Introduction

Bath & North East Somerset Council and the Environment Agency are working together to provide a very important infrastructure project. It will provide flood defences for parts of the city centre that will also begin to build a positive relationship between Bath’s city centre and the River Avon.

The Bath Quays Waterside Project will put in place essential flood mitigation and defence works between Churchill Bridge and Midland Bridge that address the negative impacts of climate change. In summary, these interventions will:
- Reduce existing and future flood risk to the Lower Bristol Road and 60 properties on the South side of the river through the provision of new flood defences.
- Provide the flood mitigation to enable the realisation of the Bath City Riverside Enterprise Area and the Council’s ‘Innovation Quays’ project.

The Bath Quays Waterside : Flood Defence Project

Transforming the Riverside

The River Avon in Bath

The Bath City Riverside Enterprise Area and the subsequent Innovation Quays project offer the potential to radically transform this area through the creation of a major new waterside place. The projects include upper and lower level promenades, a defined cycle route, natural landscaping and ecology, a large riverside public space offering opportunities for outdoor performances and events, and greater opportunities to hold activities on the river. The new environment will provide an attractive and playful waterfront for Bath that can be used and enjoyed by thousands of people all year round.

Flooding in Bath

The River Avon flows through Bath in a steep-sided valley on its way to Bristol and the Severn Estuary. Upstream of Bath the river drains an extensive catchment area. Flooding was a frequent occurrence in Bath until the 1970’s when extensive flood prevention works were completed.

The raising of the existing flood defences has the potential to increase the risk of flooding in areas upstream of the scheme area. In order to avoid this, the size of the river channel needs to be increased. There is no space to do this along Lower Bristol Road so it is proposed to widen the river channel from Park Road to the weir through the creation of a major new waterside place called Bath Quays. The river channel is to be widened by extending Park Road between The Anthony and Avon Street.

The existing flood defences in Bath were designed to pass flood water through the City as quickly as possible. This was achieved by providing a large ‘self-cleansing’ river channel. This means that any soil that washed into the channel was washed away by any large flow of water down the river. Recent surveys of the river showed that the 1980’s design has been successful in reducing the volume of silt in the river as it flows through the City.

The City of Bath’s flood defences have a 1 in 50 chance of being overtopped every year in a flood event. This is a relatively high risk of flooding compared to other cities in the UK. The proposed realignment of the Lower Bristol Road area requires the risk of flooding to be reduced even further. In terms of planning policy, the flood defences need to be raised so that the annual chance of them being overtopped is less than 1 in 100, including the increased risk from forecast climate change.

Bath City Riverside Enterprise Area

Designated as a key zone for economic growth by the West of England Local Enterprise Partnership, the Bath City Riverside Enterprise Area has the ability to deliver 65% of the District’s jobs growth and play a key role in providing much needed accommodation for the area’s flourishing high-value business sectors. Supported by infrastructure, Bath in the future will be a city where businesses, academia and creativity combine to create value and enhance the quality of life.

The river is an integral part of the city’s character. It now forms a ‘green ribbon’ which threads through the city, linking the beautiful hills with the city centre. At Pulteney Weir and Parade Gardens, it provides a focus for relaxed strolling. In the past, the river here was an underused asset in the city centre, with no space to provide seating for regattas and other entertainments.
Introduction

Towards the end of 2013, the Council appointed Feilden Clegg Bradley Studios (FCBS) to lead the preparation of a Masterplan for the Bath City Riverside Enterprise Area. The Masterplan covers the entire Enterprise Area (a total area of 98 hectares), and will advise on how to deliver key areas and development opportunities within. The Masterplan also informs the preparation of the Placemaking Plan which was launched last year and will provide planning policy for future developments.

Following their appointment, the team have been observing the Enterprise Area, meeting with stakeholders and compiling an understanding of the evidence which will inform the Masterplan.

Masterplan: The Five Principles

Some early thinking about the principles and values that will guide the project have emerged - to add a new chapter to the life of the city and truly bring the river corridor and its varied attributes to life!

Integration

Bath Quays Waterside is an important hub within the Masterplan and significant to the future of the city. This area, known as Innovation Quay, presents unique and exciting opportunities for the future of the city centre. With the prospect of the re-modelling of the riverside to create robust flood relief works, the site offers outstanding potential for the creation of a new ‘innovation quarter’ for Bath, where exciting new workplaces and commercial uses can come together on the riverside.

Bath Quays Waterside

Bath Quays lie at the heart of the Bath City Riverside Enterprise area. It comprises the North Quay where Broad Quay and Green Park Road are today and the South Quay.

Proposals for North Quay focus on re-establishing the relationship between the city centre and the riverside, establishing new street typologies, with Corn Street and Avon Street, pulling the greenery of the river corridor into the city centre and new pedestrian connections to St James Parade and Somerset Street responding to the scale and form of the historic quayside streets.

Proposals for South Quay focus upon the creative reuse of the historic industrial buildings of Newark Works and the formation of new ‘landmark’ buildings on the bend of the river benefiting from views from Churchill and Nelson Bridge. A new bridge, connecting North & South Quay, will improve links for pedestrians, furthering the opportunity for a fun riverside environment.

