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Bath Quays Waterside : Flood Defence Project

Introduction

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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 to the north and south banks of the river 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 redevelopment of the Bath Quays and Manvers Street sites forming the first step towards the realisation of the Bath City Riverside Enterprise Area and the Council's 'Innovation Quays' project.

While the Project was started as a flood mitigation and defence project, it is also a major opportunity to overcome the city's history of turning its back on the river. The project seeks to significantly enhance the riverside, creating better access and a more beautiful and enjoyable environment for local people and visitors to the city.

The Council and Environment Agency are funding these essential works with a combination of Flood Defence Grant and Revolving Infrastructure funding made available by West of England Local Enterprise Partnership.

Transforming the Riverside

These works form the first step towards the realisation of the Bath City Riverside Enterprise Area. This project is part of the preliminary engineering works to enable redevelopment of Avon Street carpark and the former Newark Works to jointly form part of a new and exciting business destination - Innovation Quays.



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 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 an attractive and playful waterfront for Bath that can be used and enjoyed 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 3,600 new homes, 650,000 square feet of new workspace and up to 9,000 new jobs for local people.

The River

The River Avon in Bath is an integral part of the city's character. It forms a "green ribbon" which threads through the city, linking the surrounding hills with the city centre. At Pulteney Weir and Parade Gardens it provides a focus for relaxed riverside strolling. In the past, the river here was a setting for regattas and other entertainments.

Downstream, Bath's industrial development has left a legacy of distinctive waterside warehouses. The riverside environment is an underused asset in the city centre, with the potential to make a major contribution to the City's future.

(below) Bath waterside in the past. Images courtesy of Bath in Time



The River Avon 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.



