership to continue working together to deliver our shared vision to revitalise our waterways.

Louise Fradd
Strategic Director – Place

Bath & North East Somerset Council

CANAL & RIVER TRUST

Compared to the Roman baths in this historic city, the Kennet & Avon Canal is a relative newcomer at just 200 years old. However, it's a perfect complement to Bath's Georgian architecture, leading you through the city and out towards the Wiltshire Downs.

This canal is one of the nation's most loved waterways. From Hanham to Reading, the 87-mile-long green corridor cuts a path through some of the most spectacular scenery in the south-west and links Bristol and the Channel. Like many other inland waterways, it has defied the decline of previous uses, but bounced back with a new vitality to serve future generations.

This beautiful waterway is an escape for locals and visitors from further afield, whether on foot, by boat or on two wheels. The canal in Bath is dotted with destinations perfect for family days out including the Dundas and Avoncliff Aqueducts, Claverton Pumping Station, the deepest lock on the waterways, in Bath itself, and with the iconic Caen Hill flight of locks just 15 miles away. It is also home to 21 conservation sites, 14 Sites of Special Scientific Interest, a world heritage site and a historic battlefield.

The waterways in our care are a fantastic opportunity for people and communities to discover heritage and wildlife or just take a few moments to slow down. They also provide a boost to local economic activity and tourism.

As a partner and contributor to the Bath Waterspace Study, Canal & River Trust is proud to care for the city's historic waterways and ensure they continue to transform places and enrich lives.

Richard Parry
Chief Executive
Canal & River Trust

Canal & River Trust

FOREWORDS

ENVIRONMENT AGENCY

The WaterSpace Study covers 16 miles of the River Avon and Kennet & Avon Canal, starting in Dundas, passing through the world heritage city of Bath and finishing in Hanham. Tackling issues around water quality, river and canal access, flood risk and wildlife habitat is important to many individuals and organisations in the study area. A vibrant, healthy river and canal environment is an increasingly important asset, delivering economic growth, helping to revitalise our waterways and contributing to our health and well-being. It supports recreation, tourism, agriculture and dependent industries. Working in partnership to achieve this is vital to our success.

A joined up approach to understanding these waterways will result in multiple benefits. It will help us become more resilient in respect of flood risk, help us adapt to climate change and will play an important role in enhancing this part of the catchment for future generations. It will link with important planning for the area through the Joint Spatial Plan for the West of England and the Bath and North East Somerset Local Plan.

The Environment Agency is keen to work with partners and local communities to deliver the objectives of this study; listening to ideas, agreeing priorities, and most importantly addressing the issues identified. We want to take part in a co-ordinated approach, making the most of the river and canal. In a competitive funding environment, it is essential that partners work together to seek and use funding efficiently.

Together, we have an opportunity to make a lasting impact for the environment and for local communities.

Nick Gupta
Wessex Area Manager

WESSEX WATER

For centuries, waterways were seen as the waste disposal routes for cities, moving contaminants quickly away from people. It is only in recent decades that society has recognised the value of river and canals, as spaces for amenity, recreation, relaxation and wildlife. Water quality has improved, through better sewerage and sewage treatment, allowing us to look to rivers and canals to provide breathing space and areas of calm in an otherwise hectic world.

Wessex Water is supportive of the Bristol Avon Catchment Partnership as a vehicle to bring together relevant organisations and interested parties around land and water management which influence the river. The Bristol Avon hydrological catchment covers a large area from its source in the Cotswolds near Tetbury, flowing through a rural and urban landscape until it reaches the Bristol Channel at Avonmouth. Land and river management throughout the catchment has an impact on all aspects of the Kennet and Avon Canal and River Avon. Looking at catchments at a strategic level we can understand the interactions, beyond political boundaries, and highlight the issues to be tackled. However, much of the delivery will be more localised through projects and partnerships, such as this one.

We strongly believe that in order to reveal the greatest number of benefits to society and the environment, we need to work in partnership to understand the different roles, functions and aspirations of organisations to deliver complimentary solutions. We recognise the importance of water to society, whether as a basic human need or as a therapeutic part of our landscape and cityscape.

Wessex Water is a keen supporter of this innovative WaterSpace Study. The Study highlights some very exciting new projects to enhance the River Avon and Kennet and Avon Canal. It has reinforced links between the partners fostering new ways of working. We have identified where we have common aspirations, challenges and projects, which could be delivered together. In many cases, we also have similar maintenance and management responsibilities with potential to be combined and delivered more efficiently in future.

David Elliott
Group Director of
Strategy & New Markets

QUICK GUIDE TO THE WATERSPACE STUDY

KEY WORDS

- Vision to revitalise our waterways
- Practical projects
- Priorities
- Funding
- Design Ideas
- Partnership

CHARACTER

16 miles of waterway

2 Waterways – River Avon and Kennet & Avon Canal

15 character areas

1 Bath City Enterprise zone

12 of 18 UK bat species

5 weirs

13 locks

4 marina

2 Linear Sites of Nature Conservation Interest that follow the waterways

710 boats in 2016

1/3 of boaters regularly cruise on the River Avon

80% of boaters surveyed said the waterways were their permanent home

EVIDENCE

102 responses to the Boater Survey

20 1:1 interviews

1 focus group

1 facilities audit

12 months ecology surveys

STUDY AREA

DUNDAS — CLAVERTON — BATHAMPTON — BATH — SALTFORD — KEYNSHAM — HANHAM

QUICK GUIDE TO THE WATERSPACE STUDY

ISSUES

- Management
- Water Quality
- Flood Risk
- Complex ownerships
- Rich wildlife
- Diverse stakeholders
- Major Development & Change
- Under-used River
- Shift from Industrial to Leisure use

ENGAGEMENT

24 Waterways themed events as part of the Bristol to Bath Festival of Nature (2016 & 2017)

River Avon users

Strategic River Group

4 project partners

Bath & North East Somerset Council

Canal & River Trust

Environment Agency

Wessex Water

PROJECT IDEAS

35 Projects

Commercial ventures

Improved public spaces

Ecology enhancements

Community ideas

Art and sports projects

Mooring development

FINANCE

£4m

Over £4million developer contributions identified from existing development, including £500,000 for River Avon Park

£900K

Capital investment in the river corridor (2013-2017)

20 costed projects

£ £ £ £ £ £ £ £ £ £

£ £ £ £ £ £ £ £ £ £

INTRODUCTION TO THE WATERSPACE STUDY

THE VISION

The partners have a common aim, to revitalise the waterways of Bath & North East Somerset.

Through the WaterSpace Study the partners have developed ideas for projects, and have produced design concepts which have the potential to enhance the waterways. The Study provides an evidence base for decision making, and is a starting point for a joint action plan.

The WaterSpace Study has 5 aims:

1. Make best use of the partners' assets and landownership to enhance the waterways, taking a partnership approach and seeking for multi-benefits from projects.

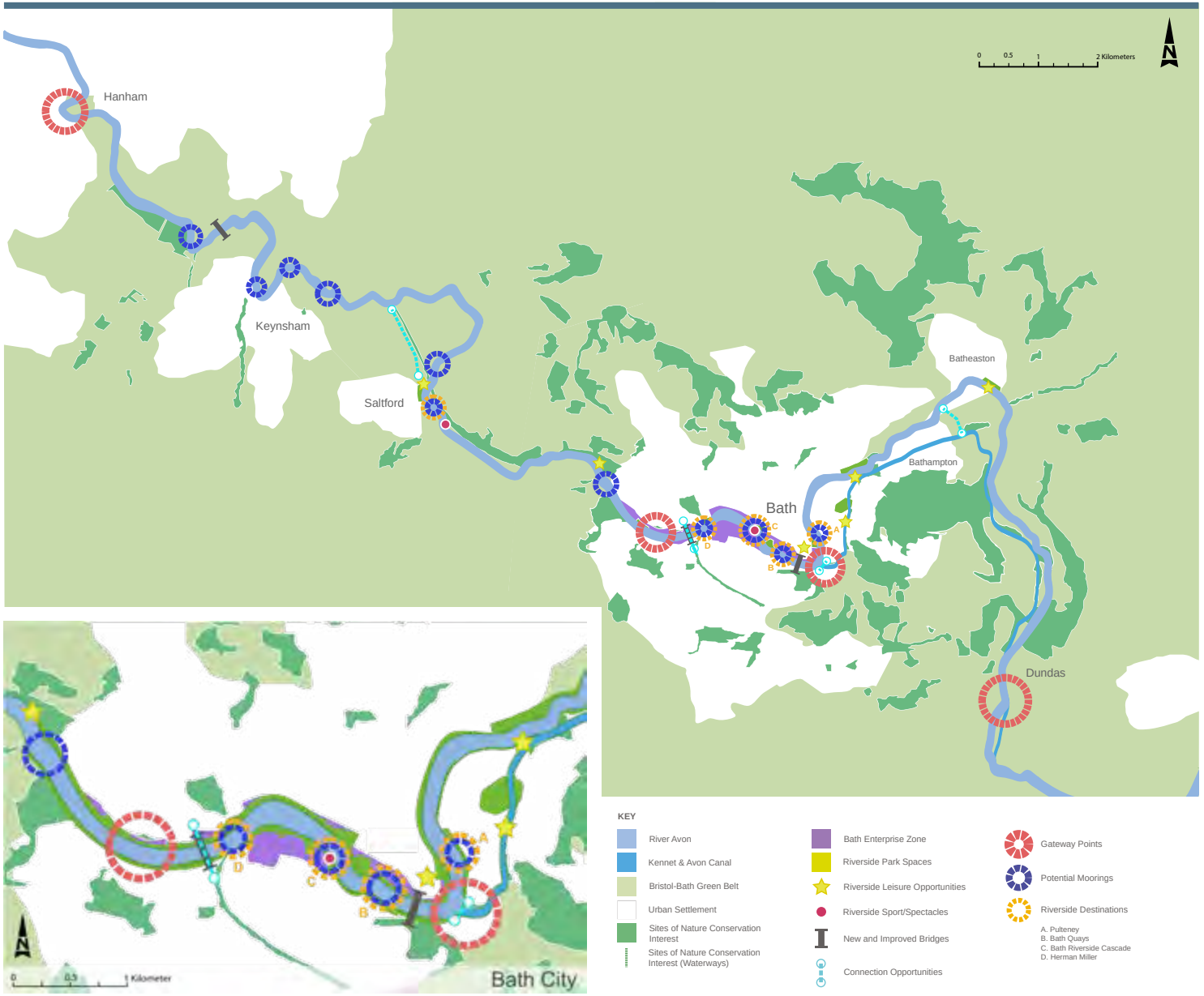
2. Improve the district's mooring offer whilst safeguarding navigation.

3. Realise opportunities from development and regeneration to benefit both the waterways and the quality of new development.

4. Enhance the environmental (including ecology, amenity and water quality) value of the waterways, including retaining dark corridors for wildlife.

5. Protect and improve opportunities for both land and water based leisure and recreation.

The concept diagram expresses some of the key aspirations captured in this study. It is hoped that many of the project ideas included in this Study can be further developed, and delivered over the coming years.



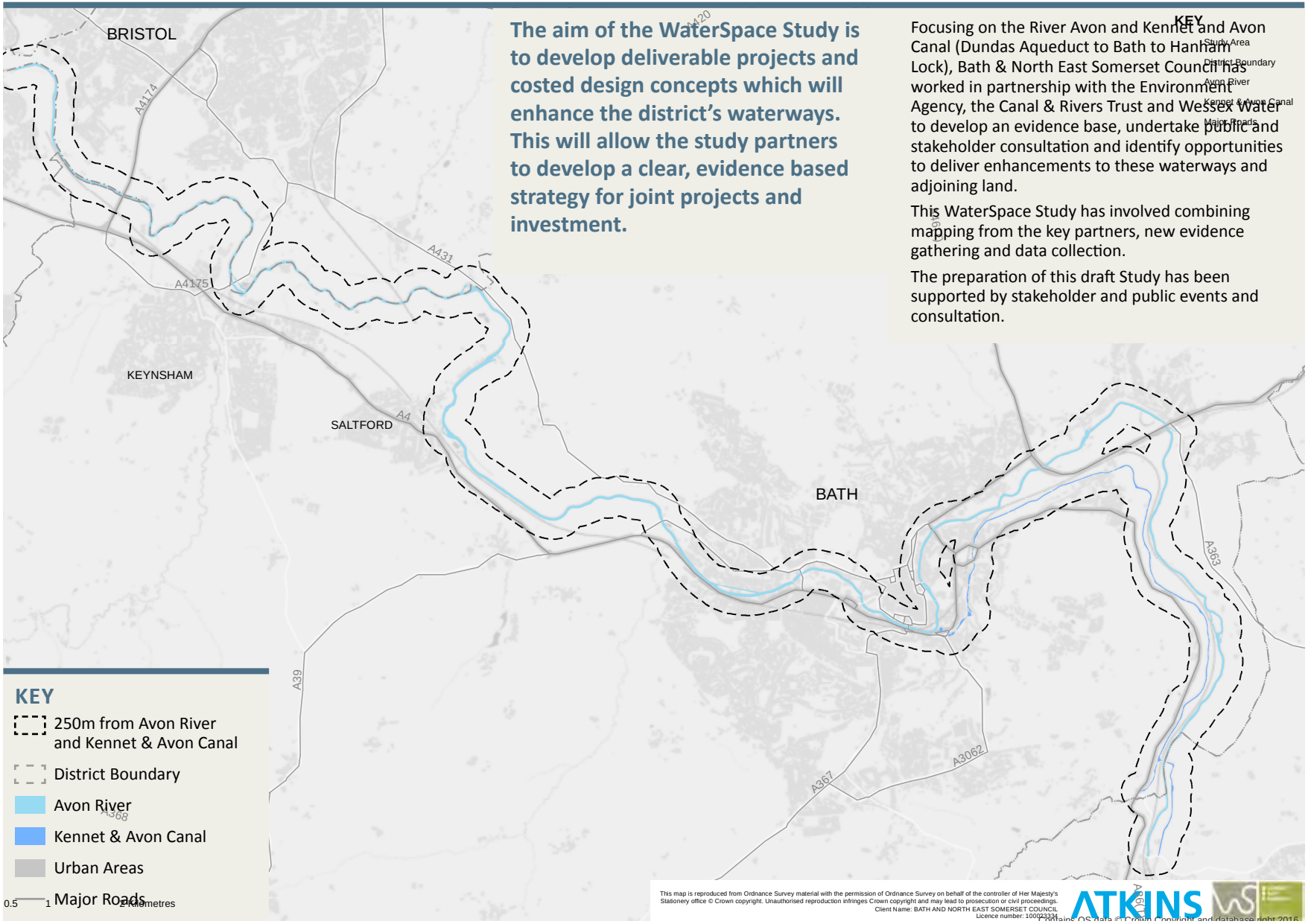
WATERSPACE STUDY AREA & THEMES

The aim of the WaterSpace Study is to develop deliverable projects and costed design concepts which will enhance the district's waterways. This will allow the study partners to develop a clear, evidence based strategy for joint projects and investment.

Focusing on the River Avon and Kennet and Avon Canal (Dundas Aqueduct to Bath to Hanham Lock), Bath & North East Somerset Council has worked in partnership with the Environment Agency, the Canal & Rivers Trust and Wessex Water to develop an evidence base, undertake public and stakeholder consultation and identify opportunities to deliver enhancements to these waterways and adjoining land.

This WaterSpace Study has involved combining mapping from the key partners, new evidence gathering and data collection.

The preparation of this draft Study has been supported by stakeholder and public events and consultation.



ATKINS

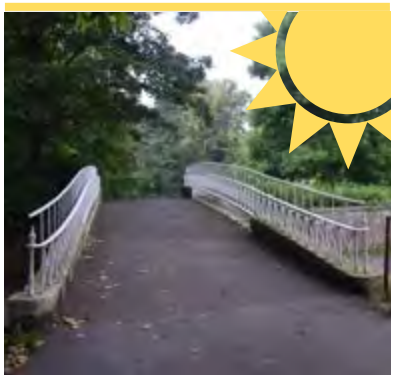
The WaterSpace Study focuses on five themes:

- ASSETS & ASSET MANAGEMENT
- MOORINGS & NAVIGATION
- WATER QUALITY & ENVIRONMENT
- DEVELOPMENT & REGENERATION
- LEISURE & RECREATION

WATERSPACE STUDY EVIDENCE AND ANALYSIS

KEY PARTNER STRATEGIES AND PROJECTS

There are a number of key projects and strategies that the WaterSpace Study relates to, the key ones are summarised below. These have been split in accordance with the WaterSpace Study themes, although a number are cross-cutting in nature.



ASSETS & ASSET MANAGEMENT

Capital and revenue partner funding – including WaterSpace Partner funding via B&NES River Corridor Fund, joint projects, Environment Agency Flood Defence Grants, Canal & River Trust management & maintenance investment

Infrastructure Delivery Programme (B&NES Council) – lists essential and desirable infrastructure items and informs Community Infrastructure Levy and Capital bids.

Planning Obligations funding – site specific funding from new development contained within s106 agreements (B&NES Council).

Bath Flood Gate Conditions Survey (Environment Agency, 2017)

Bath River Avon Flood Defence Options Appraisal (Environment Agency & B&NES, 2016)

Community Infrastructure Levy – Regulation 123 List (B&NES Council) – lists items eligible for funding, which incorporates waterways related projects.

Wessex Water Business Plan is structured in 5 year phases.

+ Additional data on assets and asset management gathered as part of this study, includes a map of all of the study partners assets and land ownerships, see section 6 of this study and full asset maps in Appendix 1.

MOORINGS & NAVIGATION

Review of mooring standards on the River Avon between Pulteney Weir and North Parade Bridge (ROSPA for B&NES Council, 2013)

Boat Dwellers & River Travellers: Task & Finish Group Review (B&NES Council, 2013)

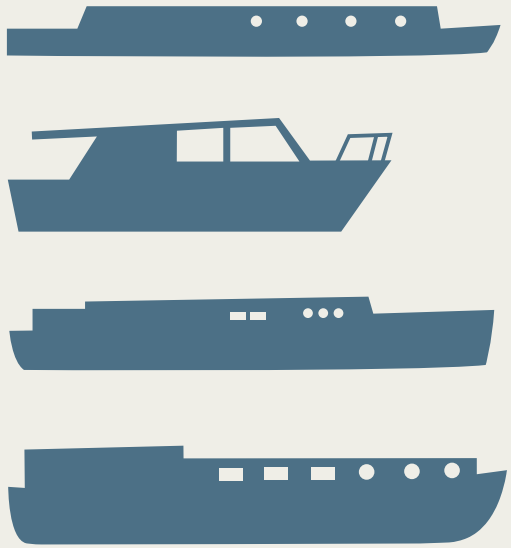
Policy Advice Note: Inland Waterways (Bristish Waterways & TCPA, 2009). Contains helpful guiding principles and checklists for plan making and development control.

Towpath Design Guidance (Canal & River Trust, 2013)

Residential Use of Waterways (AINA, 2011)

Legal report on becoming a navigation authority (B&NES Council, 2013)

Annual Boat Counts (Canal & River Trust, 2013-2016)



Guidance & Advice for Business Boating (Canal & River Trust, 2016)

+ Additional information gathered as part of this study includes results of a boater survey, focus group and 20 one to one interviews with commercial and voluntary sector representatives of the business boating community, see section 6 of this study and Appendices 2, 3 and 4.

KEY PARTNER STRATEGIES & PROJECTS

ENVIRONMENTAL ENHANCEMENT & WATER QUALITY

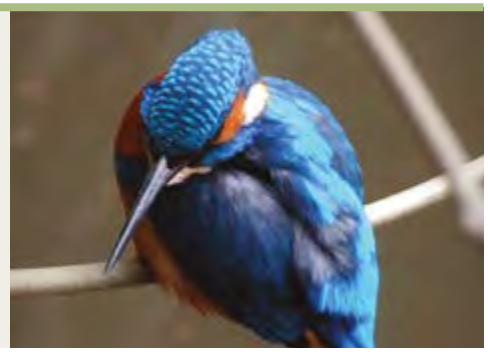
Ecosystems Services Mapping (West of England Nature Partnership) Highlights existing and future ecological networks and land which contributes to water storage and quality

Health & Well Being and Water Quality Research (Wessex Water) Reducing the impact of pharmaceutical drugs on our water systems.

Environmental Investigations Projects (Wessex Water)

Bristol Avon Rivers Trust a community led organisation delivering education, river management and practical river restoration.

Maximising the Ecosystem Value of the River Avon in Bath & North East Somerset (River Restoration Centre for B&NES Council, 2011)



River Avon Corridor Bat Monitoring Study (B&NES, 2017) and previous data collection.

Environment Evidence Base for the Bath Enterprise zone Masterplan (Biodiversity by Design for B&NES, 2015)

Green Infrastructure Strategy (B&NES Council) Identifies the River Avon and Canal Corridor as a key priority for Green Infrastructure enhancements

Bristol Avon Catchment Plan (BACP) including technical evidence review and mapping

Advice note on the Water Framework Directive for the West of England Authorities (Environment Agency, 2013).

Summary information gathered as part of this study can be found in section 6 and in Appendix 7.

LEISURE & RECREATION

Water Event Safety Review (ROSPA for B&NES Council, 2011), with recommendations for water based events such as dragon boat racing.

Avon Towpath Improvements Hanham – Somerdale (B&NES, South Gloucestershire Councils, 2012) which looks at linking towpath improvements on the River Avon Trail.

Bath Transport Strategy (B&NES Council, 2014) which identifies the river and canal corridors as key leisure and commuting routes.

River Avon Trail (Avon Frome Partnership, 2016)

Annual Fisheries Report 2015-16 (Environment Agency) and National Angling Strategy 2013-18 (Angling Trust and the Environment Agency)

Riverside Footpath Feasibility Study (B&NES Council, 2007) which looks at the feasibility of a riverside path north of Pulteney Bridge.

Sustrans Bath Action Plan (B&NES Council, underway) which will consider improvements to the river and canal as sustainable transport routes.

Green Infrastructure Strategy (B&NES Council, 2013) which identify the River Avon and Canal Corridor as a key Green Infrastructure project.

+ Summary information gathered as part of this can be found in section 6 and additional information from sports and leisure users was also submitted as part of the one to one interview process (see Appendix 4).

KEY PARTNER STRATEGIES & PROJECTS

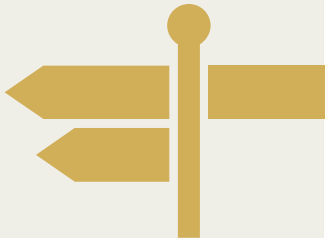
REGENERATION & DEVELOPMENT

Core Strategy (B&NES Council) Strategic planning policies including the identification of the riverside Bath Enterprise zone.

Placemaking Plan (B&NES Council) Planning policies include a new policy on moorings, site allocations for a number of riverside sites, lighting and environmental policies are also relevant

Bath Pattern Book (B&NES Council) Includes a city lighting strategy and design spec for the river path and an urban design proposal for the Pulteney Bridge area.

Bath Wayfinding Review (B&NES Council, 2017)



Public Realm & Movement Strategy (B&NES Council) City Centre Public Realm Strategy

Bath Western Riverside SPD (B&NES Council) Masterplan Strategy for major riverside site which included river edge treatment and new riverside park

Enterprise zone Masterplan (B&NES Council) Regeneration Vision for the Bath Enterprise zone which has informed site allocations

Infrastructure Delivery Programme (B&NES Council) Identifies a number of key infrastructure projects including the Bath River Park, new bridge proposals and Strategic Flood Defence Schemes

River Avon Economy Report (River Corridor Group for B&NES Council, 2011)

Getting Around Bath Transport Strategy and Implementation Plan (B&NES Council, 2015) Supports river taxis, use of the river for leisure and segregated cycle routes to protect the river for leisure use and walking.

World Heritage Site Management Plan (2016) Identifies the river corridor as an area for enhancement and historic interpretation

+ Summary information gathered as part of this study can be found in section 6 and in the Funding and Delivery section of this report. Appendices 1 & 10 also include relevant information.

WATERSPACE PROJECT CONSULTATION AND ENGAGEMENT

During the production of the WaterSpace Study, consultation and engagement has underpinned the development of the evidence base and identification of possible projects.

Input has included strategic overview by key partner agencies, technical input from study partners to detailed input from key stakeholders, as well as wider public involvement as part of the Bristol to Bath River Avon Festival of Nature 2016.

The consultation process is summarised on the following pages of this study and in Appendices 2–6.

STRATEGIC RIVER GROUP

The Strategic River Group was established in 2014 it is a round table group with top level decision makers from key agencies including the Environment Agency, Canal & River Trust, Wessex Water, the River Regeneration Trust, Natural England and B&NES Council. This group seeks to coordinate efforts and funding and is interested in all issues relating to the River Avon and K&A Canal. The SRG has overseen the production of the WaterSpace Study and has been actively engaged in its development.

WATERSPACE STUDY PARTNERSHIP

The Water Space Partnership was formed in January 2016.

Throughout the study a steering group with senior representatives from each of the partner organisations met monthly to provide steer to the project.

This was supplemented by workshops and meetings with each of the partner organisations.

The WaterSpace Study Partnership members:

Bath & North East Somerset Council

Canal & River Trust

Environment Agency

Wessex Water

CONSULTATION TIMELINE

JANUARY
Project starts

FEBRUARY
Partner discussions and scoping

MARCH
Press launch

APRIL – MAY
Informal Stakeholder engagement

MAY – JULY
Boater Survey

JUNE
Festival of Nature Events – River Avon Theme

JULY – SEPT
Formal Call for Ideas

SEPT
1:1 meetings with commercial boating interests
Focus Group waterway users

NOVEMBER
Informal Stakeholder engagement on projects

MARCH
Consultation on draft Study

2016 2017

WATERSPACE PROJECT CONSULTATION AND ENGAGEMENT

RIVER AVON USERS CONSULTATIVE COMMITTEE (RAUCC)

RAUCC is made up of groups representing river users and meets quarterly.

Members include angling groups, private Marinas, canoeing groups, rowing clubs, Kennet & Avon Canal Trust, Parish Councils, Inland Waterways Association, Avon Frome Partnership.

Throughout 2016 the group was involved in the development of the WaterSpace Study.

BOATER OUTREACH

The project team has been working with Julian House outreach workers who work with liveaboard boaters, and other representative groups to publicise the boater survey and focus groups.

RIVER SAFETY GROUP

A multi-agency group made up of representatives from Avon and Somerset Constabulary, Avon Fire and Rescue, Bath & North East Somerset Council, the Environment Agency and the Canal and Rivers Trust. The group is the first point of contact for river safety matters, and recent actions have included:

- Installing 14 new river rescue cabinets along the stretch of river in central Bath with public access from Windsor Bridge to Pulteney Bridge
- Undertaking safety audits which had led to the installation of grablines, ladders, and river railings
- Educating students about the risks presented by the river through the "Got Ya Back" Campaign at Bath College, Bath Spa University and the University of Bath and attending fresher's fairs
- Producing an online river safety film which has had almost 2,000 views on YouTube
- Providing portable grablines for police cars to ensure equipment is on hand to assist with emergency river rescue
- Supporting information campaigns about river safety

WATERSPACE PROJECT CONSULTATION AND ENGAGEMENT

FESTIVAL OF NATURE 2016 & 2017

The Bristol to Bath Festival of Nature 2016 and 2017 had a River Avon theme. 24 events and activities were held by the Water Space Partnership as part of the programme of events in Bath, Keynsham and Saltford. The events were supported by the Water Space Partnership and volunteers.

Around 7000 people attended the Festival of Nature events within the Bath & North East Somerset area.

+ See the programme for the 2016 River Festival in Appendix 11 to this Study

+ A full consultation report is included as Appendix 5 to this Study.

+ You can find us on twitter at @waterspacebath or online at www.waterspacebath.org.uk

THEMED WALKS

WALKING TRAIL MAPS

SOCIAL MEDIA

BBC NEWS

CRAFT ACTIVITIES

WATERBLITZ WATER QUALITY TESTING

LOCAL NEWS AND RADIO

CITIZEN SCIENCE

OPEN STUDIO

LAUNCH EVENT

OPEN DAYS

KEYNSHAM EVENT

POETRY BOARDS

BATH EVENT

BATH CITY CONFERENCE

MONTHLY NEWSLETTER

WATERSPACE PROJECT CONSULTATION AND ENGAGEMENT

EXAMPLE OF WALKING TRAIL MAPS

During 2016, three trial walking trail maps were prepared with local stakeholders and civic groups, working together with the Avon Frome Partnership. The walking trail maps promote different parts of the River Avon at Bath, Saltford and Keynsham.

The maps contain information abou local facilities such as shops, cafe and parks and historic and wildlife facts. The trails were promoted by local businesses and attractions featured on the maps.

+ Three of the themed walking trail maps produced are included as Appendix 8 to this study.

FIELDTRIP HIGHLIGHTS

The Study Partners have been in contact with a number of other areas in the UK who have undertaken similar waterways projects.

In May 2016, the study partners visited projects in London including the Olympic Park, Hackney Wick, Kings Cross and the Paddington Basin, and met with members of the Canal & River Trust's Enterprise team.

Through this approach we have sought to learn best practice and understand practical solutions that have been implemented on other waterways facing development pressure, increasing demand for moorings, opportunities for ecological enhancement and improved public access.

In Summer 2016, the Canal & River Trust's national commercial and business boating teams visited Bath to look at key opportunity sites.

POINTS OF INTEREST

Link boating commerce to complementary operations

Focused on catalyst projects

The importance of a good maintenance regime and demarcation of space for different users

Playful and fun public realm

Boats bring activity and natural surveillance to the river and canal

Electricity points to improve moorings and minimise the impact of generators and wood smoke

BOATERS SURVEY 2016 RESULTS

Between May and July 2016, a survey aimed at those who live aboard boats in the Bath & North East Somerset area was undertaken. Respondents were asked how they use the River Avon and Kennet and Avon Canal, and how their need for better basic services can be met. The survey followed a previous '*Bath and North East Somerset Gypsy, Traveller, Boater, Showman and Roma Health Survey*' in 2013 which examined boater demographics.

The Boaters Survey 2016 ran for six weeks from Tuesday 24th May to Monday 4th July 2016. It looked at how far boaters travel, the type and size of crafts used, and the range of facilities they need whilst on the canal and river in the B&NES area. The aim of the survey was to enable facilities such as water points, sewage disposal and mooring areas to be planned and provided. The survey will help the partners better understand what the needs are for live-aboard boaters and how they can be better provided for.

With assistance from Julian House boater outreach team, the survey was publicised widely in local networks with information distributed via social media (including Facebook), through online forums and websites, via posters, and at local meetings and social events.

102 survey responses were received, which is a statistically significant response rate given that there are approx 700 Boats on the waterways in B&NES, and that many of these are not occupied by liveaboard boaters. The sample is estimated to represent around 20% of the liveaboard boater community (Moss, Naylor Young, 2016).

Our survey template has now been used in London and Wiltshire.

+ The findings of the Boater Survey 2016 are summarised on the following pages of this study. A full report of the Boater Survey including dissemination methods, further analysis and full responses to the survey is included as Appendix 2.

Those who live on-board boats in the Bath & North East Somerset area are being asked how they use the River Avon and Kennet and Avon Canal and how their need for basic services can be better met as part of the Waterspace Study.

ONLINE SURVEY
www.waterspace.org.uk

Hard copies are available on request from Rachel Lambert at Atkins on tel. 01454662840

Closing date:
4th July 2016

Results of the survey will be made available in **September 2016** on the website above.

This is an independent survey commissioned by the Water Space Partnership:

www.waterspace.org.uk

Poster advertising the 2016 Boater Survey that was posted on Facebook, canal and river forum and along the towpath.

BOATER SURVEY 2016 RESULTS

WHAT DO YOU LIKE ABOUT LIVING ON A BOAT?

- 83.3% Peace and tranquillity
- 77.5% Waterway community
- 77.5% Being able to move to new places
- 76.5% Scenery along the canal/river
- 14.7% Artistic inspiration
- 23.5% Other

RESIDENTS PER BOAT

- 33.3% live on their boat alone
- 53.9% live with one other person
- 9.8% have three people living on board
- 2.9% share their boat between four people

HOME MOORINGS

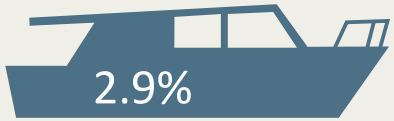
25.5% of those surveyed have a home mooring

22.2% of which are residential moorings

TYPES OF BOAT

84.3% Narrowboat

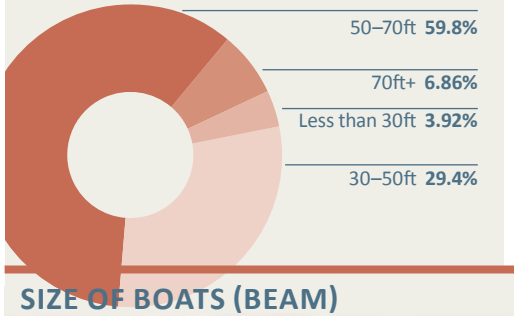
8.8% Wide beam canal boat



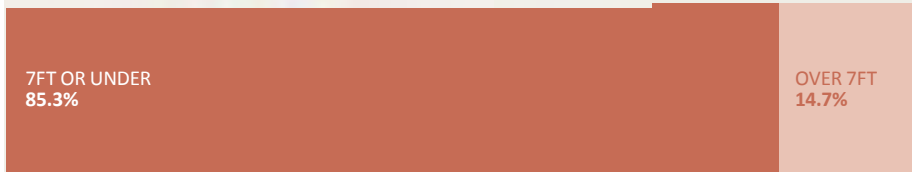
2.9% River cruiser

3.9% Dutch barge

SIZE OF BOATS (LENGTH)

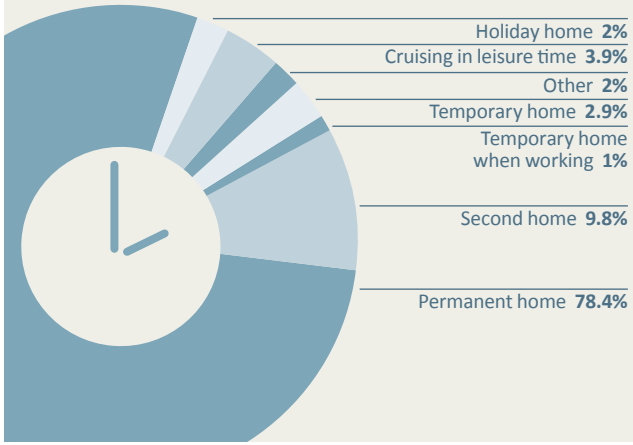


SIZE OF BOATS (BEAM)



BOATER SURVEY 2016 RESULTS

TIME SPENT ON BOARD

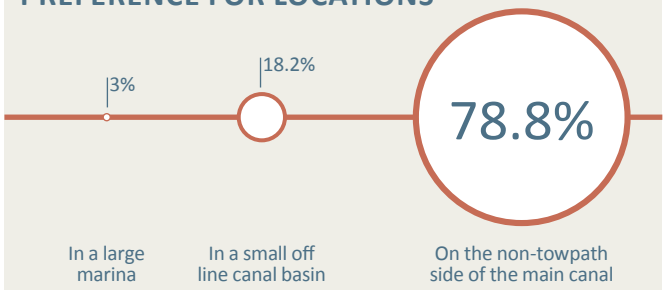


PERMANENT SERVICED MOORINGS

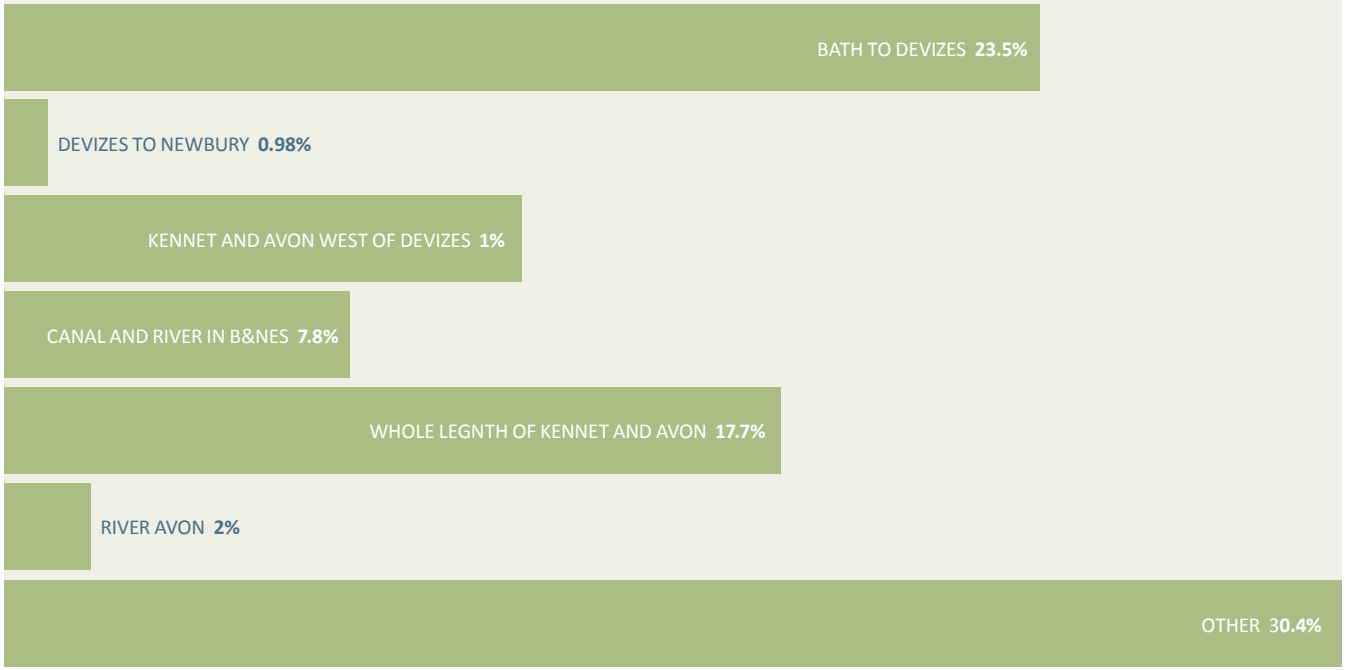
58.8%

of those surveyed would consider taking a permanent serviced mooring if available

PERMANENT SERVICED MOORINGS, PREFERENCE FOR LOCATIONS



CRUISING AREAS



USE OF THE RIVER AVON

36.3%

of those surveyed regularly cruise on the River Avon

SHORT TERM SERVICES FOR CRUISING

63.7%

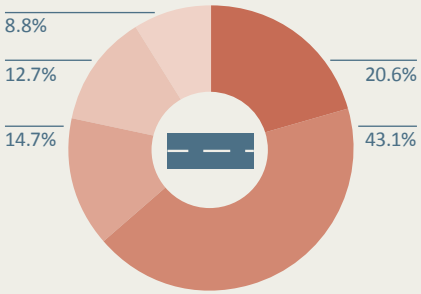
of those surveyed would consider paying for short term serviced moorings while cruising

23.5%

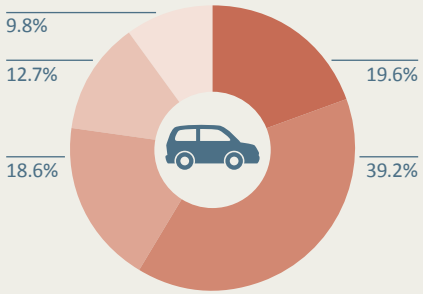
would not consider short term services

BOATER SURVEY 2016 RESULTS

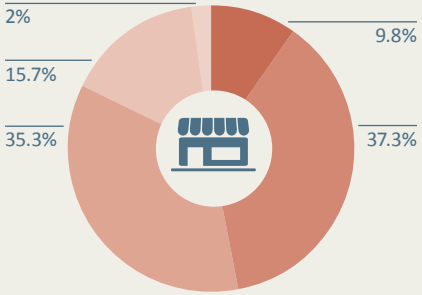
IMPORTANT FACTORS FOR MOORING LOCATIONS



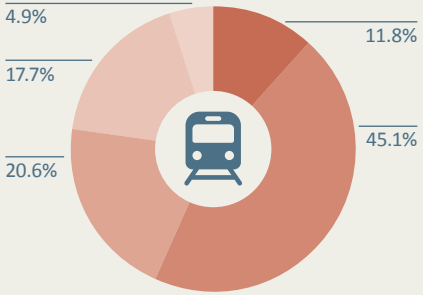
Road access



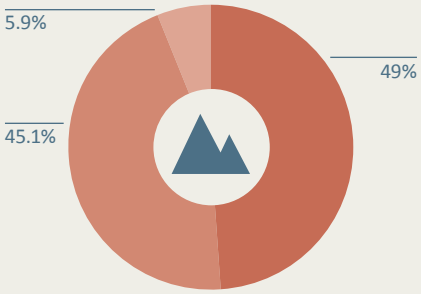
Parking



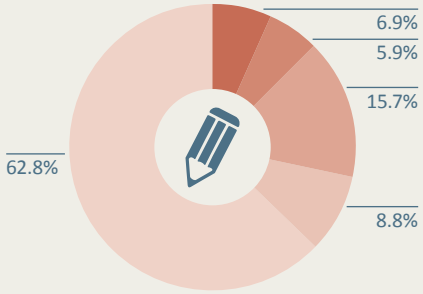
Local shops



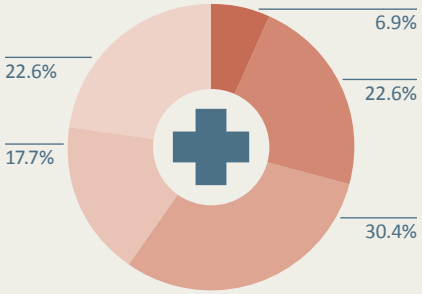
Public transport



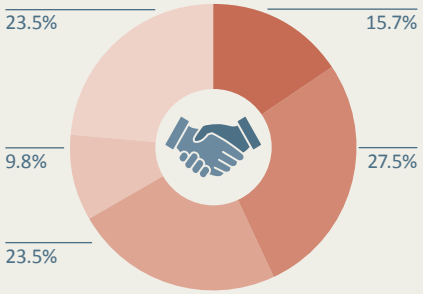
Attractive scenery



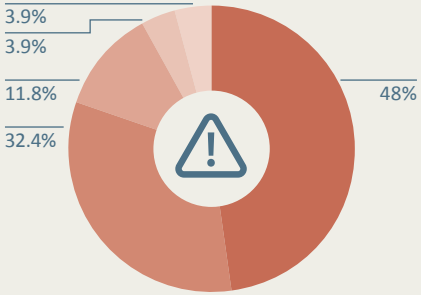
Schools



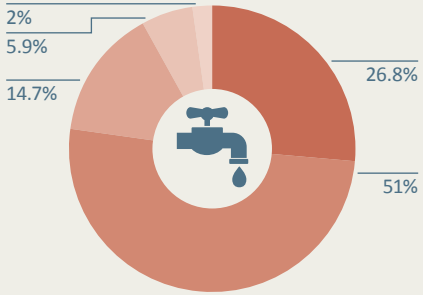
Health services



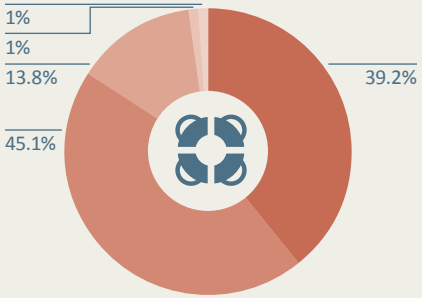
Employment



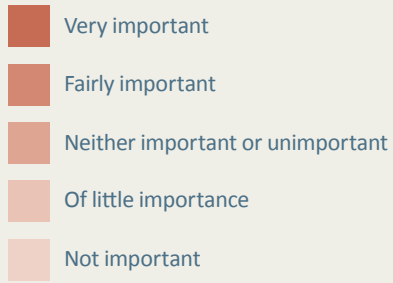
Avoiding flood risk



Services



Safety



BOATER SURVEY 2016 RESULTS

Some of the survey questions were open questions, allowing respondents to respond in free text, a range of key words and responses are shown here.

The full responses to all questions can be found in Appendix 2.

WHAT DO YOU LIKE ABOUT LIVING ON A BOAT?

- Live sustainably
- Low cost housing
- Close to nature and wildlife
- Boat handling
- Working locks
- Travelling
- Living on water
- Canal history and heritage

WHAT WOULD YOU CONSIDER A REASONABLE PRICE PER MONTH FOR PERMANENT, SERVICED MOORINGS?

Figures ranged between

£50-£5000

Just under

50%

of respondents said they would pay £200 or more month

Just under

20%

of respondents said they would pay £300 or more month

10%

said they would pay £50 or less per month

WHAT WOULD ENCOURAGE YOU TO CRUISE THE RIVER AVON MORE REGULARLY?

- Accessible moorings
- 48 hr Visitor moorings
- Safety measures
- Boat handing experience
- Pontoons available for safety at times of spate
- More services
- Facilities
- Pump outs
- Water & Elsan points

BOATER SURVEY 2016 RESULTS

WHAT ARE YOUR TOP 3 IMPROVEMENTS TO THE RIVER AND CANAL NETWORK?

- More moorings
- Better moorings
- Disabled moorings
- Enforcement of moorings to comply with law
- Towpath improvement
- More facilities – Elsan points, rubbish, water and showers
- More dredging and vegetation maintenance
- Better understanding between different users
- Fewer hire boats
- Looking after heritage
- Basic rights of boaters to be respected

"Good hard standing and mooring loops where necessary."

"More residential moorings, they don t need to be serviced, but so many people are forced to live on legal grey areas, either because their mooring isn t really residential or because they are forced to try and CC [continuously cruise]."

"More water points that actually work (often taps are broken, water leaks, pressure is very low takes hours to fill up by which time it s dark). More sanitary points that actually work. Proper recycling (all types of recyclables) and collection to happen more regularly – often they are bursting, smelly and unsightly and this reflects badly."

"Maintenance including vegetation control entire network."

"The number of hire boats and hire boat companies has increased from around 40 to around 200 in the stretch from Bath to Devizes."

BOATER SURVEY CONCLUSIONS

In summary, the survey findings suggested for a majority of liveaboard boaters:

- Living on board is seen to offer a distinct, high quality lifestyle
- Most boats are narrow beam and long (over 50 feet) but provisions is needed for shorter and wider craft as well
- A significant minority of boaters with no home mooring would consider one if an appealing options were offered – offside on the canal is favoured rather than marina berths
- For most liveaboard boaters cost is a factor but it is not the defining reason for their choice, and correspondingly other low cost options have limited appeal
- Access to roads, parking, public transport and services is very significant in choice of short term mooring location
- Nearly all boats are owned outright by their occupants
- There is demand for improved facilities and services including additional moorings
- There are real barriers to the use of the River Avon by liveaboard boaters, notably the lack of accessible moorings

RESIDENTS' SURVEY 2017 RESULTS

In 2017, a representative sample of over 1000 B&NES area residents were asked questions about waterways as part of the Council's Annual Voicebox Survey. The results are presented here. The results note the frequency of daily and weekly use if the waterways, mainly for walking and cycling. They also highlight opportunities to get more younger people to be more engaged in volunteering and community projects.

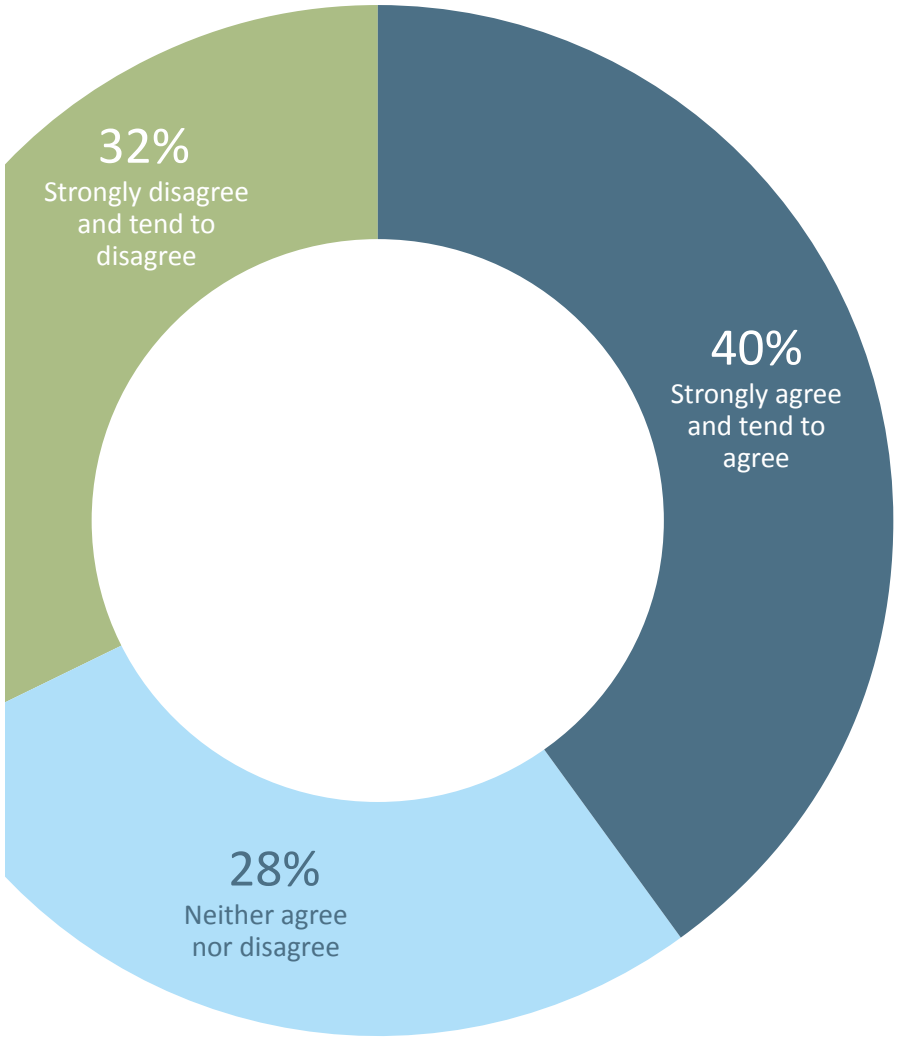
TO WHAT EXTENT DO YOU AGREE OR DISAGREE WITH THE FOLLOWING STATEMENT

'The waterways (rivers, streams and canals) in Bath & North East Somerset are being used to their full potential in terms of recreational activities such as water sports, walking and cycling'?