Phasing

Delivering vital flood defence and flood mitigation works will start to create a much stronger physical relationship between the river and the city centre. The works will be constructed in a phased manner to enable future redevelopment to follow on. The initial works (Flood Defence and Flood Mitigation) will form the necessary river edge conditions and bank profiles, creating opportunities to embrace future uses in the spaces created, linked to the development of Bath Quays.
Riversides in other cities

Many cities around the world are implementing flood defence projects. In response to projected climate change, changing rainfall patterns and increased run-off causing downstream flooding. Some cities have turned the challenge of flood defence into an opportunity to redevelop their riverbanks and the relationship between their city and the river.

What type of riverside is right for Bath Quays?

The Flood Defence Project will create a new area of landscape at North Quay. What is currently a narrow road verge and steep embankment will become a wide towpath and a shallower bank with places to sit. It could become a new river front destination for Bath providing a place for people to relax close to the waterside.

This project has consulted with landowners and affected parties adjoining the scheme along with a number of statutory and representative stakeholders including:

- Natural England
- Bath Preservation Trust
- English Heritage
- B&NES Initiative
- Sustrans

We asked stakeholders their opinions on what this river front space should be like.

Should North Quay be a hard paved quayside, or green and planted?

Stakeholders said...........

Stakeholders were asked for their views on whether North Quay should be a hard paved quayside like it was historically, or should it be a green riverside which brings nature to the heart of the city?

Green River Corridor

The emerging concept designs for the Bath Quays River front envision the river corridor as a green thread which brings nature to the heart of the city.

Tree planting will be enhanced using species with a long life span which are flood tolerant and will contribute to the biodiversity of the riverside environment.

The important role of the river as a wildlife corridor will be enhanced; lighting levels will be kept low to avoid impact on bats using the river as a foraging route; river edges will be profiled to provide river edge aquatic habitats and otter resting places.

People will be drawn to the river via a new promenade walk at the top of the bank providing an attractive sunny south facing frontage with views to the iconic Bath Abbey.

Precedent Images

Precedent Images
**Bath Quays Waterside : Flood Defence Scheme Description**

**Key Project Sponsors**

The Council and the Environment Agency are working together to deliver an important infrastructure project to deliver flood defences for part of the River Avon which will provide planning policy for the city centre that will also begin to build a positive relationship between Bath's city centre and the River Avon.

**Project Context**

**BAIRES Economic Strategy**
- Draft Core Strategy and National Planning Framework
- Priority for green belt
- Protection of green belt

**Planning Policy Framework**
- Draft Core Strategy and National and the evidence base that has been collated by the council to support the Masterplan for Bath. This includes proposals for key Enterprise Areas. Placemaking Plan and will inform the preparation of the Green Infrastructure Strategy.

**Policy Context**

- The Masterplan also informs the preparation of the Placemaking Plan and will provide planning policy for future developments.

**Landscape Projects Ltd.**

- Tree surveys have been carried out, including surveys for trees, shrubs, hedges, reptiles, trees and vegetation. Plans are in place to avoid adverse impacts on wildlife, appropriate mitigation and enhancement of the area.

- The project team is taking very seriously the responsibility to safeguard wildlife and trees that could be affected by the works. Expert opinion has been sought and plans are being put in place to re-stake the area identified for the scheme with level access route. Riverside habitat will be created and new planting.

- The river bank re-profiling will affect the sites and to provide safe access to / from the river.

**Ecology**

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**Flood Defence Project**

**Lower Bristol Road**

- A key access route into and out of the city, as well as providing access to some of the city's major residential and industrial units in the south Bath area. Modelling confirms that existing flood defences protecting Lower Bristol Road would experience during a 1 in 20 annual probability event.

- Lower Bristol Road is a key access route into and out of the city, as well as providing access to some of the city's major residential and industrial units in the south Bath area. Modelling confirms that existing flood defences protecting Lower Bristol Road would experience during a 1 in 20 annual probability event.

- Lower Bristol Road is at a high risk of flooding from the local surface water drainage network. The risk of flooding is increased when discharge into the Avon is presented by higher river levels.

**The Environment Agency**

- The Environment Agency previously investigated the feasibility of improving the flood defence along the lower Bristol Road.

**Flood Protection to windows**

- Existing wall raised to 500mm

**Trees**

- Trees along the southern verge of Green Park Road and along the new road alignment will be removed and replanted with new planting.

**Flood Defence Project : description**

- Simplified plan of flood defence project

- The new scheme will re-plant mature trees and carry out landscaping. For example, we are investigating planting a mixture of species including shrubbery which will help to attract birds. Options for creating quiet areas along the River will also be considered.
The Bath Quays Waterside and the subsequent Innovation Quays project offer the potential to radically transform this area through the creation of a major new waterside place. The projects include upper and lower level river promenades, a defined cycle route, natural landscaping and ecology, a large riverside public space offering opportunities for outdoor performances and events, and greater opportunities to hold activities on the river. The new environment will provide a new focus for Bath that can be enjoyed and used by thousands of people all year round.