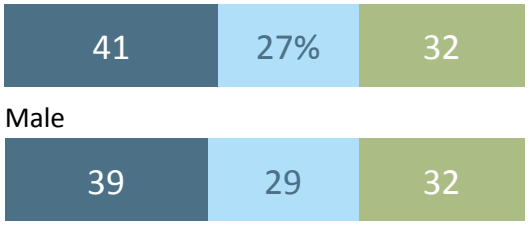
Overall, 40% of respondents agreed that waterways in Bath & North East Somerset are being used to their full potential in terms of recreational activities, and 32% disagreed with this statement.

A slightly higher proportion of women (41%) agreed with the statement compared to men (39%).

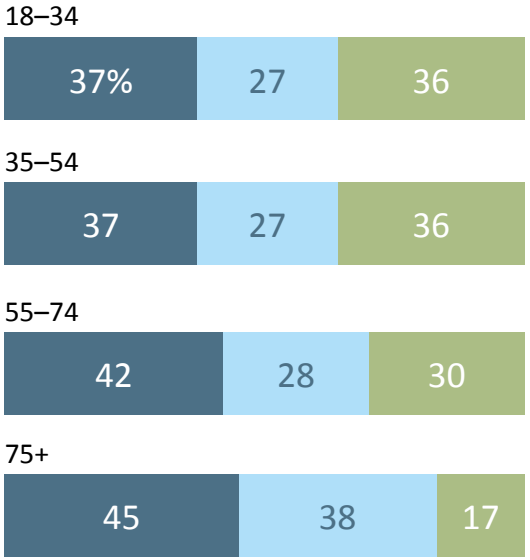
The results also indicate that older people are more likely to agree with this statement than younger people, as 45% of 75 + year olds agreed with the statement, and 42% of 55–74 year olds, compared with 37% of 18–34 and 35–54 year olds.



RESPONSE BY GENDER



RESPONSE BY AGE



RESIDENTS' SURVEY 2017 RESULTS

How often do you use the canals, rivers or streams, or the paths alongside them in Bath and North East Somerset for the following activities?

Walking was the activity that the greatest proportion of respondents said they used B&NES waterways or paths alongside them for, at least once a week or almost everyday, 33% compared with 10% who said they used them that frequently for cycling, and less than 1% for both canoeing/rowing, and canal boating.

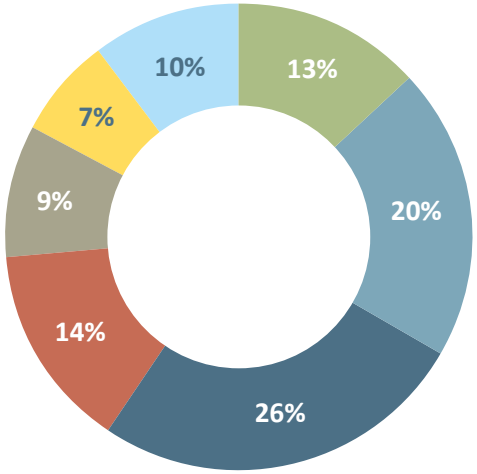
A greater proportion of men said they used the waterways or paths alongside them at least once a week or almost everyday for walking (36%) and cycling (11%), compared to women (29%, 9%). A greater proportion of younger people (18–34 and 35–54 year olds) said they used the waterways or paths alongside them at least once a week or almost everyday, for walking (37% for both age groups) and cycling (12%, 13%), compared to older people (55–74 and 75+ year olds), (31% and 14% walking, 14% and less than 1% cycling).

The other activities respondents said they used the B&NES waterways or paths alongside them for were: bird and wildlife watching, fishing, horse riding, running/ jogging, painting, swimming, model boats and activities with children.

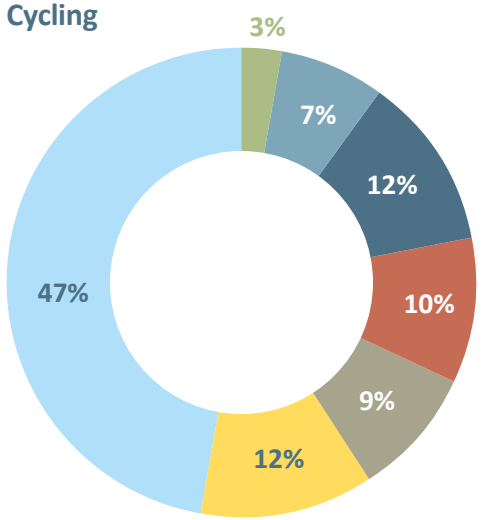
Key

- Almost every day
- At least once a week
- About once a month
- With the last six months
- Within the last year
- Longer ago
- Never

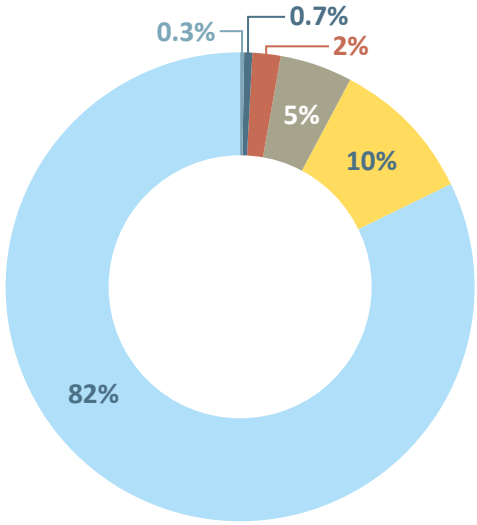
Walking



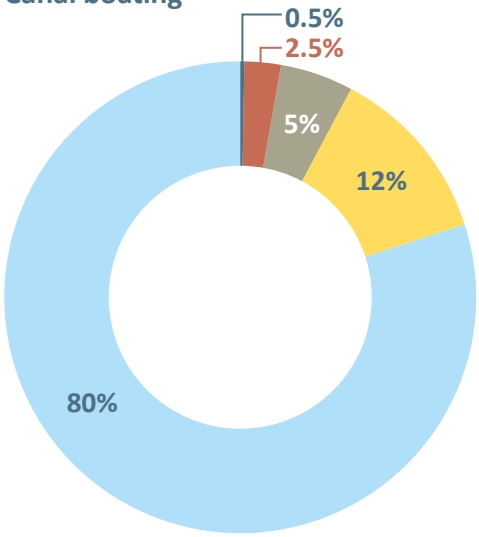
Cycling



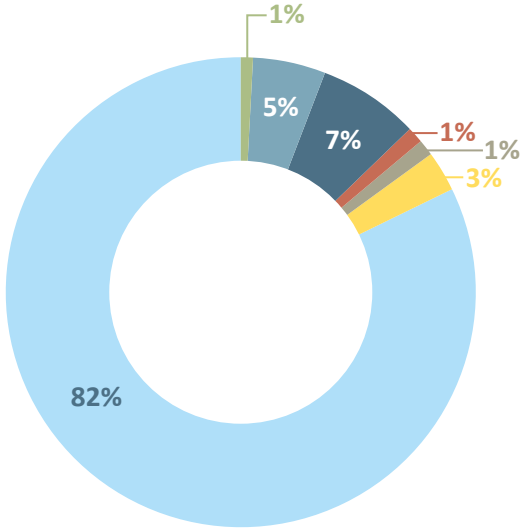
Canoeing/rowing



Canal boating



Other



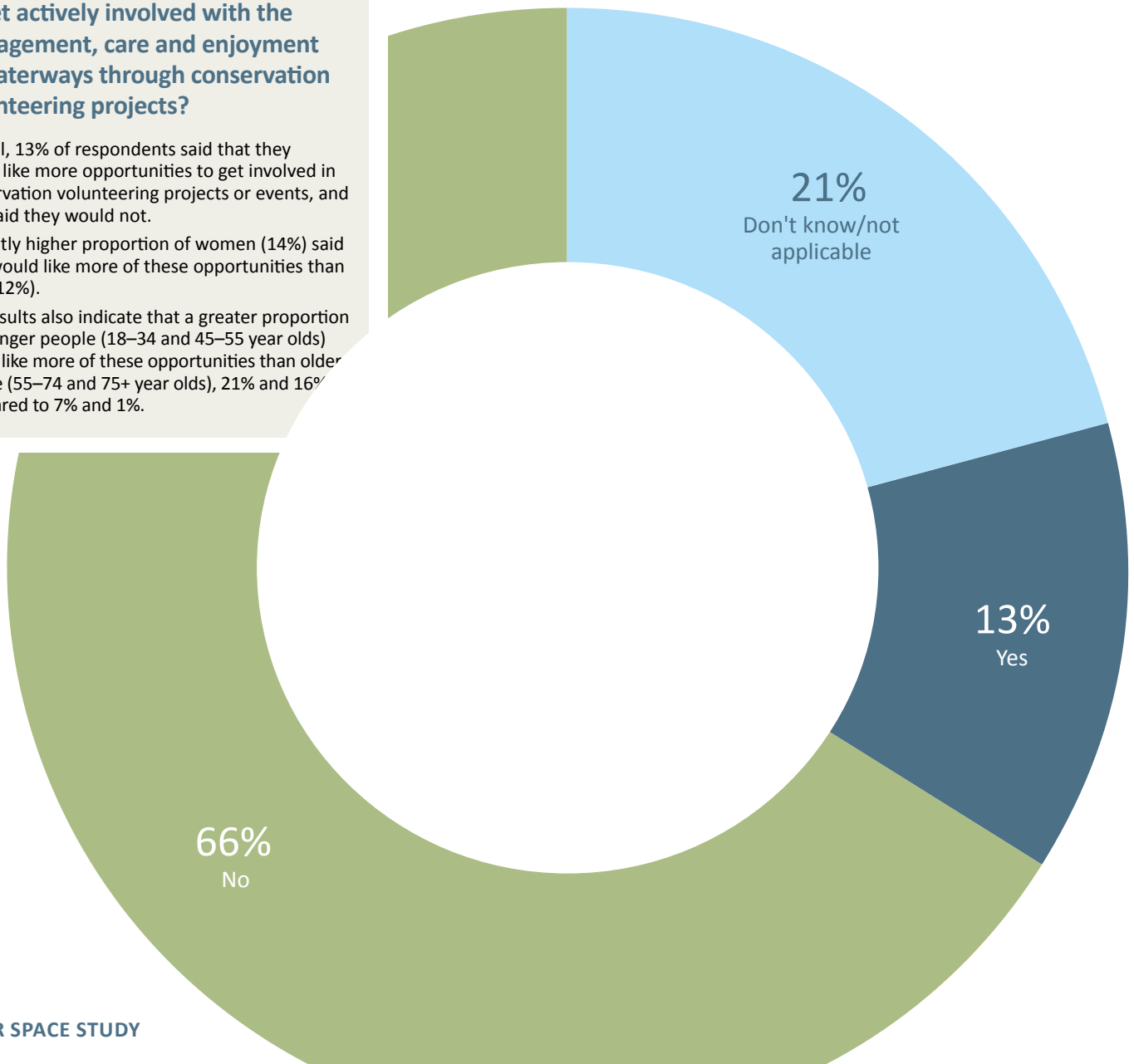
RESIDENTS' SURVEY 2017 RESULTS

Would you like more opportunities to get actively involved with the management, care and enjoyment of waterways through conservation volunteering projects?

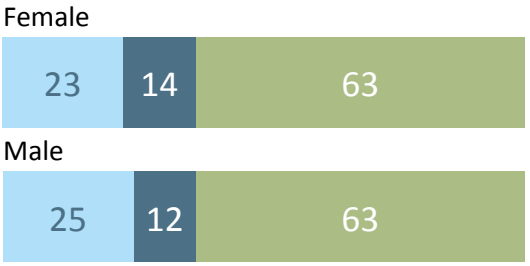
Overall, 13% of respondents said that they would like more opportunities to get involved in conservation volunteering projects or events, and 66% said they would not.

A slightly higher proportion of women (14%) said they would like more of these opportunities than men (12%).

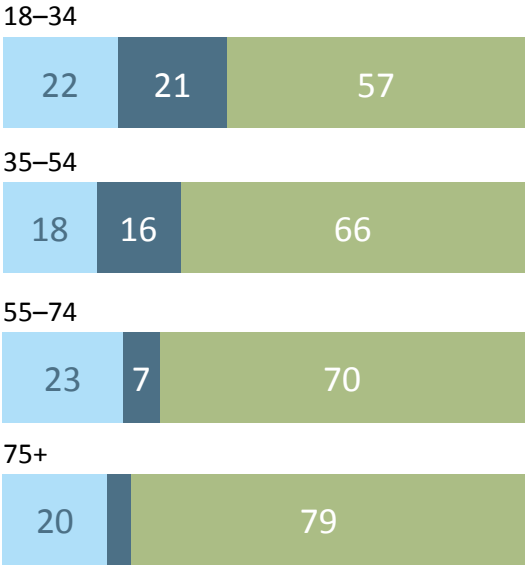
The results also indicate that a greater proportion of younger people (18–34 and 45–55 year olds) would like more of these opportunities than older people (55–74 and 75+ year olds), 21% and 16% compared to 7% and 1%.



RESPONSE BY GENDER



RESPONSE BY AGE

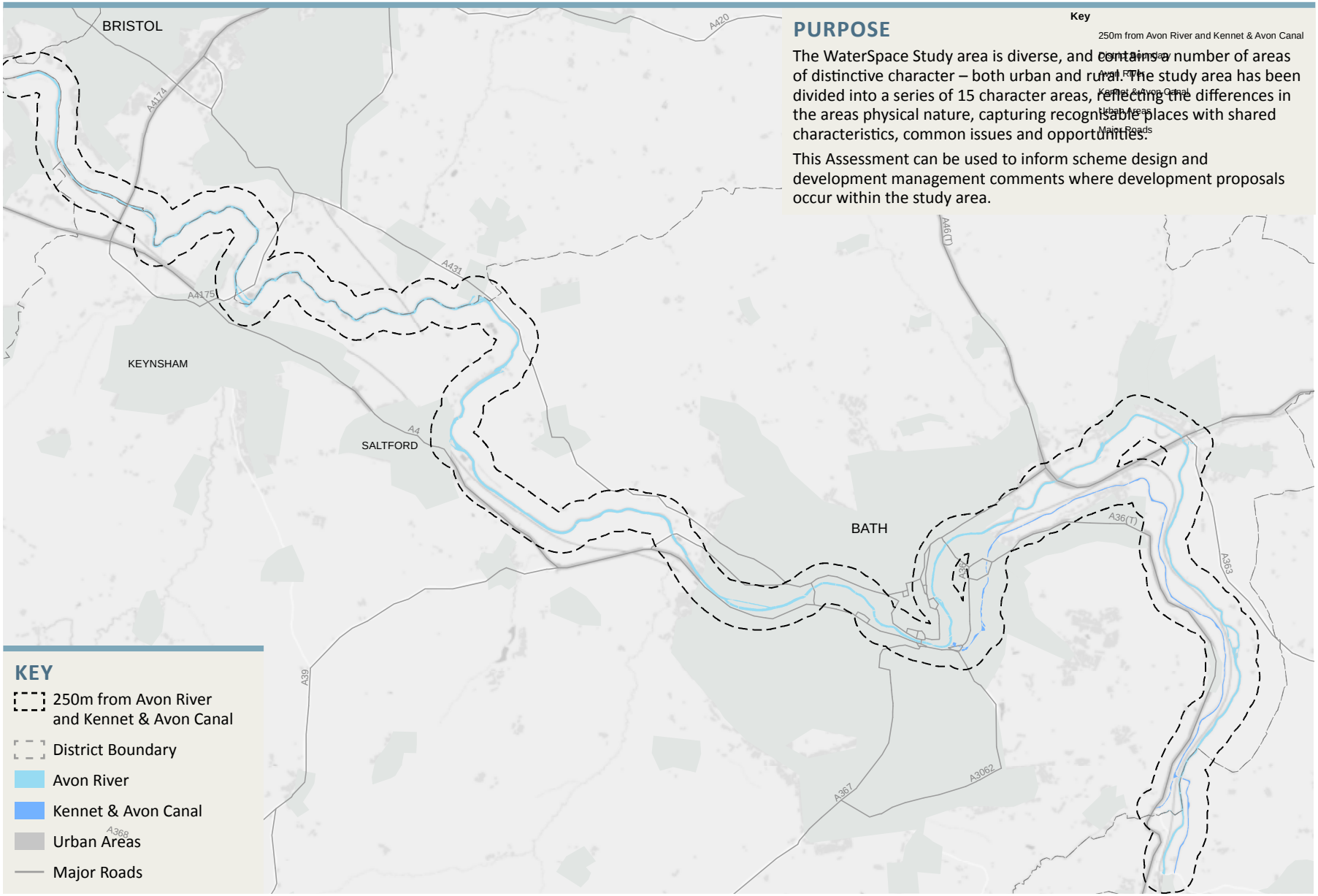


CHARACTER ASSESSMENT: OVERVIEW

PURPOSE

The WaterSpace Study area is diverse, and contains a number of areas of distinctive character – both urban and rural. The study area has been divided into a series of 15 character areas, reflecting the differences in the areas physical nature, capturing recognisable places with shared characteristics, common issues and opportunities.

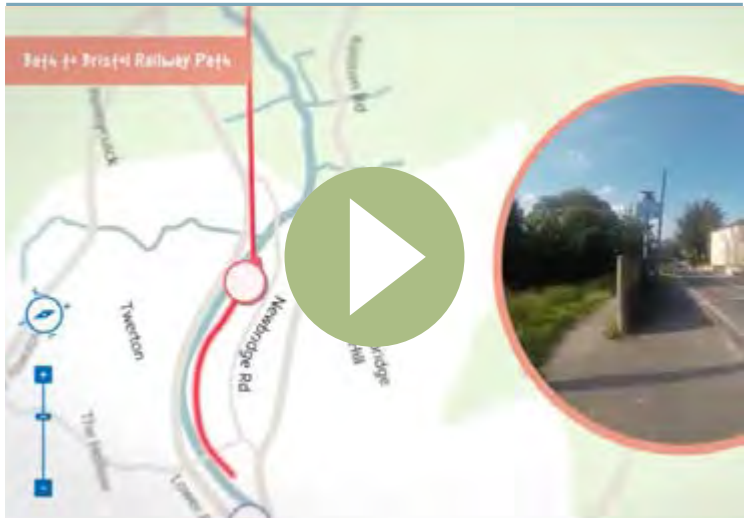
This Assessment can be used to inform scheme design and development management comments where development proposals occur within the study area.



CHARACTER ASSESSMENT: VIRTUAL TOURS

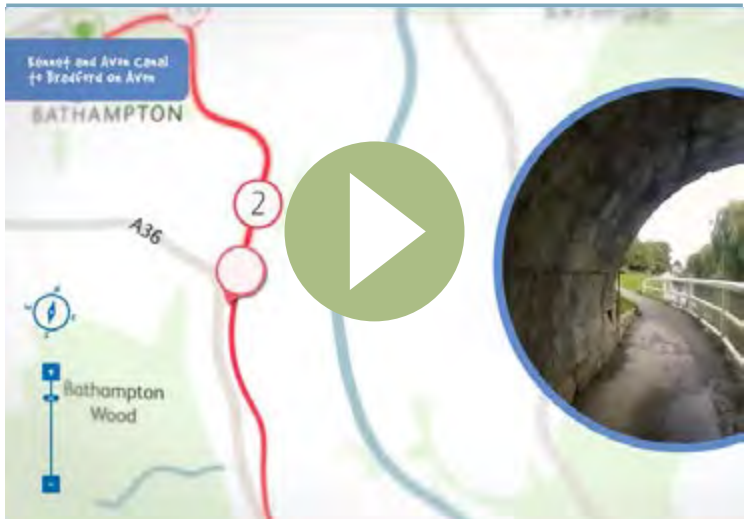
B&NES Council has prepared video footage showing of the Kennet and Avon Canal and the River Avon corridors so you can experience movement through these before you plan a cycle trip or walk.

B&NES Council together with Canal and River Trust volunteers and a local mapping company have created a river view mapping with 360 degree photography taken from a boat. Similar to street mapping this starts at Pulteney Weir and ends at Saltford, therefore the area in between can be viewed from the river. A short video was prepared to show how this was done and an extract image from the mapping is reproduced here (right).



Virtual Tour of the River Avon through Bath

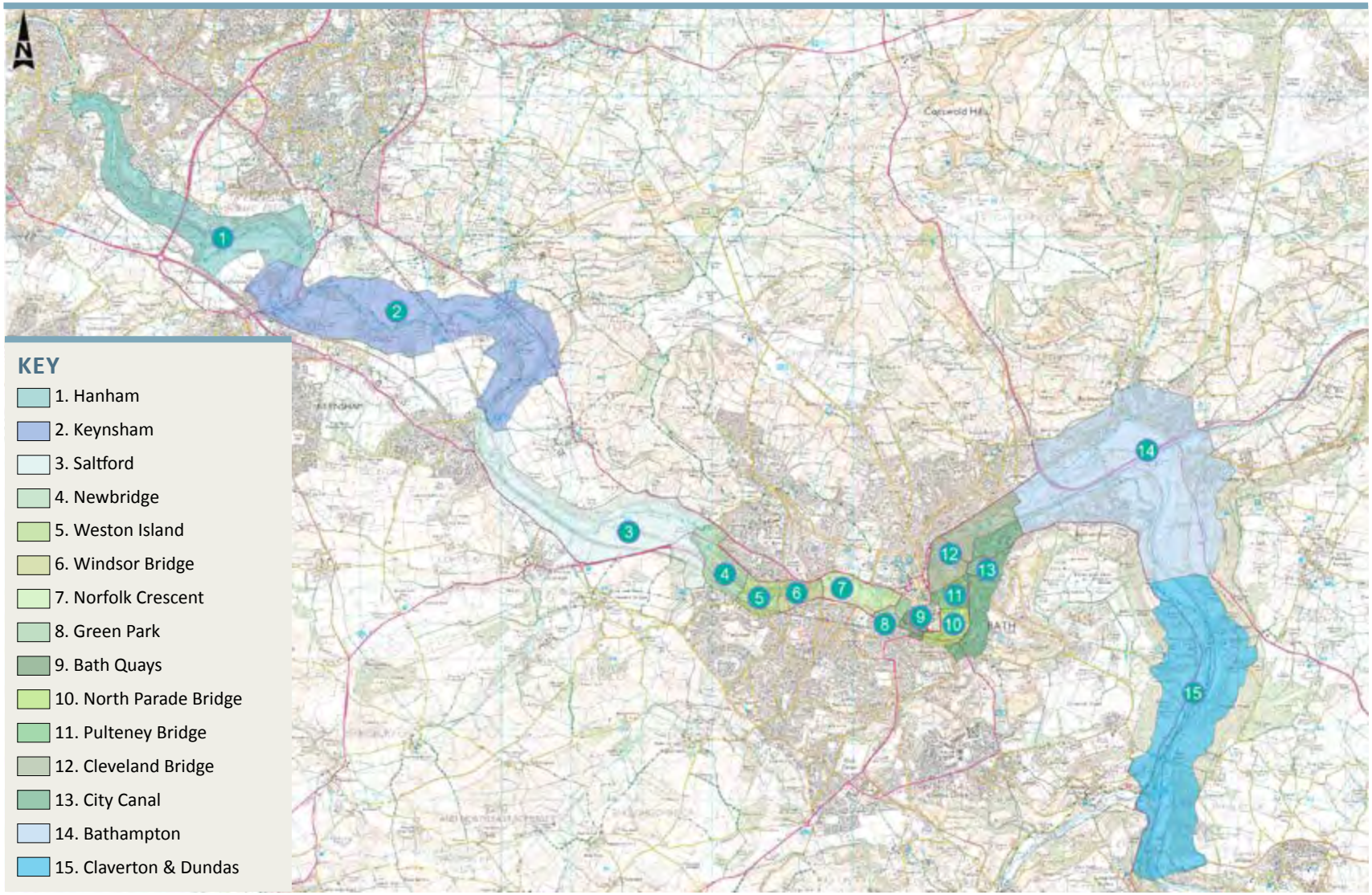
Virtual Tour of the River Avon through Bath



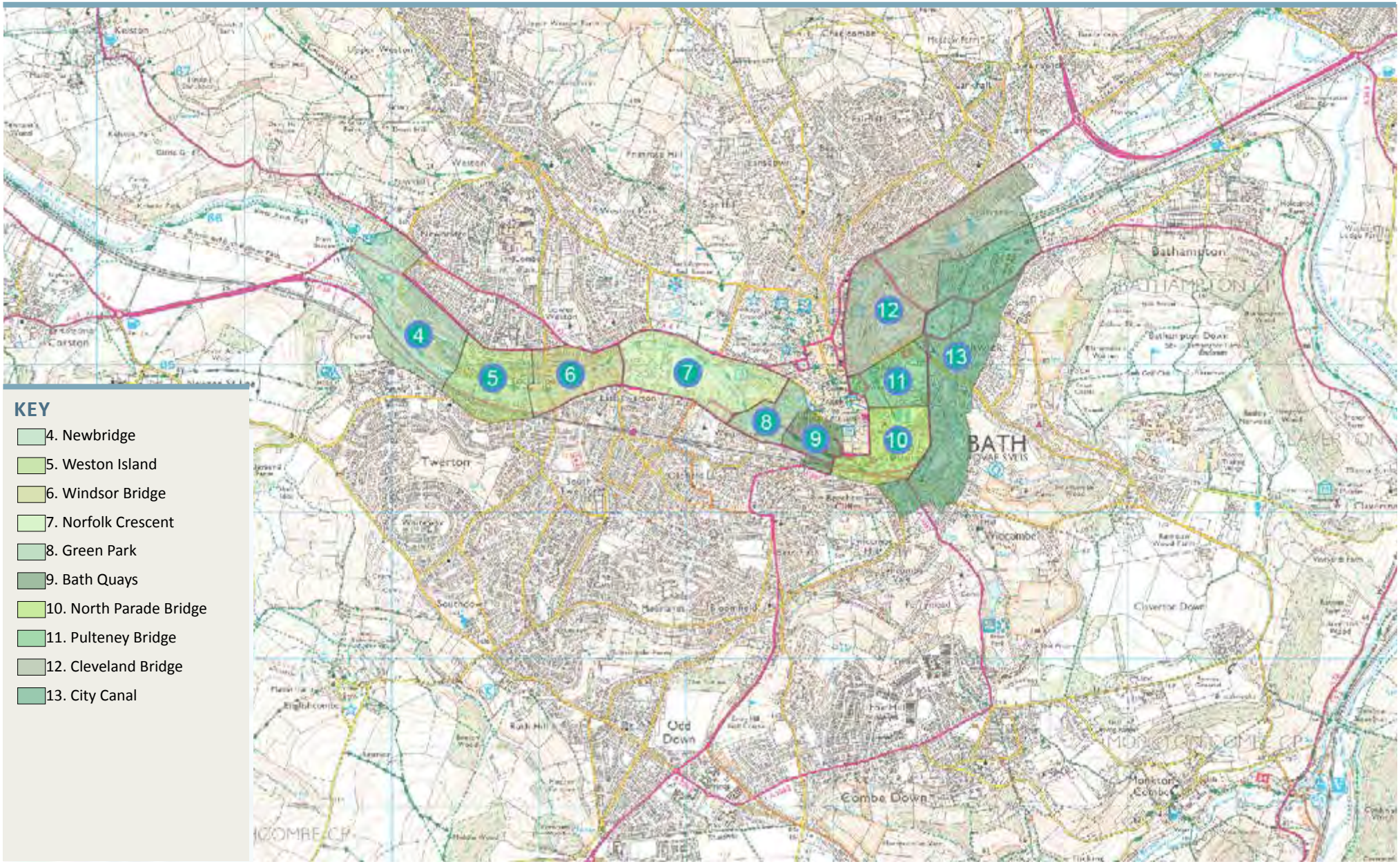
Virtual Tour of the Kennet & Avon Canal within Bath & North East Somerset

CHARACTER AREAS: WHOLE STUDY AREA

DUNDAS | CLAVERTON | BATHAMPTON | BATH | SALTFORD | KEYNSHAM | HANHAM



CHARACTER AREAS: BATH CITY



KEY

- 4. Newbridge
- 5. Weston Island
- 6. Windsor Bridge
- 7. Norfolk Crescent
- 8. Green Park
- 9. Bath Quays
- 10. North Parade Bridge
- 11. Pulteney Bridge
- 12. Cleveland Bridge
- 13. City Canal

CHARACTER AREAS

DUNDAS — CLAVERTON — BATHAMPTON — BATH — SALTFORD — **KEYNSHAM** — **HANHAM**

AREA 1: HANHAM

Characteristics:

- Meandering tree lined river edge
- Small clusters of residential areas
- Gently sloping topography
- Intimate riverside walkways with dense tree cover
- Steep vegetated riverside banks with naturalised woodland along the water's edge

Issues & Opportunities:

- Lack of pathways
- Need for more clear/extensive access

AREA 2: KEYNSHAM

Characteristics:

- Undulating, steep banks with varying degrees of exposure and enclosure
- Small scattered urban settlements and light industrial
- Cadbury's Somerdale Factory re-development is a prominent feature
- Generally small to medium sized fields enclosed by fencing and hedging
- Patchwork of arable and grassland (Keynsham Hams)
- Water habitat areas (Otters)
- Scattered woodland areas
- Wide open valley with a generally flat valley floor

Issues & Opportunities:

- Informal moorings – boats tied to trees
- Lack of pathways – need for extended access along river corridor
- Meeting points of Bristol-Bath Cycle route and the River have the potential to be recreation hubs

CHARACTER AREAS

AREA 3: SALTFORD

Characteristics:

- Patches of arable fields with bordering hedgerows
- A mixture of informal and formal mooring areas
- Light industrial/businesses
- Steeply sloping banks towards the river, with low-lying shrub vegetation and mature riverside trees
- Views open into large areas of grassland with bordering hedgerows
- Riverside recreation & leisure (Saltford Marina, Boat & rowing club, fishing, pubs/ restaurants)
- Small pockets of riverside residential areas

Issues & Opportunities:

- Overgrown areas limiting access and views for local residents to the river corridor
- Steep valley sides limit accessibility
- Lack of pathways and pedestrian access along much of the riverside

AREA 4: NEWBRIDGE

Characteristics:

- Natural river edge with varying slopes down to water level
- Wooded feel – contained and intimate corridors
- Tree-lined banks with wooded slopes
- Semi-rural with glimpses of countryside
- Firm river path with natural woodland appearance
- Leisure activities include: Informal fishing, cycling, walking, rowing

Issues & Opportunities:

- Trading estate buildings, plots & boundary fences baring no relating to the river
- Exposed waste, fencing and parking areas degrade the natural setting
- Engineered, angular river embankments which detract from the surrounding landform
- Surface conditions of path & width

CHARACTER AREAS

AREA 5: WESTON ISLAND

Characteristics:

- Enclosed and intimate Weston Cut Canal
- Well-treed, with trees lining much of the Weston Island
- Naturalised river banks with the exception of the lock weir and island
- Narrow river pathway characterful of the natural area
- Sheet-piling at Weston Island with overhanging vegetation
- Areas of residential mixed with trading estate & impermeable boundaries
- Significant presence of wildlife (birds, fish)
- Leisure activities include: Informal fishing, cycling, walking, riverboats

Issues & Opportunities:

- Deterioration of tree cover
- Trading estates relate poorly to surrounding areas
- Graffiti/ signs of antisocial behaviour
- Narrow paths make cycling and walking difficult
- Surfaces are varied progressing westwards

AREA 6: WINDSOR BRIDGE

Characteristics:

- Open character with views of the countryside and Cotswolds
- More open river valley with relatively well treed feel
- Trees and shrubs line much of the river banks
- Deterioration in tree cover – lacking benefits for wildlife
- Buildings meet closely to the bankside
- Soft and sloping vegetated river banks
- Tarmac path surfacing
- Small-scale residential open spaces (Windsor Villas) with open grassed areas framed with park trees

Issues & Opportunities:

- Little access to right Bank
- Lack of quality spaces for wildlife
- Trading estate poor relationship with river edge
- Access via steep steps adjacent to bridge only
- Narrow Path Width

CHARACTER AREAS

AREA 7: NORFOLK CRESCENT

Characteristics:

- Open area lacking in trees/vegetation cover
- Influenced by redevelopment on both sides of the river
- Overall hard and engineered/urban feel, dominated by the built environment, 3–5 storeys
- Sheet piling on river banks with limited softening vegetation
- Railing and fencing along river edge for safety

Issues & Opportunities:

- Exposed fencing/ walls have strong negative visual impacts
- Lack of habitat provision
- Inconsistent tarmac surfacing of pathways
- Lack of signage
- Safety and waterside isolation in some places
- Lack of views to/from river corridor from surrounding areas

AREA 8: GREEN PARK

Characteristics:

- New path gives good connectivity to Green Park
- Trees lining river boundary form a wooded entrance and exit to the area
- Attractive Georgian buildings set amongst the trees
- Sheet piling on much of the banks with overhanging vegetation

Issues & Opportunities:

- Poor signage
- Poor linkage to surrounding residential areas
- Generally mixed river banks with stone, concrete, sheet piling
- Lack of views to/from river corridor

CHARACTER AREAS

AREA 9: BATH QUAYS

Characteristics:

- Formal public park with tiered steps wide path and trees, recently built to incorporate a flood defence with a new park
- Open views to the water and level access to boats
- Strong sense of industrial history with quality natural green space
- Gradient from natural to urban leading to the city centre

Issues & Opportunities:

- Decreased ecological presence with increased urban development
- Opportunities to increase boat based activity and commerce
- Opportunities to widen the towpath and improve connectivity to green space adjoining Green Park road
- Opportunities to link the large verge into Green Park and provide better linkage between upper and lower levels
- Opportunity to increase urban riverside activities
- River boats and canal interface could be celebrated

AREA 10: NORTH PARADE BRIDGE

Characteristics:

- Soft edged left banks with a steep well-treed slope rising to the city centre
- Eastern bank is hard with stone cladding and a significant level change
- Wide river path promenade, narrower continuing upstream towards Skew Bridge
- Spots of grass/treed banks between the canal and road
- Banks transition into sheet piling and well vegetated
- Backdrop of classical architecture characteristic of Bath
- Tree-lined river corridor with views to the west bank, weeping willows overhang into the river

Issues & Opportunities:

- Lack of ecological connectivity
- Poor entrance/access to the canal
- Dark, overshadowed pathways
- Graffiti and littering

CHARACTER AREAS

AREA 11: PULTENEY BRIDGE

Characteristics:

- Iconic views of Pulteney Bridge and the Pulteney Weir
- From an elevated position the area engages with its backdrop of containing wooded hillsides
- From down the river a greater sense of intimacy and containment formed by riverside trees set back behind paths
- Left bank opens up into Parade gardens, a large well maintained public open space

Issues & Opportunities:

- Poor/ cheap 1970s materials uncharacteristic of the historic views in the west
- Unclear sense of public access: Path interrupted by buildings and fencing
- Limited opportunity for engagement with the river edge: paths raised and offset from water edge with barriers
- Unused waterside areas / under-utilised public realm areas around Pulteney Bridge

AREA 12: CLEVELAND BRIDGE

Characteristics:

- Commonly experienced through tourist boats due to limited access
- Wooded and contained corridor of increasing rural character
- Strong sense of history and privacy/secrecy
- No public access on right bank, however a small area open to the public on St. John's Road – however visually disconnected
- Bat roost under Cattle Market
- Wooded, soft-edged river banks with overhanging trees provide ideal habitats

Issues & Opportunities:

- Erosion of banks due to increased boat use – habitat damage and reduced tranquillity
- Limited/no public access
- Opportunity to increase visual connectivity to and from the river where the riverside is physically inaccessible
- Opportunities for access using the waterways via river taxi and canoe

CHARACTER AREAS

AREA 13: CITY CANAL

Characteristics:

- Contained, intimate pathways: Narrow but adds character, but difficult for some users
- Strong sense of privacy and secrecy
- Strong presence of history
- Tall stone walls create a strong sense of direction
- Bold, imposing buildings and bridges on steep, artificial banksides
- Southern portion has a strong residential character with private plots meeting up to the canal edge
- Many canal boats, cyclists and walkers

Issues & Opportunities:

- Poor pavement surfacing in southern portions
- Limited access to surrounding areas
- Poor access points from the roads
- Opportunity to improve Canal and River Trust signage and include nearby destinations in Bath City Centre e.g. Sydney Gardens
- Reports of illegal tree works and use of trees for wood burners.

AREA 14: BATHAMPTON

Characteristics:

- The valley opens up into large open fields, exposing distant views of the Costwolds and woodland
- Mix of suburban and rural character entering Bath
- Farming fields on valley sides enclosed by often untrimmed hedges and trees
- East bank predominantly flat grasslands with steeper, more undulating topography on the west bank
- Recreational fields (King Edward's pavilion and playing fields)
- Wetland/Oxbow lake and woodland nature reserve

Issues & Opportunities:

- Enhance signage – no directions to surrounding settlements, distances etc
- Limited access to riverside and weir due to private land
- Somerset canal moorings

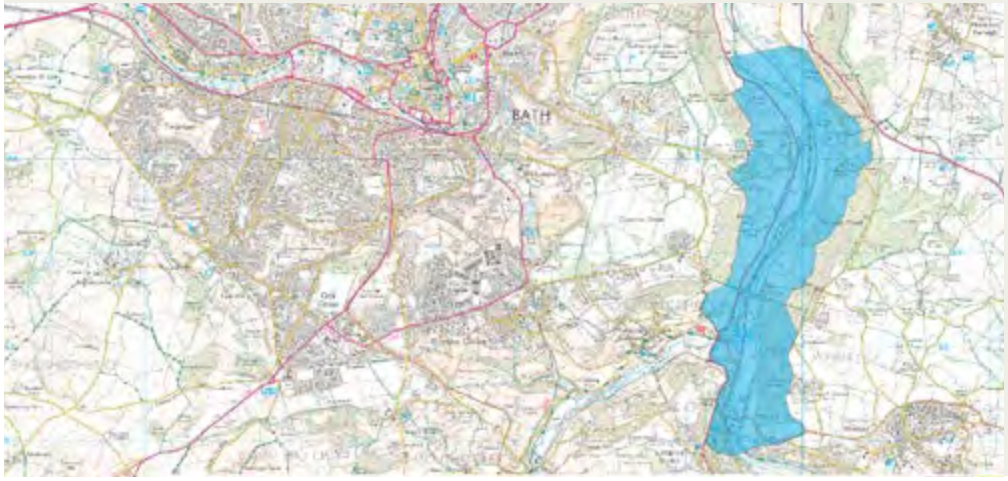
AREA 15: CLAVERTON & DUNDAS

Characteristics:

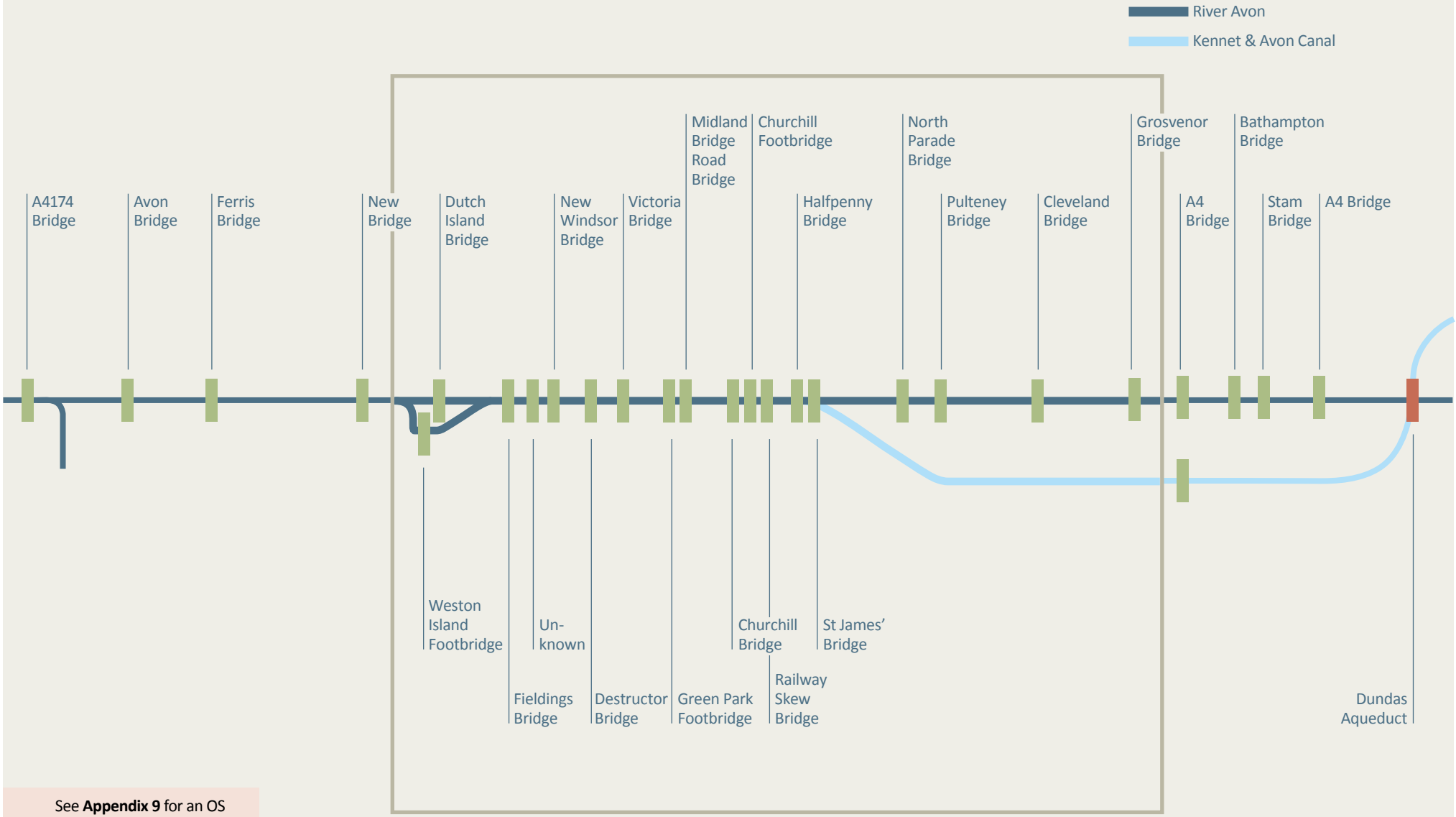
- Large, dense ancient/semi-natural woodland conceal pathways and canal, blocking views down to the river
- Enclosed and intimate woodland areas
- Many formal and informal mooring sites
- Distinctive canal architecture (Dundas Aqueduct & bridges)
- Steep valley sides with large patches of ancient/semi-natural woodland leading down from the canal to the river
- Small residential and farm settlements on valley sides

Issues & Opportunities:

- Damage at Dundas Aqueduct: Crumbling stone edges, weathered furniture
- Poor waste disposal from moorings
- Inconsistent signage
- Informal moorings with no provisions dominate place with associated bankside clutter
- Opportunity to wayfind to connect to Bath and Bathampton



RIVER AVON BRIDGE NAMES



See **Appendix 9** for an OS Map with all bridge names in the Study Area.

HISTORY

Bath's River and Canal have historically shaped the City's growth. There is now a real opportunity to make the River Avon a significant part of City life once more.

KENNET AND AVON CANAL

The Kennet and Avon Canal is a 140 km long waterway that links the Bristol Channel with London, via the River Avon, River Kennet and River Thames.

The Kennet and Avon Canal was built as a safer solution to transporting goods across the breadth of the country. A combination of Atlantic storms along rugged coastlines and naval conflict with France meant that the sea route from London to Bristol was hazardous during the 18th and early 19th centuries. Bath's distinct Georgian architecture was reflected in many aspects of the canal design.

RIVER AVON

Avon is a cognate of the Welsh word for river, *afon*.

The River Avon is 121 km long overall, stretching from its source in South Gloucestershire to the Severn Estuary. The stretch of the River Avon between Bath and Bristol had been navigable since the early 13th century. However, due to the development of watermills it had been forced to close. It was reopened again in 1727 after the introduction of a Parliamentary Bill in 1712.

The River Avon has always been seen as an integral part of the city's character. As well as being a strategic trade route, the river provides areas for relaxation and leisure activities. In the past, the river was the setting for regattas and other entertainments. Downstream, a legacy of distinctive waterside warehouses have been left post-industrial development. Despite previous uses, the riverside environment is currently an underused asset, especially within the city centre. It has great potential to significantly contribute to the Bath's future.

1600s

Saltford Mill: It is thought that the site of Saltford Mill has been used since the time of the Domesday record when two watermills were listed in Saltford. Due to bankruptcy, the mill ceased working in the late 1600s.

1712

A Parliamentary Bill enabled the Bristol to Bath section of the Avon to be made navigable.

1718

Construction of the Kennet and Avon Canal began.

1720s

Avon Street & Milk Street: In the 1720's the first buildings were developed in Kingsmead when Avon Street was laid out as a fine row of houses. However, it quickly declined and the slip at the end became a place for watering horses.

1721

Saltford Mill: The brass company is known to be in occupation from 1721 and from then many additions and alterations have taken place.

1723

Kennet Navigation from Newbury to Reading opened.

1727

Avon Navigation from Bristol to Bath reopened.

1729

Bath's Town Quay was built.

1766

New Quay (known as 'Narrow Quay') was created but was little more than a line of warehouses built along the towing path.

1790

Green Park: At the western end of Kingsmead Meadow, Green Park was created to take advantage of the river views.

1794

The Kennet and Avon Canal Act received Royal Assent – Construction began.

END OF THE 18TH CENTURY

Avon Street & Milk Street: end of the 18th century Kingsmead became absorbed into the hinterland of the rougher Quay areas.

HISTORY

1800

South Quay – The Lower Road to Bristol, below the Old Bridge (now replaced by Churchill Bridge) was an ancient route, but nothing was built alongside the south riverside until the early 19th century. In 1800 a group of houses stood at the foot of the bridge and further along there was a rope walk.

1801

Trading along the canal commenced.

1804

Canal section from Bath to Foxhangers completed.

1805

The quays provided premises for a diverse range of businesses.

1805

Dundas Aqueduct completed.

1810

Canal section from Bath to Newbury opened.

1818

Coal and stone were the main goods being transported along the canal and by 1818 seventy 60-tonne barges were carrying freight on the canal.

1826

Cleveland House was the Headquarters for the canal company, built by the Duke of Cleveland.

1830

South Quay – Towards Sydenham Mead a series of fine villas were built opposite Green Park in the 1830's.

1830s

Leisure and Recreation: Daily passenger steam boats travelled to Bristol.

1841

Despite offering competitive tariffs, the use of the canal started to decline from 1841 as a result of the opening of the Great Western Railway.

1857

In 1857 the first large scale building to be built next to the river was the Stothert & Pitt crane works, known as Newark Works. Many of Newark Works buildings have been retained including Fuller's 1857 Machine shop.

1870s

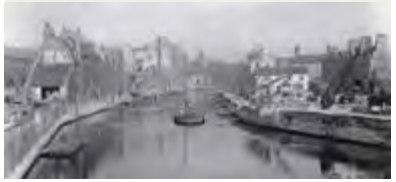
Further along is the Camden Flour Mill built in the 1870's and know later as the Recommissioned Mill. Both buildings have been converted into offices and residences.

1890

Beyond Stothert's Works the villas opposite Green Park were progressively replaced after the 1890's by extensive stone and timber yards known as Sydenham Wharf which grew up next to Midland Bridge. The timber stores of a builder's merchant still occupy this site overlooking the river today.

1892

Demolition of buildings: View of the long demolished buildings along the river.



1900

Industrial buildings towards the Churchill Bridge, such as the Bath City Wagon Works and the Camden Bridge Works were cleared away in the early 20th century.

1905

Leisure and Recreation: Warleigh Ferry

c.1910

Leisure and Recreation: Children fishing on the Kennet and Avon Canal.

HISTORY

1913

Caroden Malthouse concrete silos were added in 1913. The silos were considered a model for grain storage at the time.

1918

North Quay – Trade declined after WWI and although many businesses continued to operate after WWII the quay side was no longer used.

C. 1920

Leisure and Recreation: Pleasure boat on the Kennet and Avon Canal near Avoncliff.

1930s

Avon Street & Milk Street: By the Efforts were made to deal with this notorious slum in the 19th century and the whole district was eventually cleared in the 1930's.

1960s

North Quay served as a carpark until it was demolished in the 1960's.

1960s

Green Park East: The eastern terrace was damaged during WWII and was eventually removed for the construction of the ring road in the early 1960's. During this process the bend in the river was removed and the spoil produced a high bank overlooking the tow path.

1962

Kennet and Avon Canal Trust formed.

1962

Gondola at Pulteney Bridge.

1993

Leisure and Recreation: Swimming at Pulteney Weir as part of the Bath triathlon.

1970s

Development and Regeneration: Construction of Churchill Bridge and the ring road.

1972

Leisure and Recreation: Having been used to fishing standing directly on the old weir, children sample the fishing from the banks opposite Grand Parade, following the completion of the flood defence scheme. The Hilton Hotel (Beaufort) can be seen being built in the background.

Pre-1973

Leisure and Recreation: Fishing on the Kennet and Avon Canal.

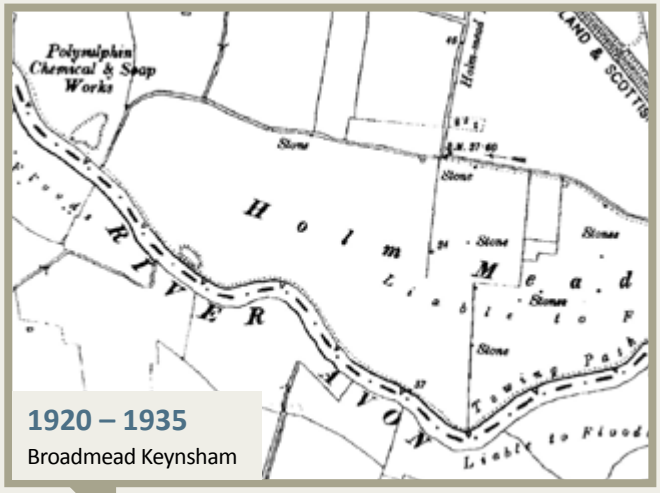
c. 1970s

Leisure and Recreation: Swimmers in Pulteney Weir.

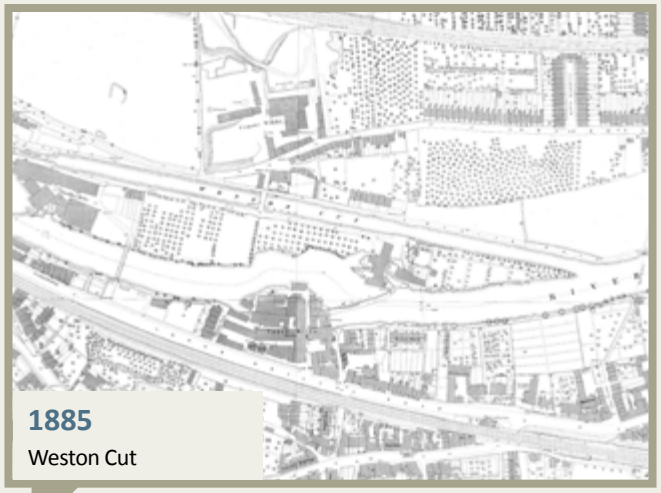
HISTORY

River Avon

Kennet & Avon Canal

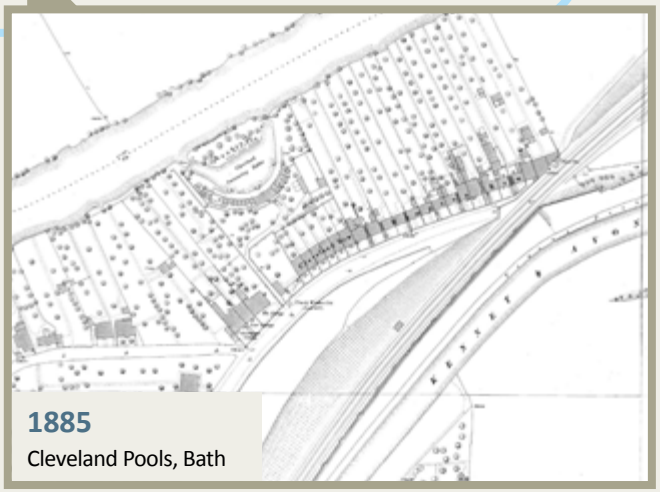


1920 – 1935
Broadmead Keynsham



1885
Weston Cut

1935 – 1939
Saltford



1885
Cleveland Pools, Bath

BRISTOL AVON CATCHMENT AND FLOOD MANAGEMENT

BRISTOL AVON CATCHMENT PARTNERSHIP

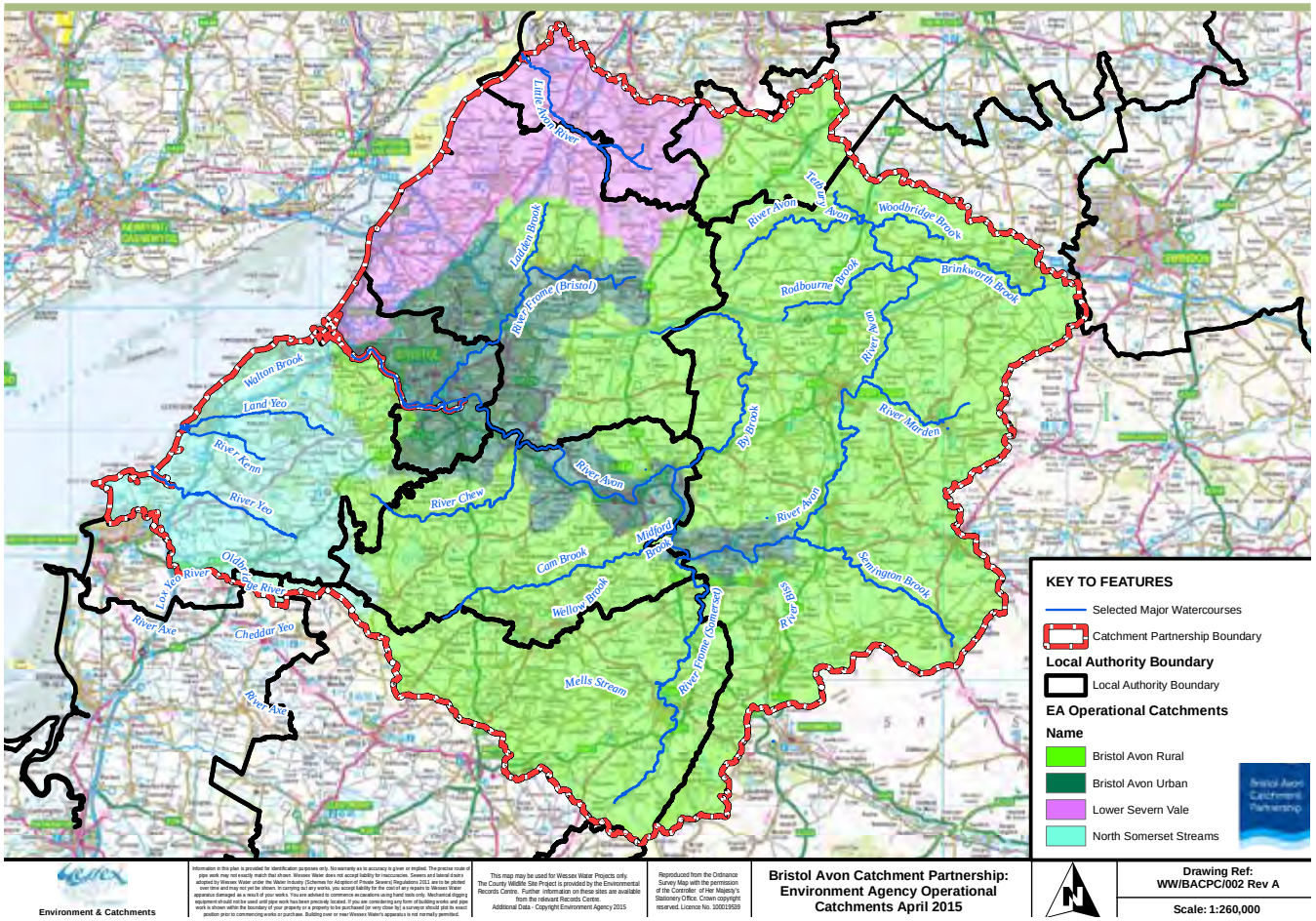
The WaterSpace Study is one of a number of active projects supported by the Bristol Avon Catchment Partnership.

The Bristol Avon Catchment comprises and area of 2810km^2 and drains parts of Gloucestershire, Wiltshire, Somerset and the West of England.

The upper reaches are rural, with significant arable agricultural activity on the higher ground and livestock on the lowland pasture. As the Avon flows towards the Severn Estuary, the river meets urbanised land (Bath and Bristol).

The Bristol Avon Catchment Partnership comprises a range of organisations, groups, authorities and individuals dedicated to working together to improve the water environment and provide wider benefits for people and nature at the catchment scale. The partnership's vision:

"The Bristol Avon Catchment is in good health, has Good Ecological Status and is recognised as a valuable asset to society and the local economy."



The six major issues at the Bristol Avon at a catchment scale are identified as:

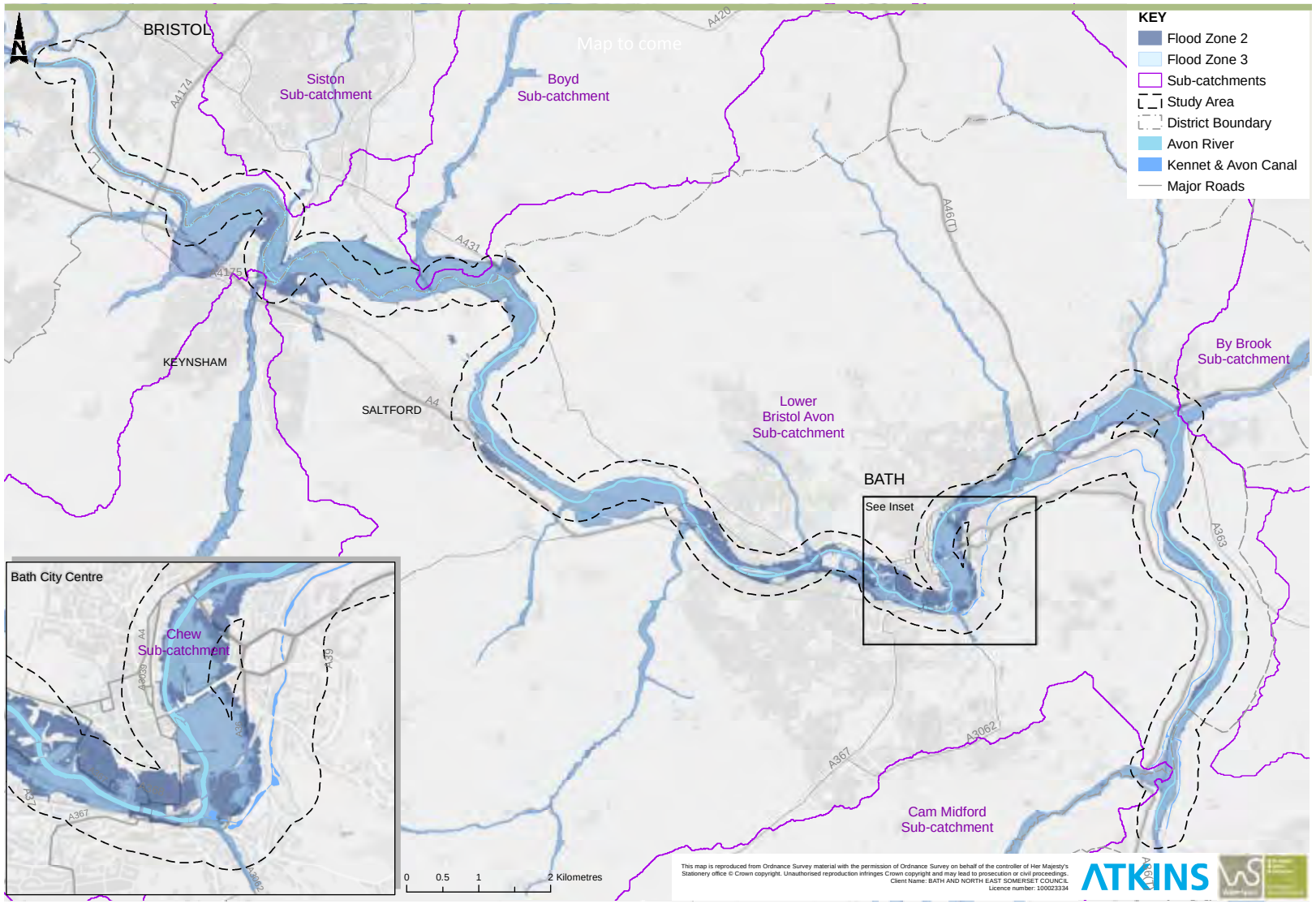
Issue	Problem associated with…
1. High Phosphate levels	• Treated sewage discharges and sewage overflows • Urban diffuse pollution including misconnections • Agricultural/sediment run-off
2. High sediment loading	• Rapid run off from agricultural land
3. Flooding	• Rapid run-off from compacted rural land • Rapid run-off from urban hard surfaces
4. Low river flows	• Abstraction for water supply • Poor upstream water retention and aquifer recharge
5. Reduced natural habitat	• Poor riparian habitat • Highly modified channels • In-stream barriers preventing fish migration • Increase of invasive non-native species
6. Climate change	• Overarching pressure – more extreme weather resulting in flooding and droughts within the catchment

FLOOD MANAGEMENT

The Environment Agency manage fluvial flood risk in Bath & North East Somerset and have a strategic overview of flooding from all sources. They work in partnership with Bath & North East Somerset Council to plan future work in the area. B&NES Council is the Lead Local Flood Authority for matters relating to surface water flooding and drainage.

Strategic flood management is outside of the scope of the WaterSpace Study, and there are separate projects looking at flood defences, flood risk management and upstream storage. The Strategic Flood Risk Assessment shows areas at risk of flood risk, and defines flood zones 1-3, with climate change flood risk will increase.

All WaterSpace Study projects need to consider the impact of flood risk, and should increase resilience to flood through their design.



FLOOD MANAGEMENT

MANAGING FLOOD RISK

In addition to site specific flood remediation works, being undertaken on development sites, two strategic flood defence projects are currently underway in Bath:

TWERTON & PULTENEY WATER LEVEL CONTROL GATES

Following a full options appraisal looking at different flood management solutions and their feasibility and cost, the Environment Agency, together with B&NES Council are funding the development of a Business Case to take forward a project which will maintain and repair Bath's two flood gates at Pulteney and Twerton. This will enable the flood defences to maintain their current performance, the whole Bath flood defence scheme reduces flood risk to approximately 1100 properties. The detailed Business Case aims to unlock up to £5m funding from Flood Defence Grant in Aid, to deliver the capital works needed.

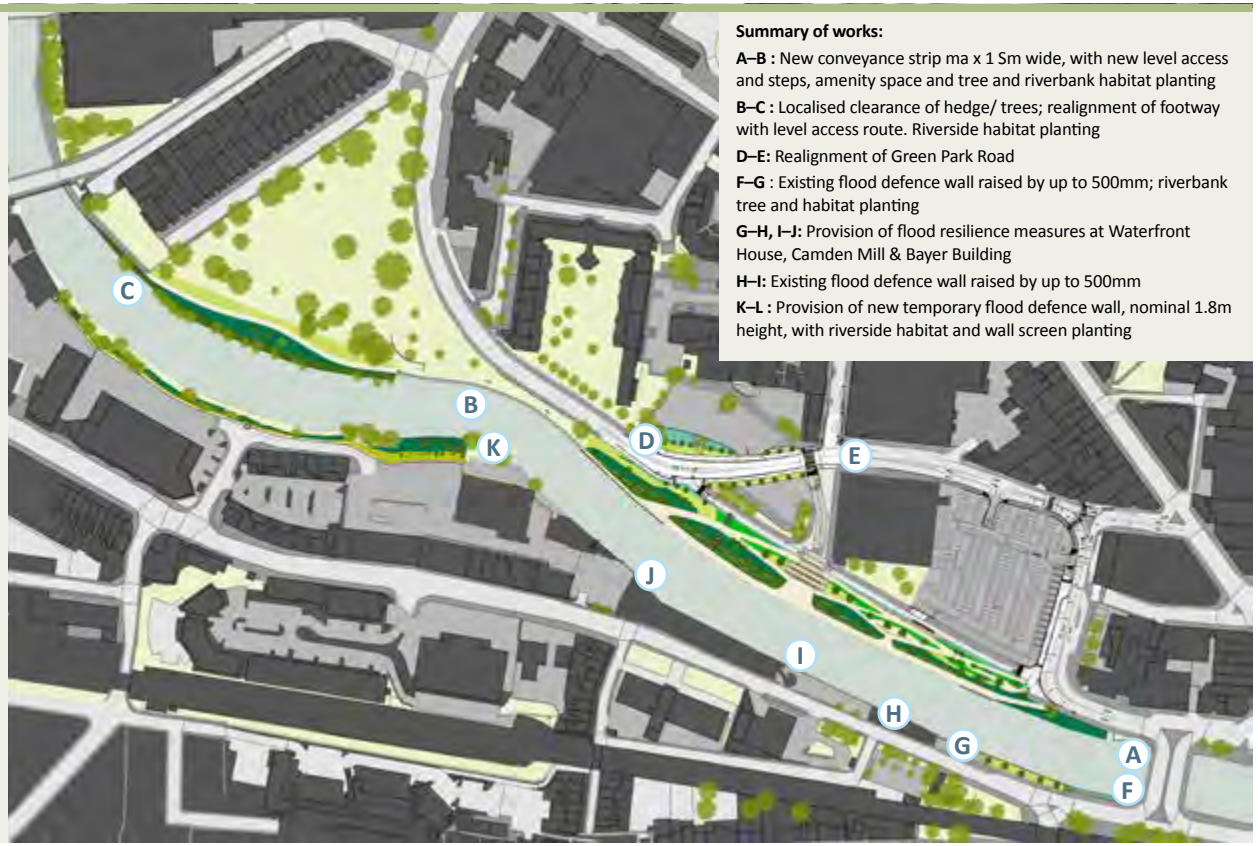
Pulteney Water Level Control Gate

Twerton Water Level Control Gate

BATH QUAYS WATERSIDE

Flood mitigation and defence works to the north and south banks of the River Avon between Churchill Bridge and Midland Bridge. These interventions will reduce flood risk to the Lower Bristol road and over 100 residential and commercial properties on the south side of the river. The scheme also provides the flood mitigation to enable the redevelopment of Bath Quays and Manvers Street sites in order to realise these key regeneration projects.

The scheme is being delivered by B&NES Council in partnership with the Environment Agency. The design includes upper and lower level promenades, natural landscaping and a large riverside public space.



Summary of works:

A–B : New conveyance strip ma x 1 Sm wide, with new level access and steps, amenity space and tree and riverbank habitat planting

B–C : Localised clearance of hedge/ trees; realignment of footway with level access route. Riverside habitat planting

D–E: Realignment of Green Park Road

F–G : Existing flood defence wall raised by up to 500mm; riverbank tree and habitat planting

G–H, I–J: Provision of flood resilience measures at Waterfront House, Camden Mill & Bayer Building

H–I: Existing flood defence wall raised by up to 500mm

K–L : Provision of new temporary flood defence wall, nominal 1.8m height, with riverside habitat and wall screen planting

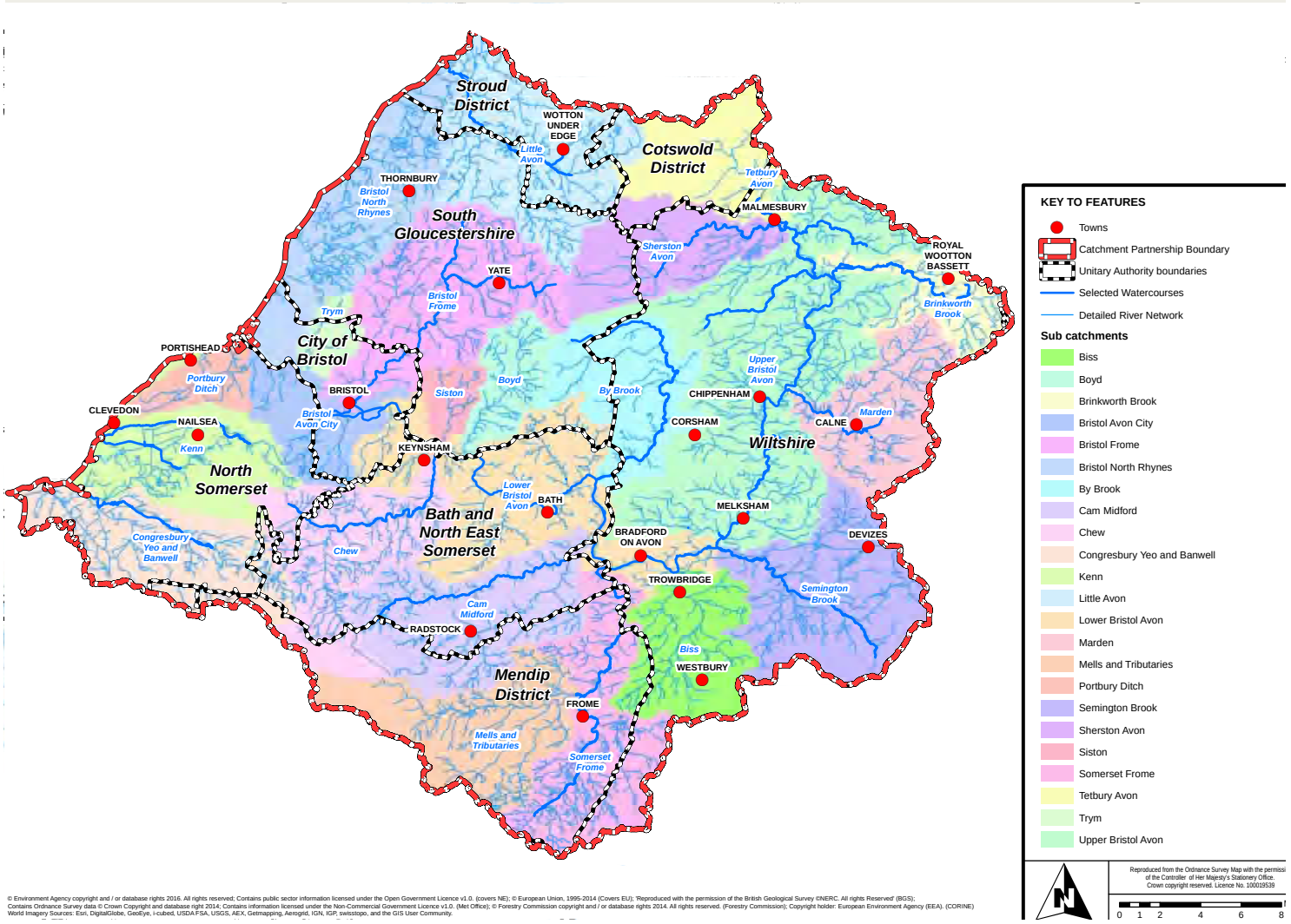
ADAPTATION AND RESILIENCE FRAMEWORK

The aim of the framework is to work collaboratively to develop a Catchment Adaptation & Resilience Plan for the Bristol Avon Hydrological Catchment.

The region must adapt to the increasing risks of climate change, including more severe and frequent storms, increased rainfall events and high temperatures. Through this framework investment and spatial planning actions will be identified to support opportunities for adaptation and resilience included reducing the impact of flood risk on infrastructure.

The approach is being piloted in South Gloucestershire and Bristol, with a view to enabling greater integration between sectors, and forward planning of adaptation measures at a sub-regional scale.

SUB CATCHMENT



FIVE STUDY THEMES

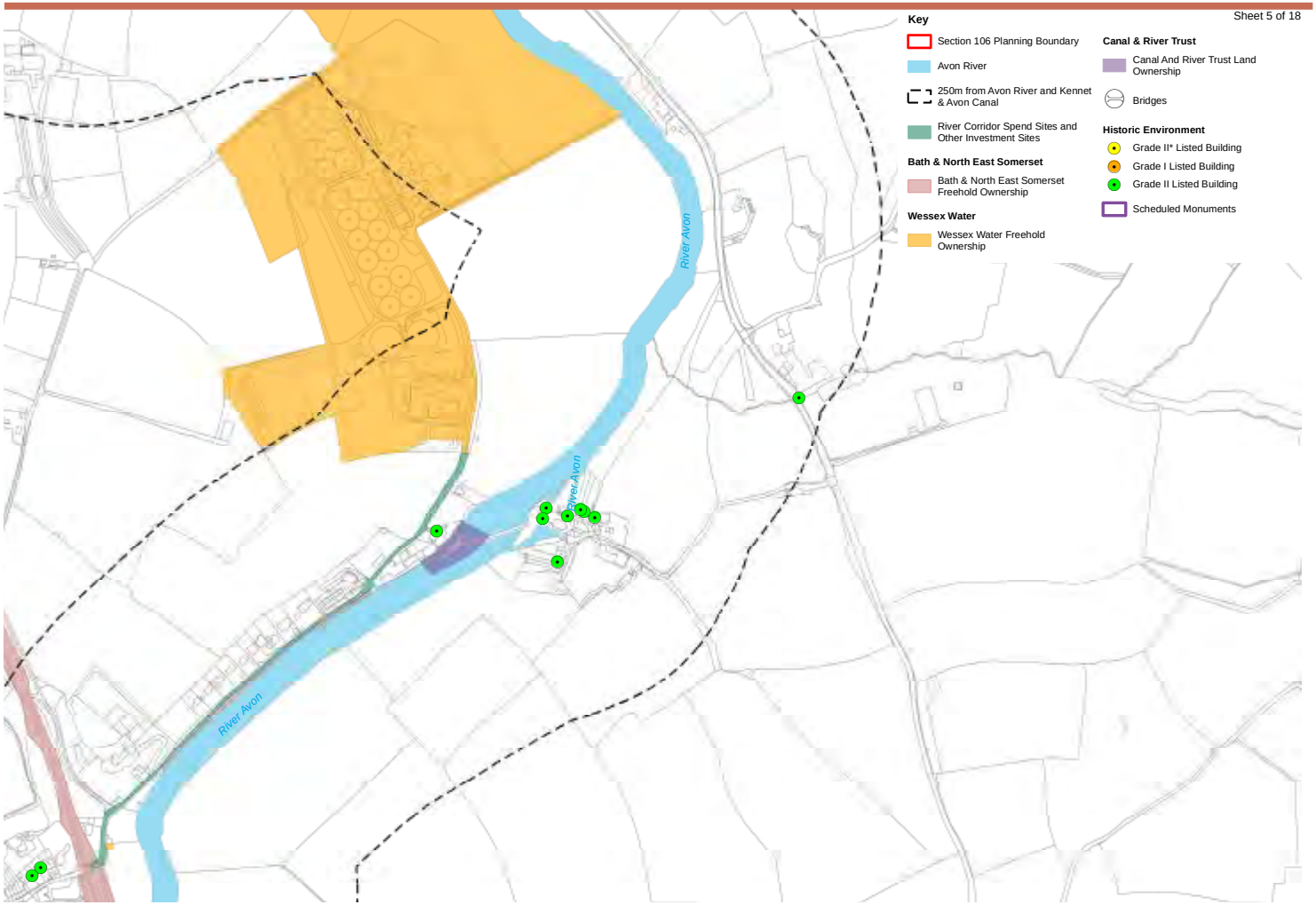
THEME 1: ASSETS & ASSET MANAGEMENT

The assets and land ownership of the study partners have been mapped, so that projects which have a direct influence on these could be identified.

As part of this Study, the four partners have collated and combined their asset maps for the first time. Assets include freehold land ownership (buildings, green spaces and towpaths), features such as locks, weirs and fish passes, information on river edge treatment (e.g. natural bank, stone lined bank, steel sheet piling etc.) as well as river safety features and historic assets (the latter also includes private ownerships).

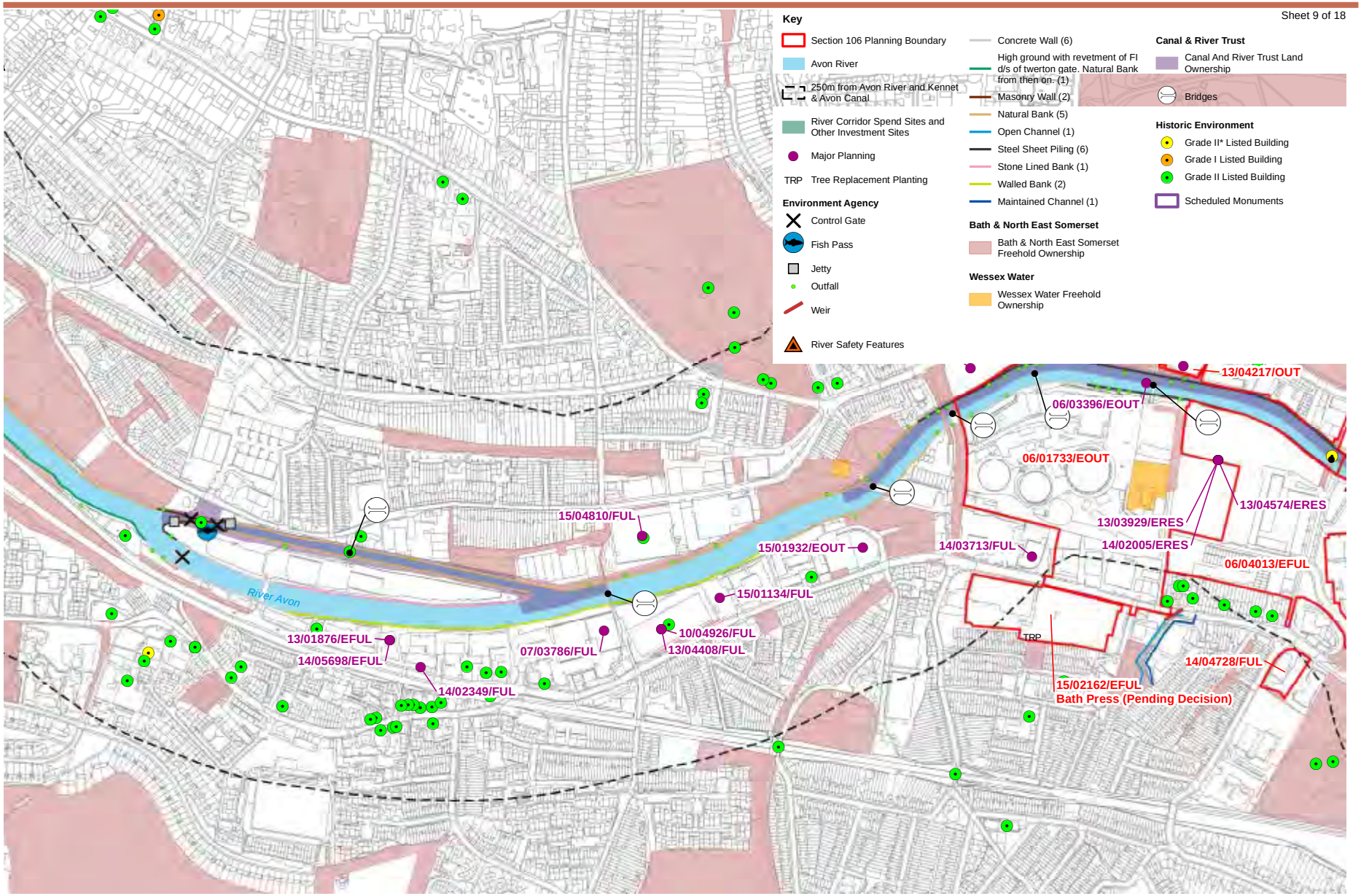
Where landownership is on the river edge the land is often owned to the centre of the River (known as riparian ownership). In many cases the partners are riparian owners. In some stretches of the river, for example between Bathampton Weir and Pulteney Bridge there is limited public ownership and there are a large number of private landowners. Private landownership has not been mapped, due to the number of landowners involved. In addition not all riparian land ownerships are declared on the land registry.

The full maps are included as **Appendix 1** to this report.



Example section of asset mapping for Saltford.

THEME 1: ASSETS & ASSET MANAGEMENT



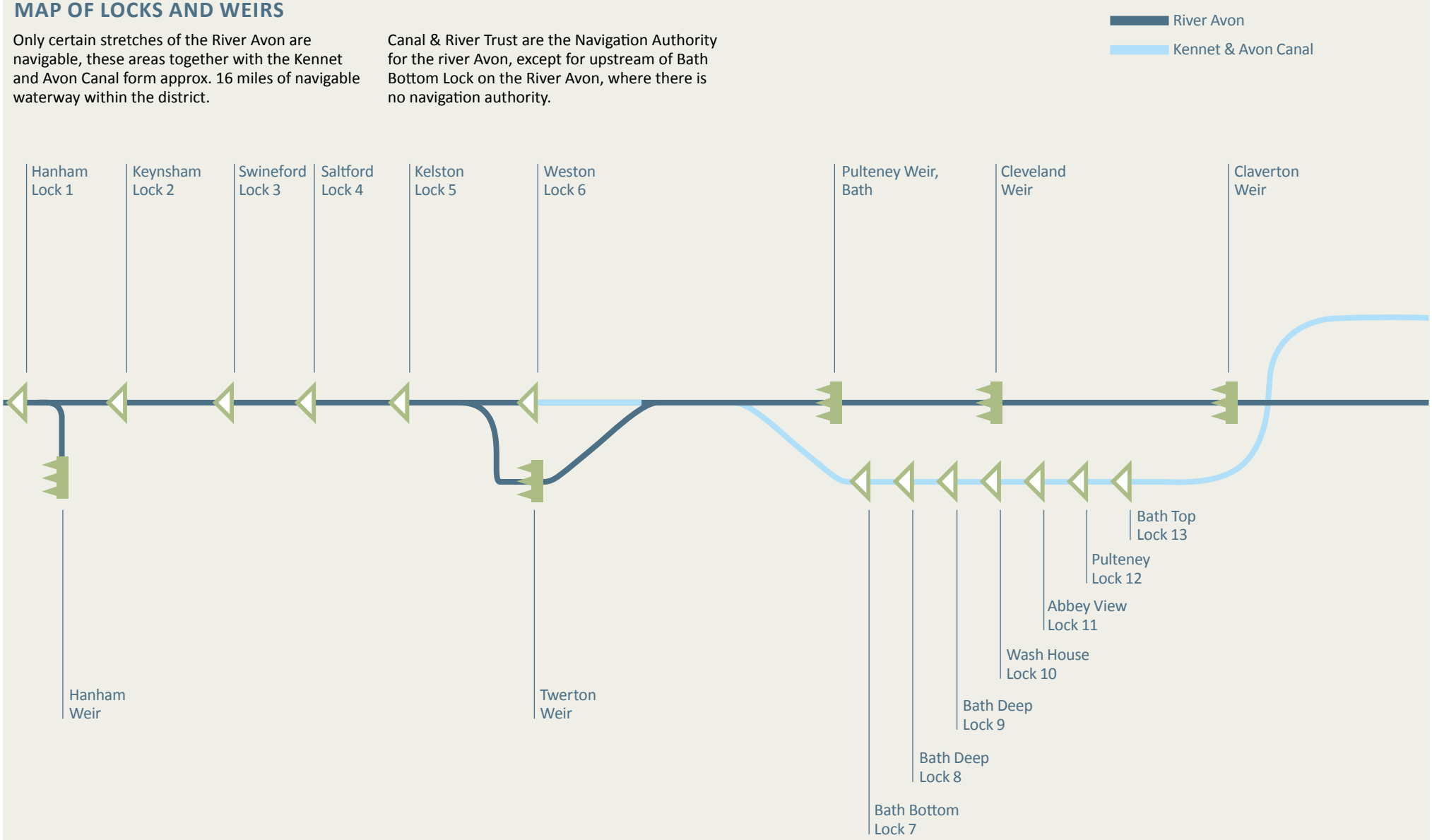
Extract of Assets Map for the River Avon in west Bath

THEME 2: MOORINGS & NAVIGATION

MAP OF LOCKS AND WEIRS

Only certain stretches of the River Avon are navigable, these areas together with the Kennet and Avon Canal form approx. 16 miles of navigable waterway within the district.

Canal & River Trust are the Navigation Authority for the river Avon, except for upstream of Bath Bottom Lock on the River Avon, where there is no navigation authority.



THEME 2: MOORINGS & NAVIGATION

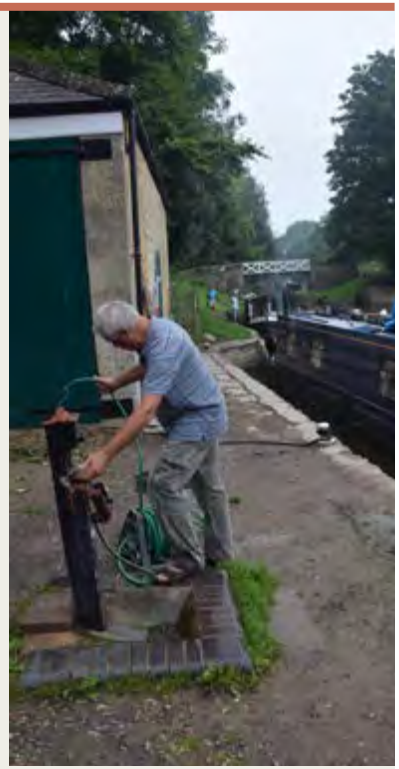
Data in relation to moorings and boat numbers has been collated to better understand the existing provision for moorings in the Bath & North East Somerset area.

Marinas within the district are relatively small in nature, all being under 100 berths. However, larger large marinas are located nearby at Caen Hill in Devises (250 berth) and at Bristol Marina (100 berth), which have an impact on the waterways in Bath & North East Somerset.

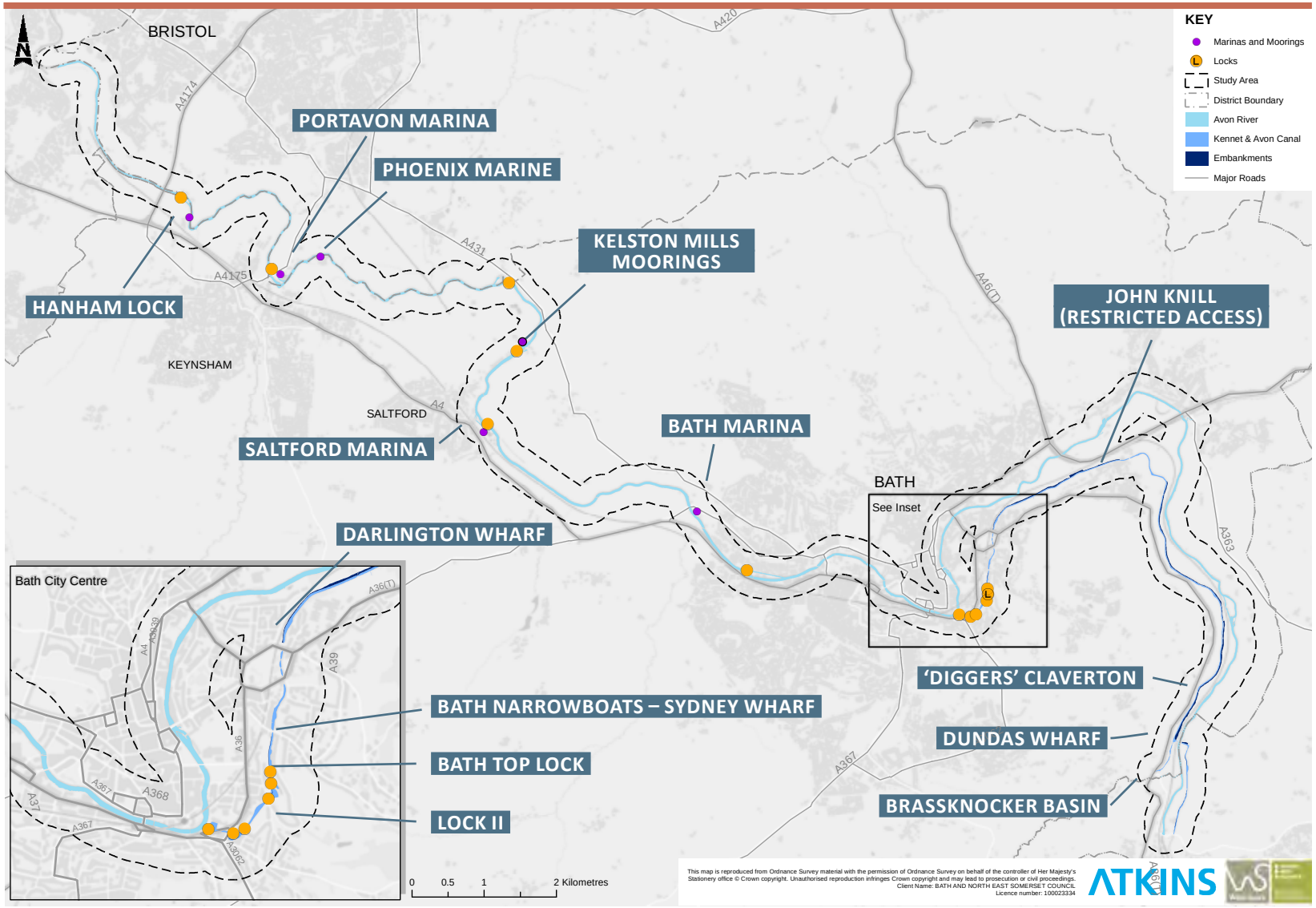
Whilst all of existing marina within the district have a leisure focus, they also provide some residential moorings. All Marina operators have reported that marina berths and associated online moorings are in demand and there is very little or no under-occupancy. However, this results in some boats rarely leaving the marinas and for some facilities such as slipways being blocked from active use. Limited availability of visitor moorings on the waterways is also contributing to inactivity on the waterways.

While online moorings predominate on the Kennet & Avon Canal lining the towpaths and in places the of-side, there are very few online moorings on the River. Furthermore, online moorings on the Canal are casual moorings where you can moor for up to 14 days. While there are online leisure moorings at Bathampton & Claverton, there are no online residential moorings on the Kennet & Avon Canal.

Evidence gathered from the boater survey and interviews suggests an increasing demand for moorings for larger vessels, which can only be readily accommodated on the River. The interviews with commercial operators also suggest there is unmet commercial demand for increased pontoon moorings on the River (which are safe when the river is in spate). The balance of 24/48 hours visitor moorings, 14 day moorings and commercial mooring spaces for business boating was an issue commonly raised by stakeholders throughout this study.



THEME 2: MOORINGS & NAVIGATION



Map to show Location of Marina and Long-term residential mooring capacity (Canal & River Trust, 2017).

MARINA & MOORING CAPACITY SUMMARY

Bristol Marina
100 pontoon moorings

Portavon Marina (South Glos/B&NES border)
78 berths

Chandos Marina
35 residential berths

Phoenix Marina
35 residential berths

Kelston Mills
A few online moorings

Saltford Marina
85 berths, some residential

Bath Marina
42 berths, some residential

West of Bath Circa
80 moorings in private ownership

Caen Hill Marina (Devises)
250 berths

Hilperton Marina
65 berths

4x Canal & River Trust online mooring sites – K&A Canal
35 berths

Canal & River Trust Estimated additional moorings (private ownership)
150 berths

THEME 2: MOORINGS & NAVIGATION

Annual boat count figures for Bath & North East Somerset show that the number of boats on the waterways has remained relatively static over the last 5 years. However, the influx of hire boats in the summer months is not captured in the annual boat count, which takes place each March. The hire boats typically remain on the canal or within Bath, due to both inexperience and lack of River moorings and facilities between Bath and Bristol.

The WaterSpace Study has not undertaken a separate summer boat count, Local Planning Authorities are awaiting the regulations associated with the new duties in the Housing & Planning Act 2016 in relation to houseboats, which it is thought will outline the requirement for future boat counts. The publication of the guidance has been delayed; however, discussions are ongoing with adjoining authorities in particular Wiltshire and Bristol on this matter.

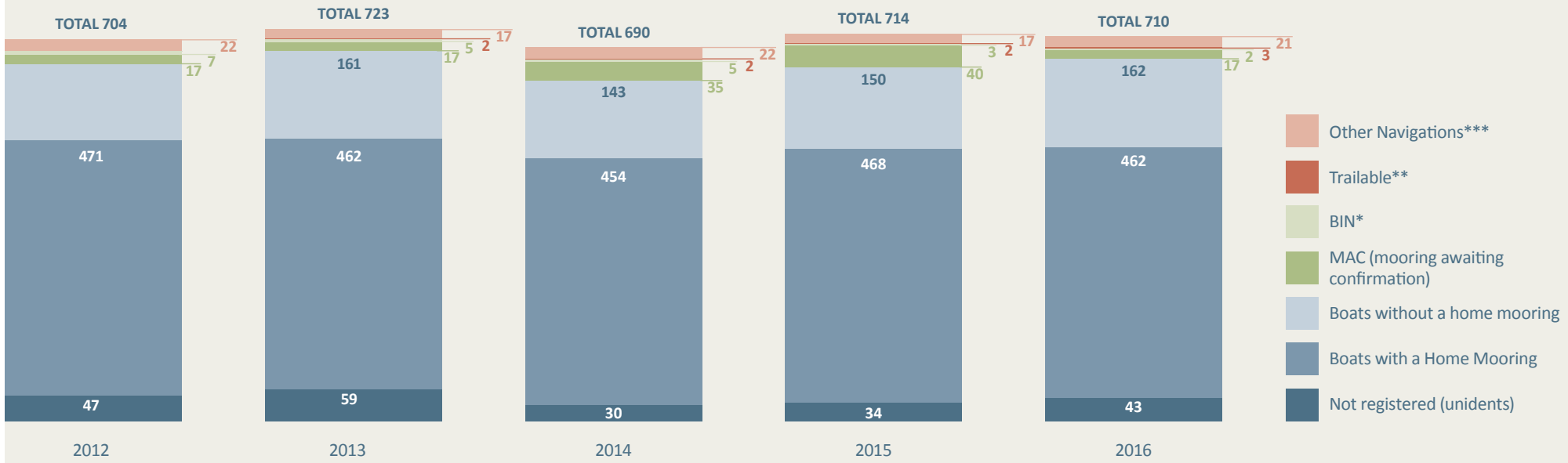
Data supplied by the Canal & River Trust (2016)

**BIN refers to boats we have been unable to identify – they are normally boats that are from other waterways.*

*** Trailable is boats that are taken out of the water after they have been used*

**** Other navigations means the boats have a home mooring on another navigation (not Canal and River Trust)*

BATH & NORTH EAST SOMERSET AREA NATIONAL BOAT COUNT FIGURES



THEME 2: MOORINGS & NAVIGATION

BOATER FACILITIES

This map identifies key facilities in Bath and North East Somerset area used by boaters, a length of approximately 16 miles of navigable waterway. It is noted that outside of the study area there are no more facilities heading east before Bradford Wharf, which is four miles outside the study area and above Bradford Lock. Heading west there are no further facilities until Bristol Floating Harbour which is six miles outside the study area, and requires a separate boat licence.

Estimates of the number of vessels on the waterway in B&NES/between Bradford Lock and Bath vary and are not readily comparable, however it is reasonable to assume that the facilities identified are the main services to between 300 and 500 boats, excluding marina based boats and hire boats, which may also need to use these services when away from their moorings

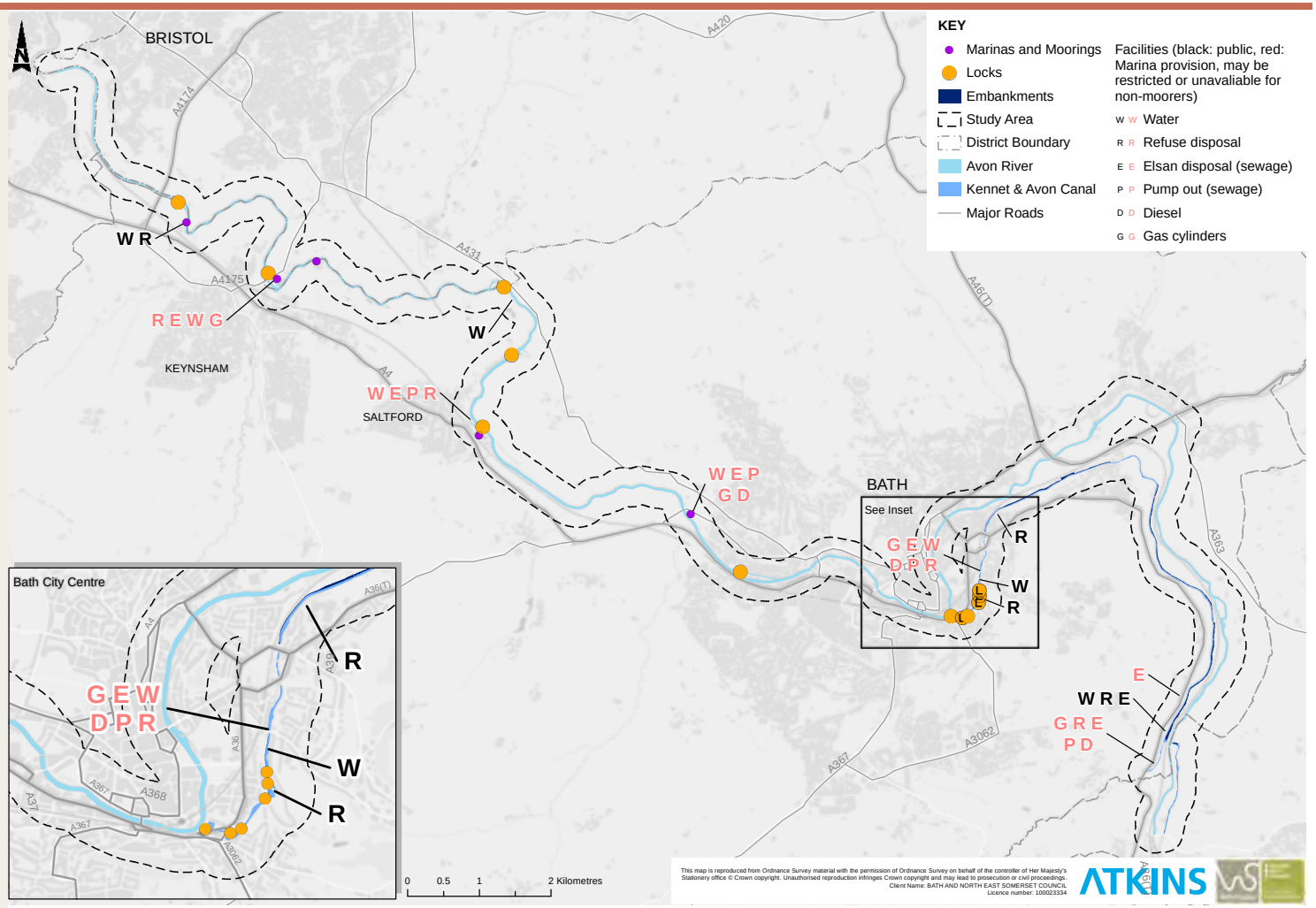
The following have been identified on the map

- 8 water points, of which 1 is seasonal and 5 are on business premises for business customers
- 8 refuse disposal points, of which five are on business premises
- 6 Elsan points, of which 5 are business related
- 5 pump out points, of which 4 are business related

With regards to year round availability of public facilities, there is 1 water point and 1 refuse disposal point on the river, even though this forms 11 miles of the 16 miles of waterways within Bath & North East Somerset.

In effect, the length from Bradford to Hanham is served by three permanent public water points, three public refuse disposal points and one permanent public elsan point – there are between 300 and 500 boats seeking to use the facilities.

Pump out facilities are also very limited, however, but those with pump-outs are more likely to be willing to use marinas and can go much longer between disposal opportunities – typically weeks rather than days.



Map to show Boater Facilities within Bath & North East Somerset Area by type (Primary Data Collected by Moss, Naylor Young, 2016).