Through facilitating the development of Innovation Quays, Bath Quays Waterside will contribute to the delivery of the Bath City Riverside Enterprise Area and the creation of around 5,000 new homes, 650,000 square feet of new workspace and up to 6,000 new jobs for local people.

**Sections**

- **Shore Road**
  - New access point
  - Boats (including narrow boat)
  - Pedestrian walkway
  - Cycle and pedestrian walkway

- **Mature 1A**
  - Boats
  - Pedestrian walkway
  - Cycle path

- **Mature 1B**
  - Boats
  - Pedestrian walkway
  - Cycle path

**Frequently Asked Questions**

**Question:** What is the impact on existing trees, how many will be removed?

- The flood defence project will require the removal of 23 trees along the waterside, 18 of which are along the flood wall. There will be a minor extension to flood defences, which will be balanced by replacement tree planting on the river banks.

**Question:** What value will I get from a new riverside walkway?

- The Bath Quays Waterside project will provide a pedestrian space for people of all ages, styles, and interests. The walkway will feature a range of activities, including new cycle and pedestrian walkways, new seating, and areas for play. The design is intended to create a new riverside walk that is open to promote natural colonisation and provide opportunities for people of all ages to enjoy the water and its surroundings.

**Question:** What is the impact on wildlife?

- A defined cycle route, natural landscaping and ecology, a large riverside public space offering opportunities for outdoor performances and events, and greater opportunities to hold activities on the river. The new environment will provide a new focus for Bath that can be enjoyed and used by thousands of people all year round.

**Question:** What benefits will the project bring?

- The project will bring new housing, new jobs, new businesses, new riverfront spaces, new public spaces, and new opportunities for recreation and entertainment. The project will also help to reduce flood risk and improve the city’s infrastructure.

**Question:** Will the works affect access and use of the river during construction?

- The project is designed to minimise disruption to river use during construction, and the team will work closely with stakeholders to ensure that river users can continue to enjoy the river.

**Question:** Will the works affect access and use of the river during operation?

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**Question:** Will I be able to access my place of business during the works?

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Bath Quays Waterside: Flood Defence Project

Scheme Description

North Quay: Isometric

1. New riverside terrace and steps
2. Level gradient access for walkers and cyclists
3. Widened tow path with realignments
4. Green terraces with ecological planting
5. New tree planting
6. Temporary events and activities

Activity

The new riverside landscape at North Quay will provide a place for people to enjoy the tranquil waterfront. Due to the risk of flooding it is unlikely to be suitable for large scale public events but will be ideal for temporary and informal activities such as spontaneous performances using the steps as an "amphitheatre". On the bankside terraces it will be possible for enthusiastic community groups to develop wildflower gardens growing spaces and other shared spaces. Suggestions for further ideas and activities are welcomed.

Materials

Materials for the new riverfront will be drawn from the palette of hard materials outlined in the Draft Bath Pattern Book and will include natural stone, cast iron and timber.

Trees

Trees for the new riverfront will be selected from the range of trees already found along the Avon waterfront in Bath outlined in the Draft Bath Pattern Book and will include natural stone, cast iron and timber.

Frequently Asked Questions

Question: Why are changes to the existing flood defences necessary? Is Bath in danger of flooding?

As part of the Council’s Core Strategy evidence base, a series of studies have been carried out over a number of years to establish the extent to which the City is at risk from flood events. These studies have informed flood risk management planning for the City and have allowed the Council to select the most effective and cost-efficient flood defences to protect the City.

Question: Will the proposed solution increase flood risk for downstream properties?

The proposed solution is expected to provide a significant flood risk reduction for the properties already at flood risk along the Lower Bristol Road.

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The proposed solution is expected to provide a significant flood risk reduction for the properties already at flood risk along the Lower Bristol Road.

Question: What is the basis of the proposed solution and how will it be achieved?

The proposed solution is based on detailed modelling work undertaken by our consultants Black and Veatch. The solution is expected to provide a significant flood risk reduction for the properties already at flood risk along the Lower Bristol Road.

What’s Next?

A project team was formed in the summer of 2013 to design and implement the Bath Quays Waterside Project. This is under direction of a steering group comprising senior council and Environment Agency officials. To date, the project team has consulted with landowners and affected parties advising the scheme along with a selection of statutory and representative stakeholders.

The project received approval from the West of England Local Enterprise Partnership in May 2014 with subsequent application currently targeted for submission in June 2014. Subject to approval: it is hoped that works could begin in 2015.

Project Contact Information

e-mail: development@bathnes.gov.uk

Website: www.bathnes.gov.uk/bathquayswaterside

Countryside Council for Wales (CCW) has indicated that the project will not have a significant adverse effect on the Local Biodiversity Network Site (St Sovre’s Island) or on any Habitats Directive Site of Special Scientific Interest managed by the West of England Local Enterprise Partnership.