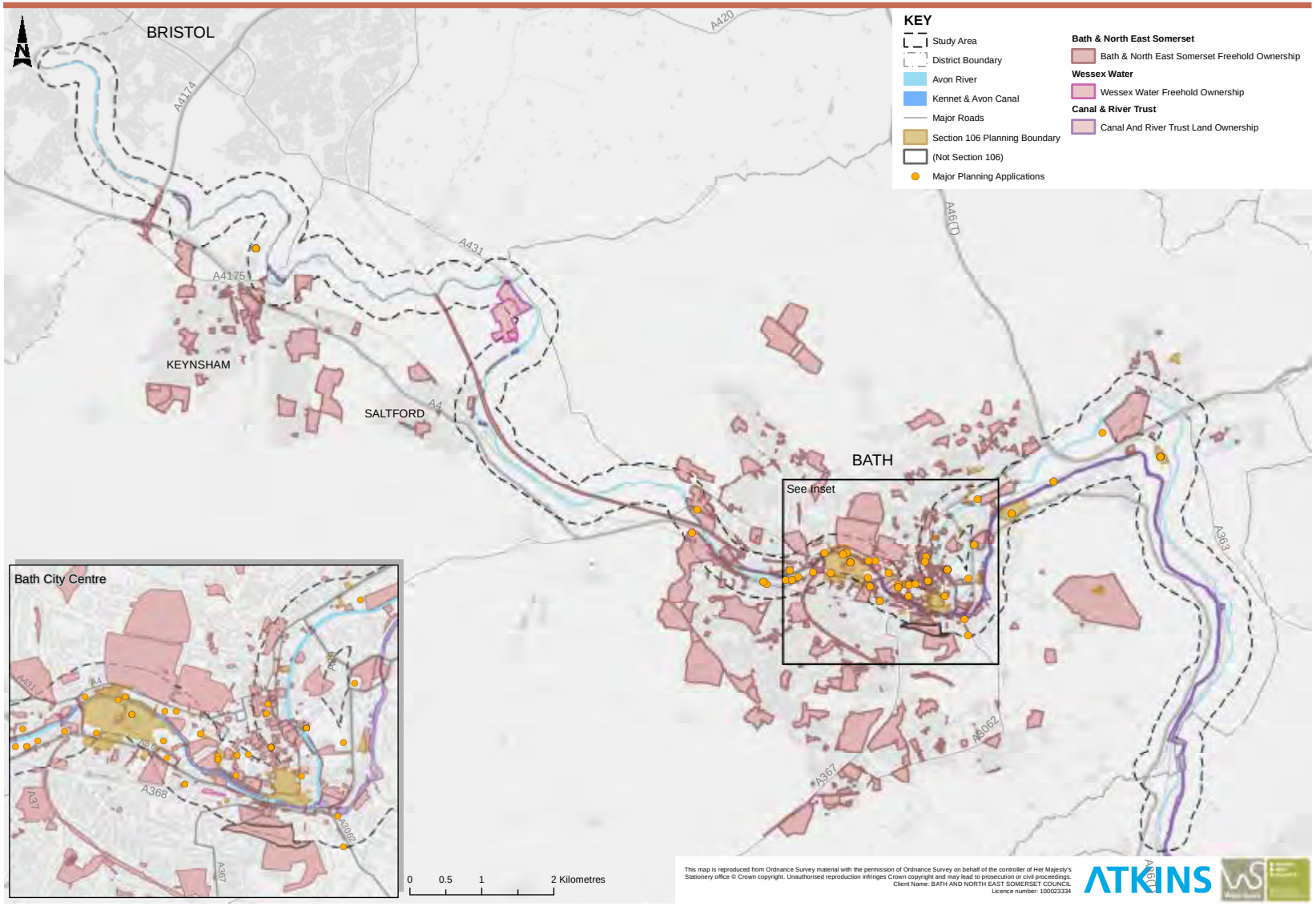
THEME 3: REGENERATION & DEVELOPMENT

The River Avon corridor within Bath is the focus for significant regeneration and development.

The current levels of major development within the River Avon corridor are significant, as illustrated (right) which illustrates both the location of major planning applications made in the last three years, and the sites which have facilitated planning obligations (also known as s106) where contributions have been made towards waterways related items.

Developer funding includes monies towards new bridges, towpath improvements, green space contributions (capital and maintenance) and sustainable transport contributions.

Appendix 1 & 10 include more detail on developer contributions and development sites.



Major Planning Applications that have been made in River and Canal Corridors 2013- 2017 (B&NES Council, 2017).

THEME 3: REGENERATION & DEVELOPMENT

The Bath Enterprise Zone follows the river corridor, where former derelict land and land in industrial use is being transformed with mixed use development, new flood defences and the creation of riverside public spaces and parks.

The Bath Enterprise Zone includes 98 hectares of land that follows the line of the River Avon through the city. It has been recognised as a key zone for growth in the city by the West of England Local Enterprise Partnership, and the area will provide accommodation for high value business sectors as well as providing significant levels of housing development and associated public open spaces and mixed use development.

An Enterprise Zone Masterplan Vision was produced in 2014, which sets out the aspirations for the Enterprise zone and outlines the key development sites.

One of the overarching aims of the regeneration and development strategy is to reveal the river and improve public spaces, as well as retaining a dark corridor to support the significant wildlife functions of the River Avon.

The Council has set out standards and parameters for public realm design, within central Bath both Bath Public Realm and Movement Strategy and the Bath Pattern Book (parts 1 and 2). The associated Lighting Strategy also has an influence bearing on future plans for public realm design in the river corridor. In respect of the River Corridor, the public realm design parameters:

- City centre river railings should be painted black
- River Safety Cabinets should follow the bespoke design and siting guidelines

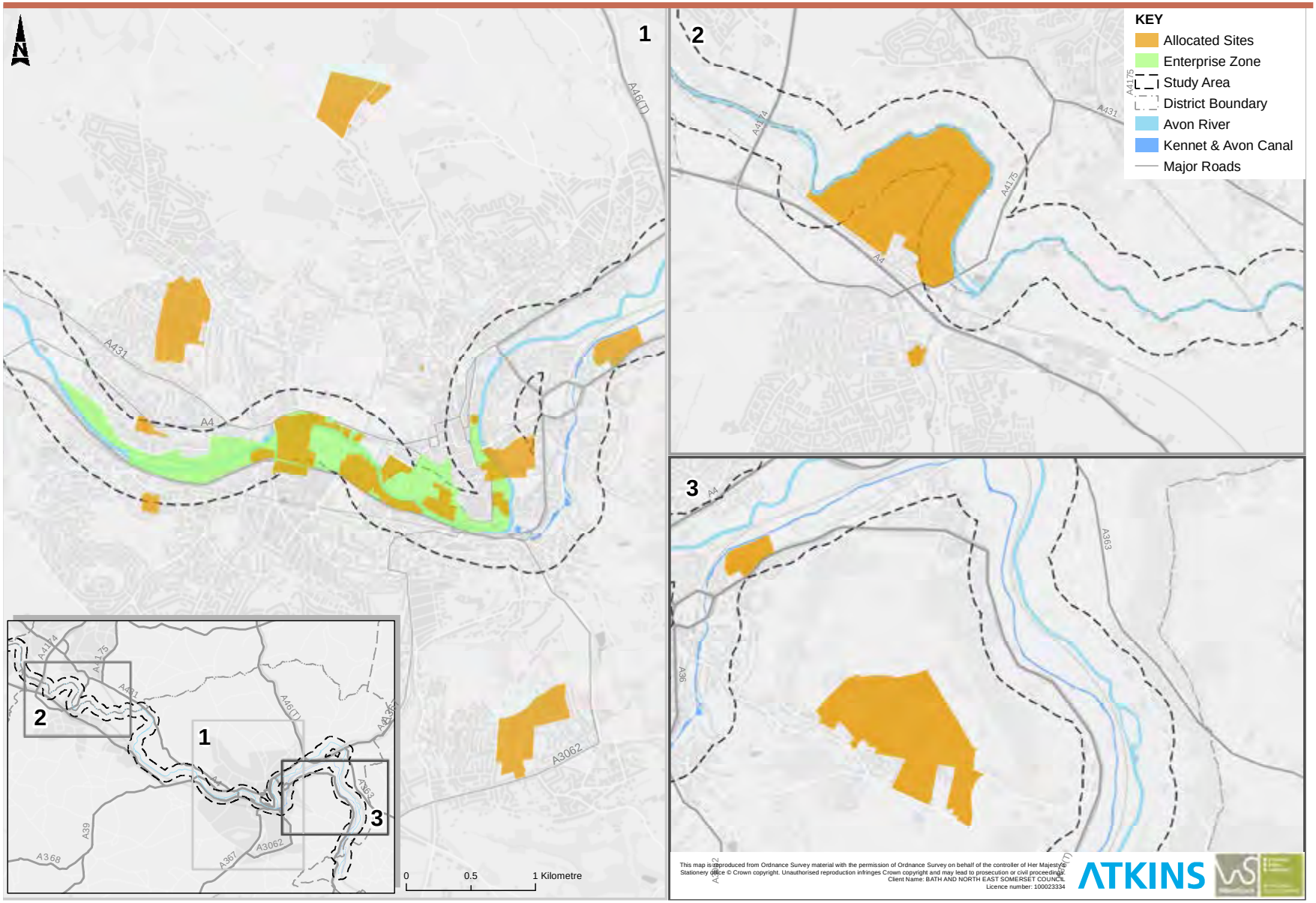
Many of the WaterSpace Study projects relate to development and public realm improvements and investment presented through development and regeneration projects.

The Bath Pattern Book includes outline designs for Riverside areas in Bath including Pulteney Bridge area (see Projects section of this Study for more information).

In addition, B&NES Placemaking Plan (2016) has incorporated the public realm and design aspirations from the Bath Public Realm and Movement Strategy and the Bath Pattern Book into the Planning Policy for key site allocations.

Recent waterside development in Bath has included development at Bath Riverside which has included new visitor moorings, flood attenuation, pocket parks and towpath upgrades.

THEME 3: REGENERATION & DEVELOPMENT



The Bath Enterprise Zone, together with Allocated Development Sites from the B&NES Local Plan (B&NES, 2017).

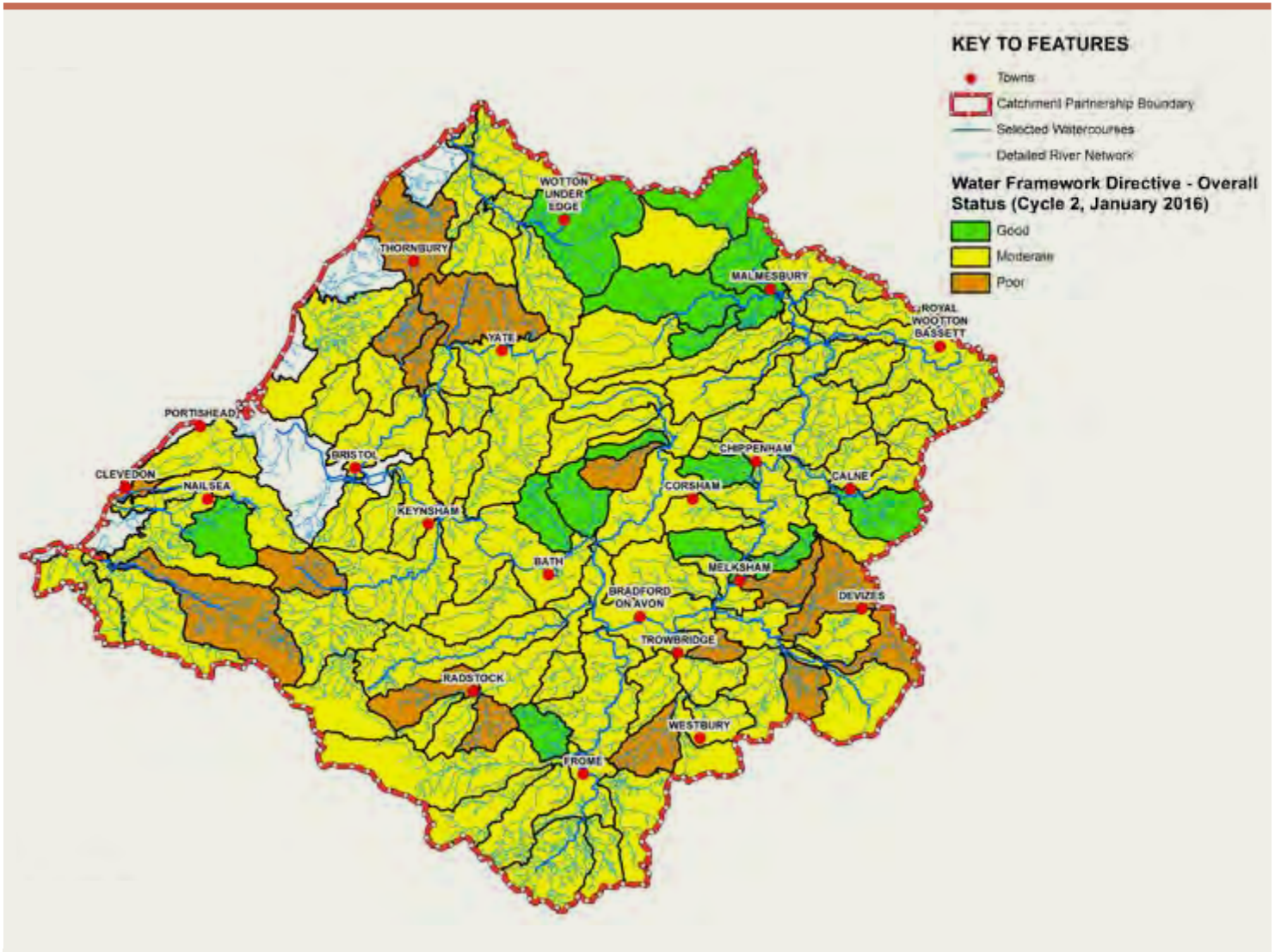
THEME 4: ENVIRONMENTAL ENHANCEMENT & WATER QUALITY

WATER FRAMEWORK DIRECTIVE

The government aims to ensure all waterbodies in England meet Good Ecological Status by 2027. Any waterbody that does not meet good ecological status is classified as failing under the European Union's Water Framework Directive.

In the Bristol Avon Catchment:

- only 24% of the catchment is classified as having 'good ecological status'. Although this is typical of other catchments in the UK, it demonstrates the scale of the challenge to meet the Water Framework Directive targets
- 76% fail to meet the targets due to factors including physical modification, phosphate levels, sediment load and low fish populations
- some landowners are losing valuable topsoil, nutrients and pesticides due to erosion, run-off or leaching; sometimes linked to poor soil structure and compaction
- heavy rainfall running off rural and urban areas causes surface water and river flooding in specific locations. Tidal flooding continues to be a threat in the lower reaches of the catchment.

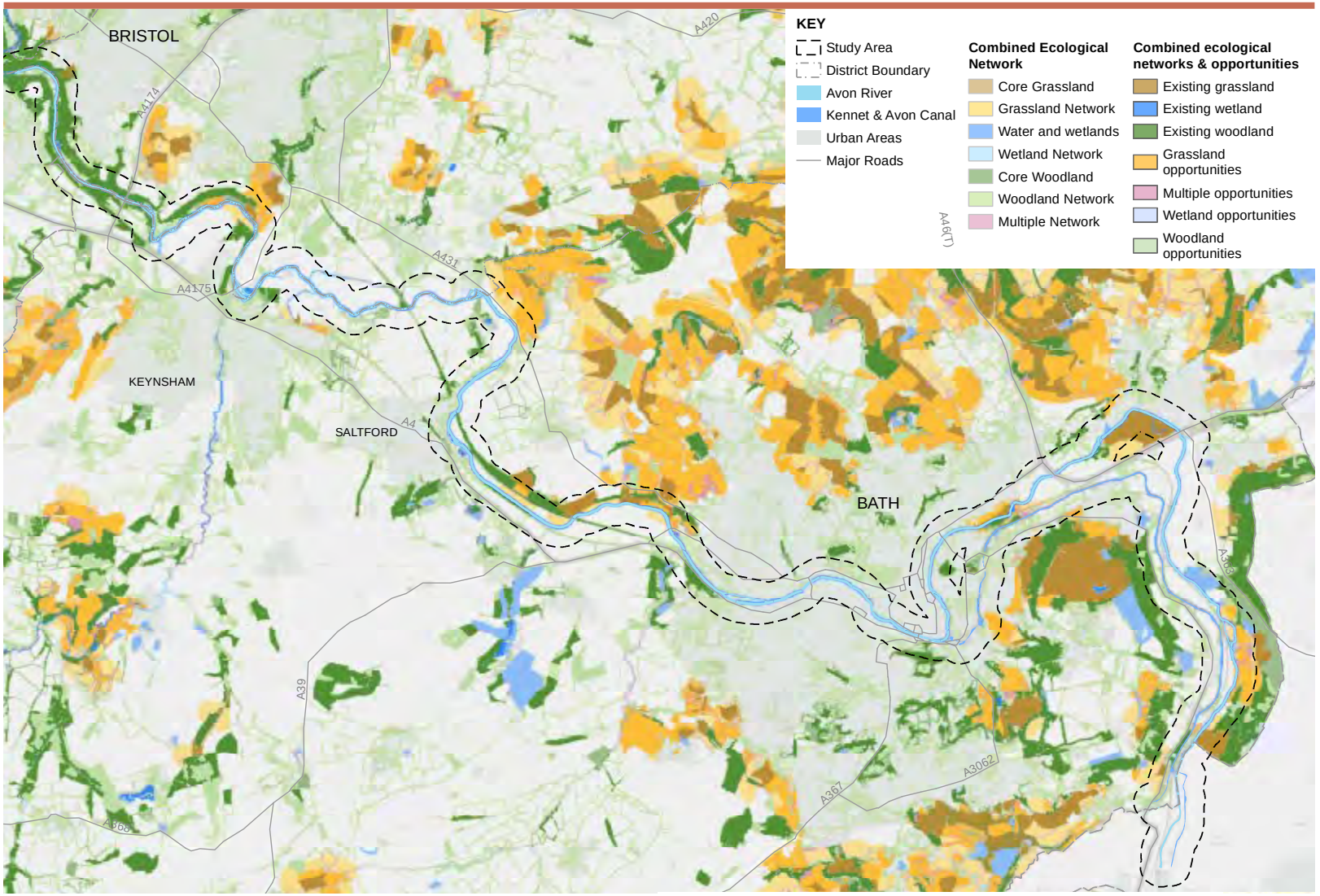


Map of the overall water framework directive status of the waterbodies within the Bristol Avon Catchment (Environment Agency/Wessex Water, 2017).

THEME 4: ENVIRONMENTAL ENHANCEMENT & WATER QUALITY

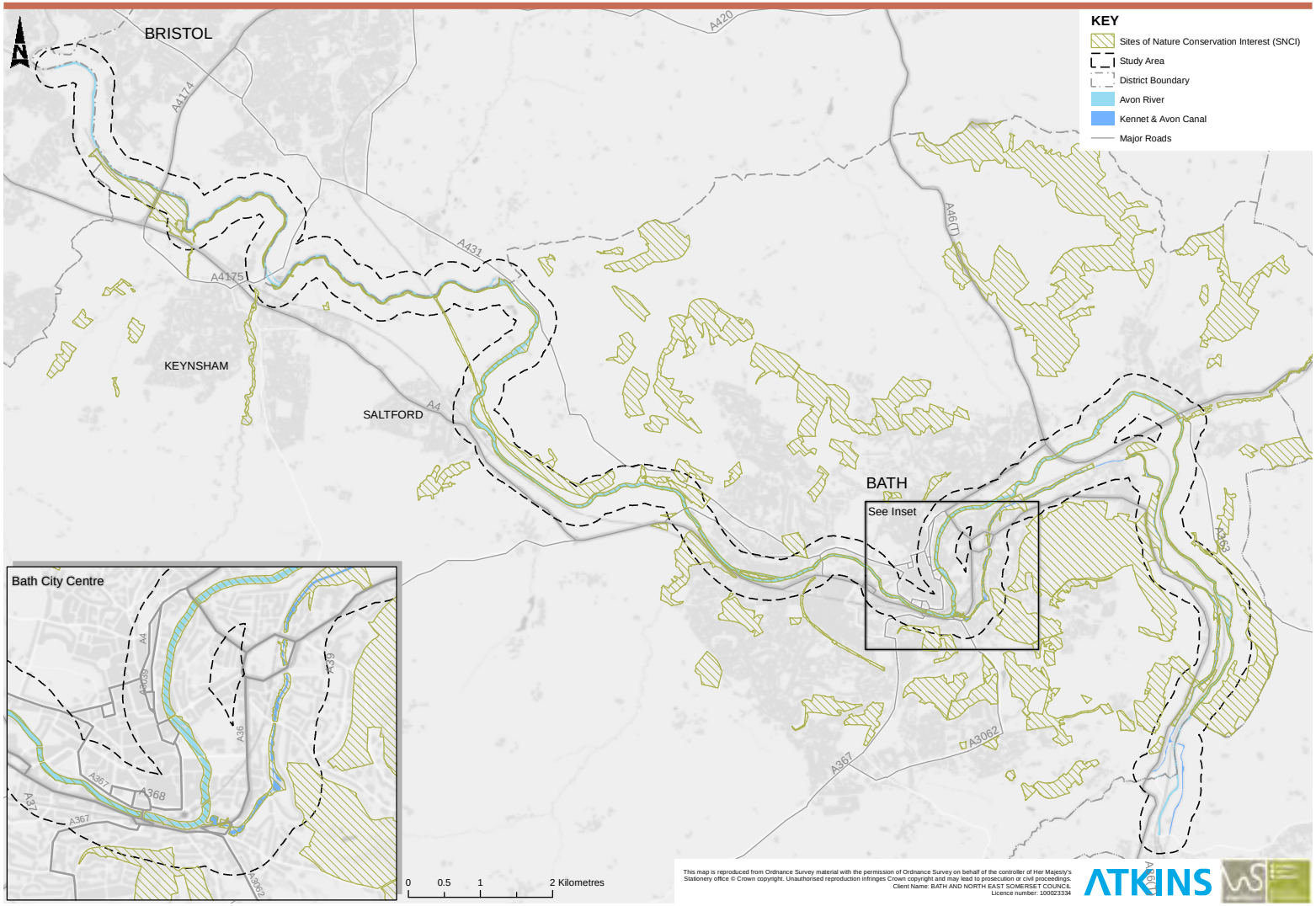
Ecosystems Services mapping produced by the West of England Nature Partnership to inform strategic decision making highlights the importance of the River and Canal corridors in providing valuable ecosystems including woodlands, grasslands and wetlands.

Significantly both the River Avon and Canal provide natural linkages between ecosystems enabling them to function as an interconnected network. Opportunities for ecosystem enhancement and protection can be realised by a natural capital approach, which should be embedded in decision making at a strategic level. At a local scale there are a number of ecosystems enhancements that can be made, project ideas to deliver this outcome are explored in this Study.



Ecosystems Services Map (Provided by West of England Nature Partnership, 2017).

THEME 4: ENVIRONMENTAL ENHANCEMENT & WATER QUALITY



Map of Sites of Nature Conservation Interest (Designated in the B&NES Local Plan, 2017).

Both the River Avon and the Kennet and Avon Canal corridors are designated as Sites of Nature Conservation Interest (SNCI), in the B&NES Local Plan and have protection for their ecological value.

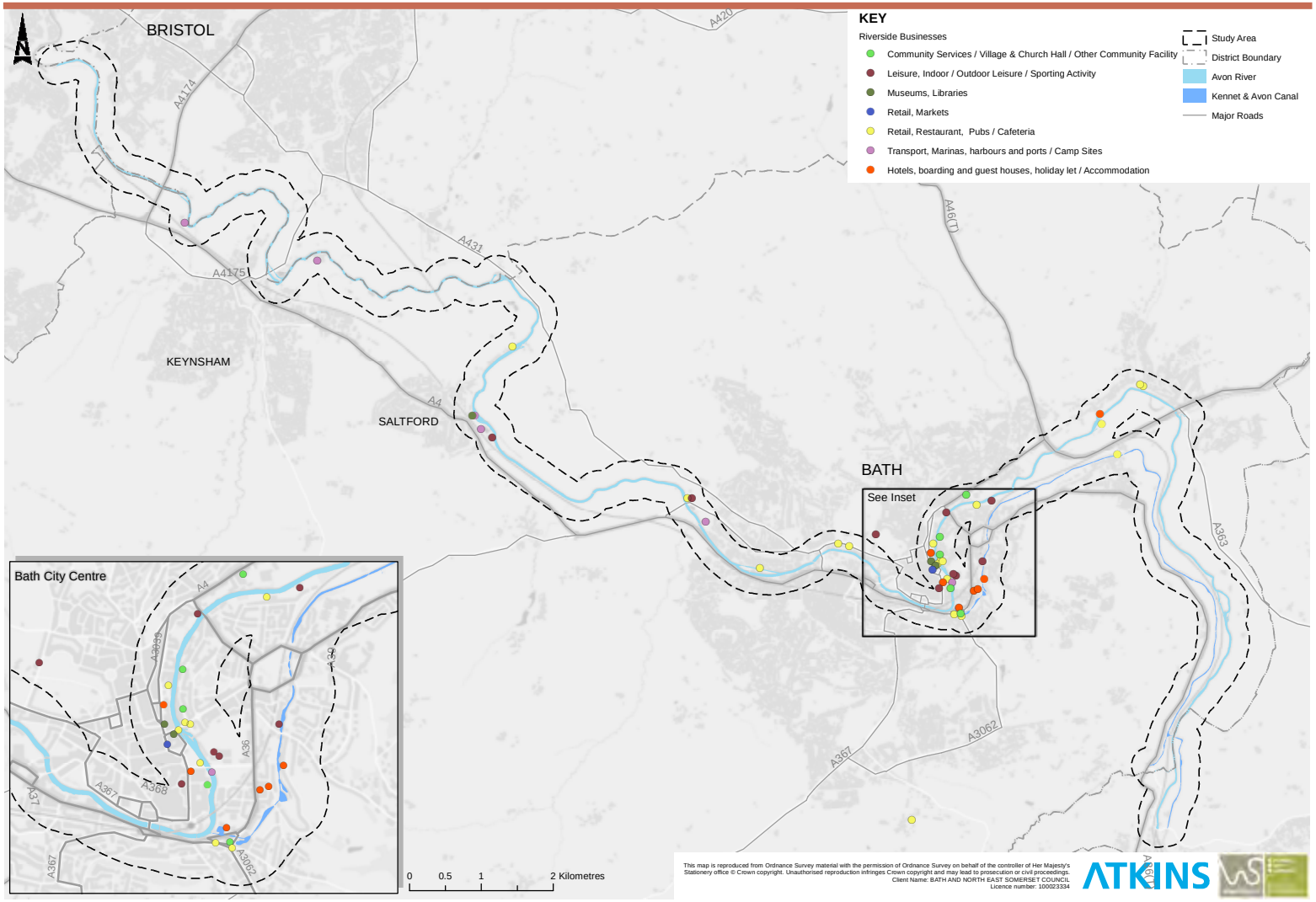
The Kennet & Avon Canal SNCI (area 29 hectares) is designated on the basis of its standing water and associated marginal habitats, semi-natural broadleaved woodland, semi-improved neutral grassland and tall ruderal communities (water vole population.

The River Avon SNCI (area 127 hectares) is designated on the basis of its running water and associated marginal habitats. Species include otters, greater dodder, loddon pondweed, common clubrush, arrowhead, small teasel, eels, re-eyed damselfly and brown hawker.

Both waterways have a critical role for bat species, including the rare Horseshoe bats (greater and lesser). The dark and well vegetated and natural banksides and green tunnelling on towpaths in particular provide good foraging habitats and movement corridors from roosts out to the wider countryside and key foraging habitats.

The River Avon corridor through Bath is identified as a Strategic Green Infrastructure Corridor through the urban area in both the Green Infrastructure Strategy and the Local Plan. A number of other SNCI link into the linear River corridor spine.

THEME 5: RECREATION & LEISURE



Map of Waterside Businesses within the Study Area by type (B&NES Economic Development, 2016).

Both waterways host a variety of recreation and leisure activities, including angling, sports such as rowing, canoeing and kayaking. In addition, the towpaths are popular car free running, cycling and walking routes. A series of public parks and green spaces adjoin the River Avon.

While the canal towpath and parts of the River Avon path are well used, other sections of the River path are less attractive or are poorly connected, have limited natural surveillance and are under-utilised. Management of vegetation is a common issue for the River Avon, for both waterways and towpath users.

Green spaces adjoin the River are not always well linked to the River path and there is often limited visual connection to the water.

There are opportunities to further develop and support the use of the River Avon for angling, rowing and other water based sports, including events.

A wide range of businesses are located on the River and Canal, both business boating and land based commercial enterprises, including pubs and restaurants, sports clubs, marina as well as shops and industrial units. Many of the industrial premises in the River corridor are being replaced by mixed use residential led development; however, there are still significant industrial land uses particularly in western Bath and Keynsham.

THEME 5: RECREATION AND LEISURE

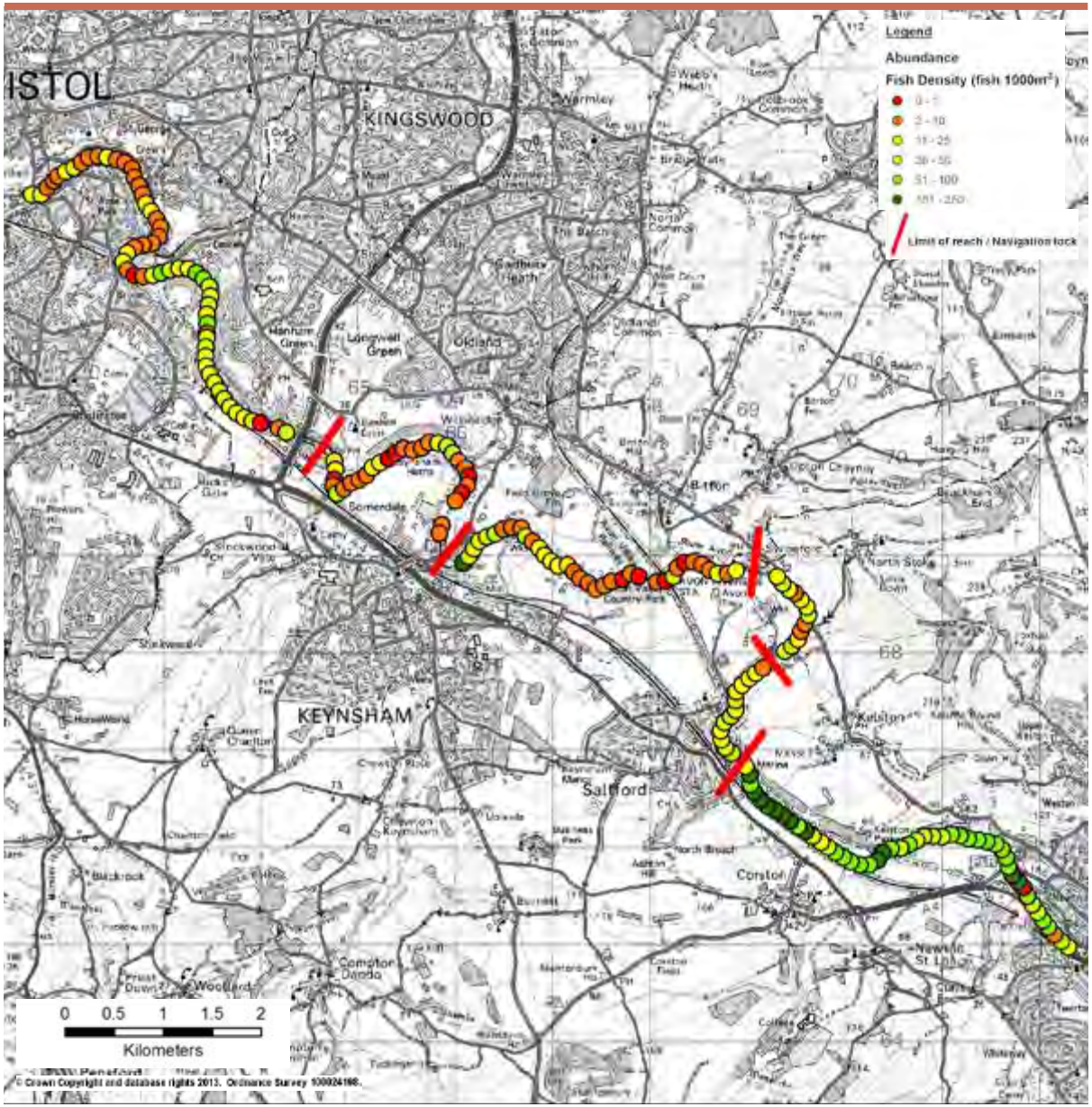
ANGLING

Within the district there are a number of Angling Clubs operating on the River Avon and Kennet & Avon canal, there are also areas of free fishing. Angling is a popular local recreation activity and the Environment Agency is keen to ensure that fish stocks are good and that opportunities for people to enjoy Angling are promoted.

The maps included here indicate the areas where angling clubs have fishing rights and also areas where free fishing is allowed (where known).

The Angling Trust and the Environment Agency have developed the National Angling Strategy (2013-18). The purpose of this strategy is to get more people fishing and to keep people interested in the sport. To support this, better angling facilities (such as safe and easy access, and accessible angling platforms) need to be provided, along with access to coaching and angling events to get more people having a go fishing. Encouraging young people into the sport is also a key objective.

Stocking Juvenile Barbel into the Bristol Avon to boost fish stocks



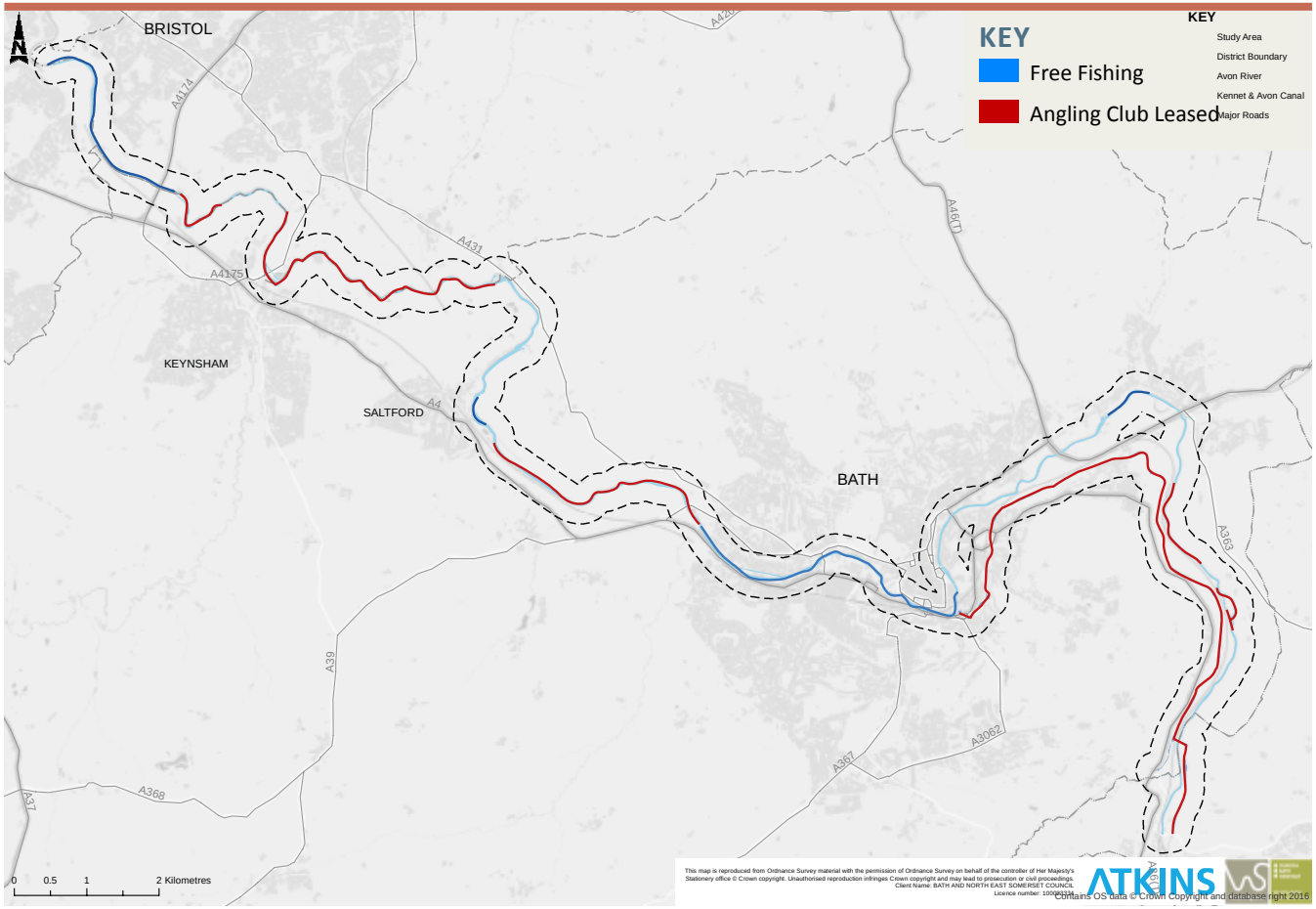
Environment Agency Hydroacoustic Fish Density Data (2013)

Fish Stocks

Hydroacoustic surveys of the Bristol Avon undertaken by the Environment Agency (2013) between Netham and Pulteney weirs provide an indication of the fish densities present.

The survey results indicate that lower fish densities were found between Swineford and Netham. Therefore opportunities to enhance fish stocks through improved habitat and passage (in England, 405km of watercourses were opened up for fish (improved fish passage at 57 sites) during 2015-16) should be taken.

THEME 5: RECREATION AND LEISURE



Angling Rod Licensing

The Annual Fisheries Report 2015-16 highlights that 1,210,201 rod licences were sold in England in 2015-16, with 65,229 sold in Wessex (1,595 Salmon and sea trout licences & 63,634 coarse fish licences).

A fishing rod licence is needed from the Environment Agency to fish with a rod and line for salmon, trout, freshwater fish, smelt or eel within the study area. A rod licence must be carried at all times by the angler. There are two types of licences: trout, coarse fish and eel licences that let you fish for non-migratory trout, char, coarse fish, eel and smelt; or salmon and sea trout licences that let you fish for salmon, sea trout and all of the fish in the licence above.

Children under 12 don't need a licence and it is now free for children under the age of 16 to fish, however children between the age of 12 and 16 do still need to apply for a free licence. If you take a child under 12 fishing and hold the rod, or help hold it, you must buy a licence for yourself. More information on rod licences can be found at the following website: https://www.gov.uk/fishing-licences/when-you-need-a-licence.

Free fishing

Free fishing locations on Bath & North East Somerset Council owned land (where anglers can fish for free providing they have a valid Environment Agency Rod Licence) on the River Avon within the study area currently includes land owned by Bath & North East Somerset Council at the following locations:

- B&NES River Avon towpath
- Bathampton Weir from footpath
- Saltford, the Shallows (left bank)

THEME 5: RECREATION AND LEISURE

AVON VALLEY ADVENTURE & WILDLIFE PARK

Avon Valley Adventure & Wildlife Park is a popular family attraction located on the banks of the River Avon, just off the A4 in Keynsham. From opening in 1987 the park's owners state that they now welcome around 170,000 visitors per annum. Originally established as a farm attraction, the park has developed to offer a variety of experiences, which include animal handling, indoor & outdoor play, park rides, crazy golf, natural habitats, cafe & gift shop, and rooms for hire. Additionally, the site organises and hosts specific one-off events throughout the year, particularly at Halloween & Christmas.

The Park are keen to expand their offer and to link better to the riverside, with improved access opportunities, to improve their sustainability credentials and link directly to the Bristol to Bath cycle track.

River access and wildlife opportunities

Aerial View of Avon Valley Adventure & Wildlife Park

Recreational Access for non-motorised boats

Canoeing, Kayaking, Rowing, Dragonboat racing, sailing and paddleboarding are all popular local water leisure activities and sports. Facilities are relatively limed, with the exception of the rowing clubs at Newbridge and Saltford, and the Saltford Sailing Club which have excellent facilities. Upstream of Pulteney weir there are private and club canoe and kayak access, as well as Bath Boating Station. Private boat hire has also re-opened in Batheaston upstream of the weir.

There are over 740 British Canoeing canoe club members in the South West, including seven clubs on the river Avon in the local area, in addition to schools and youth groups such as the Scouts Association who access the river locally to canoe (British Canoe Association SW Branch, 2017). Furthermore, the Sport England Active People Survey has shown that kayaking and canoeing is the second most participated in water leisure and sporting activity.

Canoe and Kayak clubs in Bath have informed us that the accessibility of the river is poor, in particular within central Bath where the engineered river walls make access and egress difficult. There are significant opportunities for incremental physical improvements to access, in many areas of the local waterways network. Existing routes could also be better promoted and advertised, signage can promote the river as friendly to all users, and blockages and hazards can be addressed.

Stakeholders have identified opportunities for waterbased spectacles, at Bath Riverside and Saltford. In addition, opportunities for improved physical access have been noted by local canoe groups on the K&A Canal, at Kensington Meadows, Newbridge, Warleigh Weir and Dundas Wharf/Brassknocker Basin. Additional opportunities have also been identified by Batheaston, Bathampton and Bathford Parish Councils.

PROJECTS AND PROJECT IDEAS

QUICK GUIDE TO THE PROJECT PAGES

Some of the items are existing projects, at various stages of development, while others are at concept stage.

The following pages include a summary of 35 project ideas that have been derived to revitalise the waterways of the River Avon and the Kennet & Avon Canal in Bath & North East Somerset. The ideas have been identified and derived through:

1. Consultation and dialogue with the 4 project partners, key stakeholders and the general public during 2016-17;

2. Consideration of studies and technical evidence gathered by the WaterSpace partners over recent years;

3. Analysis of the results of Boater Surveys, Focus Groups and 1:1 interviews with commercial enterprises and volunteer bodies undertaken during 2016.

The projects listed include low cost projects that can be delivered by volunteers or on a small budget, as well as big ticket infrastructure items, commercial projects and ideas that can be encouraged through regeneration and development. The WaterSpace Partnership has focused on the project ideas that the partners can directly support or champion, or which involve their assets or relate to their fields of influence.

The material submitted by third parties, as part of the "call for ideas" process has also been included and developed within many of the project pages. Many, but not all, of these ideas have found their way into the Study itself. We have sought to prioritise ideas which best matched with the Study aims and aspirations, and all projects were agreed by all four partners for inclusion.

The summary matrix list all of the projects and project ideas and summarise how they meet a number of factors.

OWNERSHIP

Projects which relate to land owned by the project Partners (Environment Agency, B&NES Council, Canal & River Trust and Wessex Water) is flagged. Additionally where there is third party land involved this is noted. In many cases projects involved more than one landownership. Most projects relate to assets in the control of the partners, at least in part.

+ Detailed asset maps are included in **Appendix 1**.

+ The full "call for ideas" responses from stakeholders are included in full in **Appendix 6**.

+ Key references to background evidence and further technical information is summarised in **Appendix 10**.

STUDY THEME

The WaterSpace Study theme which the project idea relates to is summarised here – multi-beneficial projects are sought wherever possible.

Project Idea pages each have a similar layout and style to make them easy to read and accessible.

NEXT STEPS

The WaterSpace Partnership has developed an action and funding plan for 2017-22 (Appendix 12) which identifies which of these projects will be given priority.

Other organisations, will be seeking to champion and take forward some of the other projects, and we will work to support this. While delivery and funding for some of the project ideas is already secured and underway, other projects are at a more conceptual stage.

QUICK GUIDE TO PROJECT PAGES

PROJECT FACTORS

Project Development Status

This section summarises how far proposals have progressed in terms of design and development. Some are early stage concept project ideas, whereas others are projects being implemented and/or are on-site. The following broad categorises have been devised and it is noted that there may be more than one stage of design to achieve within each category, many projects have changed status over the last year, this summary is correct as of March 2017:

● **One Dot =** Concept/ Design idea – requiring a feasibility report or further development to be taken forward.

●● **Two Dots =** Detailed Design (pre-planning) allowing for a review of options and in need of further development.

●●● **Three Dots =** Full design, ready to implement.

Funding Status

This section summarises the funding status of each project idea, is some cases the costs are well defined and the project has full or part funding. In other cases, particularly where the project is more conceptual there may be no funding or cost scoping undertaken. The following broad categories are identified:

Fully funded;

Part funded (with for example a proportion funding secured via contribution from new development);

No funding

+ More detail on the current funding and delivery status of various projects can be found in the FUNDING AND DELIVERY section of the WaterSpace Study.

Cost Score

The capital cost of projects has been estimated for a number of the scheme for which a design can be clearly determined, however there will be assumption relating aspects of the scheme which cannot be defined at the time of design such as services, professional fees and exclusions such as VAT. These have categorised as follows:

Low – Projects less than £100,000

Medium – £100,000 to £500,000

High – £500,000 +

Environmental Score

The benefit to wildlife and biodiversity can be captured to some degree, however in most instance a desk study can reveal potential constraint and opportunities for each project. In some instances there will be requirements for Habitat Stage 1 Survey work which will in turn highlight the need for species specific survey to inform the assessment or planning processes.

Low – Site has little or no biodiversity and/ or few opportunities to provide environmental enhancement.

Medium – Some environmental value to be protected and/or moderate opportunities to provide environmental enhancement

High – High environmental value to the site or asset requiring specialist advice and/or major opportunities for environmental enhancement.

Community Score

This determines the degree to which the project has current support or awareness.

Low – Limited consultation to date or stakeholders unknown.

Medium – Stakeholders are known and a programme of consultation.

High – Project is actively promoted has community support.

APPROVALS AND CONSENTS

There are a series of approvals or factors that may affect a given project, these are as follows:

Planning Permission – outline and detailed consents/reserved matters submissions and discharge of conditions.

Listed Buildings – a site factor that may require Listed building consent.

Environment Agency – approval or consents, often for works within 8 metres of a main river.

Canal and River Trust consents, for example in relation to moorings and riverside uses.[1]

Wessex Water – Approvals for abstraction or licensing.

A dot denotes that the above approvals and consents are required.

[1]In the case of Canal & River Trust Approval. In all cases the following consents would be needed:
- Canal & River Trust consent as landowner, which will only be granted where consistent with the requirements of the Charities Act 2011. It should not be assumed that inclusion of a scheme in this strategy will guarantee that the Trust's consent as landowner will be granted.
- Marinas wishing to connect to the Trust's canal system will require a connection agreement.
- 3rd parties will need to follow the Trust's Code of Practice for Works Affecting the Canal & River Trust, and obtain the Trust's consent, in order to ensure that our assets are protected.
- Agreement through the network access agreement process that new moorings, marinas or restoration schemes would not adversely impact on the Trust's ability to maintain our levels of service or adversely affect navigational safety, amongst other things. See: https://canalrivertrust.org.uk/media/original/24335-water-resources-strategy.pdf and https://canalrivertrust.org.uk/media/original/27629-environmental-framework-document.pdf.
- An agreement with the Trust will be needed for moorings on its waterspace. Applications will be assessed against the policies for mooring along the banks of our canals and rivers in place at the time.
- The Trust is a statutory consultee in the planning process and will consider how applications affect its assets and waterway users.

PROJECTS & PROJECT IDEAS – WHOLE STUDY AREA

PROJECTS & PROJECT IDEAS – WHOLE STUDY AREA

PROJECT & PROJECT IDEAS – WHOLE STUDY AREA

		Ownership		Themes					Project Factors					Consents & Approvals				
Project No.	Project Name	Project Partners (Canal & River Trust, EA, Wessex Water)	Third Party	Asset and Asset Management	Moorings and Navigation	Leisure and Recreation	Environmental Enhancement and Water Quality	Development and Regeneration	Development Status	Funding	Cost Score	Environmental Score	Community Score	Planning approval	Listed Buildings	Environment Agency	Canal and River Trust	Wessex Water
W1	Wilding the River								•	Part funded	Low	High	Low			•	•	•
W2	Standard Mooring Details & Advice								•	Part funded	Low	Low	Low	•			•	
W3	River Avon Bat Habitats & Mitigation								••	Part funded	Medium	High	Medium	•			•	•
W4	River Safety								•••	Part funded	Medium	Low	High			•	•	
W5	Friends of the River Park & Maintenance Opportunities								•	Funded	Low	High	High			•	•	•
W6	River Events, Walking & Arts Projects								••	Part funded	Low	Medium	High				•	•
W7	Invasive Species Management								•	No funding	Low	High	Medium			•	•	•
W8	River Movement Network								•	No funding	Medium	Low	Medium		•	•	•	
W9	Mooring Provision								•	No funding	Medium	Low	High	•		•	•	
W10	Boater Facilities								•	No funding	Low	Medium	High		•	•	•	•
W11	Floating Markets								•	Part funded	Low	Low	High				•	
W12	Renewable Energy								•	No funding	Medium	High	Medium	•	•	•		
W13	Angling Improvements								•	Part funded	Medium	Medium	Medium	•		•		

The project ideas above, relate to multiple locations within the WaterSpace Study area, and can be applied in numerous locations.

W1. WILDING THE RIVER (1/4)

DUNDAS — CLAVERTON — BATHAMPTON — BATH — SALTFORD — KEYNSHAM — HANHAM

PROJECT CONCEPT

The River Avon and Kennet & Avon Canal corridor provides a series of connected diverse wildlife habitats on the valley floor which supports the city's wildlife. The River Avon corridor is inhabited by kingfishers and otters, as well many species of birds, bats and freshwater fish. Its ecological diversity and natural beauty provides an integral component of Bath's future riverside character. A series of projects ideas are proposed that can improve habitats for wildlife and create attractive spaces for people to enjoy.

Five nodes of valued habitats /species hot-spots have been identified along the River Avon running through Bath:

1. Newbridge
2. Weston Island
3. Norfolk Crescent
4. The Railway Station
5. Pulteney Weir

OUTLINE PROPOSALS

- Establish biodiverse pond species along river banks
- Establish species – rich woodland groundflora
- Terracing of walls with natural slope, planted with natural emergent species
- Underwater planters with egg laying strips for fish, with fenders to protect from boats
- Inset vertical planters on sheet piling to vegetate and naturalise river banks
- Railing planters along river wall – year-round value for pollinating insects, birds and bats

KEY

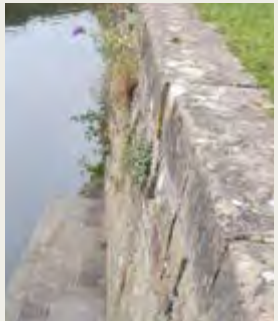
Environmental Nodes

Naturalistic River Banks

Artificial River Banks

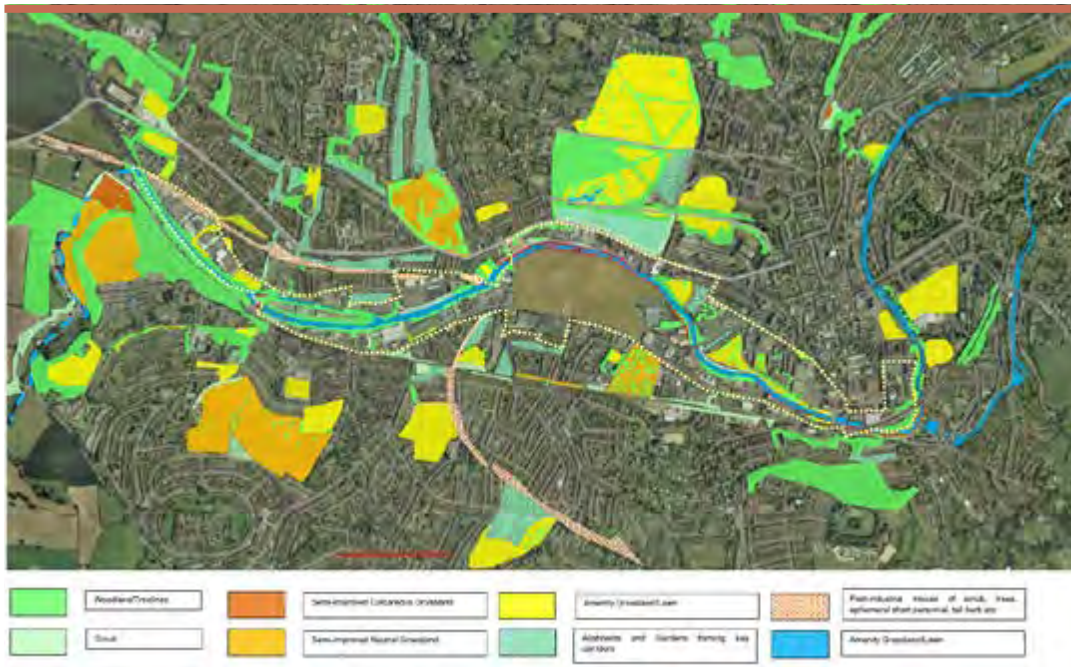
Wildlife Corridors from wider area

Significant woodland habitats



W1. WILDING THE RIVER (2/4)

DUNDAS | CLAVERTON | BATHAMPTON | BATH | SALTFORD | KEYNSHAM | HANHAM



SPECIES FOUND IN BATH'S ECOLOGICAL NODES


Otters


Kingfishers


Horseshoe Bats


Yellow Water Lily


Lodden Pondweed


Cormorants

OVERALL ISSUES & OPPORTUNITIES

Development along the river corridor requires careful management so as to not put the habitats that the river provides under threat. A focus on the key nodes identified would help to enhance the ecological and amenity value of the entire river corridor.

In some areas there are areas of lesser wildlife activity, there is opportunity to improve biodiversity, whilst introducing measures to enhance and protect existing wildlife hotspots.

1. NEWBRIDGE

- Confluence with Newton Brook & River Avon
- Naturalistic river banks
- Key site for Otter and Kingfisher population
- Issues relating to Himalayan Balsam invasion

KEY PROPOSALS


Management of invasive species


Establish biodiverse pond species along river banks (riverine species)


An Otter ledge can be provided to reduce the likelihood of otter road mortalities and increase the permeability of the river for this species.

W1. WILDING THE RIVER (3/4)

DUNDAS — CLAVERTON — BATHAMPTON — BATH — SALTFORD — KEYNSHAM — HANHAM

2. WESTON ISLAND

- Mix of naturalistic and sheet piling banks
- Site for Kingfishers, with some sightings of Otters attracted by fish
- Key site for Cormorants
- Presence of rare Lodden pondweed
- Woodland with overhanging branches providing feeding spots for birds

KEY PROPOSALS

3. NORFOLK CRESCENT

- Riffle feature opposite Norfolk Crescent at low flows
- Silt banks support rare Lodden pondweed and Yellow Water Lily
- Frequent Otter sightings
- Overgrown woodland groundcover with Hedera helix, reducing biodiversity

KEY PROPOSALS

Establish biodiverse pond species along river banks

Thinning of dense undergrowth and establish species-rich woodland groundflora

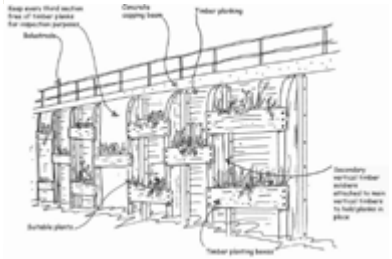
W1. WILDING THE RIVER (4/4)

DUNDAS — CLAVERTON — BATHAMPTON — BATH — SALTFORD — KEYNSHAM — HANHAM

4. RAILWAY STATION

- Confluence with Kennet and Avon canal
- Artificial banks with sheet piling
- Quiet wooded refuge area behind the Railway station
- Hotspot for Otters and Kingfishers

KEY PROPOSALS



Inset vertical planters on sheet piling to vegetate and naturalise river banks

Railing planters along river wall provide year-round value for pollinating insects and food for birds and bats.

Bankside tree cover should be retained and encouraged wherever possible as shading can help cooling and provides cover for adult fish as well as retaining night-time dark corridors for other wildlife.

5. PULTENEY BRIDGE

- Constantly aerated water and calm adjacent backwater
- Frequent sightings of Otters and Kingfishers
- Presence of Yellow Water Lily
- Horseshoe Bat roost

KEY PROPOSALS

Inset vertical planters on sheet piling to vegetate and naturalise river banks

Railing planters along river wall provide year-round value for pollinating insects and food for birds and bats.

Overhanging planters and vegetation will increase levels of invertebrates falling into the river supporting fish populations.

W2. STANDARD MOORING DETAILS & ADVICE (1/2)

DUNDAS | CLAVERTON | BATHAMPTON | BATH | SALTFORD | KEYNSHAM | HANHAM

Moorings and boating activity can create a vibrant river and canal environment and bring visual interest and natural surveillance. This project seeks to explore new opportunities to create new and better manage existing moorings for residential and some business uses. Increasing the number of moorings would also take pressure off angling platforms which come under pressure in the absence of safe egress points. Typically, moorings fall into a number of categories:

- Long term moorings for a vessel (not necessarily an implied residential use);
- Residential moorings, used as a person's sole long-term residence;
- Visitor and short stay moorings occupied by a succession of vessels; and
- Casual Mooring where boats tie up anywhere along the towpath or riverbank (except in prohibited areas).

Residential moorings, where boaters are able to moor their boats on a long-term basis and live on them, should not be confused with moorings used by boaters living on the waterways as continuous cruisers.

This project aims to outline the opportunities to create new/improve existing moorings of all types. When considering the design and implementation of moorings the following aspirations will be supported:

- Proposed location and number of moorings and suitability for the capacity proposed;
- Mixed moorings to encourage different usage, vessel size and type and durations – a mix in a single location is often preferable;
- Well serviced moorings with access to basic facilities within a reasonable proximity;
- Moorings which support built and natural heritage and biodiversity;
- Support for water based public based transport and water taxis in accessible locations;
- Moorings with safe access, that do not impact unacceptably on navigation, safety, water resources and service standards or waterways operations;
- Moorings with appropriate management arrangements;
- Moorings which promote the waterways and diversity of use and/or act as a catalyst for regeneration and support emerging riverside projects;
- Use of consistent, clear, low key and well sited information signage and detailing in terms of mooring fixtures appropriate to the location and waterside edge conditions.
- Moorings for safe use when the river is in spate will be supported (on river), where they can be sensitively sited.

CASUAL MOORINGS

Casual Mooring are where boats tie up anywhere along the towpath or riverbank for up to 14 days. Some areas of the waterways have prohibited no mooring areas, for example, where there is a safety or operational reason for 'no mooring' or where a private land owner does not permit mooring. Much of the River Avon is private land and in which case mooring is not permitted unless by consent by the landowner.

RESIDENTIAL MOORINGS

AINA (2011) provide guidance on whether planning permission is required for residential mooring, however, it is for the Local Planning Authority to determine this on a case by case basis. There are no specific mooring standards, but services should e provided within a reasonable cruising distance. Parking and access issues, are common planning concerns linked to residential moorings and would be considered as part of a planning application process.

MARINAS

Marinas often include both berths which host moorings of different types including leisure, residential and moorings for commercial boats. Typically there is a combination of offline (within basin) and online (on waterway) moorings. The Canal & River Trust has a specific information relating to proposals for new marina development: https://canalrivertrust.org.uk/business-and-trade/inland-marina-development-guide/our-application-process

CREATING THE OPPORTUNITY FOR BUSINESS MOORINGS

The Canal and River Trust aim to increase visitors to the waterways by looking at opportunities to expand waterbourne businesses which add richness and diversity to the river environment.

A dedicated Business boating Team assist entrants to boating businesses. New projects to set up businesses on the towpath or other Canal & River Trust land can be made to: customer.services@canalrivertrust.org.uk https://canalrivertrust.org.uk/business-and-trade/boating-business

Business boating uses include:

- Statutory safety boats, maintenance and club boats;
- Boatyards providing services to boaters that include boat building, repairs, servicing, brokerage, fuel sales, sewage and refuse disposal, chandlery, dry dock hire, trade plates;
- Cargo carrying in accordance with freight regulations, this may apply to a roving trader;
- Non-navigational exhibit boats are boats that are owned by or formally on loan or associated with a recognised canal museum, society or visitor attraction.
- Boats operated by charities and community groups, used primarily for community or educational uses;
- Fixed location trading boat, statically moored boat selling goods or services and could be a cafe, restaurant, office, hairdressers, gallery or shop.
- Maintenance workboat, these are for workboats that are used exclusively for qualifying waterway maintenance work.
- Recreational and tourism related boats such as skippered hotel boats, skippered passenger self drive hire, boats, private charters, water taxi/bus services.

The Business boating process also considers applications for a lease for residential moorings on the Canal & River Trust's waterspace.

W2. STANDARD MOORING DETAILS & ADVICE (2/2)

DUNDAS | CLAVERTON | BATHAMPTON | BATH | SALTFORD | KEYNSHAM | HANHAM

Canal & River Trust Business Mooring for Cafe at Bathampton.

Bath Marina – An example of a Marina facility with a combination of offline and online moorings, operated on a leaseholder basis on Council owned land.

Canal & River Trust Pontoon Moorings at Widcombe, Bath.

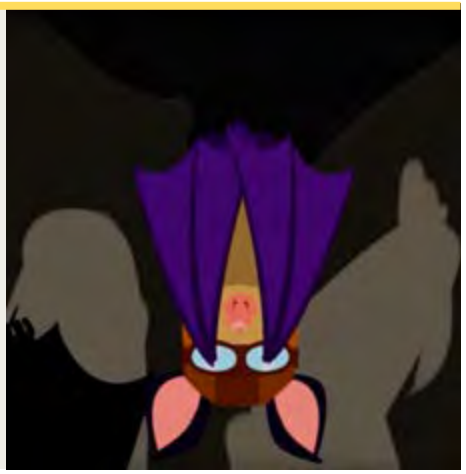
W3. RIVER AVON BAT HABITATS & MITIGATION (1/2)

DUNDAS | CLAVERTON | BATHAMPTON | BATH | SALTFORD | KEYNSHAM | HANHAM

PROJECT CONCEPT

During 2016-17, 12 months of intensive Bat Survey have taken place within the Bath Enterprise zone.

This has provided new data to help us understand how bats use the River Avon, their patterns of behaviour and prevalence. There is an opportunity to use this data to create design guidance to inform new development within the Bath Enterprise zone and to look more strategically at opportunities to enhance their habitat and provide necessary mitigation.



Horace the Horseshoe Bat on the River Avon – Animation, created for B&NES Council (2016)

BAT SPECIES ACTIVE IN BATH'S RIVER CORRIDOR

Bath has a unique mix of old buildings with underground cavities, leafy parks, and is connected by the river Avon corridor, promoting easy access to the countryside beyond. There is also a network of mines in the surrounding hills which support their habitat. Surveys carried out in the River Avon corridor show that 14/18 species of bat found in the UK are found in the river corridor, including:

- Common pipistrelle – Our smallest and most common species
- Soprano pipistrelle – Pipistrelle bats roost commonly in houses
- Nathusius' pipistrelle – These bats can migrate long distances in autumn
- Noctule– Our biggest bat – see them flying high over fields
- Leisler's bat – A rare species, similar to the noctule and which roost in trees
- Serotine – Another big bat with a wingspan up to 30cm!
- Daubenton's bat – The 'water bat' which can hunt for insects just above the water's surface
- Naterer's bat – Can scoop insects up with their tail!
- Whiskered – DNA studies have found that this may actually be a group of several species
- Brown long-eared – Its ears are almost as long as its body!

Bath is also lucky enough to be home to important colonies of the rare and endangered greater horseshoe bat and lesser horseshoe bat. These bats are only found in SW Britain and depend on cattle-grazed pasture fields with, dung beetles as a staple foraging food source. This species tends to form linear features such as the river corridor.

ISSUES & OPPORTUNITIES

Bath City Enterprise zone is a key zone of riverside redevelopment and change. The river corridor is a key habitat and a linear route navigable by the bats and as such designs and river side intervention should seek to achieve the following:

- Early understanding of bat habitats can inform the development process
- Appoint an ecologist to guide the design process early on
- Achieve a bat friendly corridor along the river by avoiding unnecessary light spill and designing dark corridors and connections
- Implement landscape, lighting and design proposals that can assist bats, such as appropriate insect attracting native plant species, long grass areas with flowering species and reduced mowing regimes
- Careful design of lighting with full cut off to avoid unnecessary light splay

Bat Survey Locations (2016-17)

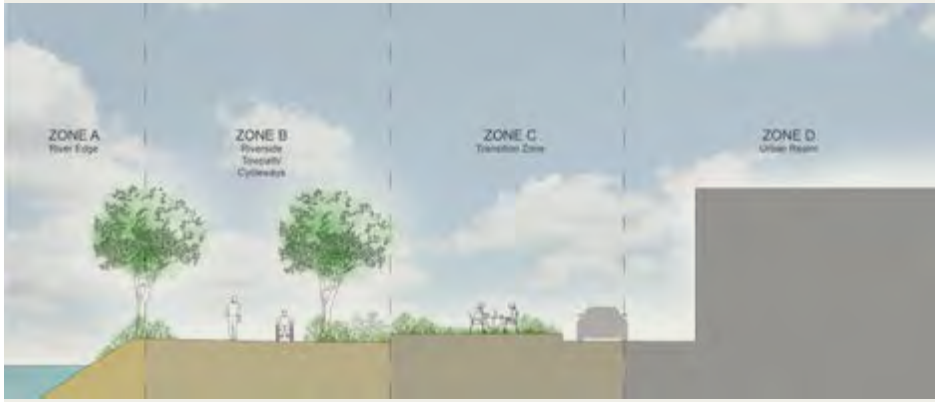
W3. RIVER AVON BATH HABITATS & MITIGATION (2/3)

DUNDAS | CLAVERTON | BATHAMPTON | BATH | SALTFORD | KEYNSHAM | HANHAM

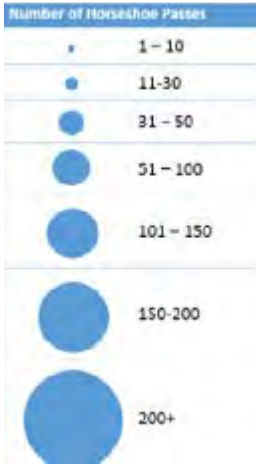
Example community bat survey for the River Avon at Newbridge, Festival of Nature 2016.

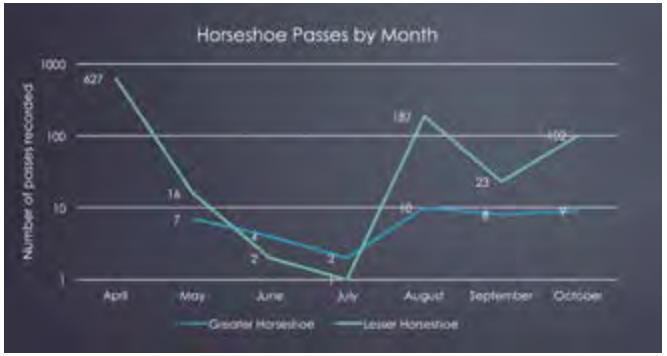
Survey locations and findings in terms of Horseshoe bat passes (Summer 2017 survey)

DESIGN GUIDANCE



Bat Specific Design Guidance for the Enterprize Zone in Bath is currently under preparation. It will identify design options for sensitive transition zones within the river corridor allowing for sufficient transition between dark river edges and lit urban spaces and development.





W4. RIVER SAFETY

DUNDAS | CLAVERTON | BATHAMPTON | BATH | SALTFORD | KEYNSHAM | HANHAM

EXTENDING RIVER SAFETY INITIATIVES

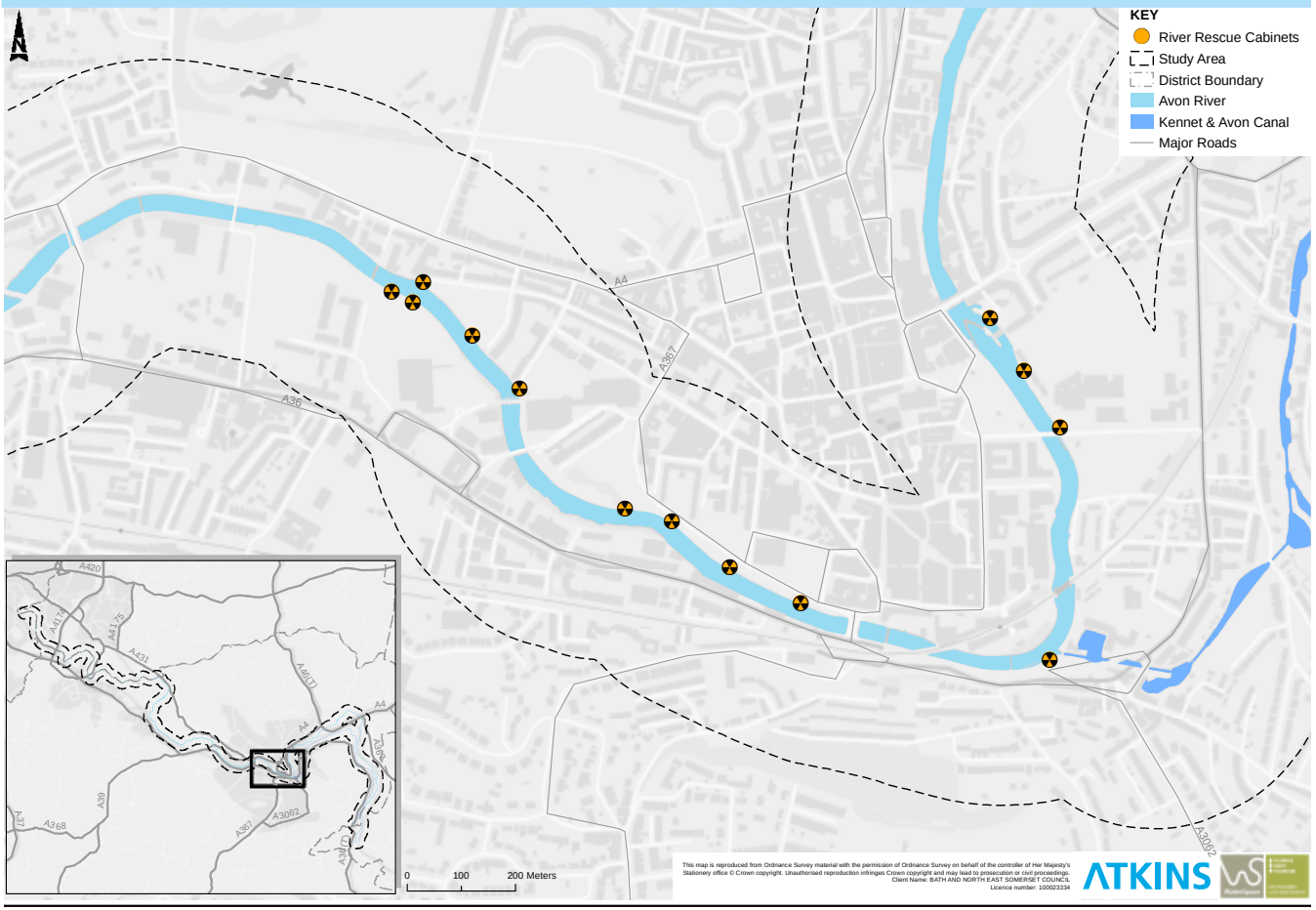
Bath and North East Somerset is the first place in the UK to install secure river rescue cabinets. The first 14 cabinets have been installed along the stretch of river from Windsor Bridge to Pulteney Bridge in Bath city centre. The specially designed cabinet will ensure that the equipment cannot be damaged or stolen and will be there in an emergency. Avon Fire and Rescue will be immediately alerted of any incidents, so that they can send help.

As part of its commitment to improve safety along the River Avon, Bath & North East Somerset Council has produced a short animated film on the newly installed river rescue cabinets, showing where the cabinets are, what they look like and how to use them. The film was produced by the Bath based video production company, Suited and Booted.

It is proposed that there will be an extension to this project to identify the next areas in need of the life saving equipment. This project has been supported by the River Safety Group, with representatives Avon Fire and Rescue, Avon and Somerset Police, South West Ambulance Trust, The Environment Agency, Canal and River Trust and Bath and North East Somerset Council.

A campaign to raise the profile of river safety issues is underway, linking with Bath Spa and Bath University and Bath City College.

In addition, river railings, grablines and safety ladders have been installed in city centre locations to act as a barrier to direct access to the river edge and create opportunities to leave the river. Wherever possible, designs should consider a range of users including anglers and boaters who may need gated access to the river edge.



Two additional River Safety Cabinets are currently being installed in Batheaston

W5. FRIENDS OF THE RIVER PARK & MAINTENANCE OPPORTUNITIES

DUNDAS | CLAVERTON | BATHAMPTON | BATH | SALTFORD | KEYNSHAM | HANHAM

PROJECT CONCEPT

This project links to the River Avon Park project (Project 12).

Along the entire River corridor there are many small improvements which can improve access to and enjoyment of the space. There is an opportunity for a management framework and maintenance regime to be established, with key landowners, stakeholders involved. Such a process would support volunteering and would lead to a clear and well considered management approach.

The idea of a "Friends of the River Avon Park" group, which would coordinate the management and maintenance of the River corridor through Bath is proposed. This builds on the successful model in Batheaston. Possible projects include:

1. Identifying opportunities for maintenance of existing towpaths, street furniture and signage. Utilising a consistent approach.
2. Identifying opportunities for small scale works that would be tackled as volunteer projects with support from the partners in terms of tools, plant hire removal of green waste etc.
3. Identifying opportunities for improvements delivered through new development or other riparian owners.
4. Community litter picks and associated fundraising opportunities.
5. Training and upskilling projects, potentially linking with existing operations run by partners such as the Canal & River Trust.

All projects would require specialist input from a suitably qualified ecologist into the design of the management regime to ensure the ecological value of the river corridor is protected, particularly in relation to vegetation management.

A Weeds in derelict areas to be cleared

B Dense evergreen growth disrupting access and reducing biodiversity

C Extensive invasive growth reducing access & biodiversity

D Himalayan Balsam invasion reducing biodiversity

E Overgrown hedgerows blocking pathways

F Dense riverside growth preventing access to the river edge where required

G Dense tree canopies creating dense shade but also supporting dark corridors for wildlife

H Overgrown riverside trees in need of thinning and vulnerable to root failure into the river

W5. FRIENDS OF THE RIVER PARK & MAINTENANCE OPPORTUNITIES (1/2)

DUNDAS | CLAVERTON | BATHAMPTON | BATH | SALTFORD | KEYNSHAM | HANHAM

OBJECTIVES

The project would fall into two categories:

1) Management & Maintenance Plan for the River Avon Park – Overview

2) Direct Action and Implementation projects

A series of 40 example projects for volunteers have been identified already by local volunteers with extensive experience of volunteering on the waterways. Examples of potential implementation projects along the river corridor include:

- Provision for litter and dog bins with an agreed means of emptying these;
- Wayfinding proposals linked to identifying and enhancing connections between the surrounding areas/connecting footpaths and highways with the riverside path;
- Supporting sporting activity e.g. new slipways, vegetation and litter management linked to sporting facilities;
- Supporting sporting activity e.g. new slipways, vegetation and litter management linked to sporting facilities;
- Maintenance and upgrading riverside barriers, especially in relation to riverside safety, smaller scale projects could include localised maintenance;
- Practical improvements such as repainting railings, repairing and replacing wayfinding and street furniture, surface repaids to the river path
- Supporting arts, leisure and sporting activity e.g. providing stewards etc
- Vegetation management to both land and waterside of the Riverside path
- Publicity and Corporate Sponsorship

The involvement of local sports clubs, and businesses and existing networks of volunteers would be key to the success of this project. The appointment of a volunteer coordinator for the River Avon Park should be considered, to establish a Management and Maintenance Plan and to set up the Friends of the River Avon Park Group.

WORK BOAT

Volunteers working on the Kennet & Avon Canal (K&A) have identified the potential for a workboat to be available for works on the River Avon, works could include improving visibility for navigation, clearing debris, working on locks and weirs and undertaking other safety checks and repairs.

The capital cost of a workboat is around £40,000 with ongoing maintenance costs of £6-8,000 per year. A detailed Business Case is currently being prepared.

As an interim arrangement, Canal & River Trust has secured the use of a workboat for six months in Bath. It has proved invaluable.

W5. FRIENDS OF THE RIVER PARK & MAINTENANCE OPPORTUNITIES (2/2)

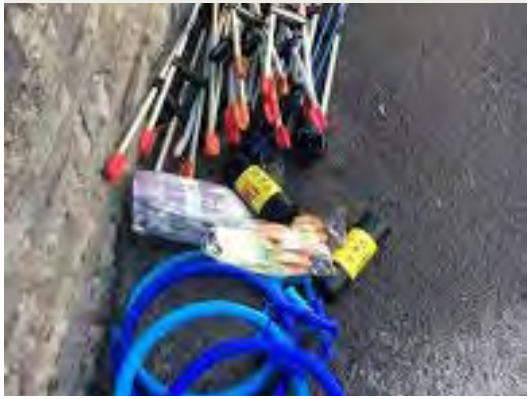
DUNDAS | CLAVERTON | BATHAMPTON | BATH | SALTFORD | KEYNSHAM | HANHAM

PRACTICAL PROJECTS

Practical volunteering projects would be beneficial to improving the riverside environment and engagement with the River Avon Park concept. For example:

Community Litter Picks

Community litter picks could help to clean up the towpath and vegetation, and get local people involved. The WaterSpace partnership has already collaborated with local groups in 2017 to deliver some of these with loaned equipment from the Canal & River Trust and B&NES Parks and Cleansing teams.



Yellow Fish Project

There is an opportunity to run 'Yellow Fish' projects to highlight the link between storm drains and water quality. The Environment Agency promotes such projects which involve community engagement to stencil yellow fish, with harmless chalk based non-toxic fish onto storm drains that discharge to the river. This helps raise awareness of water quality issues and is a fun project to get people involved in.

Flora and Fauna

Through the Friends of the River Avon Park project there are further opportunities to link up with Project W1 Wilding the River by getting local residents involved in wildlife action and gardening projects and running wildlife walks, river safari, foraging and photography trails. Recent citizen science projects organised by the WaterSpace partnership have been very well received.

Art & Craft

There is local interest in volunteer led pop-up arts and craft activities and events which will encourage people to both visit the waterways and get involved in traditional crafts such as traditional boat painting, rope fender design, metal work and canal folk art. In 2017, Julian House held an art exhibition showcasing artists work who lived on the waterways, this included photography about life on the Kennet & Avon Canal. Activities like this could be supported, particularly within the River Avon Park area.

Above image used with kind permission from gregsgypsybowtops.co.uk

W6. RIVER EVENTS, WALKS & ARTS PROJECTS

DUNDAS — CLAVERTON — BATHAMPTON — BATH — SALTFORD — KEYNSHAM — HANHAM

THE RIVERSIDE POETRY TRAIL

The Riverside Poetry trail was part of the Festival of Nature, an annual event held in Bath to engage people with the natural environment. The trail is a journey along the River Avon with display boards of poems from some of Bath's most respected poets, located in the scenic spots in which they were inspired. Poets include Holly Corfield Carr, Carrie Etter, Andrew F Giles, Tania Hershman and Jack Thacker.

These sites lead from Bath City Centre starting at Victoria Park and heading westwards Towards Saltford and Bristol, with many set along existing walking routes such as the 6 Bridges Walk and the Two Brass Mills Circular Walk.

SWEET WATERS

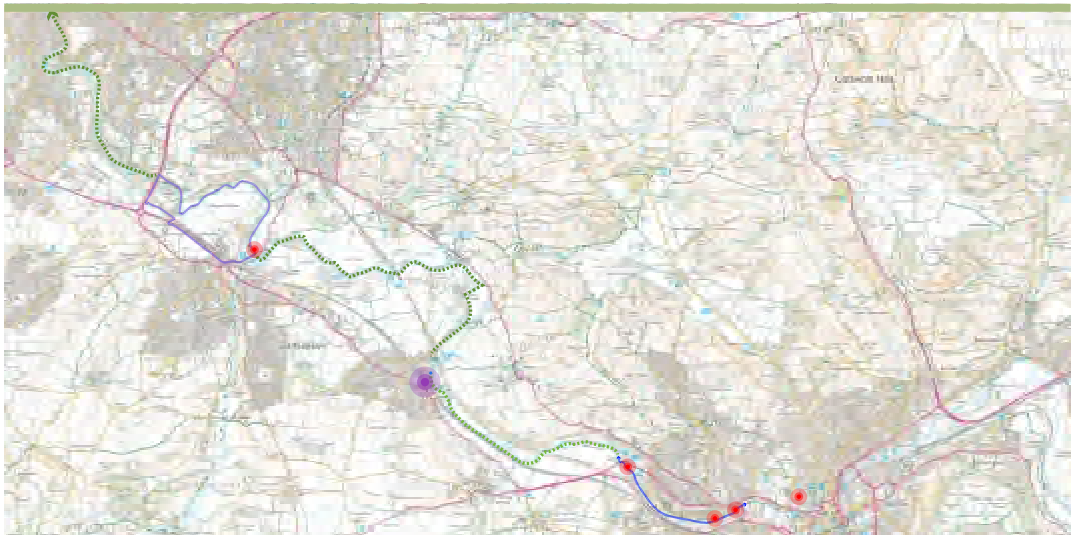
This project is linked with the industrial heritage of the river and its historic connections with the slave trade. The Sweet Waters project was delivered in 2017 and featured a series of participatory performative walks that bear witness to the heritage of the river and the surrounding landscape, exploring the history of slave labour. Saltford Brass Mill will act as the hub for the project.

EVENT ROUTES

There is potential for the River Avon corridor from Bath to Hanham to provide an ideal route for walking and running charity events, with scenic views and abundant services such as car parks and refreshment stops along the course. Whilst most of the river corridor is accessible some areas currently aren't in a suitable condition for use, including between Newbridge and Saltford where the route becomes narrow and rough. Resurfacing of these areas combined with clearer signage and participation of local services could be a key route for local charity events.

- **Pathway Improvements** – consisting of mown grass and mud paths. Resurfacing will improve experience for cyclists & pedestrians

- **Retained Pathways** – Create links between existing walking trails, attracting users to a wider area along the river



WALKING ROUTE MAPS

A series of Riverside Heritage Walks have been produced in collaboration with local groups and businesses, with potential for sponsorship and development. The 3 walks include:

Bath Six Bridges Walk – A popular 18th century walk exploring the heritage and wildlife. The route begins at Newbridge and passing beneath the Midland Railway Bridge, the 'Dolphin Bridge', Weston Footbridge to the remains of Twerton Suspension Bridge and ending at Windsor Bridge. Along the route are opportunities to spot local wildlife such as Kingfishers, Otters and Horseshoe Bats; as well as local pubs, restaurants and parks.

Two Brass Mills Circular Walk – Kelston Round Hill is an iconic landmark that provides the backdrop for the route at Saltford. The walk is rich with the heritage of brass-making by the river Avon, beginning at Saltford Brass Mill through the Shallows and towards Kelston Brass Mill. Along the route are opportunities to spot local wildlife such as Herons, as well as local pubs and restaurants.

River Avon, Road & Rail Walk – A riverside walk rich with history and wildlife, beginning at Hanham pubs to Keynsham Lock. Along the route are opportunities to spot local wildlife such as Cormorants, as well as local pubs and restaurants. Sites include the Cadbury's Somerdale factory, the remains of Londonderry Wharf and Keynsham Abbey.

Bath Six Bridges Walk

Two Brass Mills Circular Walk

River Avon, Road & Rail Walk

W7. INVASIVE SPECIES MANAGEMENT

DUNDAS | CLAVERTON | BATHAMPTON | BATH | SALTFORD | KEYNSHAM | HANHAM

This project relates to the targeted control and management of invasive species including zebra mussels, Japanese knotweed and Himalayan balsam.

There are also opportunities for increase biosecurity measures to be taken by those frequently utilising the river, such as following the guideline's of DEFRA's "Check, Clean Dry" campaign to combat invasive species.

An example is given here of Himalayan Balsam control, work is currently underway in the catchment via the Avon Alien Weeds Forum and the Avon Frome Partnership.

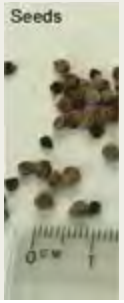
HIMALAYAN BALSAM CONTROL

This project aims to manage the invasive Himalayan Balsam plant on the banks of the River Avon thus helping to protect the riverbank from erosion and protecting the ecology.

The species has been found in a number of locations along the river including the Keynsham area, Saltford and close to Warley Weir which is accessible via Dundas Aqueduct.

Introduced to the UK in 1839, Himalayan balsam is now a naturalised plant, found especially on riverbanks and in waste places where it has become a problem weed. Himalayan balsam tolerates low light levels and also shades out other vegetation, so gradually impoverishing habitats by killing of other plants. The uncontrolled presence of Himalayan Balsam can lead to river bank erosion as it undermines the stability of riverbanks, especially when it dies down in the winter leaving the riverbanks bare and exposed. Targeted management rather than eradication is needed, as the latter is unlikely to be achievable.

KEY ID FEATURES



ACTION

Throughout the river and canal network Himalayan Balsam is a serious threat to the riverside habitat. It is particularly an issue around Saltford and Keynsham. This would be a joint Environment Agency, Canal & River Trust, Wessex Water and B&NES Council project as stakeholders with interest in the river eco-system.

According to the Government's Non Native Species Secretariat (NNSS) Himalayan Balsam is listed under Schedule 9 of the Wildlife and Countryside Act 1981; as such it is an offence to plant or otherwise allow this species to grow in the wild.

Removal should ideally be before it produces ripened fruit capsules – annually each plant ejects hundreds of seeds a distance of up to 6 or 7 metres.

Resources to identify this species are included on Saltford's Environment group website.

Criteria for Managing and Controlling Himalayan Balsam include the following:

- Mapping the presence of the species where known along the river corridor
- Raise awareness of the prevalence and threat of deliberately planting or spreading this species through public awareness
- Facilitate removal of this species as an early task in any riverside works or implementation of new infrastructure and nearby development for which the River Avon is a key amenity;
- Consider voluntary assistance with guidance working in groups to treat accessible areas for eradication

W8. RIVER MOVEMENT NETWORK

DUNDAS | CLAVERTON | BATHAMPTON | BATH | SALTFORD | KEYNSHAM | HANHAM

PROJECT CONCEPT

Surrounding the city of Bath is a wide catchment area of daily commuters and visitors from nearby settlements.

This in turn increases congestion within the city which causes travel disruption as well as negative environmental effects. In addition the centre of Bath is a significant visitor destination, with the river providing a setting and connection to many of the city's attractions.

This project aims to increase the usability of the river for travel purposes for both daily commutes and tourism, reducing road congestion and promoting a healthier lifestyle and engagement with the river. This requires increased transport provision covering a wider area with convenient and direct links between key sites around Bath and the city centre.

Commercial River Boats

Commercial river boats operating seasonally or all year could provide some opportunities for alternatives to the current public transport network. There may be potential to incorporate new leisure boat stops in key locations, with a regular ferry or localised shuttle boats

Commercial tourist services could offer trips from the centre of Bath to surrounding settlements and attractions.

There is potential for a season ticket system for frequent users, as well as alternative options for tourists.

Benefits include:

- Reduced car use – more environmentally friendly
- Encourage more visitors to areas around Bath e.g. Saltford Brass Mill
- Generate revenue and creates employment opportunities
- One new river taxi service and a canal based waterbus have started operating in Bath 2016!

Next Bike

A bike rental system implemented in Bath which has been extended in places.

At present bike terminals are situated throughout Bath city centre, however there is potential for more locations along the river corridor including nearby riverside settlements for enhanced links and convenient travel for daily users and visitors.

Benefits include:

- Increases engagement with the river corridor
- Promotes healthy lifestyle and wellbeing
- Encourages more visitors to areas around Bath e.g. Saltford Brass Mill and Bathampton
- Generate revenue and creates employment opportunities
- Reduces air pollution

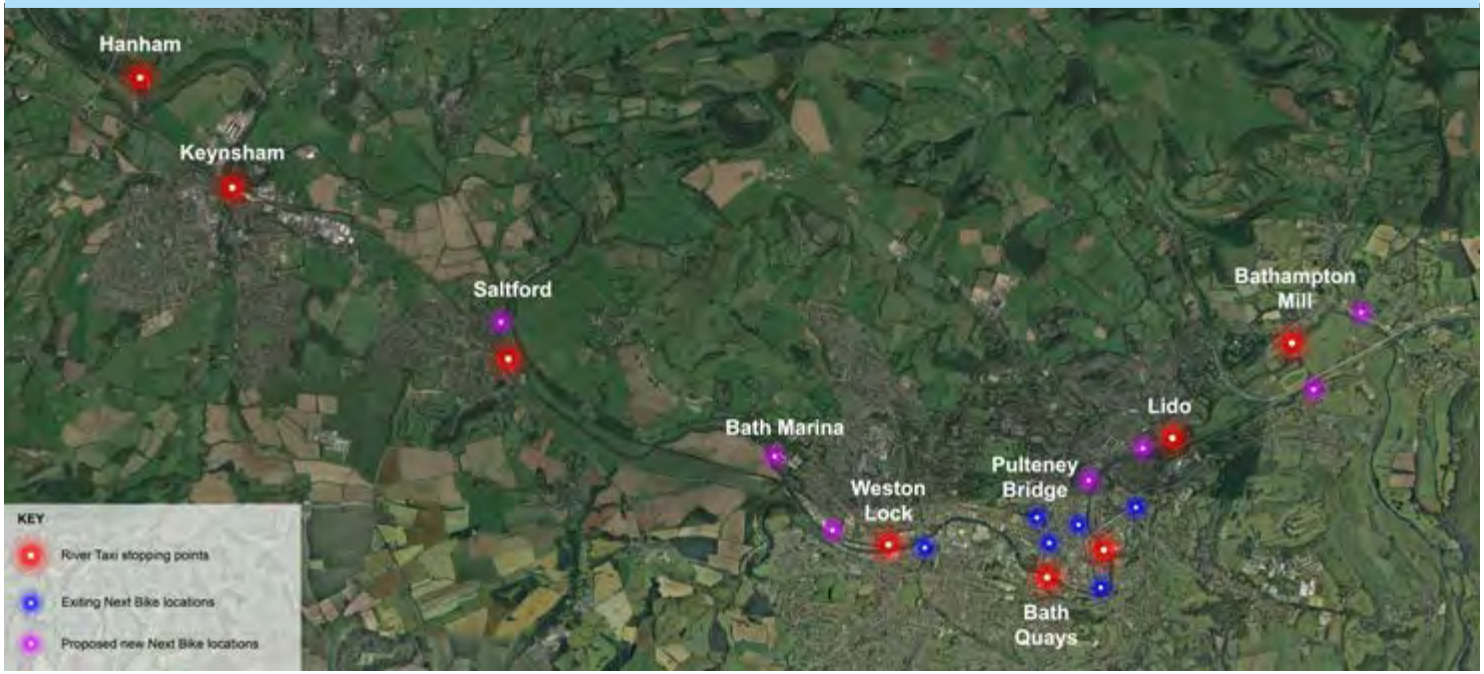
OBJECTIVES

- Encourage greater use of the river corridor: Improved access and facilities both on and along the river
- Improve links between Bath Centre and surrounding settlements
- Reduce road congestion within the city centre: through promoting alternative transport options

NEW BRIDGES

There are a number of projects to provide new bridges to enhance connectivity across the River Avon, including Bath Quays Bridge and Somerdale Bridge (see projects 9 and 22 in this Study).

Further opportunities to enhance connectivity for pedestrians and cyclists are being considered as part of the current Sustrans Bath Action plan (underway 2017).



W9. MOORING PROVISION (1/2)

DUNDAS | CLAVERTON | BATHAMPTON | BATH | SALTFORD | KEYNSHAM | HANHAM

PROJECT CONCEPT

The project partners have identified the benefits of increased mooring opportunities, specifically on the River Avon, to increase activity, natural surveillance and encourage navigation and enjoyment of the local waterways.

However, any new moorings development does require adequate site specific ecological survey work and assessment, to ensure that there is no adverse environmental impact that cannot be adequately mitigated.

CURRENT MOORING OPERATIONS ISSUES AND OPPORTUNITIES

The demand for moorings relates to all types of moorings – 48hr, 14 day, trade and residential. The local demand profile is not quantified, indeed there is no agreed or standardised methodology to project mooring demand. However, it is acknowledged that there is pressure for moorings on the Kennet & Avon Canal at Bath. On the River Avon there are very few visitor moorings, and few on-line moorings which have pontoons.

Some of the key design considerations for moorings include:

- Maintaining adequate distance between moorings
- Enforcement of mooring durations
- Safe access including adequate vehicular access and parking

The Placemaking Plan moorings policy H6 relates to the creation of new moorings (all types). There are a number of tests that new mooring schemes will need to meet, including no adverse impact on navigational safety, water resources and the environment. Moorings also require the agreement of relevant landowners and the Canal & River Trust.

PROJECT OBJECTIVES

This project aims to provide new moorings and rationalise existing moorings along stretches of rivers adjoining emerging riverside developments, this is the approach which has been achieved successfully at Bath Western Riverside development delivered by Crest Nicholson.

Further potential for moorings are set out within emerging or future projects detailed in the subsequent sections of this report there are additional moorings proposed at:

- Pulteney Weir and Moorings
- Mead Lane
- Fieldings Footbridge/Bath University proposed Arts Campus (at the former Herman Miller site); and
- Riverside pocket park projects, the intention will be to create activity and moorings will be explored where appropriate.

MANAGEMENT OF MOORINGS

Adequate management arrangements for moorings are required, and a range of models may be implemented. Third party management arrangements and on-site management presence can be an effective management structure.

POTENTIAL NEW RIVERSIDE MOORINGS

Potential new mooring locations could be created at:

1 Rationalise moorings in the vicinity of the proposed Somerdale Bridge location, considering other requirements such as bank stabilisation;

2 Wessex Water, future access, options include a potential new bridge crossing, could provide potential to review riverside moorings;

3 Mead Lane, planned review of mooring locations and durations;

4 Bath Marina are seeking to improve their mooring offer, potential expansion is limited by ecological sensitivity;

5 The redevelopment at the former Herman Miller building as part of Bath University Arts Campus;

6 Locations associated with improvements to the riverside pocket parks;

7 Pulteney Moorings and River Wall moorings between North Parade Bridge and Halfpenny Bridge (east bank).

8 Potential new moorings at Keynsham as part of Broadmead Peninsula Strategic Site (if progressed).

ON THE RIVER

Riverside moorings are more restricted especially within the urban section of the waterway. There are opportunities to increase the mooring provision at a number of sites areas of search.

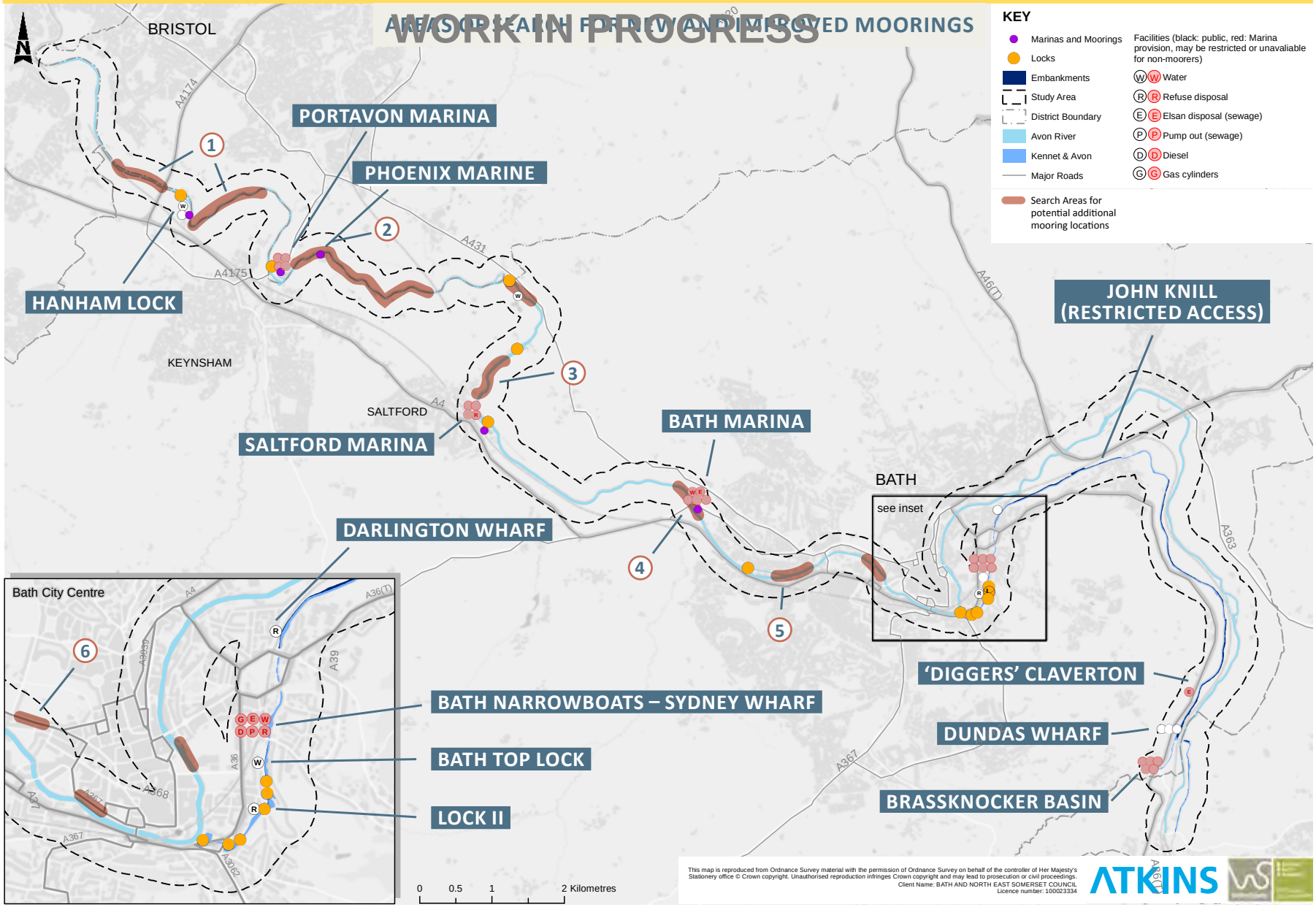
ON THE CANAL

Along the Kennet and Avon Canal waterside edge the period of mooring is up to 14 days, assuming it's on the towpath side. In some places mooring becomes impractical due to the ease of passing.

In places where mooring is not practical, the absence of canal boats does offer a different character to the canalside and a closer relationship to the water for using the towpath.

W9. MOORING PROVISION (2/2)

DUNDAS | CLAVERTON | BATHAMPTON | BATH | SALTFORD | KEYNSHAM | HANHAM



W10. BOATER FACILITIES (1/2)

DUNDAS | CLAVERTON | BATHAMPTON | BATH | SALTFORD | KEYNSHAM | HANHAM

ADDITIONAL BOATER FACILITIES

Existing facilities for boaters include services and access such as:

- Power and fuel refilling;
- Water points; and
- Waste disposal.

The Boaters Survey 2016 ran for six weeks, from Tuesday 24th May to Monday 4th July 2016. It looked at how far boaters travel, the type and size of crafts used, and the range of facilities they need whilst on the canal and river in the B&NES area. Results were made available to the Bath Water Space project to enable facilities such as water points, sewage disposal and mooring areas to be planned and provided. The boater survey included feedback for potential improvements as

- More/better moorings;
- Towpath improvement;
- More elsan/rubbish/water/shower facilities;
- Less towpath you can't moor to (much is overgrown/eroded);
- More dredging/maintenance;
- Better understanding between different users;
- Fewer boats/hire boats/"booze boats";
- "looking after heritage";
- Enforcement of moorings to comply with law/basic rights of boaters to be respected/ established; and
- Disabled/accessible moorings

At present the provision is at certain locations, and these are historic and were installed as part of former uses or are under different ownerships. Locations do not necessarily relate to stretches of river with highest demand. Many of the facilities are located within Marinas or in 'hard to reach' locations for the non-marina users, as the individual site may not rely upon a riverside location e.g. at marinas. Therefore, many boaters do experience awkward transportation issues in relation to dealing with waste or topping up water needs, which can be heavy or require driving to empty tanks or waste bins.

Often the facilities are not easily used by the residential boater and commercial boater whose needs are generally all year round.

Additional Provision

The study examines the river/canal corridors to define a search area for new facilities has been undertaken at a high level and considers the following issues and opportunities:

- Opportunities to combine new facilities with new development via S106 provisions for riverside sites;
- Creating new facilities on land in council ownership;
- Look at ways in which infrastructure projects could provide access to riverside sites to create new locations for facilities, such as new bridging points.
- Services need to be 'Winter' proof to avoid taps being closed in freezing weather conditions;
- Service provision needs to be monitored and maintained to ensure it is in working order given the travel requirements of potential user and the impact of non-serviceable equipment; and
- Numbers of taps and outfalls needs to be matched with demand and may not necessarily be determined wholly by distance between facilities;

Ideally locations for riverside service provision need to be at appropriate cruising distances apart, allowing the boaters to plan a journey and allow time to service their boats.

For sections of the canal there may be opportunity to provide non-towpath side locations on the canal as well as river locations. These may need to combine vehicle accesses to facilitate servicing. More sustainable solutions could include solar power and either sceptic tank or composting sewerage, however mains water will rely upon conventional connections.

From a review of the Boater Survey, 2016, and based in the lack of facilities, an initial target for provision will be set by B&NES and Canal & River Trust and reviewed once completed. Predicting demand is not precise and this target will seek to provide:

Phase 1 – Ten water points and five sewage disposal points as a minimum at five new locations (with 'elsan' disposal at each). It may be these are combined with the potential locations set out in Theme 11 Additional Moorings but may be more readily facilitated to coincide with service provision as part of nearby infrastructural projects. Co-locating the servicing with mooring may need to be carefully considered to ensure it does not impact on nearby residents or boaters and also in terms of the spatial/navigational requirements and general activity that would be attracted to service hubs at busier times. For those known project areas the designs for new facilities are being developed to an outline stage and one such example is Mead Lane.

Phase 2 – Explore potential to located additional short stay moorings with electricity points.

Search Areas – These have been identified and include the following stretches of river and canal:

1 – Keynsham to Hanham (near the proposed new footbridge at Somerdale);

2 – Swineford to Keynsham;

3 – Saltford to Swineford (near Wessex Water Site); and

4 – Weston to Kelton locks (located towards Saltford).

Note that search areas on the River to the west of Bath are within Bristol Water Supply Area.

WATER SUPPLY

All water supplies should accord with the Watersafe guidance on approved contractors and fittings, and must be Water Regulations Advisory Service approved. Any standpipes need to be installed as per Wessex Water guidance.

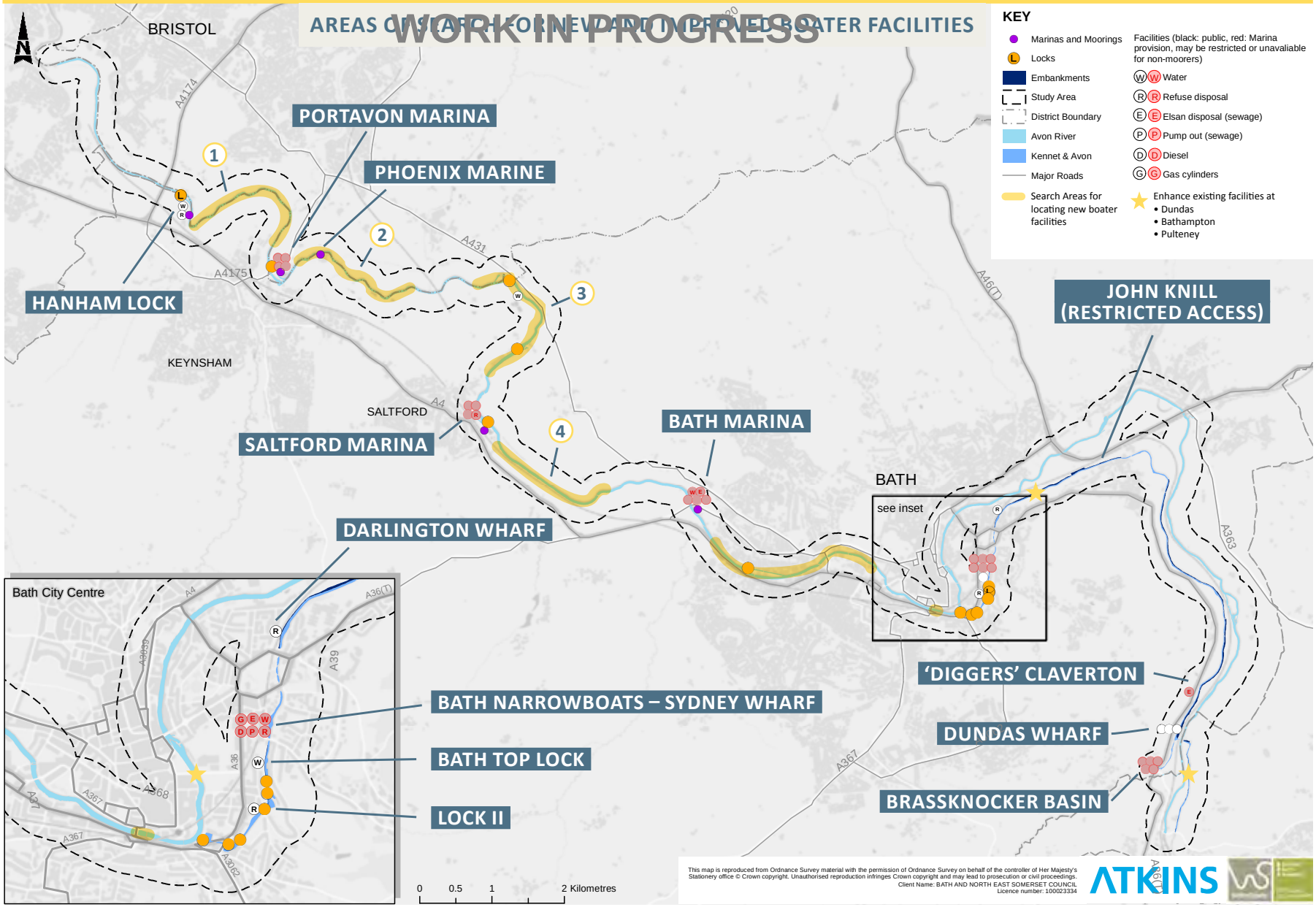
It would not normally be necessary to install anything greater than a 32mm connection.

If the standpipes are only used occasionally then there could be water quality issues; careful consideration will need to be given to this issue

In more remote locations away from water mains, boosting or storage may be necessary and management responsibilities will need to be established if access is required via private land. Wessex Water can advise further on a case by case basis.

W10. BOATER FACILITIES (2/2)

DUNDAS | CLAVERTON | BATHAMPTON | BATH | SALTFORD | KEYNSHAM | HANHAM



W11. FLOATING MARKETS

DUNDAS | CLAVERTON | BATHAMPTON | BATH | SALTFORD | KEYNSHAM | HANHAM

PROJECT CONCEPT

A floating market offers the potential for goods and services to be sold from riverboats/riverside mooring areas. Services could include souvenir/ arts based businesses combined with cafés, restaurants or food produce. This type of market was commonplace in the past when water transport played a more important role, but now mainly serves as tourist attraction within cities with a major river. There is scope to create an events based market with associated Christmas Fares in places where space allows, this could be combined with activities in nearby parks perhaps providing a source of income, for example at Christmas in the same way as the riverside Kew Gardens has an annual event, a Christmas Trail.

With their appeal to tourists and local residents, a floating market in the right location, with good footfall and riverside connectivity can increase visitors to the waterways, and encourage the use of the river as a destination bringing both valuable activity and generating revenue.

Bath Weston Riverside
A newly renovated waterside development with a high quality public realm which could accommodate a floating market and the associated activity due the presence of moorings and adjoining public open space.

DESIGN CONSIDERATIONS

- Riverside markets need adequate vehicular service access to provide for emergencies, deliveries and waste removal;
- Power and water points will be essential to some operators, especially to avoid reliance upon wood burning stoves;
- Consider potential to provide seasonal lighting or banners on structures;
- Riverside Safety and Access will be a consideration if onboard access to riverside boats is required
- Mooring arrangements need to agreed and managed in similar fashion to street markets;
- Consider requirements for on-site management or temporary infrastructure for events.

Brass Mill
An easily-accessible river edge within a picturesque setting. A potential location for locals in the village as well as visitors to the Saltford Brass Mill and the Shallows. Could include a waterside restaurant/cafe.

Bath Spa Art University Campus
An accessible river edge near the centre of Bath. A potential location to provide students at the university arts campus with an accessible riverside space, with facilities such as a cafe. A riverside market could be an opportunity to display graduating art exhibitions or sell artwork.

Bath Quays
An accessible river edge in the centre of Bath, within a historic industrial setting. A potential hotspot for attracting tourists as well as locals visiting the city centre. Potential for a wide variety of services. Potential for roving trader pitches is under consideration.

Parade Gardens
A highly picturesque and visible area within the centre of Bath. Proximity to nearby tourist attractions and the train station makes it a potential hotspot for a variety of floating market stalls which could be highlighted as part of the city's wayfinding.

W12. RENEWABLE ENERGY

DUNDAS | CLAVERTON | BATHAMPTON | BATH | SALTFORD | KEYNSHAM | HANHAM

HYDROPOWER

Hydropower can provide an important source of renewable energy, providing a constant, reliable source of electricity. High-level modelling by the Environment Agency shows that the best opportunities within the district are located at the seven existing weirs along the River Avon.

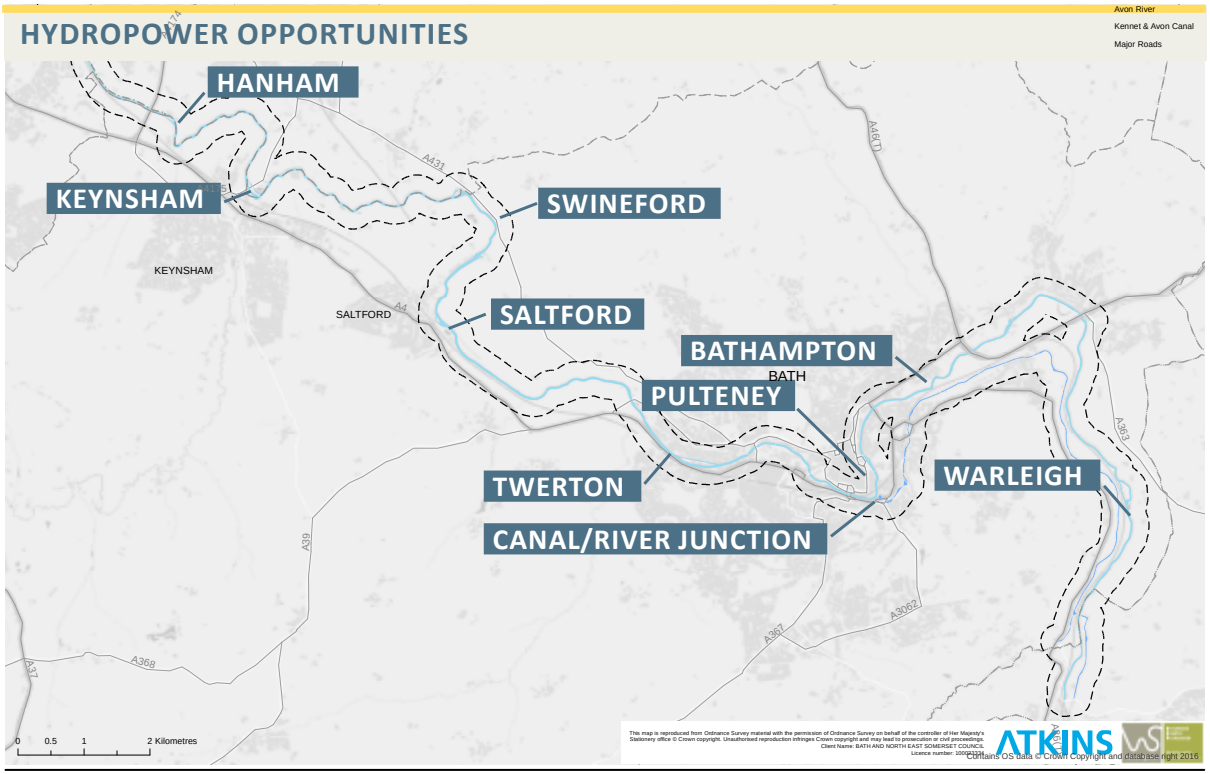
If hydropower development was developed at all seven locations this could provide between 100kw and 500kw, 500kw would supply enough electricity to power up to 7,000 homes.

RECENT PROJECTS

Bathampton is already home to a restored water wheel, owned by the not-for-profit Bath & West Community Energy; the water wheel now supplies the Old Mill Hotel with 100% renewable electricity. A community hydropower project has also been delivered in Freshford using an Archimedes screw, which supplies 49kw.

Freshford Hydro scheme

HYDROPOWER OPPORTUNITIES



Map of hydropower opportunities on the River Avon within the 100-500kw power category (CAMCO, 2012; Environment Agency, 2010).

Bathampton Mill Hydro Scheme

WATER SOURCE HEAT

Water source heat pumps are also an option for renewable energy from the waterways, using a refrigerant gas to gather heat from the water which then goes through a compressor to generate useable heat.

W13. ANGLING IMPROVEMENTS

DUNDAS | CLAVERTON | BATHAMPTON | BATH | SALTFORD | KEYNSHAM | HANHAM

There are a number of practical projects that could be pursued to improve angling in the study area, where riparian owners allow.

ANGLING INFORMATION

There is potential for an angling guide to the Bristol Avon between Bristol and Bath to encourage more people to get involved, and find out more about local clubs and promote local events.

Young people's involvement in angling is key to the future of the sport

NEW & IMPROVED ANGLING PLATFORMS

There are many different types of angling platforms that can be constructed, access for all is important, and the design should be sensitive to the location and its character. The British Disabled Angling Association (BDAA) provide good examples of how angling platforms should be constructed and designed for use by disabled anglers. It is suggested by the Environment Agency that this is used to inform design, siting and sizing of new platforms.

Platforms can also be constructed from a range materials including wood, metal and even recycled plastics. When constructing angling platforms, consideration also needs to be given to the access to the platform as anglers may carry a lot of tackle. Adequate pathways and suitable gates will make access easier for all.

There are a number of accessible locations for angling within the district including the Shallows Saltford and at Bathampton Riverside.

Environment Agency Angling Platforms at Beer Wall, Sowy River, Somerset – designed to BDAA standards.

Above: Bristol Avon (Bradford-on-Avon) Angling Platform has a bespoke design sensitive to its setting

Left: Inclusive angling platform design

IMPROVED FISH PASSAGE

Between Pulteney and Hanham Weirs on the River Avon, there are seven large in-river structures (weirs and sluice gates) that remain barriers to fish migration. Of these structures, only three have a fish pass, but these passes are designed for larger coarse fish and migratory salmonids (such as salmon and sea trout) only. This means that for other species of fish, including the European eel (which is endangered), these structures hinder upstream and downstream passage and need improving. The requirements for fish passage is regulated by the Eels (England and Wales) Regulations 2009, the Salmon and Freshwater Fisheries Act 1975 and the Water Framework Directive

Opportunities for improving fish passage at some of the fish pass sites should be pursued, for example through the works to the Water Control Gates at Pulteney and Twerton.

Fish passage costs vary from site to site and for different types of fish passes installed, but for eel specific passage costs could be in the region of £10-120k, whereas multi-species fish passage options can range from £20-250k depending on the complexity and size of the fish pass required.

The pool and traverse fish pass on Keynsham Weir

POTENTIAL FUNDING

In recent years Environment Agency rod licence funding in England has included:

The Angling Improvement Fund (aimed at getting more people fishing), which has reinvested £735,000 of rod licence money in 67 angling improvement projects, matched by £735,000 from other sources.

The Fisheries Improvement Fund (aimed at improving wild fish stocks and therefore angling interests through habitat restoration and improved fish passage, has reinvested £375,000 of rod licence income on 74 fisheries improvement projects with £700,000 match funding.

PROJECTS & PROJECT IDEAS – LOCATION SPECIFIC

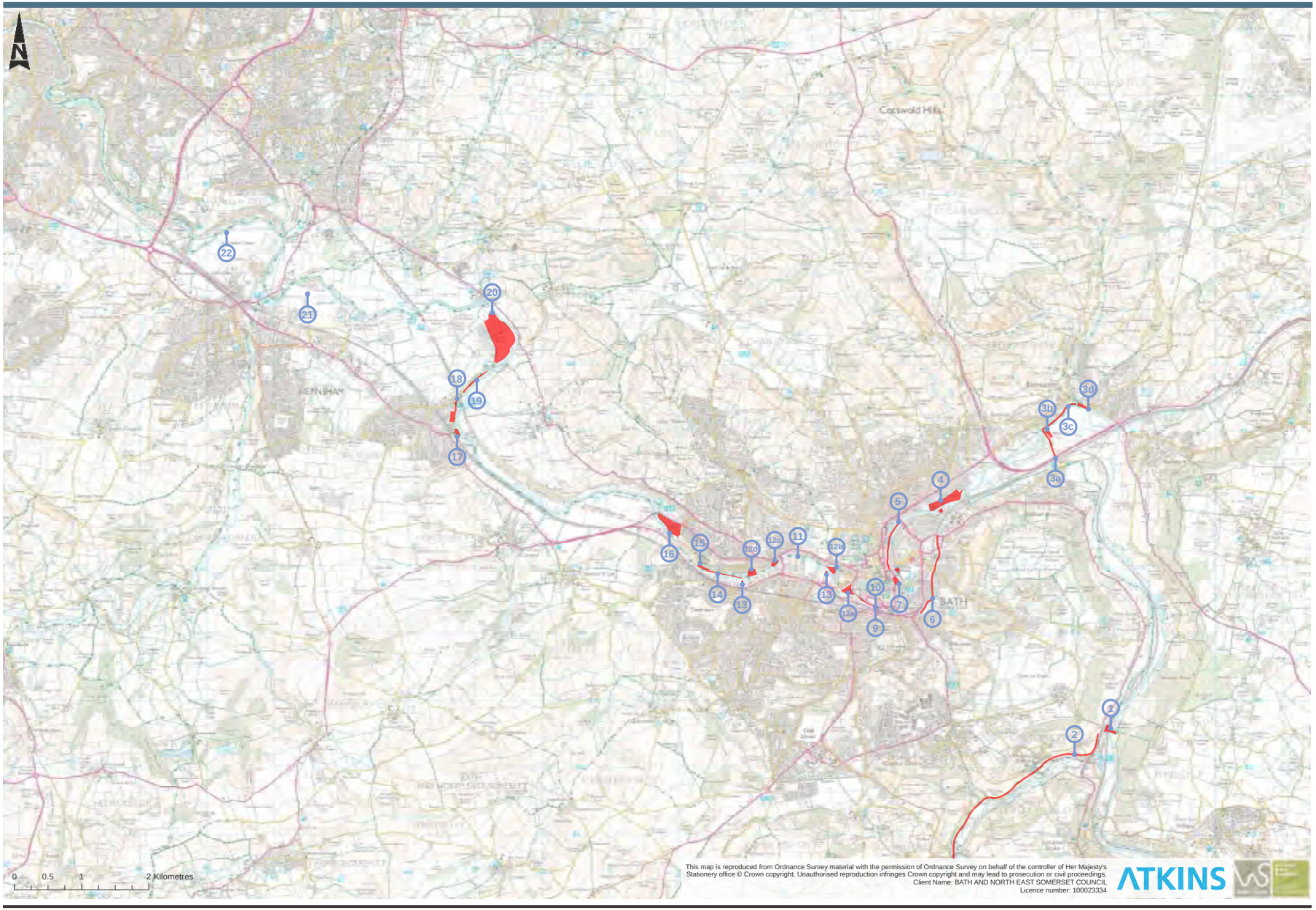
PROJECT & PROJECT IDEAS – LOCATION SPECIFIC

The project ideas below, relate to specific locations within the WaterSpace Study area, the map on the following page highlights the specific project area locations.

PROJECT & PROJECT IDEAS – LOCATION SPECIFIC

		Ownership		5 WaterSpace Study themes					Project Factors						Consents & Approvals				
Project No.	Project Name	Project Partners (Canal & River Trust, EA, Wessex Water)	Third Party	Asset and Asset Management	Moorings and Navigation	Leisure and Recreation	Environmental Enhancement and Water Quality	Development and Regeneration	Development Status	Funding	Cost Score	Environmental Score	Community Score	Planning approval	Listed Buildings	Environment Agency	Canal and River Trust	Wessex Water
1	Dundas Public Realm Project								•	No funding	Medium	Low	High		•		•	
2	Somerset Coal Canal								•	No funding	High	High	Medium		•	•	•	
3	Batheaston/Bathampton Riverside Environmental Projects								•	Part funded	Medium	High	High		•	•	•	
4	Kensington Meadows								•	No funding	High	Medium	High	•		•	•	
5	Riverside Path Access North of Pulteney Bridge								•	Part funded	Medium	Medium	Medium	•	•	•	•	
6	Canal Towpath & Connectivity								•	No funding	High	Medium	Medium	•	•	•	•	
7	Pulteney Bridge & Parade Gardens								••	Part funded	High	Medium	High	•	•	•	•	
8	Widcombe Social Club								•	No funding	Medium	Medium	Low	•			•	
9	Bath Quays: North, South & Bridge								••	Funded	High	Medium	High	•		•	•	•
10	Upgraded Moorings at Bath Quays Waterside								•••	Funded	Medium	Medium	High	•		•	•	•
11	Bath Riverside								••	Funded	High	Medium	High	•		•	•	•
12	River Avon Park								••	Part funded	High	High	High	•		•	•	•
12A	Green Park								••	Part funded	High	High	High	•	•	•	•	
12B	Norfolk Crescent								••	Part funded	Low	High	High			•	•	
12C	Kelson Fields								••	Part funded	Low	High	High			•	•	
12D	Brassmill Green								••	Part funded	Medium	Low	High		•	•	•	
13	Environment Agency Access Locations								•	Part funded	Medium	Low	High	•		•	•	
14	Bath Spa Arts University Development								••	No funding	Medium	Medium	Medium	•	•	•	•	
15	Weston Cut Canal								••	No funding	Medium	Medium	Medium		•		•	
16	Bath Marina								••	No funding	Medium	High	High				•	
17	Saltford Brass Mill								•	No funding	Low	High	High		•	•		
18	The Shallows Saltford								•	No funding	High	Medium	Medium	•	•	•	•	
19	Mead Lane Moorings								••	Part funded	Medium	Medium	High			•	•	•
20	Wessex Water Bridge								•	No funding	High	Medium	Low	•	•	•	•	•
21	Broadmead Peninsula								•	No funding	High	Medium	Low	•	•	•	•	•
22	Somerdale Development								••	Part funded	High	High	High	•		•	•	

PROJECT & PROJECT IDEAS – LOCATION SPECIFIC



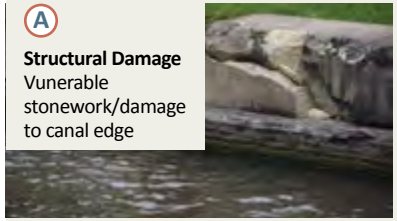
1. DUNDAS PUBLIC REALM PROJECT

DUNDAS — CLAVERTON — BATHAMPTON — BATH — SALTFORD — KEYNSHAM — HANHAM

PROJECT CONCEPT

The initial proposals centred on the historic Toll House and Crane have been developed by K&A Canal Trust. These proposals include the rationalisation of drainage to reduce surface run-off and erosion of pathways. Within the wider Dundas Wharf area is opportunity to repair stonework, make adjustments & updates to the interpretative material and boards around the site to convey the significance of the historic structure and connections which persist today.

OVERALL ISSUES & OPPORTUNITIES

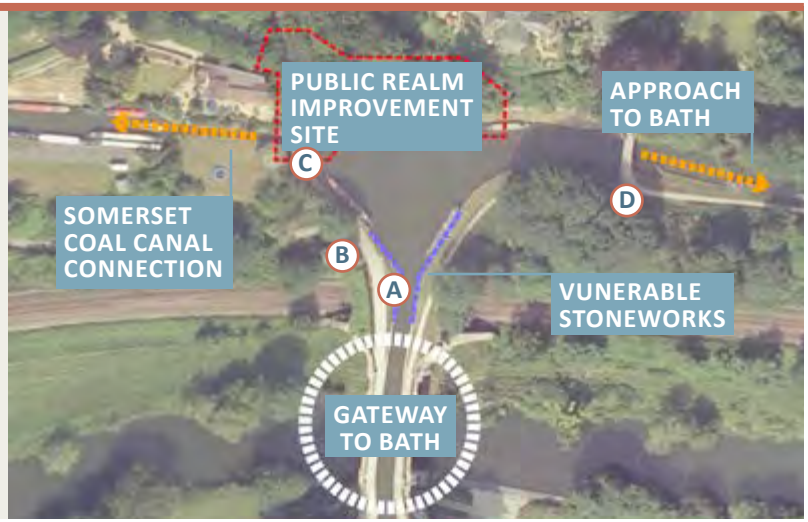


A Structural Damage
Vunerable stonework/damage to canal edge

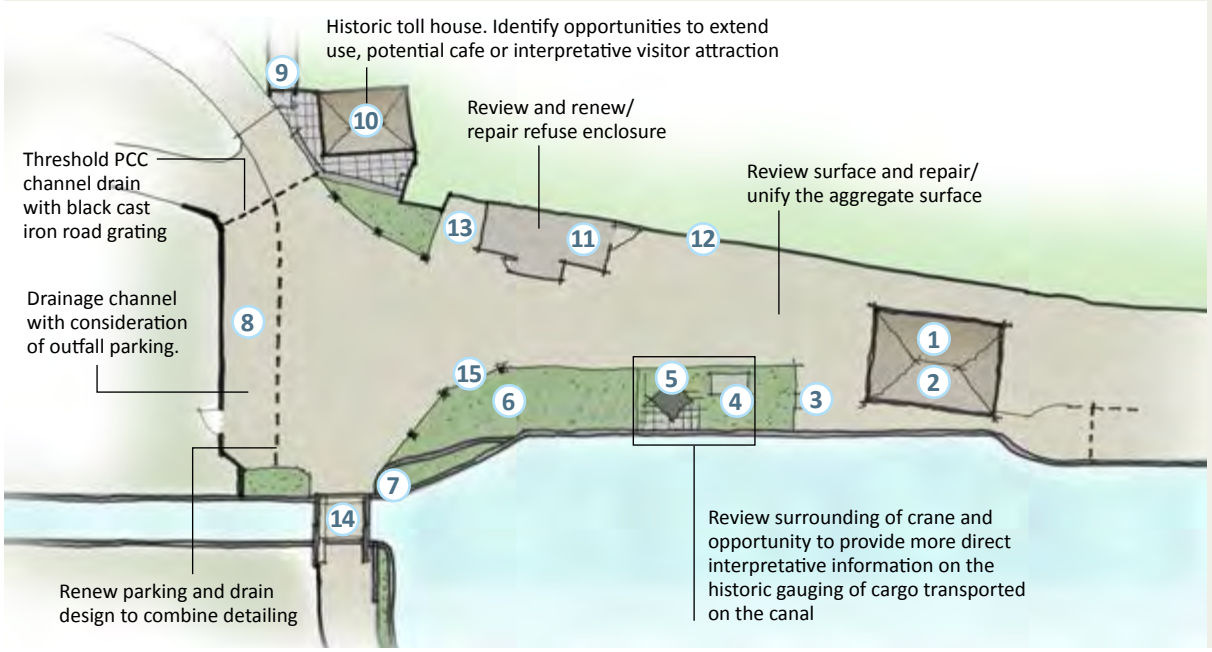
C Disconnection
Reconnection to Somerset Coal Canal

B Renewal
Update site furniture, provide additional seating

D Approach to Bath
Rationalise signage onto a single post and design style where applicable



OUTLINE PROPOSALS



KEY TO PROPOSALS & SITE FEATURES

1. Wharf Building
2. Elsan Disposal Facility
3. Water point
4. Commemorative plaque/plinth
5. Historic crane
6. Grassed area between posts & wharf edge
7. Low level grass areas
8. Parking bays for Dundas lock cottage
9. Public Right of Way to A36
10. Historic Georgian Toll house
11. Existing refuse enclosure
12. Wall supporting bank to adjoining property
13. Parking space let to boater
14. Lift bridge
15. New drainage channel

2. SOMERSETSHIRE COAL CANAL

DUNDAS — CLAVERTON — BATHAMPTON — BATH — SALTFORD — KEYNSHAM — HANHAM

The Somersetshire Coal Canal (SCC) Society submitted a project idea to restore sections of the northern branch of the former canal. They are working with private landowners to explore this project. The Society would like to appoint a project officer to progress the project.

PROJECT CONCEPT

Restoration of the Northern Branch of the Somersetshire Coal Canal from Dundas to Paulton in an historically and environmentally sensitive way. Newly created navigation and moorings along the restored canal would provide leisure, recreation, business and mooring opportunities. It could also provide a green infrastructure route. This project relates to a ten-mile former canal corridor.

Waterways restoration of the Southern Branch to Radstock is not proposed, however, a heritage trail could be developed on this arm to Radstock.

In the short to medium term, there are a series of projects to restore historic features and provide opportunities for recreation pending full navigation.

OVERALL ISSUES & OPPORTUNITIES

A restored Somersetshire Coal Canal would give walking and boating access to the heart of the historic Somerset coalfield, along a green corridor. Although it runs entirely through countryside, it passes near many villages.

Other examples of recently-restored canals demonstrate that these projects invariably unlock considerable economic benefits to be had from waterway restoration e.g. the restoration of the Stroudwater Canal.

The restoration of the 750m section at Monkton Combe between the A36 and Mill is adjacent to the section which is already in water at Brassknocker Basin, is the SCC Society's current priority.

The Somersetshire Coal Canal is in private ownership, divided between approximately 80 different landowners. Monkton Combe School is the major landowner of the section at Monkton Combe.

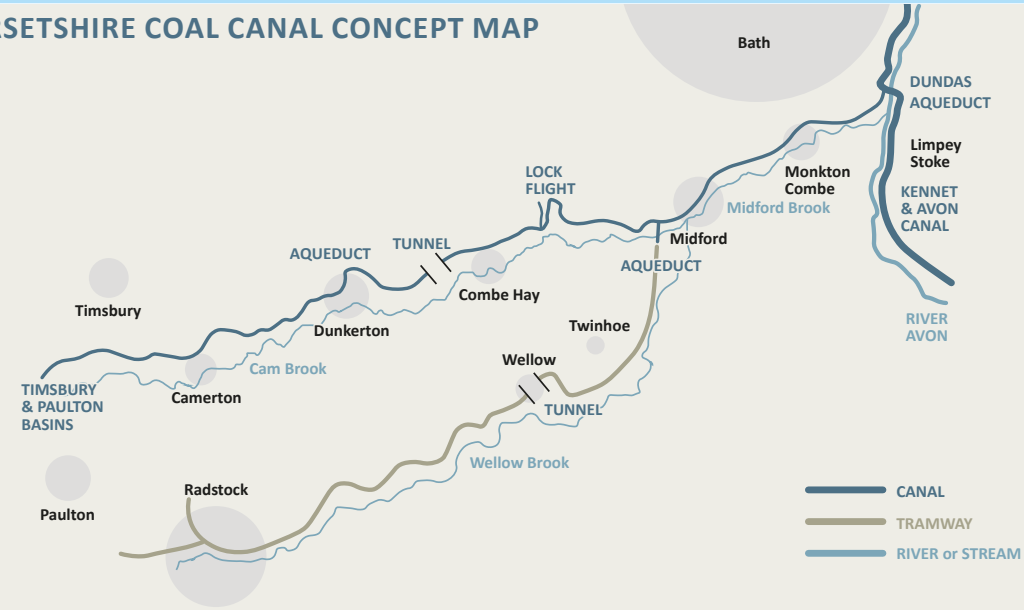
There is potential for the Canal to be restored in sections as and when the funding is available. The restoration is more expensive than many other stretches of open canal as it poses specific engineering challenges.

The impact of any restoration scheme on water resources will need to be considered. The Canal & River Trust's general policy on such schemes is that there should be no net impact on long term water resource levels of service unless there are compelling arguments for accepting a reduction in the level of service for the existing network. This project could achieve many wider benefits.

PHOTOS




SOMERSETSHIRE COAL CANAL CONCEPT MAP



3. BATHEASTON/BATHAMPTON RIVERSIDE ENVIRONMENTAL PROJECTS (1/4)

PROJECT CONCEPT

The site has experienced development in recent years as part of the Batheaston Vision Plan (2009), which included the provision of a new pedestrian and cycle bridge connecting the village of Batheaston with Bathampton and Bath. At present the site consists of a car park with surrounding mown grass and toilet facilities in a large under utilised building. With the recent introduction of the bridge link, the site has potential to act as a gateway and hub of riverside activity for Batheaston the area is accessible to all abilities, and is well connected. There is also potential to further improve the site for people and nature, including provide opportunities for water based activities. Projects could include improving the existing pontoon which at present is not ideal for accessing the river edge.

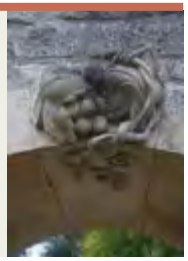
DESIGN OBJECTIVES

- Enhanced Functionality – There is opportunity to create active river frontage space and encourage use of an area for riverside activities/watersport access/riverside festival venue. Provide new uses such as a café with accessible toilets.
- Environmental Enhancement – Improvements to the play area, the well laid out Historic Gardens and diversifying the native planting, to connect with the Bathampton Nature Reserve.
- A Sense of Place – Create spaces with a distinct character which provides the community and visitors with a valuable public space, extending the design intent of the current project area with its distinctive character.

Extensive car park with toilet block

Boating jetty with 2 ft drop unfit for purpose

Batheaston gardens hidden and disconnected from surrounding area. This is in need of some tree works to manage design



Neglected riverside banks with low biodiversity/ vegetation cover

A New extended boating jetty for easier access to the river – encouraging wider use of the river for water based activities

B Building re-purposed as a cafe/restaurant for locals and visitors. Adjacent space for outdoor seating and connectivity with Batheaston Garden

C Establish a Wildlife Zone connecting with the Bathampton nature reserve south-east of the site. Enhance biodiversity offer

D Picnic and seating area beside the river for leisure and a resting point with views of the river

E Natural Play Space for visitors and local residents to provide a playful environment, with adjacent flexible open green space

Outline Proposals

3. BATHEASTON/BATHAMPTON RIVERSIDE ENVIRONMENTAL PROJECTS (2/4)

PROJECT CONCEPT

The purpose of this project is to combine a series of measures to improve the approach to Batheaston (2I), listed toll bridge river connections and its landscape, ecological spaces and assets.

Recent developments in the area include a new cycle path leading from Mill Lane east to Batheaston, where a new bridge has been constructed linking the north and south banks.

DESIGN OBJECTIVES

- Provide better information and signage for visitors to the area
- Information points should be at Bathampton (Canal), Bathampton Toll Bridge (for river ferry services from the City centre) and Batheaston (car park)
- Create a safer environment for walkers and cyclists using Mill Lane
- Produce walking trail routes, supported by maps, covering Bathampton, Batheaston, the river and canal

ENHANCED LINKAGE BETWEEN THE RIVER & CANAL

Link between Canal and River at Bathampton

Currently the river and canal at Bathampton lacks connectivity. From the canal pathway there is no clear route to the river, with no signage or indication that the river is nearby. The route is not friendly to pedestrians or cyclists, with a narrow and uneven path beside a fast road with no delineated crossings.

Opportunities

The connection can be improved with Information boards and clear wayfinding leading from the canal pathway with a widened pedestrian route leading to the river. A pathway could be delineated with clear road markings and distinct materiality, with Bathampton Toll Bridge acting as a threshold crossing the river into Batheaston.

Currently no direct access from K&A Canal to the River Avon

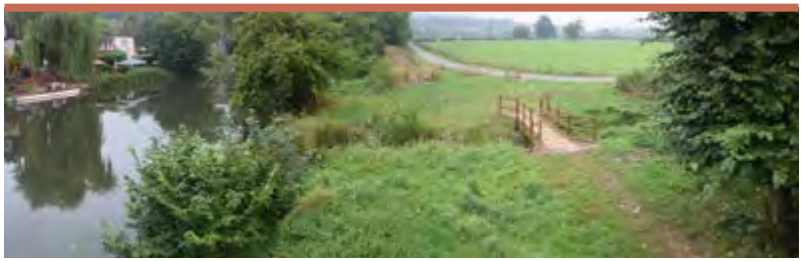
ECOLOGICAL OBJECTIVES

- Retain and enhance existing biodiversity of grassland, extending the diversity of the eastern side westwards towards Mill Lane
- Management of invasive species such as Himalayan Balsam which dominate areas of the western riverbank
- Establish greater biodiversity and habitat potential along the river edge with reedbed plantation
- Extend access through ecological areas for the public to engage with the local wildlife

3. BATHEASTON/BATHAMPTON RIVERSIDE ENVIRONMENTAL PROJECTS (3/4)

PROJECT CONCEPT

The grassland area beside Mill Lane has potential to be reinvigorated as a wildlife/wetland habitat, connecting with the surrounding grassland environments and providing hedgerow improvements.



Bathampton weir, downstream from the site

Site of potential ecological enhancement

Potential to improve setting of the listed Mill Lane Toll Bridge and combine with carefully designed ecological measures

The grassland is managed by a self financing volunteer group supported by a Site Management Plan. Areas of tall herbs are retained for their ecological value and other areas mown to provide recreational spaces.

ECOLOGICAL OBJECTIVES

A. This permanently damp area is bisected by a stream which flows throughout the year. It would support a series of ponds, scrapes and log piles that would be of great benefit to invertebrates, amphibians, reptiles and native plants that require a damp environment.

B. The suggested creation of a reed bed within the wetland park area of the site should include native species including common reed (Phragmites australis).

C. Adjacent to the cycle path, there is an opportunity to provide public access points to the ponds and scrapes where educational information boards would highlight the wildlife using the space.

D. Removal and control of Himalayan Balsam and other aggressive plants to ensure a wide mix of beneficial species and provide open views to Bathampton Toll Bridge.

E. Incorporation of Kidney vetch (Anthyllis vulneraria), which is the main food plant for a rare butterflies found locally, into grassland mix.

OUTLINE PROPOSALS

3. BATHEASTON/BATHAMPTON RIVERSIDE ENVIRONMENTAL PROJECTS (4/4)

PROJECT CONCEPT

The purpose of this project is to improve the condition of the riverside footpath which runs along the northern side of the river. This footpath forms a section of the long distance footpath known as the Limestone Link.

The path links Batheaston with Bathampton Toll Bridge and in conjunction with the cyclepath, on the southern riverbank, it creates a unique circular walk which is very popular with walkers.

DESIGN OBJECTIVES

- Stabilise sections of the footpath where the river has eroded the riverbank
- Remove trees that are growing out of the riverbank and appear unstable
- Widen the footpath by cutting back low level vegetation and re-surface
- Install new seating and signage

ECOLOGICAL OBJECTIVES

- Retain and enhance existing biodiversity of grassland, extending the diversity of the eastern side westwards towards Mill Lane
- Management of invasive species such as Himalayan Balsam which dominate areas of the western riverbank
- Establish greater biodiversity and habitat potential along the river edge with reedbed plantation
- Extend access through ecological areas for the public to engage with the local wildlife

LIMESTONE LINK RIVERSIDE FOOTPATH

The riverside path from the Old Mill Hotel to Batheaston Gardens is sheltered by trees and vegetation. Riverside vegetation is currently obstructing and narrowing the path for pedestrians.

There is no information or signage directing users from the bridge towards Batheaston or visa versa. The existing benches are in a poor state of repair and are not well placed.

OPPORTUNITIES

With greater maintenance given to the structure of the footpath and the riverside vegetation, the path would be both more usable and visible from the surrounding area. Clear signage is needed at the Toll Bridge and Batheaston Car Park.

Seating could be updated and placed in locations with desirable views to encourage wider use of the spaces.

Narrow footpath on northern riverside bank

Opportunity to manage riverside vegetation to increase usable footpath width

4. KENSINGTON MEADOWS (1/2)

PROJECT CONCEPT

Kensington Meadows is situated in the outer suburbs of eastern Bath and adjoins the River Avon. It is comprised of a park bordered by a residential housing estates. The area alongside the river is designated as a Local Nature Reserve including areas of Fen and rare wet woodland habitats, with the upper meadow area managed as a local amenity space.

The park has limited access points to the space from the surrounding area. At present there is only one formal point of access on the eastern side, with a less noticeable entrance hidden below the Morrisons car park on the western side. The surrounding residential development that meets up the northern edge of the river the park has no access. Furthermore there is minimal maintenance of the vegetation beside the river which discourages access to the water edge.

The land adjoining the river edge suffers from bank erosion and the area of wetland is increasingly not inundated with water, resulting in a reduction in the variety of biodiversity here. There is scope to improve access to the river edge and to create a visual and boat based connection to the Cleveland Pools restoration project on the opposite bank.

ISSUES & OPPORTUNITIES

Ⓐ Limited/no access from adjacent residential areas – opportunity for greater permeability by extending access to the river

Ⓑ Extensive areas of overgrown riverside vegetation limiting access – opportunity for managing to enhance biodiversity potential and help manage bank erosion

Ⓒ Continuity of riverside walkway not possible due to private residential riverside plots to the west – opportunity to extend river walkway and connect to the meadows with city centre

Ⓓ Lido site disconnected from park and surroundings – opportunity for direct link/ access from the park

4. KENSINGTON MEADOWS (2/2)

DESIGN OBJECTIVES

- **Improved Access/visibility of the riverside** – Create new access points into the park from the surrounding residential area and improve the quality and visual prominence and wayfinding to existing entrance points, with greater signage and information to key features. Establish links with the Lido site with riverboat crossing;
- **Environmental Protection & Enhancement** – Retain existing rich habitats whilst diversifying biodiversity with vegetation management and establishing more visually open meadow grassland borders;
- **Enhance Functionality** – Define use of spaces with distinct functions catering for recreation and play, in close consultation with park users/stakeholder groups;
- **A Sense of Place** – Create spaces with a distinct character and retain/enhance existing assets;
- **River Festival Venue** – Consider potential for Kensington Meadows to provide a larger venue for river based festival type activities

A Create better links with residential area/ city suburbs with new entrances and extended path network. Enhanced entrances for greater visibility. Provide strategically located wayfinding to the meadows and river/Lido river crossing

B Shuttle boat route from bank of Kensington Meadows to the Lido (subject to proposals to refurbish the facilities). Direct route from main park entrances with clear signage

C Continue river walkway westwards on right bank towards Pulteney Bridge along linear park – extend river towpath behind residential plots to allow for a new pathway towards Bath centre by agreement

D Wildlife Protection/Enhancement Zone – Management of vegetation and establish diverse woodland understorey – create & enhance habitats

E Meadow grassland provide more value to pollinating insects and wildlife, a naturalistic character and can be varied to rotate in areas subject to consideration

F Improved Natural Play spaces with maintained open space and retained/extended park equipment

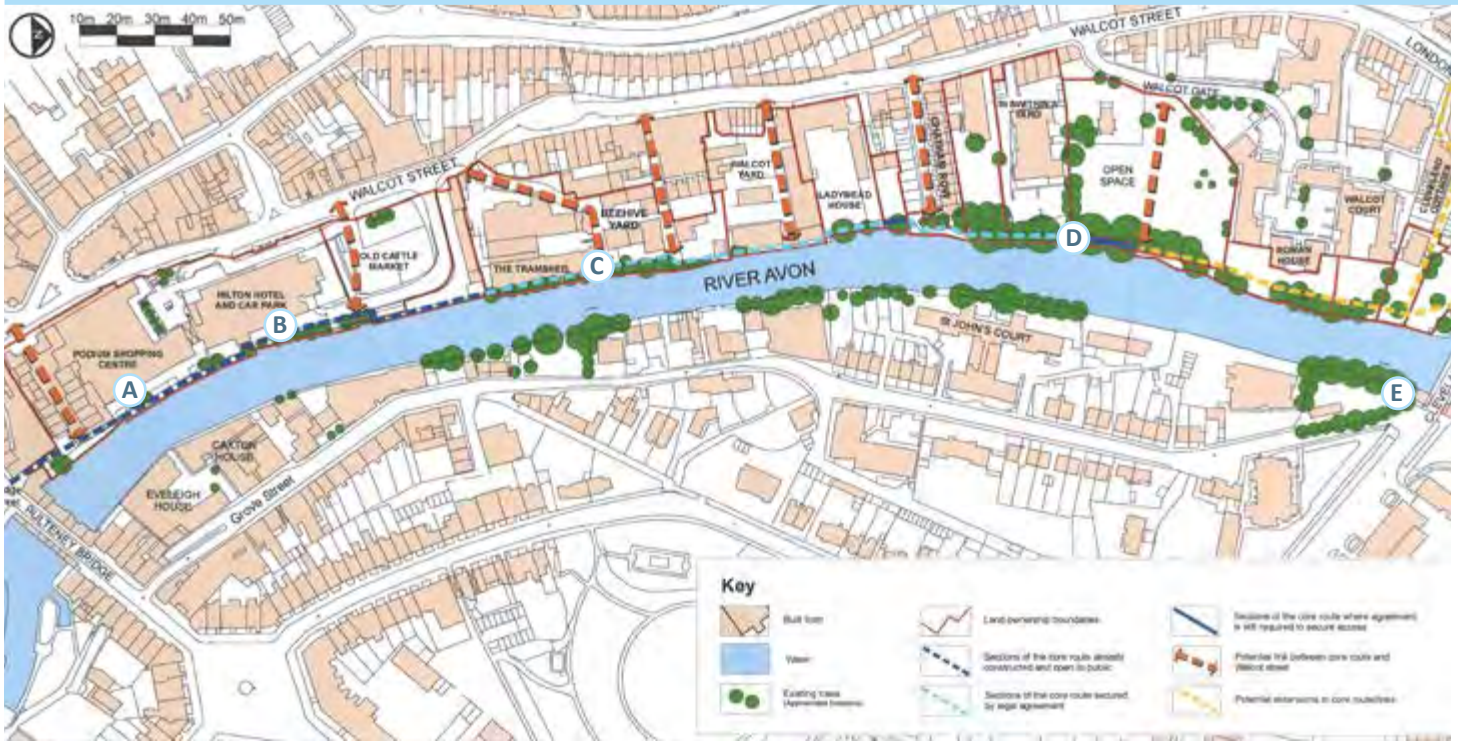
5. RIVERSIDE PATH ACCESS NORTH OF PULTENEY BRIDGE (1/2)

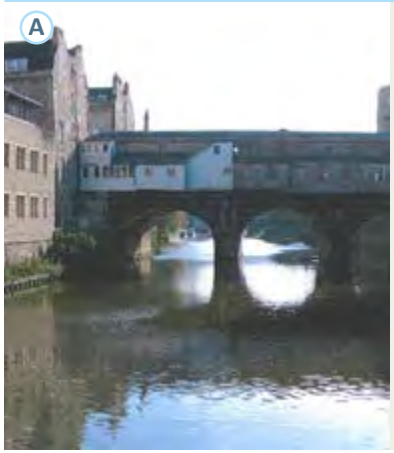
PROJECT CONCEPT

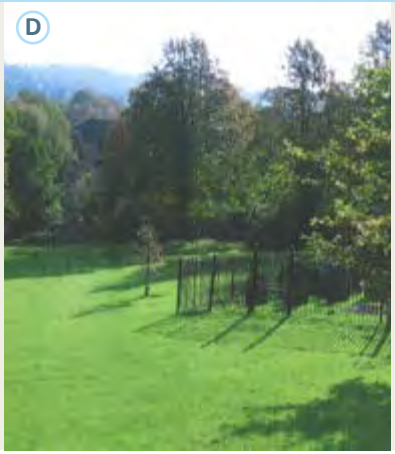
The river banks north of Pulteney Bridge and including the riverside bank to Cleveland Bridge are currently mostly inaccessible to the public. Development meets up to the river's edge, where banks are steep and lined with trees. It is proposed that opportunities are taken to create a riverside walk is to be created linking the city centre of Bath outwards to Bathampton and Batheaston in a northerly direction.

This concept was first proposed in the Bath Local Plan (1997) which suggested 'further scope for the extension of the footpath network, particularly along the riverbank north of Pulteney Bridge'. Other proposals include the creation of a 'Recreational Route' set out by the B&NES Local Plan (2005). A feasibility Study was undertaken (extract left).

To date there has been negotiations with many owners wishing to develop sites adjacent to the river to preserve routes beside the river for public access, which will in the future be connected as part of the River Park. Currently only one section below the Podium Shopping Centre beside Pulteney Bridge is open to the public. Further consultations and formal agreements will be made with landowners in the future to establish if they are willing to allow the creation of a route across their land.







5. RIVERSIDE PATH ACCESS NORTH OF PULTENEY BRIDGE (2/2)

ISSUES, OBJECTIVES AND DESIGN CONSIDERATIONS

- Many private residential flats/houses with gardens extend to the river edge, also access is limited by commercial properties e.g. warehouses, offices, shopping centre and hotel which currently do not have riverside frontage;
- Stretch of the river designated as a nature conservation area with particular sensitivity, so recreation development may affect nature conservation and lighting will be a key issue for bat habitats and corridors;
- Where possible, sections of the riverside need banks re-grading to encourage emergent vegetation and avoid loss of habitat due to erosion and development, new proposals need to consider both access and the riverside edge as a potential waterside habitat;
- Natural surveillance of the riverside corridor can be achieved to reduce anti-social activities present in some riverside areas. Increasing public access could improve this issue;

Future redevelopment of riverside sites should seek to achieve active, accessible riverside frontage with a walkway which can accommodate both cycling and walking. For this a suggested minimum width would be 3 metres but this is dependent upon overall plot depth and will need to consider the viability of the development to achieve a balance between requirements. Wessex Water will need to be consulted if this proposal develops further, infrastructure including combined sewer overflows (CSO) are present on this stretch and designs need to take this into account.

Right: *Bath Podium development has established a precedent for creating new riverside connections north of Pulteney Weir.*

6. CANAL TOWPATH & CONNECTIVITY

DUNDAS — CLAVERTON — BATHAMPTON — **BATH** — SALTFORD — KEYNSHAM — HANHAM

PROJECT CONCEPT

The canal towpath leading into Bath City Centre is a picturesque and varied corridor, leading users through a series of landmark bridges, distinctive listed waterside frontages, and along banks with characterful residential gardens that back onto the canal.

There is opportunity to enhance and transform this scenic route with more defined links and wayfinding between the eastern suburbs of bath and the city centre, for both pedestrians and cyclists.

DESIGN OBJECTIVES

- Improved Access and Wayfinding: Clearer signage and wayfinding along the route, with better connections to surrounding areas and adjacent. There is potential to extend the City Information System and design mapping to guide visitors to attractions along the riverside.
- Upgrading of river pathways: Enhance user experience and safety, by resurfacing, repairing and widening the pathway where appropriate. Surfacing and finish of the pathway should be appropriate to the varied character, and should consider maintenance requirements. There is an opportunity for coordinated signage,taking into account the character areas and an urban/rural distinction is important.
- Inclusive Mobility standards for shared spaces should be achieved, as well as all weather surfaces.

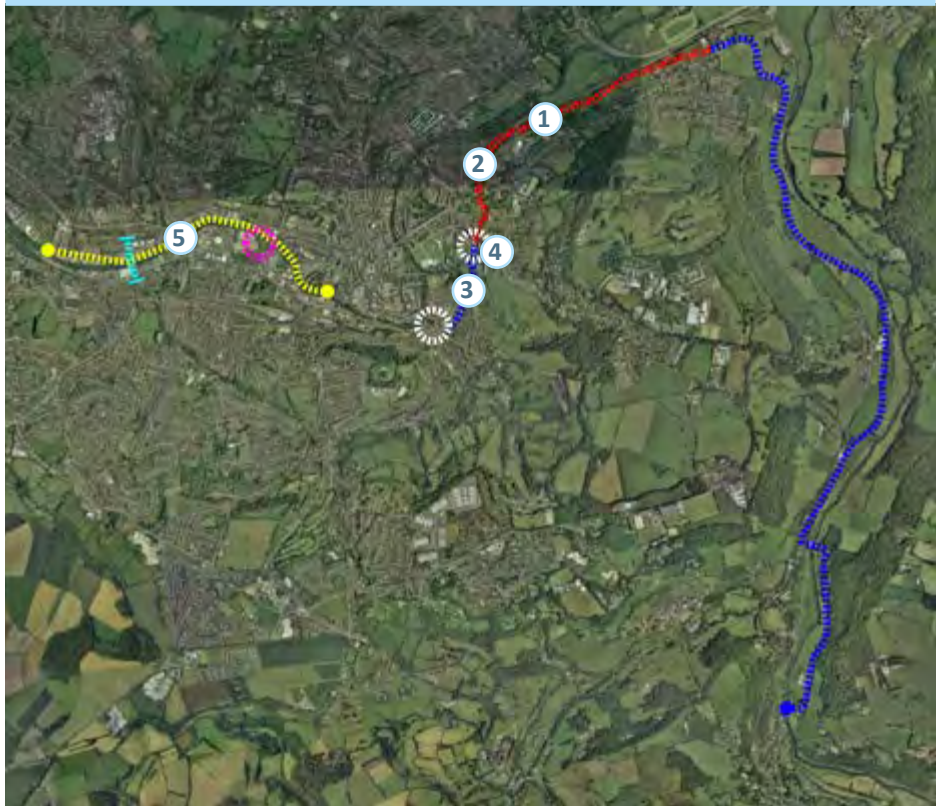
1 Unclear direction/ way-finding and connectivity with nearby attractions (Sydney Garden)

3 Degrading paving surfaces, potential trip hazard for pedestrians and cyclists

2 Inadequate bridge access – need for improved accessibility from riverside path

4 Disruption of pathway at bridge crossing – connection/direction unclear to lower level

5 Narrow pathways create conflict with passing pedestrians and cyclists



Repair/resurfacing of pathway along the southern portion – continuing materiality of east canal route

River path widening and upgrade surfacing appropriate to the location

Clear signage posts directing users to the city centre and areas beside the river and canal towpaths.

Upgrade footbridge with more accessible connections to the riverside

Re-grading of historic ramp to Fieldings Bridge to achieve a more accessible gradient

Improved links with clear signage at bridge crossing directing to river pathway continuation

7. PULTENEY BRIDGE & PARADE GARDENS (1/4)

PROJECT CONCEPT

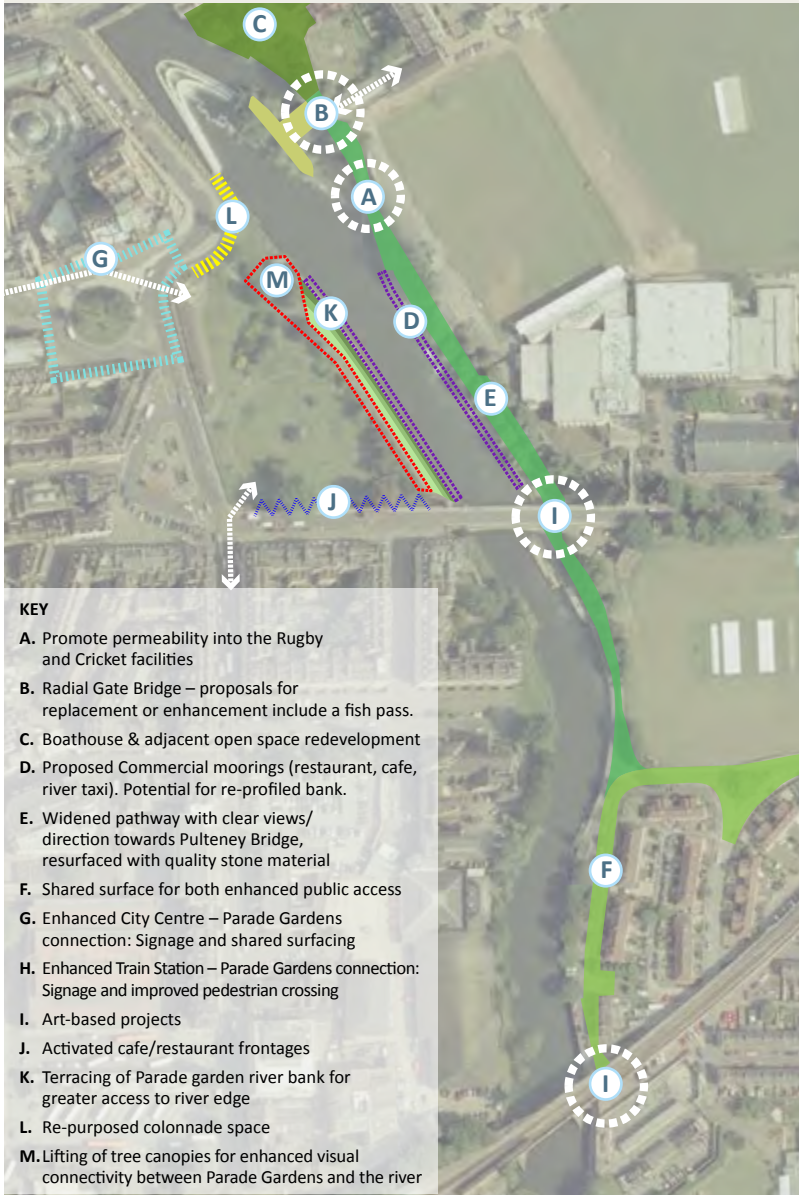
This project aims to provide a strategy for a series of related project areas which adjoin the riverside between Pulteney Bridge and the connecting riverside walkway leading south towards the station and include the North Parade Bridge and rail bridge. Rather than a series of individual interventions the approach should be a coherent bridge to bridge design.

DESIGN OBJECTIVES

The scope for a series of related project areas includes the following:

- Parade Gardens, its relationship with the riverside, Pulteney Weir and its opportunities for access and new carefully considered development opportunities to enhance its offer, notably there are proposals for a Museum and Restaurant within the colonnades which overlook the Pulteney Bridge and Weir;
- Radial Gate and its opportunities for enhancement in the shorter and longer term exploring visual benefits to riverside view corridors and the public areas surrounding this structure;
- Opportunities to create and renovate riverside moorings, potentially to attract a riverside commercial river taxi, boat and land based restaurants and cafe. It may be possible to create a stepped riverside edge to create a closer visual association with the waterside;
- Define public realm design projects including the Pulteney Weir and riverside area, developing proposals which have been developed as part of Bath's public realm framework (Section 7, Testing the public realm framework, Guidance);
- Bespoke lighting installations within archways and potentially extending this to include low level tree lighting, noting the need to create a bat friendly corridor;
- Creation of a rationalised walkway, employing devices such as shared use to achieve continuity along this section and permeability into the recreational zone to the east, with the rugby and cricket grounds;

OUTLINE PROPOSALS



KEY

- **A.** Promote permeability into the Rugby and Cricket facilities
- **B.** Radial Gate Bridge – proposals for replacement or enhancement include a fish pass.
- **C.** Boathouse & adjacent open space redevelopment
- **D.** Proposed Commercial moorings (restaurant, cafe, river taxi). Potential for re-profiled bank.
- **E.** Widened pathway with clear views/ direction towards Pulteney Bridge, resurfaced with quality stone material
- **F.** Shared surface for both enhanced public access
- **G.** Enhanced City Centre – Parade Gardens connection: Signage and shared surfacing
- **H.** Enhanced Train Station – Parade Gardens connection: Signage and improved pedestrian crossing
- **I.** Art-based projects
- **J.** Activated cafe/restaurant frontages
- **K.** Terracing of Parade garden river bank for greater access to river edge
- **L.** Re-purposed colonnade space
- **M.** Lifting of tree canopies for enhanced visual connectivity between Parade Gardens and the river





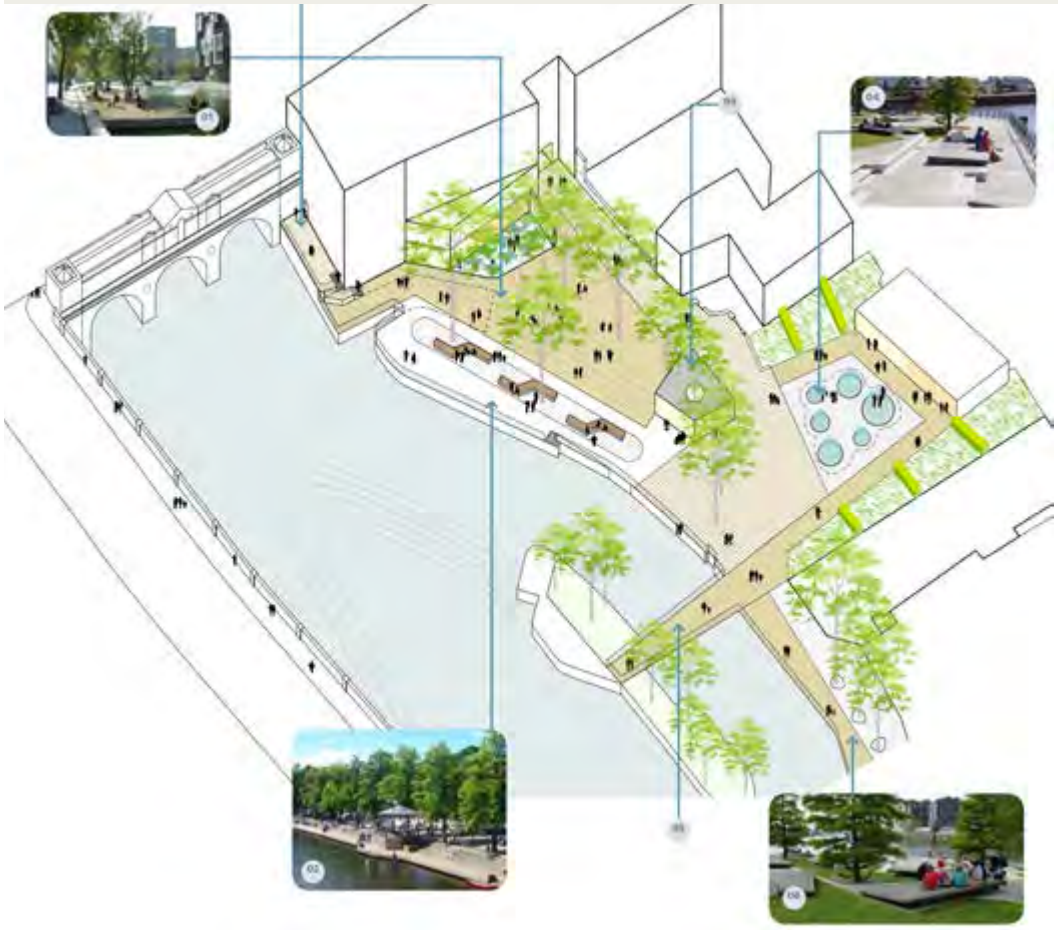

7. PULTENEY BRIDGE & PARADE GARDENS (2/4)

The Radial Gate was constructed in 1972 to control river levels in times of flood and to maintain upstream levels in summer. The structure remains in operation and this project aims to look at the visual benefits in reducing the prominence of the structure or removing it, assuming its function is met by other means.

Views to Pulteney Bridge are obscured by tree canopies along the accessible eastern or 'left' bank. The Radial Weir is also currently under review and is a 1970s functional structure with a redundant viewing deck above. The Radial gate is quite a discordant element within the river view corridor and detracts from the Pulteney Bridge public realm area and weir setting. The area adjacent to the Weir is a pleasant but underutilised riverside public realm area.

Other related projects which could provide better links to the Parade Garden includes the Orange Grove, a proposal for a new public square which connect through to Bath Abbey and the Pump Rooms.

OUTLINE PROPOSALS



7. PULTENEY BRIDGE & PARADE GARDENS (3/4)

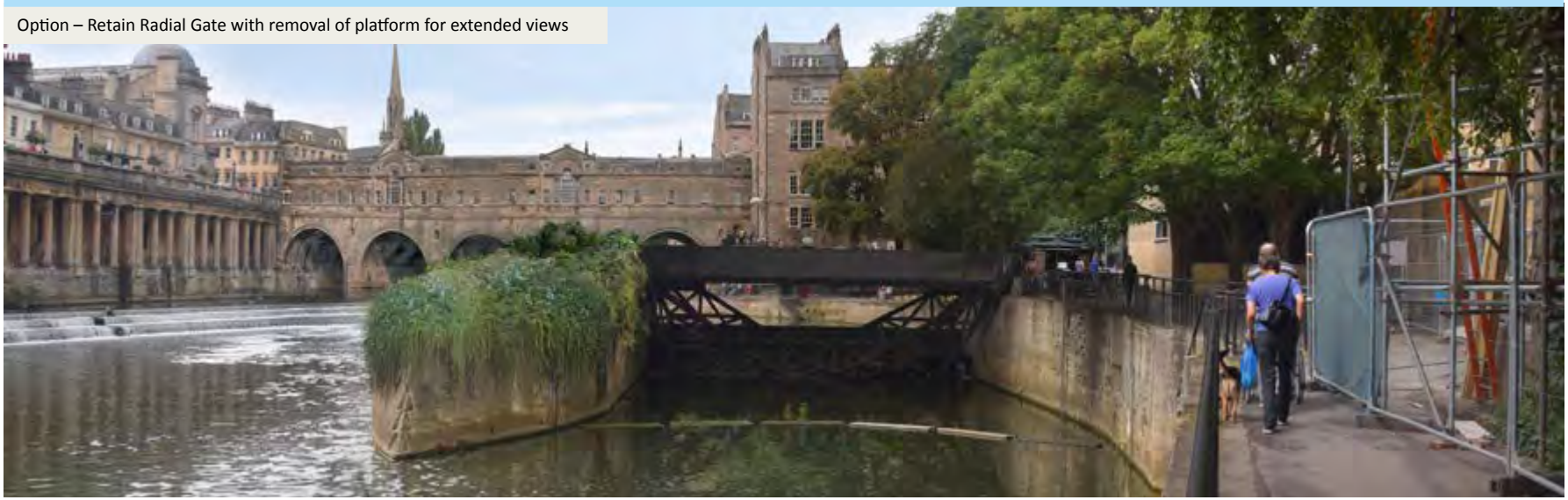
The Radial Gate currently obstructs views from the south bank pathway towards Pulteney Weir. When constructed in the 1970s the gate intended to act as a flood defence, with plans for a restaurant or cafe on the above platform. This never materialised and the platform remains as a defunct structure.

The Environment Agency and Bath & North East Somerset Council are currently progressing a Business Case project to refurbish/replace the Twerton and Pulteney Gates. As part of this project the opportunities for a fish pass and opportunities for renewable energy potential to be harnessed will be considered.

Further opportunities for aesthetic improvement to this flood defence gate and walls should be explored as part of future development in this area.

Existing View

Option – Retain Radial Gate with removal of platform for extended views

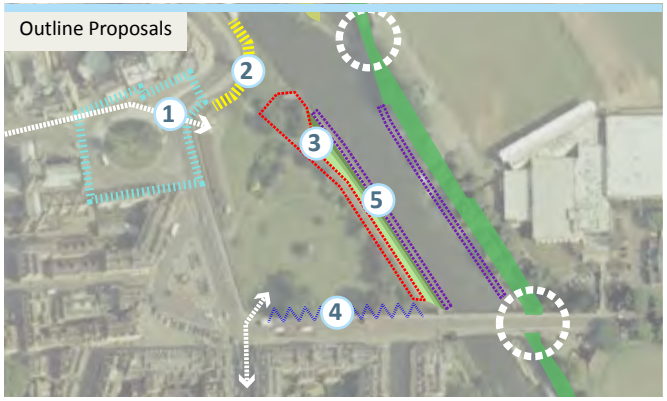


7. PULTENEY BRIDGE & PARADE GARDENS (4/4)

Parade Gardens is a highly managed park which has a very high end design for all aspects of its planting. In 2013, Bath was a Gold award winner in the RHS Britain in Bloom competition with Parade Gardens also winning the RHS Britain in Bloom Edible Britain award.

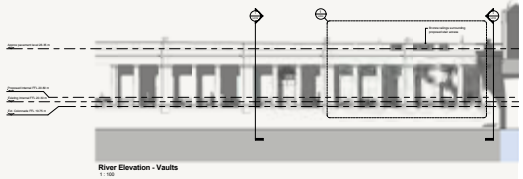
The riverside space is set low and access is via steps and ramps to centrally located pleasure grounds with traditional and more recent planting innovations. The garden raise revenue with an entrance fee and through a café located within the gardens and as a venue, with the band stand, as an attraction for a programme of summer events. The location is close to the Pulteney Weir and the grounds have views of the riverside albeit in places access to the waterside is limited and there is scope to increase the visibility between river and gardens. A key feature includes the undercroft spaces which bound the grounds and the potential to explore the colonnades, adjacent to the spectacular weir, which support The Grand Parade above and visually connect to the grandeur of the Empire Hotel building, now redeveloped as a number of uses.

The riverside public walkway is continuous but in places lacks width or definition as a public route. With the Bath Pattern book the public realm is defined as in need of renewal.



1 Improve linkage of city centre and train station with Parade Gardens – Signage and shared surfacing for enhanced pedestrian experience

2 Re-purposed colonnade spaces – with restaurants, cafés and museums which interact with the adjacent green space. Provision of a staircase, lighting installations and resurfacing



2 Planning permission was secured in 2016 to re-develop the colonnades.

3 River bank currently inaccessible, combined with dense tree canopies results in a disconnection of the park from the river

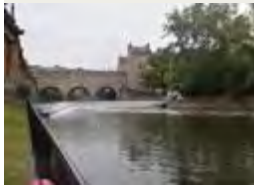
3 Terracing of river bank – for easier access to the river edge and provide a scenic spot for leisure. Lifting and thinning of tree canopies along the river edge for improved visibility from the park towards the river

4 Restaurants with active frontages within the park space, providing richer functionality for the open space with a more lively setting

5 Increased moorings in the Pulteney area would bring increased visual interest to the gardens and the river frontage

5 Back of restaurants on the southern border of Parade Gardens do not relate to the park space – potential for outdoor seating and inward facing active frontages

5 Currently there is no function for the river along Parade Gardens – potential for private and commercial moorings



8. WIDCOMBE SOCIAL CLUB

PROJECT CONCEPT

Widcombe Social Club is a community building which has been sensitively renovated and occupies a waterfront situation close to the centre of Widcombe. The Widcombe group are now extending their work to the wider area and have set out a survey and series of proposals which can enhance the locality and visibility of the canal basin and canal side environment. This provides better visibility of the basin and building and recent improvements, and improve the operation of spaces surrounding the community facility.

Some initial concept options have been worked up following discussions with the WSC Manager, to generate debate.

ISSUES AND OPPORTUNITIES

The plan outlines the issues and opportunities to undertake small scale improvements. As this project develops the Widcombe Social Club will work with B&NES, the Canal & River Trust, local stakeholders and volunteers to agree a way forward and explore implementation.

This area is part of a successful volunteer management scheme set up by the Canal & River Trust. However, the area around lock island has historically attracted anti-social behaviour (street drinking and graffiti). Therefore, opportunities to improve natural surveillance and make the area more attractive should be sought.

OUTLINE PROPOSALS

KEY

1. Canal side public footpath
2. Dead tree standing dead wood
3. Poor quality bare rubble fill with little plant growth
4. Shallow silted basin with pond weed growth and surface rubbish
5. Pumped water outfall
6. Views mostly screened but some glimpses/framed views from grass area on south side of lock and footpath and on north side
7. Scrubby vegetation extending full length of un-piled silt bank in front of Widcombe Wharf flats

Phase 1

A. Planting by agreement
B. Reed Bed
C. Dead tree removed
D. Fence removed
E. Ornamental shrub planting

Phase 2

F. Deck added
G. Access from balcony added

Phase 3

H. Silt dredged
I. Pontoon added

9. BATH QUAYS: NORTH, SOUTH & BRIDGE (1/2)

DUNDAS | CLAVERTON | BATHAMPTON | **BATH** | SALTFORD | KEYNSHAM | HANHAM

PROJECT CONCEPT

Bath Quays comprises the old Newark works site and surrounding areas south of the river and the current location of Avon St car park and coach park North of the river. The two riverside sites will be linked by the new Bath Quays Bridge and represent the largest development opportunity within the city since the Southgate shopping centre and the largest office scheme ever within Bath.

On the North side of the river, shops and restaurants facing the Avon will make the most of the location and create a busy and appealing streetscene. Bath Quays North will also provide up to 100 new homes and new office space.

9. BATH QUAYS: NORTH, SOUTH & BRIDGE (2/2)

PROJECT CONCEPT

Bath Quays Bridge will provide a new crossing point over the River Avon for pedestrians and cyclists; an alternative crossing point to Midland Bridge and Churchill Bridge to the west and east respectively. Ultimately the bridge will connect the proposed development sites of Bath Quays North and South and enhance the improved connectivity between the riverside and Bath city centre.

The bridge design was selected via an international design competition, commissioned by B&NES Council in 2015. 49 design teams were reduced to a shortlist of six by a panel of Council representatives and respected experts in the fields of bridge engineering and architecture. Paris based engineering and architectural consultancy Marc Mimram's 'Between History and Modernity' as the winning design. The winning design was also the public's favourite.

In March 2017, the new bridge secured planning consent.

10. UPGRADED MOORINGS AT BATH QUAYS WATERSIDE

DUNDAS | CLAVERTON | BATHAMPTON | **BATH** | SALTFORD | KEYNSHAM | HANHAM

PROJECT CONCEPT

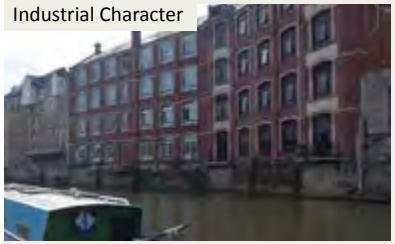
The public realm proposals associated with the Bath Quays development. These extend between Green Park and the A367. The Plan includes public realm proposals including:

- A series of riverside walkways with ramp and steps which overcome the changes in level;
- Demountable railings to allow for Boat Access and mooring rings;
- A new riverside railing with boat access gates along the entire riverside stretch
- A variety of carefully designed landscape typologies which create a series of linear landscape experiences along the riverside edge;

OUTLINE PLAN

HISTORIC SITE CONDITIONS

Industrial Character



Riverboat Moorings

Narrow Footway

Changes in Level & Access Issues

PROPOSALS & IDEAS

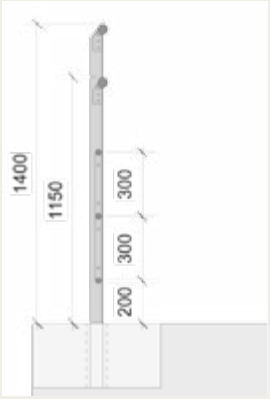
Consider the potential to create seasonal events space as part of the riverside experience. A removable section of the site fence may be retrofitted to facilitate the holding of these events.

320m stretch of moorings – Create Waterside Business opportunities for holiday hire, river taxi services, roving and fixed boat businesses, floating seasonal markets and cafés for year-round attractions. The provision of power generators and water facilities which may be retrofitted would increase the commercial value of the moorings.

Detailing can combine uses for example creating steps with a combined seating function, Littlehampton Riverside, West Sussex

Sensitively designed railings create a place to stop, lean and look out to the river. This example is located at Kingston Riverside, London.

RAILING DETAILS



1400mm railing with posts at 2200mm centres. Vertical reinforcement made from 15mm steel bar, welded to tubes. Posts to be fixed into capping beam by drilling circular hole and filled with epoxy grout. Fixing design to be demountable.

11. BATH RIVERSIDE

Bath Riverside is the location for one of the most exciting and challenging regeneration projects.

The key site specific requirement for Bath Riverside is that it has to be a comprehensive mixed use scheme, with an optimum uses and density given the close proximity of the site to the City centre. It is also a site which is large in scale, 35 Ha, and the whole site will ultimately deliver 3000 homes, part of which has already been delivered on site by Crest Nicholson.

Bath Riverside's waterside frontage is an exemplar of this type of development and it has achieved outstanding improvements to the river's character, as well as the public realm. The development includes high quality contemporary design, public open spaces including a pocket park which creates a well-used link to the river.

The BWR Masterplan seeks to deliver the following design principles to the wider area; these are of direct relevance to the WaterSpace Study:

- The development focuses on the River Avon and its importance as a strong natural asset with visual connections to the riverside;
- The masterplan retains and integrates the heritage assets with some Georgian terraces considered as a good sustainable urban from;
- There are new north-south links across the river, with Victoria Bridge Road, a key connection and new connecting public realm along the riverside, together creating a better connected city;
- Design quality is at the heart of the development with consideration of the material choice to reflect the wider city, roofscape design considering views across the valley, creation of a clear spatial hierarchy and ensuring a sustainable community which is integrated into the wider neighbourhoods; and
- Scale Height and massing are carefully considered to respect human scale and avoid tall buildings in the context of the wider city.

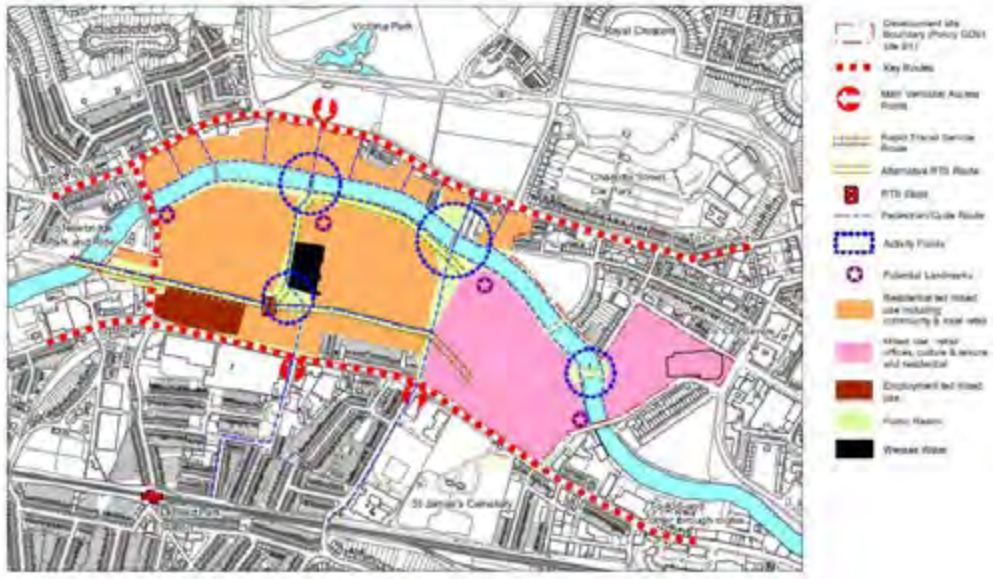
The Masterplan and the design, as implemented so far, demonstrates a well-considered public realm hierarchy and the following aspects are of particular relevance to the riverside areas:

- Development of well-connected spaces inviting the user to explore the riverside environment;
- Public Realm will be of the highest quality and will be consistent throughout the site, secured through the design coding;
- The development has a simple, high quality palette of hard landscape materials balancing costs and durability.

The River Design Principles include the following considerations which are relevant to The WaterSpace Study:

- The River is a uniting element with experiences across the river that are balanced, albeit the northern and southern banks differ in terms of spatial qualities such as enclosure;
- The River Park should have active frontage development addressing the river;
- It creates a strong landscape infrastructure that defines the river in long distance views;
- There are views and vistas along the river corridor;
- Development along the river frontage must accommodate and encourage river traffic;
- Opportunity exists to maximise opportunities for public access to, and interaction, removing sheet piling in places with, the river can create a more direct relationship;
- Create a linear route with a variety of events and interesting spaces along its length that inks into the wider city network of popular walking routes;
- Incorporate opportunities, within the waterside environment, to host exhibits of art, more temporary pieces of installation, performance art, permanent fine art works and sculpture;
- There are opportunities for education and enhanced interpretation of the life along the river;
- There are opportunities to play with levels within the public realm at the water's edge should be exploited wherever possible;
- Every opportunity should be taken to improve the current river corridor edges; in particular, proposals should be put forward to improve biodiversity.

Plan 2.3 Summary Masterplan



12. THE RIVER AVON PARK (1/5)

DUNDAS | CLAVERTON | BATHAMPTON | **BATH** | SALTFORD | KEYNSHAM | HANHAM

PROJECT CONCEPT

A new concept for a River Avon Park through the heart of the city has been identified. The Park space includes the water, adjoining towpaths and green spaces and a series of pocket parks and new green spaces under development (Bath Quays & Bath Riverside). The concept is to unify these spaces within one park, although sub areas will have its own character it will be one park. The Park would be managed as a single entity and development contributions from new development would contribute towards its development and maintenance. The shared walking and cycling route will remain and access to the space will be increased.

The Park also has an important biodiversity value, which must be sustained. Improvements for people must allow the dark corridor to be retained for wildlife at night.

OPPORTUNITY

Environmental Enhancements
Provide potential habitats for birds, bats, pollinating insects and river species.

Improved/ Enhanced Pathways
Create clear and direct access from surrounding areas to the river.

Extend Access
Create new pathways along currently unaccessible portions of the linear route & entrances from the surrounding urban area.

Visual/ Intervisibility
Create glimpsed and framed views of the river from surrounding areas to encourage people to linger.

Direction
Provide signage to nearest park spaces & riverside.

Enhance Functionality
Create spaces with distinct functions catering for recreational and commercial activities.

A Sense of Place
Create a distinct character and retain/enhance existing assets.

Improve Maintenance
Provide more management of overgrown areas that have become neglected, discourage negative use and increase value of public spaces.

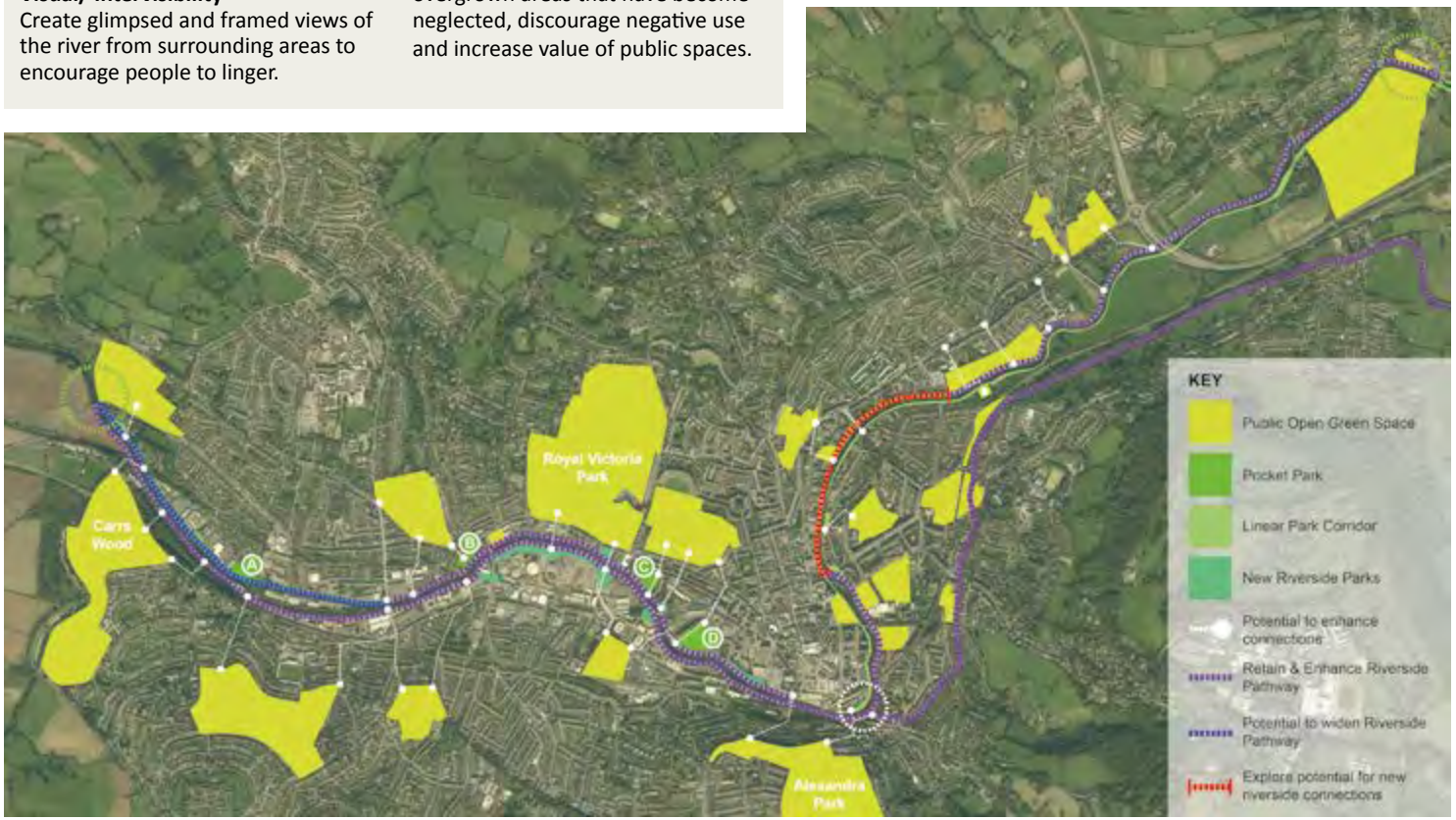
REGENERATION

Opportunities for the creative reuse of under-utilised spaces

CONNECTIVITY/ ACCESSIBILITY

ACTIVITIES/FUNCTIONALITY

ENVIRONMENTAL BENEFITS



12A. THE RIVER AVON PARK (2/5)

PROJECT CONCEPT

Kelson Fields lies to the rear of residential properties which front onto nearby Locksbrook Road and Upper Bristol Road. This space has abundant established tree cover along both sides of the park and along the route of the former brook. It is south facing, enclosed and an attractive space, albeit under-used. The space could become an attractive entrance to the River Park.

The entrance to the Park from the Road is poor, and suggests it is a private space. There is potential for the park to be improved with an enhanced entrance, with a wider footpath edge, potential for riparian habitats to be enhanced and the potential for a pop-up cafe kiosk and for summer events to be held in the space.

ISSUES & OPPORTUNITIES

Enhanced Functionality – There is opportunity to create active river frontage space and potentially encourage use of an area for riverside activities/ angling access/riverside festival venue.

Improve natural surveillance – A welcoming entrance, and activities which will encourage people to linger e.g. a pop up kiosk, will increase the use of the space.

Visual Intervisibility – Improve the natural surveillance of this space with tree works to lift and thin tree canopies and selectively remove understorey planting as well as replace any tree planting which is in poor condition.

A Sense of Place – Consider ways to extend the waterside art works into the space. New works should include a coordinated material palette and site equipment should be coordinated with the wider linear park.

1. Unclear connectivity with surroundings/ poorly defined entrances

2. Dense tree canopy create dark corridors but create unwelcoming daytime spaces

3. Open mown space with minimal function or biodiversity

4. Narrow river pathway

OUTLINE PROPOSALS

A. Visible entrance seating space and lifting canopy to increase visibility

B. Widened river pathway & events space – material to co-ordinate with wider linear park. Seating provided along path

C. Upgraded play area and boundary

D. Increased grass area to create a more gradual slope to river edge to improve safety and access

E. Potential shared surface leading to proposed entrance with wayfinding signage

12B. THE RIVER AVON PARK (3/5)

PROJECT CONCEPT

Norfolk Crescent is an elevated green space which is formal in character with a Georgian Crescent, and modern development fronting and overlooking the space. The green space is accessible from the west at the end of Nelson Place West and it is not possible to access the riverside from the elevated level of Norfolk Crescent. There is a further access point which has kissing gate arrangement, although the access point is eroded.

The project concept would access and Intervisibility between the public open space and the river corridor, in subtle and selected locations, providing glimpsed views but retaining the green lane and dark corridor for wildlife.

Proposals could include a path across the space and wayfinding at strategic locations. There is additionally the opportunity to introduce areas of species rich meadow grassland to increase biodiversity and improve the aesthetic of the green space.

ISSUES & OPPORTUNITIES

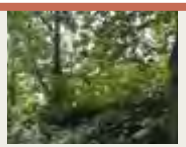
Enhanced Functionality – There is opportunity to increase the through movement across this space to better connect to the River Park, this site is an important gateway to the Park.

Environmental Enhancement – This could be achieved by diversifying the planting to include more marginal species and meadow grassland areas to break up the close mown appearance of the park.

Visual Intervisibility – Improve the visibility to the river in places – selectively lift and thin tree canopies and thin understorey planting whilst retaining a continuous and connected dark corridor for wildlife.

A Sense of Place – Consider ways to extend waterside art works into the space. New works should include a coordinated material palette and site equipment should be consistent in choice with the wider linear park.

1. Dense Vegetated edge
2. Lack of wayfinding entering the site from the city centre
3. Open mown space with minimal environmental or functional value
4. Limited and poor access points to/from river corridor




A. Way finding with direction information
B. Stepped Ramp access to riverside edge and create visibility
C. Hard self-binding gravel path access
D. Mown grass pathway for walking use




12C. THE RIVER AVON PARK (4/5)

PROJECT CONCEPT

Green Park adjoins the River Avon and is comprised of a park with historic boundaries and it relates strongly to the terraced Georgian townhouses. The present day layout of this space also includes an elevated triangular section of land which is separate from the park but could be integrated. Design concepts consider the change in level and the separation of these spaces from the river frontage. There is scope to change the riverside profile and create more space closer to the riverside, widen the tow path and integrate the waterside public realm with the park itself.

During 2016, a new cycle path connection has been installed linking the park entrance with the river edge. In 2017, works are underway to move the river path into the park away from the steep river edge behind a retained railing.

PROJECT OBJECTIVES

Enhance Functionality
Define use of spaces with distinct functions catering for recreational, play and introduce new facilities such as a cafe to provide an attraction and generate revenue

Environmental Enhancements
Provide for potential habitats for birds, pollinating insects and river species

Visual/ Intervisibility
Create clear views of the river from surrounding areas to encourage movement

A sense of place
Create spaces with a distinct character and retain/enhance existing assets

OVERALL ISSUES & OPPORTUNITIES

1. Separation from the river corridor due to limited access from the city centre and steep level change of the river bank
2. Barrier to movement – historic boundary wall and level change dividing south-east corner from adjacent park
3. Exposure to A367 road negatively affects the quality of space and increases the vulnerability of the raised corner
4. Since the WaterSpace Study commenced the narrow riverside pathway has now been replaced with an upgraded widened path which is integrated into Green Park and a new path links this to the Park entrance.
5. Large open mown grass with minimal function, opportunity to review and increase meadow grass, improving biodiversity
6. Lack of spatial definition: seating and play features spread out

OUTLINE PROPOSALS

A Bespoke designed cafe/ restaurant with adjacent active space

B Waterside marginal Reedbed habitat creation

C Terraced accessible topography with paths accessing river edge

D Play space with distinct choice of play and bespoke detailing based on a theme

12D. THE RIVER AVON PARK (5/5)

PROJECT CONCEPT

Brassmill Green is situated to the north of Weston Island and the Canal beside Weston Lock, on the south side of Brassmill Lane. The site consists of 3 open spaces divided by fencing and a private residence, with no clear entrance from the road. With the exception of playground furniture the space lacks clear uses for residents and visitors that pass through the site. There is no defined entrance to the site from Brassmill Lane, with no pedestrian footpath which limits the accessibility of nearby residents into the space.

The footpath becomes increasingly narrow downstream heading west making cycling and walking difficult.

The historic nature of the area combined with the ecological richness of Weston Island makes the site an opportune spot for a multi-functional leisure space for both local residents and visitors.

The pocket park adjoins the Rotork factory site which is proposed to be redeveloped (2017), the development proposal includes improved overlooking of the space with a new riverside cafe proposed, new path links and new benches and planting etc.

1 Unclear connectivity with surroundings/ poorly defined entrances.

2 Poorly defined park area with low quality play equipment. Fencing creates unnecessary division between spaces

A Tree canopies thinned to enhance visibility. Seating areas in spots with desirable views towards the river.

B Widened river pathway – material to co-ordinate with wider linear park.

C Upgraded play area for visitors and local residents, with flexible open green space for sports and recreational activities

ISSUES AND OPPORTUNITIES

- **Enhanced Functionality** – There is an opportunity to create interesting linked spaces for informal sport, but also to create an entrance space to the River Park where you can enjoy boats moving through Weston Lock.
- **Environmental Enhancement** – Improvements to the play area provision, perhaps with some natural play and diversifying the planting to include more marginal species and meadow grassland areas to break up the close mown appearance of the park.
- **Visual Intervisibility** – Create clear views of the river from surrounding areas to encourage movement with selective tree works
- **A Sense of Place** – views to the Lock and Weir create an attractive draw to this location, proximity to pubs and the brewery also mean this is an attractive entrance to the River Park.

3 Grass with low biodiversity and functional value. Narrow footways difficult for users. Impact on biodiversity.

4 Private residence splits the site into two halves with little connection linking the spaces

D Integrated and clear entrance points with Way finding/direction information

E Meadow grassland provide more value to pollinating insects and wildlife, a more naturalistic character

13. ENVIRONMENT AGENCY ACCESS LOCATIONS

PROJECT CONCEPT

The purpose of these proposals are to create and maintain access routes within the urban areas of Bath.

ISSUES & OPPORTUNITIES

Access to the riverside for works to river walls and related structures as part of the Bath Flood Defence Scheme (BFDS) is limited. There is a need to safeguard routes which are used infrequently to allow appropriate plant and vehicles and small boats to access the river for routine maintenance.

Each year routine maintenance along BFDS is undertaken in early spring and autumn.

Operations include vegetation clearance, removal of fallen trees, clearance of outfalls and the inspection of sheet piled sections of river walls and structures – these are checked for signs of deterioration.

Increasingly, access to remove fallen trees and debris has become more difficult as riverside development constrains access to the river bank edge. All debris has to be dragged back upstream to the point of access for removal.

Currently the Environment Agency has a single launch point at Spring Gardens (downstream of Pulteney Weir) where a boat can safely be launched.

OUTLINE PROPOSALS

Two possible sites have been investigated. In addition, opportunities to use the existing slipway at Bath Marina have been identified.

1. PC WORLD CAR PARK

(ST 72971 64782)

At PC World it is possible to open the yellow gates, close to the entrance of the premises. From this point there is potential to either launch a small boat or use a winch sited on a 4x4 vehicle to pull trees from the river. Restrictions would have to be made to customer parking at PC World.

2. HOMEBASE CAR PARK

(ST 72971 64782)

At this site, it would be necessary to widen the access by digging into the bank by approx. 0.5m to give enough width for a winch tractor and 4x4 vehicle. For this site, an access agreement would not be sufficient. To secure this site and preserve it from future development, a land purchase would be more suitable. Land is owned by Crest Nicholson.

ALTERNATIVE SITES

Alternative sites for consideration by the Environmental Agency include:

- **Morrisons car park**

Potential access from the car park to the riverside, London Road, BA1 6AE

- **Kelson Fields**

An open green space, potential for access to the river from the end of Nelson Place West BA1, although highlighted as a space for biodiversity and park improvement

14. BATH SPA ARTS UNIVERSITY DEVELOPMENT

PROJECT CONCEPT

The site of Herman Miller is the proposed site for the new Bath Spa Art University campus, a riverside development.

This in turn will bring opportunities to make use of the open space beside the river to cater for this new activity whilst better serving cyclists and pedestrians who currently use the riverside route or Fieldings bridge.

ISSUES AND OPPORTUNITIES

- Fieldings Bridge – Bridge too narrow for current and potential future use. A new wider bridge is needed. Poor access on north side, with access via private car park which is part of Locksbrook Trading Estate. Additional land/access would need to be acquired to improve.
- Lack of way-finding – unclear links and direction to surrounding areas
- Narrow and uneven river towpath – causes conflict between cyclists and pedestrians.
- Lack of river-based activities – potential to improve access to the river edge for water sports and commercial moorings, associated with activities such as a floating market (see T20). Increased users of the site provides potential for generating revenue.
- Site safety – currently no easy way back onto the river bank and no safety equipment.

The onwards route to be integrated as part of the Hermon Miller site planning for the University's Art Campus

A Potential to upgrade surfacing and widen the river path, for safer use by cyclists and pedestrians

B Potential to create more direct access from the footbridge to the river pathway – gentle gradient leading to the riverside

C Information and directional signage leading users from this key junction point to the surrounding areas

D Flexible riverside leisure space with seating/benches and lawn for use by university students and visitors

E Potential to create more direct access from the footbridge to the river pathway – gentle gradient leading to the riverside

F Pontoon/slipway access to the river's edge, encouraging more river-based recreation, water sports

15. WESTON CUT CANAL (1/3)

DUNDAS — CLAVERTON — BATHAMPTON — **BATH** — SALTFORD — KEYNSHAM — HANHAM

PROJECT CONCEPT

The Weston Cut Canal is a man-made structure built between 1724 and 1727, located towards the western suburbs of Bath. Due to its location the canal acts as a transitional point from the city of Bath to the rural settlement edge. Combined with its historical setting the area is a key environmental node rich in wildlife, including Otters and Kingfishers.

Despite the areas strengths there are currently issues relating to accessibility, due to the degrading narrow riverside pathway which proves difficult for passing pedestrians and cyclists. Development in the last century has had little regard for the riverside, with construction of buildings with little or no frontage relating to the river edge that detract from the historic and naturalistic setting of the area.

DESIGN OBJECTIVES

Enhance Functionality – There is opportunity to create a more active river frontage and to widen the narrow towpath as future developments occur

Artistic Inspiration – Arts projects could liven up the left over spaces as part of a riverside trail

Improve Access – Widen and resurfacing of the existing riverside path to encourage movement into and through the area

Environmental Enhancement – Mitigate the negative influence of the surrounding developments and restore the area as a historic and naturalistic hotspot.

Protect biodiversity – this area is a biodiversity hotspot, and there are further opportunities to enhance habitats and improve green connections to this area

OUTLINE PROPOSALS

1 Buildings relate poorly to the river edge, forming irregular and unused spaces with signs of antisocial activities

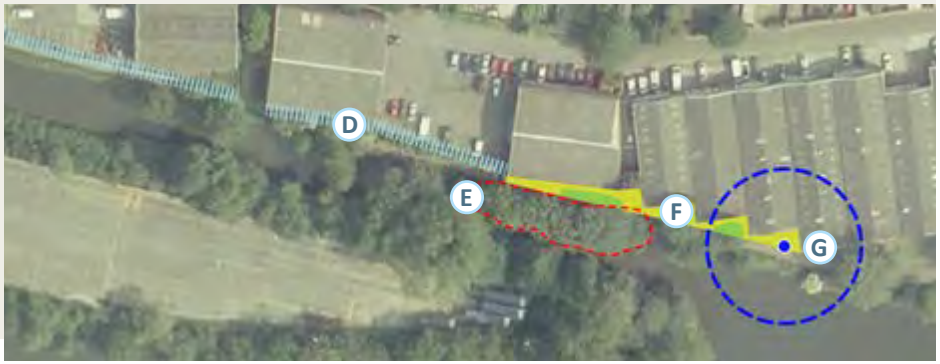
2 Unsightly barbed wire on property boundaries detract from the naturalistic setting

3 Path pinchpoint towards west causes conflict between cyclists and pedestrians

4 Overgrown tree canopies cause excessive shading of pathway

15. WESTON CUT CANAL (2/3)

OUTLINE PROPOSALS (CONTINUED)



A Widened pathway to allow for better flow of pedestrians and cyclists whilst improving safety

B Capitalise on views over river from the Locksbrook Inn Pub and activate the frontage, allow for greater interaction between the outdoor seating and the river edge

C Seating space beside the bridge to make use of the tranquil setting and encourage people to stay longer in the area

D Improve image of property boundaries, removing barbed wire and establishing climbing vegetation. Potential for art installations

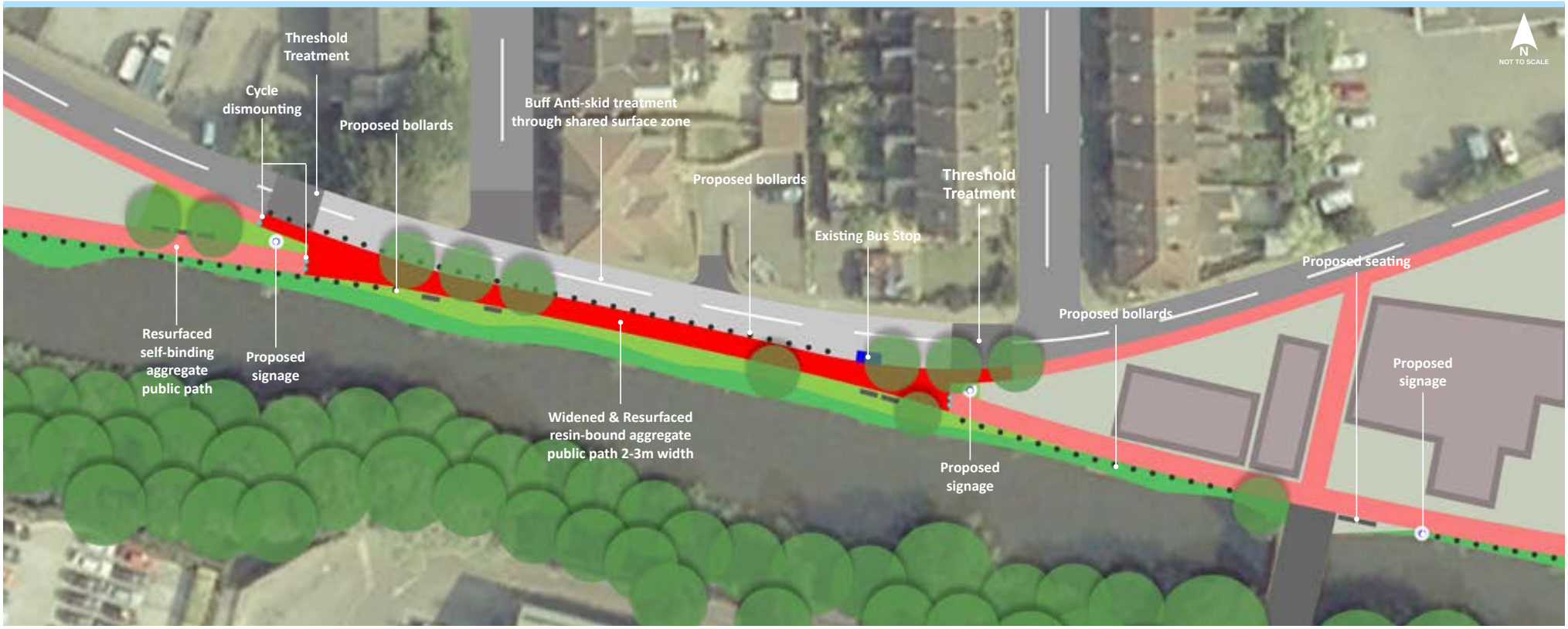
E Thin tree canopies to allow more light to penetrate through to the pathway below

F Buildings relate poorly to the river edge, forming irregular and unused spaces with signs of antisocial activities

G Information board combined with transitional/visual element for education and acting as an entrace point to the canal

15. WESTON CUT CANAL (3/3)

DUNDAS — CLAVERTON — BATHAMPTON — **BATH** — SALTFORD — KEYNSHAM — HANHAM



16. BATH MARINA (1/2)

PROJECT CONCEPT

Bath Caravan Park and Marina caravan and marina site is a linear site, accessed from Brassmill Lane to the east. The operation is site is successful, and has seen an with 10% increase in demand since 2014 with the redevelopment of Twerton Mill. There there are proposals to enhance the camping offer and overall visitor experience of the site. The current office & reception are adjacent to the marina in the north east corner of the site. This is not an ideal welcome point . The site is close to the Newbridge Down Park and Ride, adjoins park space and a children's play area and the river path. An existing next bike station on the site is very well used for trips towards Bath City centre along the river.

This project aims to consider the opportunities for a Masterplanned development of this site, to realise its full potential. The site comprises an attractive marina which is visible from the riverside, riverside moorings, and a caravan park plus associated facilities.

A Masterplan for the site could allow improved connections through the site between the river path and Newbridge, ecological and environment enhancements, improvements to the park offer and enhanced facilities including tent camping, a new shop, and new communal facilities etc. There are limited opportunities to increase the number of moorings, however, access to the slipway (currently blocked by a mooring) would provide an additional benefit.

ECOLOGICAL CONSIDERATIONS

- The river corridor is likely to be used by some of Britain's rarest bat species. Enhancement of bat foraging and commuting habitat through providing unbroken hedgerows and native tree lines along the river corridor should be encouraged. The provision of additional bat roosting features including bat boxes in trees and bat bricks and bat tiles within new buildings would also be beneficial to local bat populations.
- Many bats are affected by night-time lighting. It is recommended that dark corridors are maintained and lighting is directed away from the River Avon and boundary habitats including hedgerows.
- The recommendations to retain native riverside habitat and reduce lighting impacts on the River Avon will also greatly benefit otters, which are known to be active along the River Avon.
- It is recommended that additional bird nesting features are provided within the site which can include bird boxes on buildings and trees and the installation of an artificial nesting bank for kingfisher on the River Avon.
- The biodiversity of the site can be enhanced via the creation of new habitats including areas of wildflower meadow, a green roof on new buildings and the incorporation of a variety of native tree and shrub species in the development planting schedule. This can create valuable habitat for invertebrates and the provision of log/brash piles within suitable areas around the site would provide refuges for wildlife including reptiles and hedgehogs.

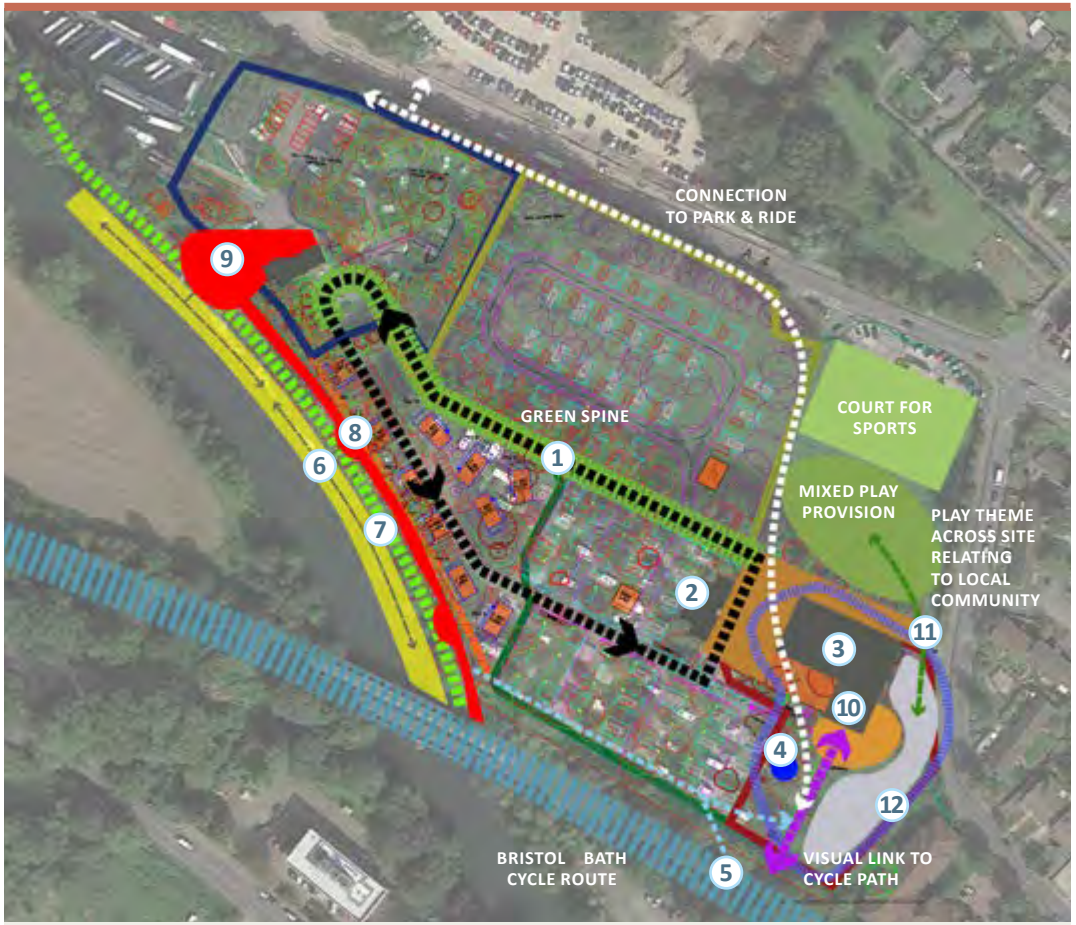
16. BATH MARINA (2/2)

OPPORTUNITIES

Masterplanning opportunities to integrate proposals into wider area include:

- Creating publicly accessible hubs centred on the New Chandlery, with riverside café/workshops/offices which address the riverside and a neighbourhood hub that can offer a shop, bistro/café and play amenities that also relate well to the nearby residential areas. Both hubs can offer a potential attraction to riverside users, perhaps with the addition of a permanent water-boat café as part of the proposals.
- Create a central green spine as a new PROW connecting from Brass Mill Lane to several points of the Bristol Bath riverside route and the two hubs noted above.
- The movement through should be promoted between the Park and Ride and riverside towpath for cyclists using the Nextbike cycle terminus and pedestrians and site visitors to gain access to the city via the park and ride, perhaps also to provide a potential future river shuttle service;
- Connections required to play areas/soft landscape areas with shared surfaces to avoid conflict with vehicles accessing the site.
- The site should allow access for site users at designed and managed play/amenity locations along the sites southern riverside edge.
- Proposals to reconfigure existing moorings will be subject to consideration of navigational safety and ecology in particular.
- The proposals need to demonstrate the redistribution of green space, which addresses neighbourhood play shortfalls and adventure play (perhaps within bund area) and also consider a MUGA or 5-aside sports pitch as part of the site's play/recreational provision (within remainder of Newbridge Open Space).
- Create and highlight a number of dog walking circuits, of differing lengths, around (and partially within) the site.

Although there would be a loss of green space through this Masterplan proposal, there is a case that can be made, to show how this is being mitigated by redistributing open space to the riverside edge with defined and managed functions. There may be some merit in using site won material to create a vegetated bund along sections of the sites northern boundary to provide visual/sound screening to the site from Bristol Road.



1. One-way vehicle route
2. Facilities building with planning permission
3. Facilities building with sport shop
4. New Next Bike station
5. New pedestrian and cycle link to Bristol-Bath cycle route
6. Reconfigured moorings with reduced number of access points
7. Ecological enhancement and management of river banks, with removal of invasive species
8. Towpath with access to moorings
9. Potential Riverside Hub with future active uses e.g. workshops, cafés
10. Landmark feature to building
11. Shared surface entrance and facilities area
12. Car-free Hub / cycle repair / cafe connected to the cycle route

17. SALTFORD BRASS MILL (1/2)

PROJECT CONCEPT

The site of Saltford Mill has been in use since the time of the Domesday record when two watermills were listed in Saltford. At that time they would have been corn mills housed in simple wooden structures of which nothing is known. In later centuries fulling, the thickening process of hand-woven woollen cloth was carried out in buildings which would have been far more substantial. Fulling ceased in the late 1600s with the bankruptcy of the owner, but the present building may well contain fragments of that earlier structure. The brass company is known to be in occupation from 1721 and from then many additions and alterations must have taken place.

In its current form, Saltford Brass Mill is situated on the banks of the River Avon in the village of Saltford, it was one of a series of mills in the Avon valley in operation during the 18th century. The river was used to transport and deliver brass and coal to the mill where the brass was shaped to make hollow-ware such as pans, bowls and vats. The Saltford Brass Mill complex has been restored and renovated in 1995 and 2014.

The Brass Mill building is of significant importance, being the only surviving building still with a furnace and working water wheel remaining in the Avon Valley. The Mill is maintained through volunteer work with The Saltford Brass Mill Project.

The building today hosts a series of historic exhibits aimed at educating visitors about the craft. It has charming gardens and associated facilities, provide group visits, lectures and a venue of talks. Opening times are limited, the Brass Mill is open to visitors on the Second and Fourth Saturdays of the month from May to October.

OBJECTIVES AND PROPOSALS

A Improve connectivity with the cycle trail
Better wayfinding and information to take people from the cycle way to the Brass Mill.

B Enhance interconnectivity with the local area & services
Better cross advertising of the Brass Mill at local pubs and facilities such as Saltford Marina. Walking tours incorporating the Brassmill into the route.

C Improved site visibility from a wider area
Create glimpsed views towards the mill along the cycle route through canopy lifting.

D Create more direct links with a wider catchment area
River taxi services from Bath City Centre and Keynsham, with a stopping point located outside the Riverside Inn Pub for increased potential use of local services and potentially increased annual visitors.

E Visitor education
Information/interpretation boards to inform visitors to the Mill of the significance of the site and its history. Potential for mill-themed riverside sculptural elements for enhanced character and engagement.

These ideas have been developed working with the Brassmill volunteers.

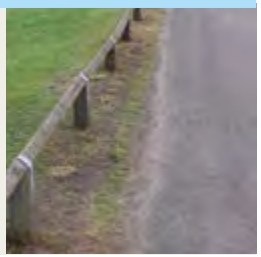
18. THE SHALLOWS SALTFORD (1/3)

PROJECT CONCEPT

Enhancement to the Shallows to improve biodiversity, better promote the Saltford Brassmill and improve basic facilities for a variety of uses including free fishing, canoeing/kayaking, and those others enjoy the space.

- **A** Dense unmanaged vegetation blocking desirable views across the river valley from park space & surrounding areas
- **B** Steep pathway gradient and steps making accessibility and usability more difficult

- **C** Steep, inaccessible river edge difficult for kayak and other water sport access
- **D** Timber knee rail protects the river edge from the impact of parked cars, but retains only narrow strip of accessible space



- **E** Car Park is not incorporated into parkland space, detracting views from the river
- **F** Picnic benches and BBQ areas provide good facilities, although extensive areas of mown grass lack biodiversity

- **G** Road surface treatment has a suburbanising impact on the rural character
- **H** Overgrown pathways with non-native species reducing riverside views

18. THE SHALLOWS SALTFORD (2/3)

A1 **Improve circulation** with gentler gradient providing easier access through the site with coordinated path surface finishes

A2 **Shared surface** to site access and car park to integrate the park setting with the river

C1 **Natural Play Space** for visitors and local residents to provide a playful environment for children

C2 **Open leisure space** a flexible space for sports and recreational activities

B1 **Maintain vegetation** pruning of trees and thinning of undergrowth to re-establish views through the river.

B2 **Maintain mown seating spaces** and paths located in areas with desirable views.

B3 **Meadow grassland** provide more value to pollinating insects and wildlife, a naturalistic character

B4 **Reinstate glimpsed historic views** across the AONB by managing vegetation

D **Improved access arrangements** avoiding bank erosion providing safe access for free access canoe/kayak

Low key improvements to facilitate free fishing access such as vegetation management, better disabled access between car park and river edge considering kerbs and location of gaps in knee rail.

Photo: Saltford Environment Group

18. THE SHALLOWS SALTFORD (3/3)

PROJECT CONCEPT

Potential for improved canoe and kayak access to address the current issues of bank erosion and steep inadequate access. The land is in B&NES ownership and it provides free access point to launch canoe and kayak which is accessible to all.

Any future proposals should be small scale and must retain the character of this quiet riverside retreat.

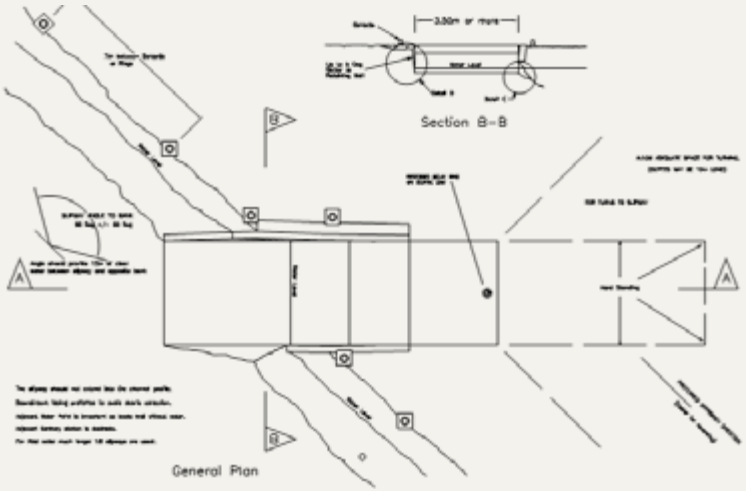
DESIGN OPTIONS

Photos left from Saltford Parish Council and local canoe groups highlight the difficulty of accessing the river with a canoe.

Further detailed design work would be needed before to establish possible options including siting. Any future design would need to be a collaboration with the local community including those who would use the facility.

EXAMPLE SLIPWAY DESIGN

The Inland Waterways Associate Standard Slipway Design is illustrated below.



PRECEDENT IMAGES

Examples from Medway Canoe Trail in Kent (constructed in 2008) and Reedley Marina are shown below.

19. MEAD LANE MOORINGS

DUNDAS — CLAVERTON — BATHAMPTON — BATH — **SALTFORD** — KEYNSHAM — HANHAM

PROJECT CONCEPT

Mead Lane and adjacent residential plots connecting the historic core of Saltford and the Cycle track to the Jolly Sailor pub and Sailing Club.

Due to the site's attractiveness with open views to the Cotswolds Area of Outstanding Natural Beauty, its proximity to both Bath and Bristol and the bank profile, and nearby parking the area is attractive for summer mooring. The terms and duration of moorings have not been clear, while there are no facilities and services at this site, it is well placed in close proximity to elson points etc.

Boats mooring have no formal means of anchoring, therefore vessels are either tied up to riverside trees or used mooring pins.

During 2016-17 a mooring trial was implemented, and new white lines installed to discourage parking on the lane blocking private residences. A consultation is also being led by the Highways Department about overnight parking restrictions on Mead Lane (Aug 2017).

DESIGN OBJECTIVES

- Provide mooring allocations and facilities– sites for anchoring, bankside access and adequate facilities for 14 days and 48 hour stays (245 metres length in total)
- Reduce impact on surrounding residents and businesses – Minimise visual and social conflicts between residents and moorings and nearby overnight parking at the Shallows
- Enhanced access and connectivity – Clear directional and informational signage for visitors and moorings

Avoid overnight parking of camper vans over long duration. Access for lorries to pub and waterworks impacts upon local residents

Mooring ropes preventing maintenance of verges – vegetation obstructing access from bankside

Potential Conflicts between users – sailing club, residents, boating community , anglers etc need to be managed.

POSSIBLE INTERVENTIONS

A **Install Mooring Anchors** – Allocated mooring spots for more formalised securing of boats. Breaks in vegetation for easy access

B **Mooring Signage** – Adapted from Canal and River Trust standard visitor mooring posts. Currently in place.

C **Interpretation Panel** – add panel with local history, wildlife information and boater code of conduct. Currently in place.

D Consider highway restrictions to manage car parking and through traffic.

20. WESSEX WATER BRIDGE

DUNDAS — CLAVERTON — BATHAMPTON — BATH — **SALTFORD** — KEYNSHAM — HANHAM

PROJECT CONCEPT

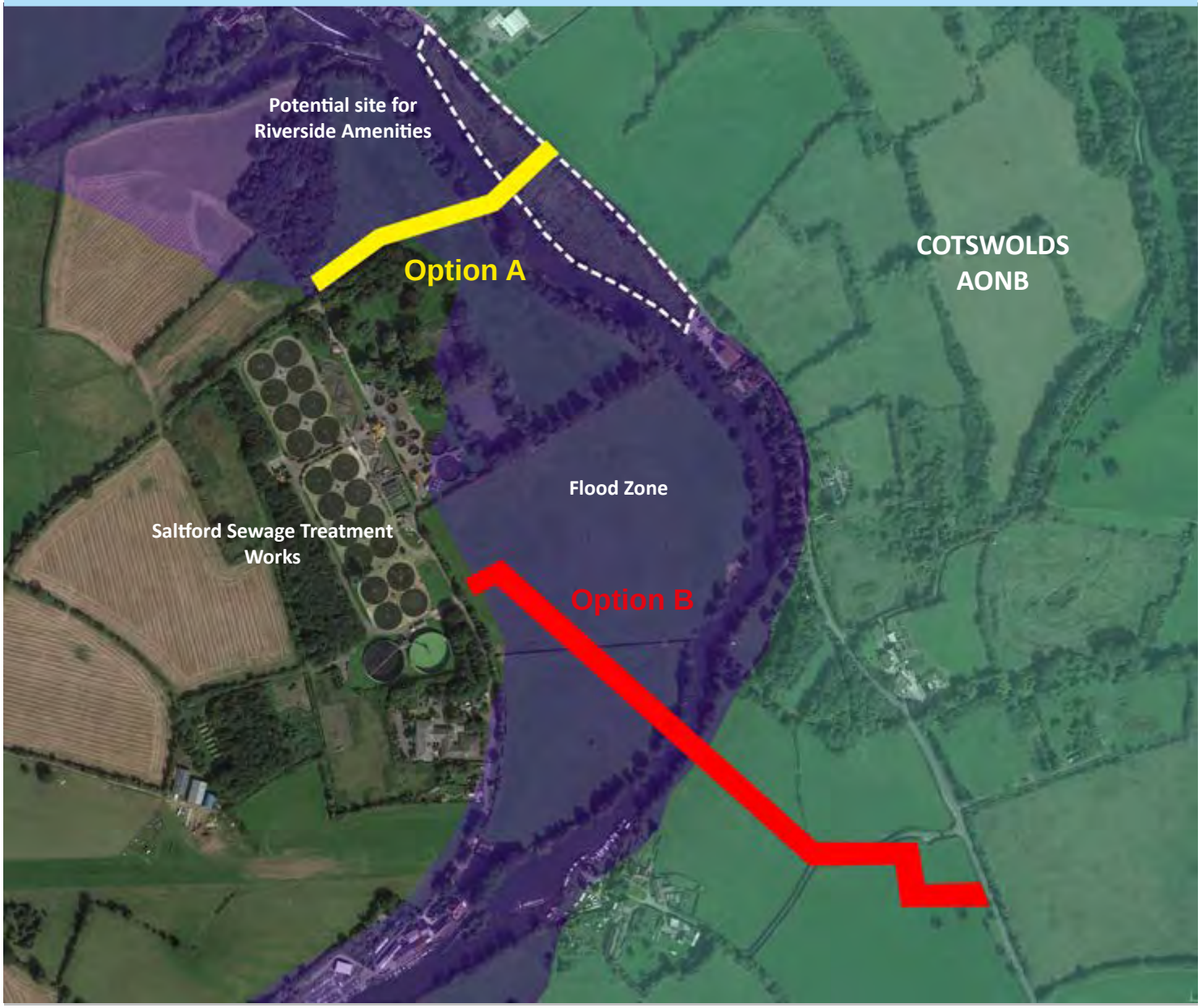
Access to the Saltford Sewage Treatment Works Wessex Water site relies upon a narrow existing road network, which flood occasionally rendering it not passable. Wessex Water are seeking to provide a new access via a bridge crossing the River Avon and connect the site to the A431. They are currently exploring two options which connect with the A431 to the south east of Swineford.

Preliminary Study will include:

- A Scoping Study to determine the requirements for Environmental Assessment;
- A high level environmental assessment of route options to compare landscape sensitivity, heritage and ecology;
- Transport Study to assess the works to ensure the access can be integrated with the wider network;
- High level planning requirements; and
- Sustainability Appraisal of the location.

OPPORTUNITIES

- The site presents potential for a new river crossing which would be for Wessex Water vehicular use only, but could include a cycling and pedestrian river crossing provision;
- Waterside boating activities and moorings could be considered as part of the proposals in adjacent areas of land;
- There is potential to connect the bridge as part of the existing network of footpaths and to create new riverside paths and it creates the opportunity for a loop route via the nearby attractions and pubs at Saltford.



21. BROADMEAD PENINSULA

PROJECT CONCEPT

Bath and North East Somerset Council is in the process of working with neighbouring authorities to develop a Joint Spatial Plan (JSP) which will identify appropriate locations for development, including future housing requirements. The Broadmead Peninsula is part of the northern and central Keynsham-Saltord axis and is emerging as one of the possible options (2017) for further growth at the sub-regional level. The area is also the location of a proposal for a large scale Marina proposal which was subject to a recent appeal.

The study area comprises the urban edge of Keynsham and is bound by the east-west Bath-Bristol rail link to the south and the River Avon to the north. The Avon Valley Country Park is located in this area.

The landscape is edge of settlement and transitions to small scale agricultural with some recreational uses such as the Avon Adventure Park. There are employment uses, industrial, storage and workshops etc. The landscape reflects the national landscape character description and falls within 118, Bristol, Avon Valleys and Ridges. Overall the landscape is very much characteristic of an open foodplain landscape and relates well to the river in visual terms.

Design Objectives

Work is currently underway to review the suitability of this location for future strategic development, however, the site is currently in the green belt and unless earmarked for strategic growth there would be very little development opportunities here. The current assessment work is considering the following:

(i) The suitability, or otherwise, of the area for development. Including the mapping of known constraints (planning, infrastructure and viability);

(iii) Generate an understanding of the potential site capacity for mixed use development, to include all or some of the following land uses: residential, employment, green infrastructure, leisure uses (Country Park, facilities at Bitton Rail halt), Water based development (including Marina, Water Taxi and Moorings), environmental mitigation, infrastructure, residential waste facility site constraints (planning, infrastructure and viability);

CONSIDERATIONS

Further work will entail: green infrastructure and ecology survey, food risk assessment, transport modelling, land contaminaton, future infrastructure requirements for new development such as housing and related existing and new employment uses.

Background studies include:

• River Regeneration Trust, Scoping Study Report, November 2013 & Supplementary Overview Document, April 2016 a study exploring employment opportunities in the Broadmead Peninsula, focussing particularly on the creation of green jobs.

• Land East of Keynsham Master Plan, BNP Paribas. This study covers the allocated East of Keynsham employment site and also looked at adjoining land on Pixash Lane which is jointly owned by the Council & partly used as a household waste recycling centre.

• Keynsham Transport Strategy. This study explores issues such as Traffic congestion; both in Keynsham and for traffic using the A4, affecting the quality of life for residents in some parts of the town and explores the issues surrounding traffic demand from new developments proposed within the town.

22. SOMERDALE DEVELOPMENT (1/2)

PROJECT CONCEPT

The aim of this project is to develop new connections between Hanham Mills area and the development at Somerdale, the former Somerdale Chocolate Factory site.

Currently development is being constructed in a phased approach at Somerdale and comprises a mix of residential and commercial development.

In parallel the Keynsham Greenways initiative will give local people access to particularly attractive local resources – the established Bristol and Bath Railway Path, and the riverside towpath between Hanham and Conham. Central to these proposals is the proposed new Somerdale Bridge over the River Avon which is to be included in the redevelopment at Somerdale.

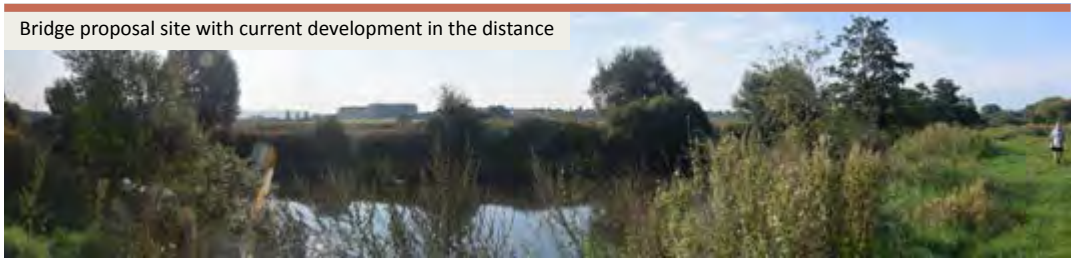
The Somerdale development includes the provision of off-site pedestrian accessibility improvements, potentially new connecting riverside paths (as part of the S106 agreement). These will contribute towards creating the long term aspirations to connect Hanham and Somerdale and facilitate wider access to Keynsham Bristol beyond.

ISSUES & OPPORTUNITIES

The design of riverside bridge and footpaths need to consider the following issues:

- The potential to create a new landmark bridge design which relates to the footpath and is well-located to achieve optimum connectivity;
- Connectivity to the Somerdale development
- River flood plain and the erosion/scour hydro-geomorphological activity needs to be considered in the design of the bridge, the position and construction of footpaths and to identify locations where vulnerable banks exist, for example at mooring locations;
- Path widths need to reconcile the existing widths which are restricted in places to achieve a combined cycle and walkway, ideally 3 metres in width
- Riverside proposals need to consider the potential to eradicate invasive species as part of the proposals, Himalayan Balsam is widespread along the riverside between Chequers Inn to the Somerdale Bridge site;
- Material choices need to consider the effects of extreme flooding to ensure a sustainable performance
- Narrow, uneven and unformalised routes, which follow public rights of way but are limited in terms of accessibility and become impassable in winter months due to waterlogging;

Bridge proposal site with current development in the distance



Somerdale Towpath & Moorings

Current Somerdale development under construction

Completed Somerdale Housing Development

Narrow track leading to Chequers Inn and recently refurbished car parking

22. SOMERDALE DEVELOPMENT (2/2)

LINKING FOOTPATH DESIGN CONSIDERATIONS

Some of the design considerations between Hanham and Conham include:

1. The Chequers car park has recently been refurbished with some works continuing to improve the visitor experience;

2. At present the field is gated and the type of barrier or gate required will depend upon the future activity in the field. An 'A' frame type of barrier is recommended to prevent motorcycle access;

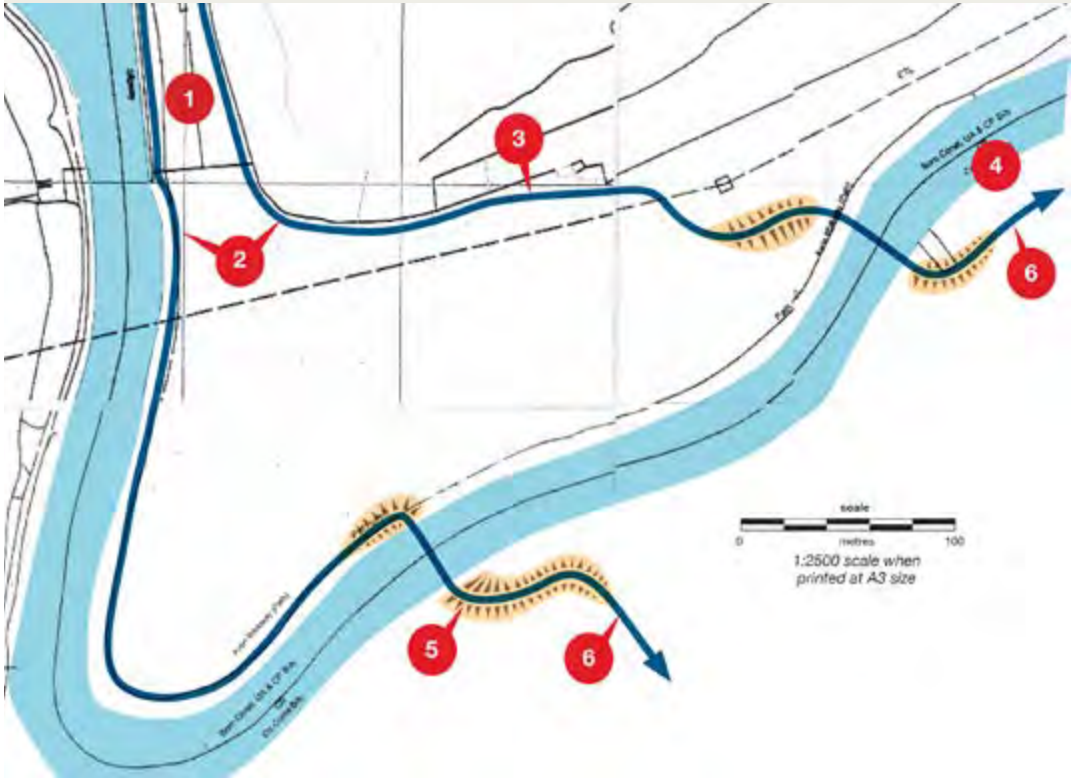
3. A new accessible path (which can be used by agricultural vehicles) could be constructed around this field edge if the bridge were to be in the western option location

4. A possible Somerdale Bridge location to tie in with the Developer's path to Keynsham;

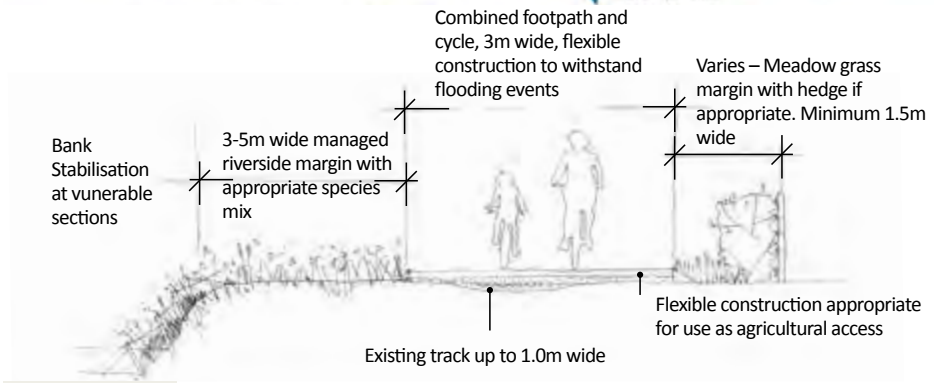
5. In each case the proposed bridge is about 45 meters in span onto approach earthworks embankments at 1:20 gradient aligned with the flow of flood water which may affect up to five days a year in terms of use of the footpath network. At this early stage it is anticipated that the soffit of the bridge will be approximately 2.5-3.0 meters above field level; and

6. The continuing path to Keynsham will be incorporated into the development of the Somerdale site and the exact route determined by that scheme;

7. Opportunities for improved angling access should also be considered.



Bridge Location Options and Connections to Somerdale



Towpath Section

FUNDING & DELIVERY

FUNDING & DELIVERY OVERVIEW

The WaterSpace Partnership has it's first a 5 Year Action & Funding Plan (2017-2022). This will be used by the project partners to prioritise key projects and support funding bids.

The following part of the report maps out the available funding correct at August 2017) and future funding options.

FUNDING

Typical project funding can be grouped into these categories:

Developer Contributions

- Planning Obligations
- In-kind improvements delivered within new development
- Community Infrastructure Levy

Capital Funding

- B&NES Council River Corridor Fund
- Canal & River Trust Capital Funding
- Environment Agency Capital Funding
- Wessex Water Capital Funding
- Transport related Capital Funding e.g. sustainable transport funding
- Regeneration related Capital Funding e.g. wayfinding and public realm funding

Revenue Funding

- Time limited revenue funding linked to Planning Obligations
- Existing and future voluntary and community sector input e.g. Kennet & Avon Canal Trust, Saltford Brassmill Volunteers, Canal & River Trust Volunteering programmes etc.

External Funding

- Grant funding
- Business Sponsorship and funding
- Crowd sourcing
- Re-purposed income e.g. from events, lease of land etc.

PLANNING OBLIGATIONS

Developer Contributions

Over £4 million in developer contributions, which relates directly to the River Avon and Canal corridor has been identified (at August 2017). Each developer contribution has spend parameters defined in the s106 Heads of Terms, as well as a defined spend time period. The funding is paid when key pre-defined development triggers are reached.

Planning obligation funding falls into the following four categories:

- Green Space Contributions (Capital and Maintenance) – much of which is allocated to delivering River Avon Park. The maintenance funding period is capped at 10 years.
- Sustainable Transport contributions (Capital) – to improve pedestrian and cycle links in the vicinity of the development which can include towpath public realm and wayfinding
- New Infrastructure contributions (Capital) – including new footbridges and linking paths, bridge refurbishment etc.
- Other – site specific measures

+ Appendix 1 includes a map of the current planning applications in the River Corridor and areas for s106 contributions from new development.

Appendix 10 summarises the current s106 income.

IN-KIND IMPROVEMENTS DELIVERED WITHIN NEW DEVELOPMENT

In addition to financial contributions there is also an opportunity to negotiate improvements within existing development proposals, as part of the planning application process.

On site improvements could include:

- Improved connections to the river and canal
- enhanced relationships between new buildings and the river corridor
- installation of standard wayfinding signage or standard river safety equipment
- biodiversity and wildlife enhancements and mitigation
- improved lighting conditions
- enhanced management arrangements of land adjoining the waterways
- the provision of moorings and infrastructure to support moorings (including electricity provision
- mooring rings, basic services and facilities) and new commercial opportunities for waterfrontage land or boat based commerce
- Improvements from waterbased developments such as marinas could also include improved tourist and boater facilities and services.

+ The existing funding available to support enhancements to the River Avon and Kennet and Avon is summarised on the following pages. The WaterSpace Partnership's 5 Year Action & Funding Plan (2017-2022) can be found in Appendix 13.

COMMUNITY INFRASTRUCTURE

Community Infrastructure Levy is developer funding which is not ring-fenced; it is paid on a per m2 basis, calculated on net increase in floorspace. However, the funding it must be shared amongst competing demands including education provision, highways etc.

CIL consists of two parts: (1) District wide CIL and (2) the local proportion of CIL – devolved to be spent locally. The local proportion is typically 15% of the total, unless a made Neighbourhood Plan is in place, in which case the local proportion is 25%.

CIL must be spend on categories included within the Infrastructure List (known as the Regulation 123 list). At 2016, CIL categories where River and Canal related funding can be sought include:

- Strategic Transport Infrastructure including cycling and walking infrastructure, and public transport (excluding development specific mitigation works on, or directly related to, a development site)
- Green infrastructure to deliver the requirements set out in the Green Infrastructure Strategy, including specific green space requirements identified in the Green Space strategy (excluding on site provisions)
- Social Infrastructure, including social and community facilities, sports, recreational, play infrastructure and youth provision, and cultural facilities (excluding on site provisions)
- Strategic Energy Infrastructure (excluding on site provisions)
- Health and Well-being Infrastructure (excluding on site provisions)
- Strategic Flood Risk Management Infrastructure (excluding on site provisions)

FUNDING & DELIVERY

The letters below link to the maps on the following pages, where the projects have a specific geographical spend area.

RIVER CORRIDOR CAPITAL FUNDING (2014–2022)

A. Minerva Rowing Club – completed.

B. The Boathouse – The Boathouse – Site survey and building investigation to inform disposal. Completed.

C. River Railings – Railings completed from Widcombe Lock to Churchill Bridge (£109k) and the ramp leading from Green Park Road to tow path. Railings completed from Pulteney Bridge to North Parade Bridge (£60k). Completed.

D. Secure Safety Devices (£50k) – Installation of 14 safety cabinets completed. Film produced and shown to all University of Bath students. Attended Freshers Fairs at Uni of Bath, Bath Spa and Bath College. Fire and police vehicles now carry grablines. Completed.

E. River Greening Trial – Biodiversity and River Safety improvements. Including Management & Maintenance Plan for the River Avon Park, to inform s106 spend. Underway.

F. Options Appraisal Study for Pulteney and Twerton – (£180k) Initial scoping work. Stage 2 options appraisal part funded from 2016-17 RCF. Completed.

G. Inspection Ladder repair works (£24k) – Final works completed Summer 2016.

H. Saltford Moorings (£10k) – Mooring trial implemented including mooring posts, signage and design of scheme. White lines implemented. Complete.

I. Batheaston Bridge Riverside Project (£5k) – Works Completed March 2016.

J. WaterSpace Study – Initial design work for capital assets linked to s106 spend. Completed.

K. WaterSpace Capital Projects

Capital funding has been committed by B&NES to facilitate the delivery of WaterSpace projects, and provide match funding for delivery of joint projects.

L. Strategic Flooding Project: Business Case for Environment Agency funded and delivered refurbishment of Twerton Radial Gate, and works to Pulteney Radial Gate (1/3 match funding towards an Environment Agency Business Case for Capital works) – £50k, one off payment.

M. Mooring Investment on Council owned land, including Pulteney Moorings £10k for feasibility and viability study.

N. Bat Habitat Strategy for River Corridor Development Sites (Bath Enterprise zone: Bath Quays) – £20k.

Total = £900k

OTHER CAPITAL FUNDING

The WaterSpace partnership negotiated £103,000 betterment to Canal & River Trust owned moorings was secured in 2016, as part of the Bath Quays Waterside project facilitating replacement railings, access gates and mooring rings.

EXTERNAL FUNDING

Since March 2017, the WaterSpace partnership has successfully secured the £20k external funding:

O. £2k towards volunteer kit including a river anchor, ropes, safety equipment and life-jackets.

P. £3.2k to fund a promotional River Safety video for Bath Quays Waterside new park and flood defence.

Q. £2k match funding to fund 2 new River Safety Cabinets at Batheaston riverside.

R. £2k funding to support engagement with Angling groups, and to facilitate match funding for funding bids to the Angling Trust.

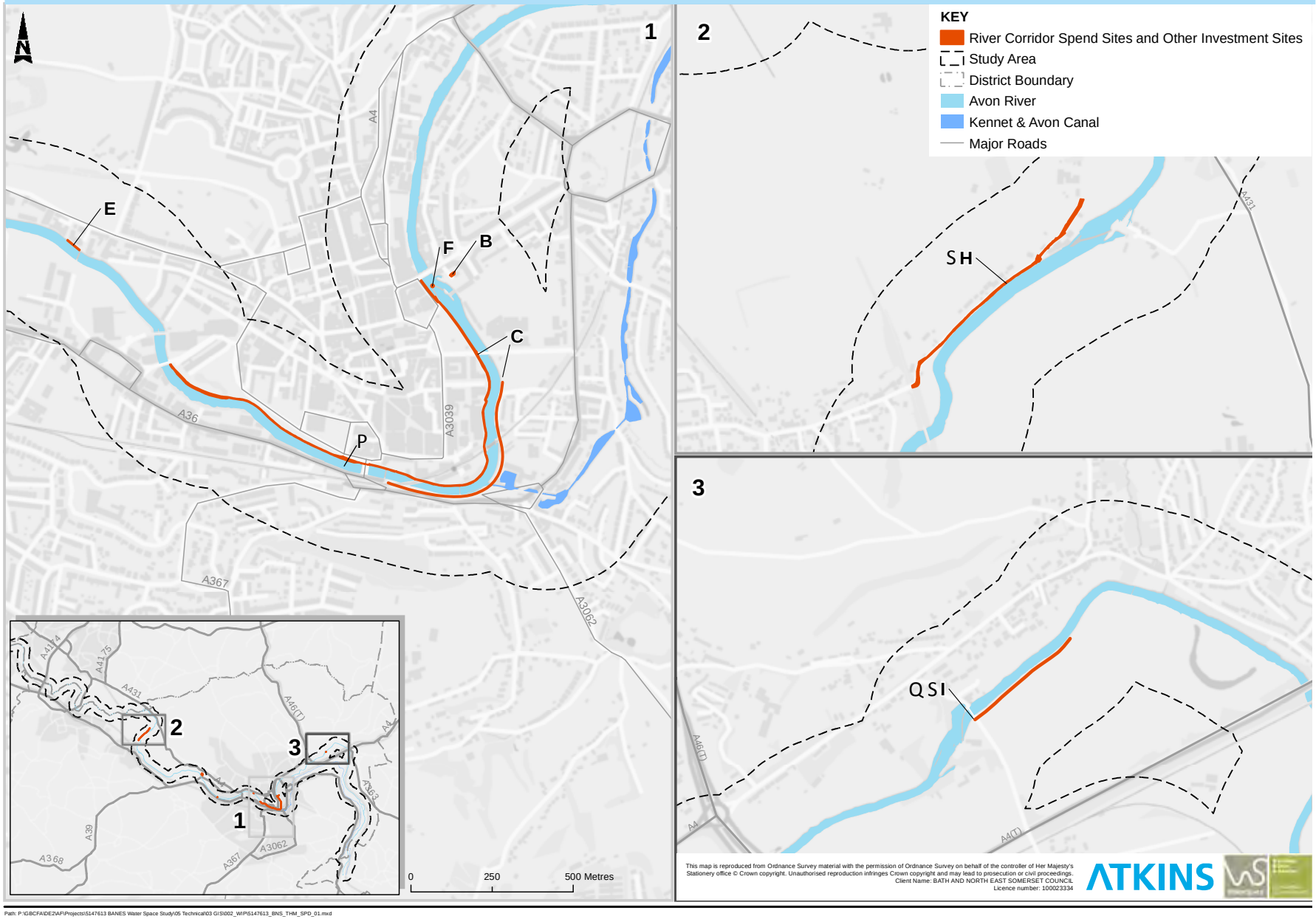
S. £5k for River edge environmental improvements within Bath.

T. £6k for Bristol to Bath railway path management and maintenance plan, including better linkage the path to the River Avon trail.

REVENUE FUNDING

S. The WaterSpace partnership negotiated £6k funding for riverside veteran tree management during 2017 for Batheaston riverside and Saltford riverside project areas, from the Council's internal revenue budgets.

WATERSPACE FUNDING AND SPEND BY LOCATION (2013–2017)



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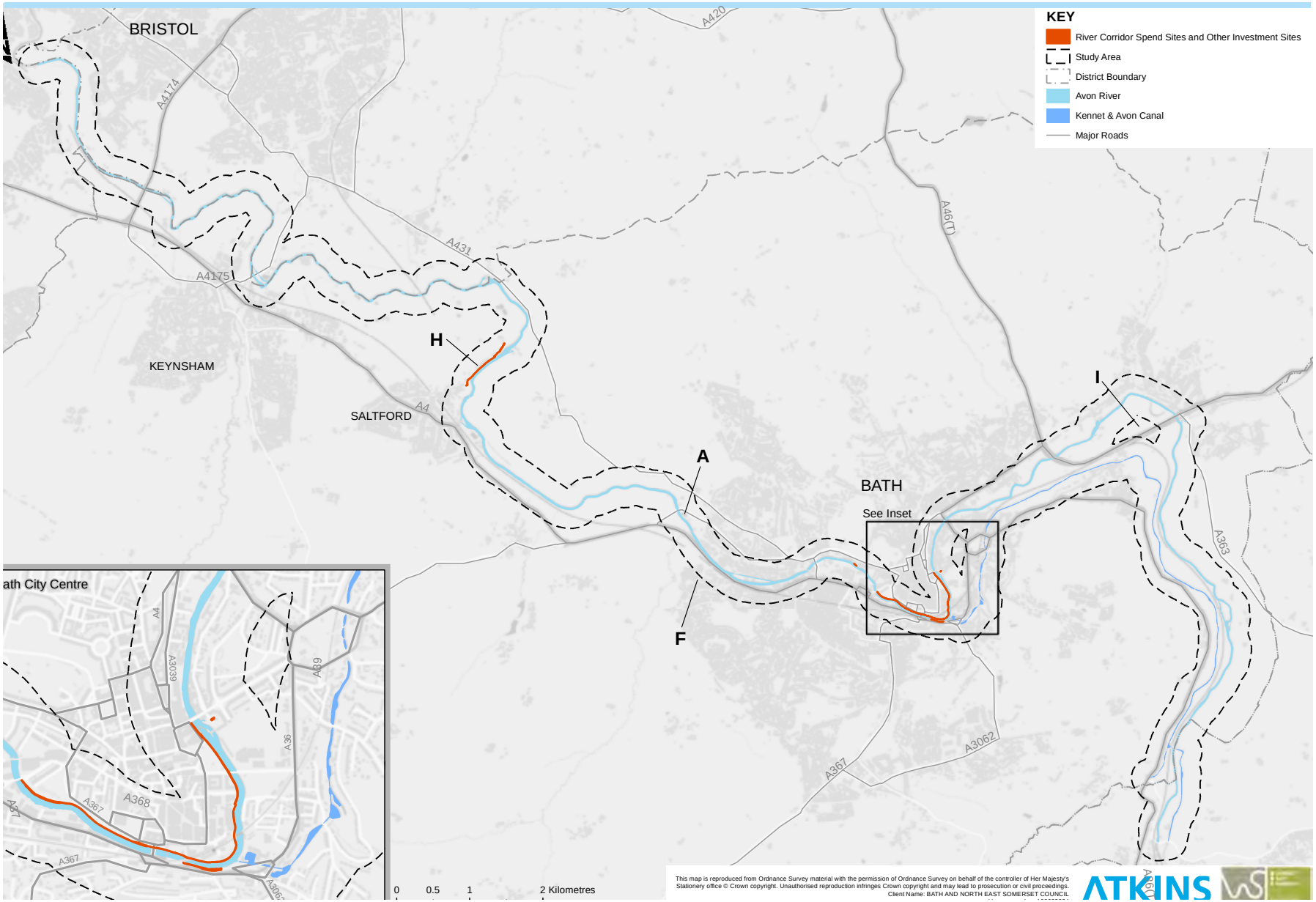
WATERSPACE FUNDING AND SPEND BY LOCATION (2013–2017)



BACKGROUND EVIDENCE

EVIDENCE

GIS INFORMATION

B&NES (2016) Land Ownership Map

Canal and River Trust (2016) Land Ownership Map

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B&NES (2016) River Corridor Fund Map of Spend

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MAPS

Mapping provided under licence by the project partners: Bath & North East Somerset Council, Canal & River Trust, Environment Agency and Wessex Water.

Additional mapping provided by the Bristol Avon Catchment Partnership.

PHOTOS

B&NES River Photo Archive

APPENDICES

APPENDIX 1:

1a:Water Space Study Area Asset Maps for Bath & North East Somerset (2016)

1b:Water Space Study Area Planning Applications and s106 funding areas for Bath & North East Somerset (2013-17)

APPENDIX 2:

Boater Survey 2016 Full Report (2016)

APPENDIX 3:

Focus Group Meeting Notes (2016)

APPENDIX 4:

Report of One to One Interviews (2017)

APPENDIX 5:

WaterSpace Study Consultation Report (2016)

APPENDIX 6:

Summary Table and Full Responses from “Call for Ideas” (2016)

APPENDIX 7:

River Avon Bat Survey Report (Clarkson Woods for B&NES Council, 2016)

APPENDIX 8:

Walking Trail Maps produced for the WaterSpace project

APPENDIX 9:

Bridge Map

APPENDIX 10:

s106 Matrix for River related projects

APPENDIX 11:

Festival of Nature 2016 Programme

APPENDIX 12:

The WaterSpace Partnership has it's first a 5 Year Action & Funding Plan (2017-2022).

APPENDIX 13:

References for images and content sources

APPENDIX 14:

WaterSpace Partnership Annual Report 2016-17

This Study has been prepared by the WaterSpace Partnership