(above) Plan showing River Avon and Bath city centre

(below) Bath Quays today, showing engineered bank and flood walls

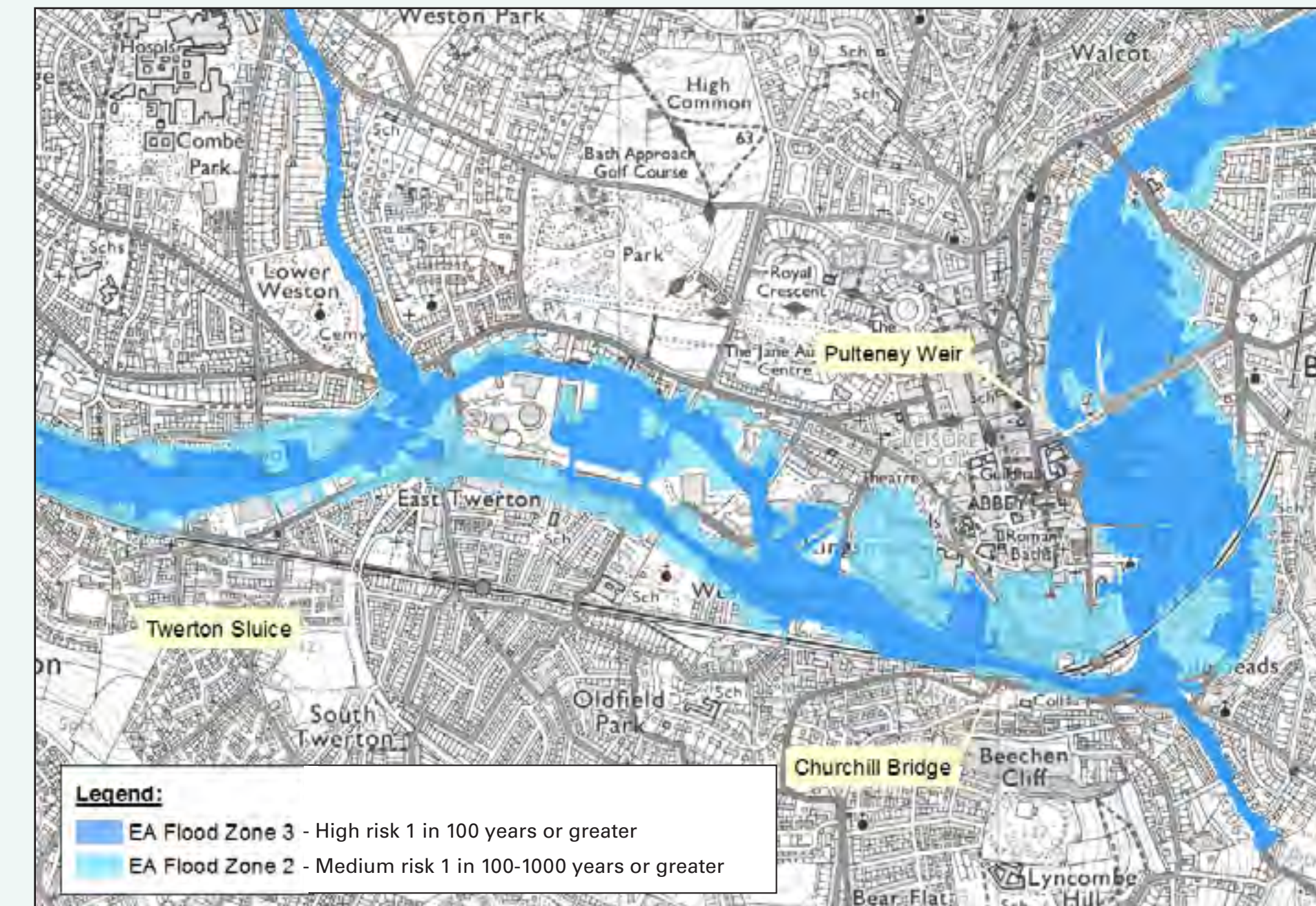


Flooding in Bath

The existing defences along Green Park Road and Lower Bristol Road were completed in the 1970s. The 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 redevelopment 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 over-topped is less than 1 in 100, including the increased risk from forecast climate change.



(top right) Flood event in Bath city centre in 1960's
(right) Flood event at Bath North Quay, Winter 2014

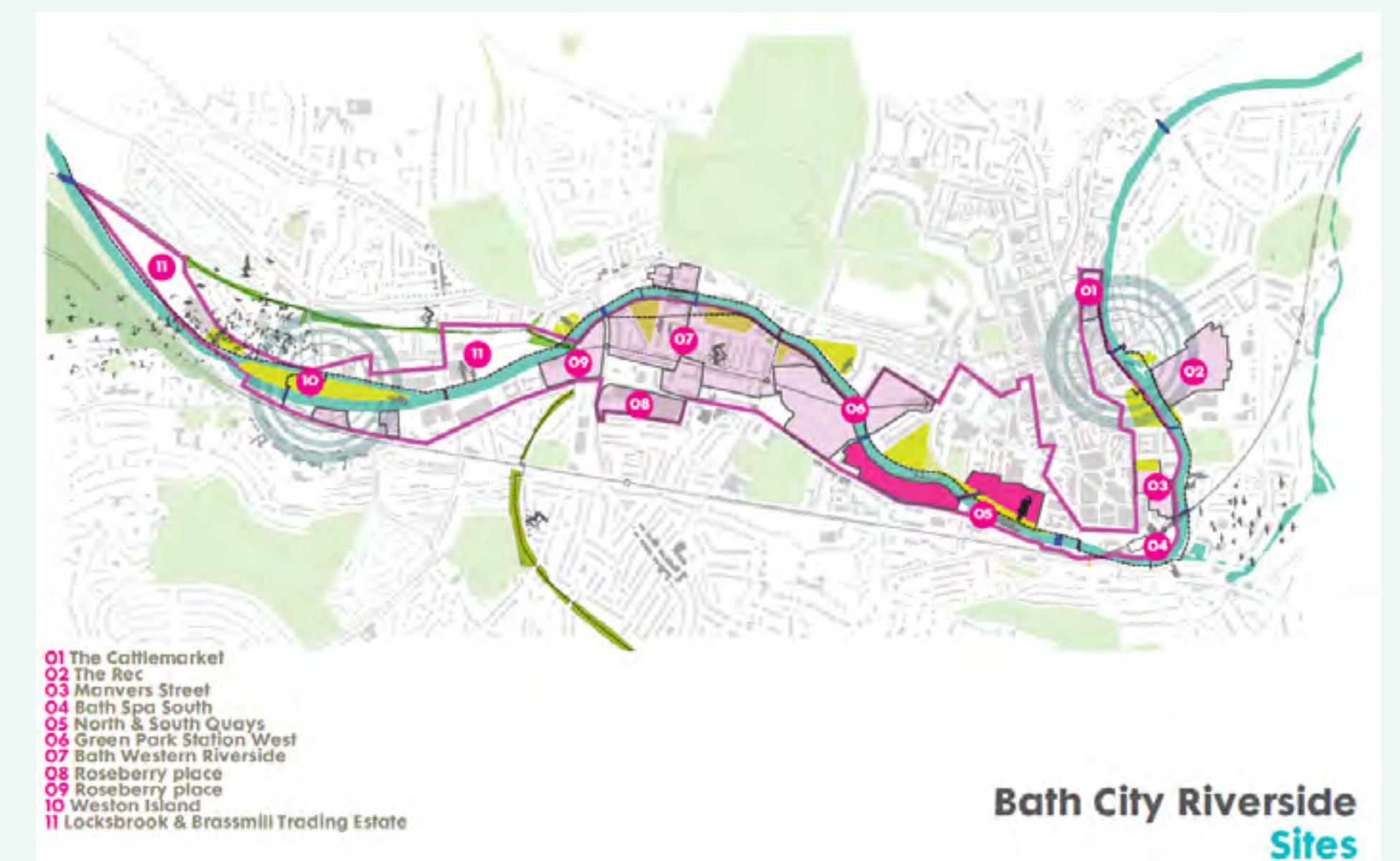


(above) Flood Zones in Bath city centre (Environment Agency)

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 by lowering ground levels by Green Park Road between The Ambury and Avon Street.

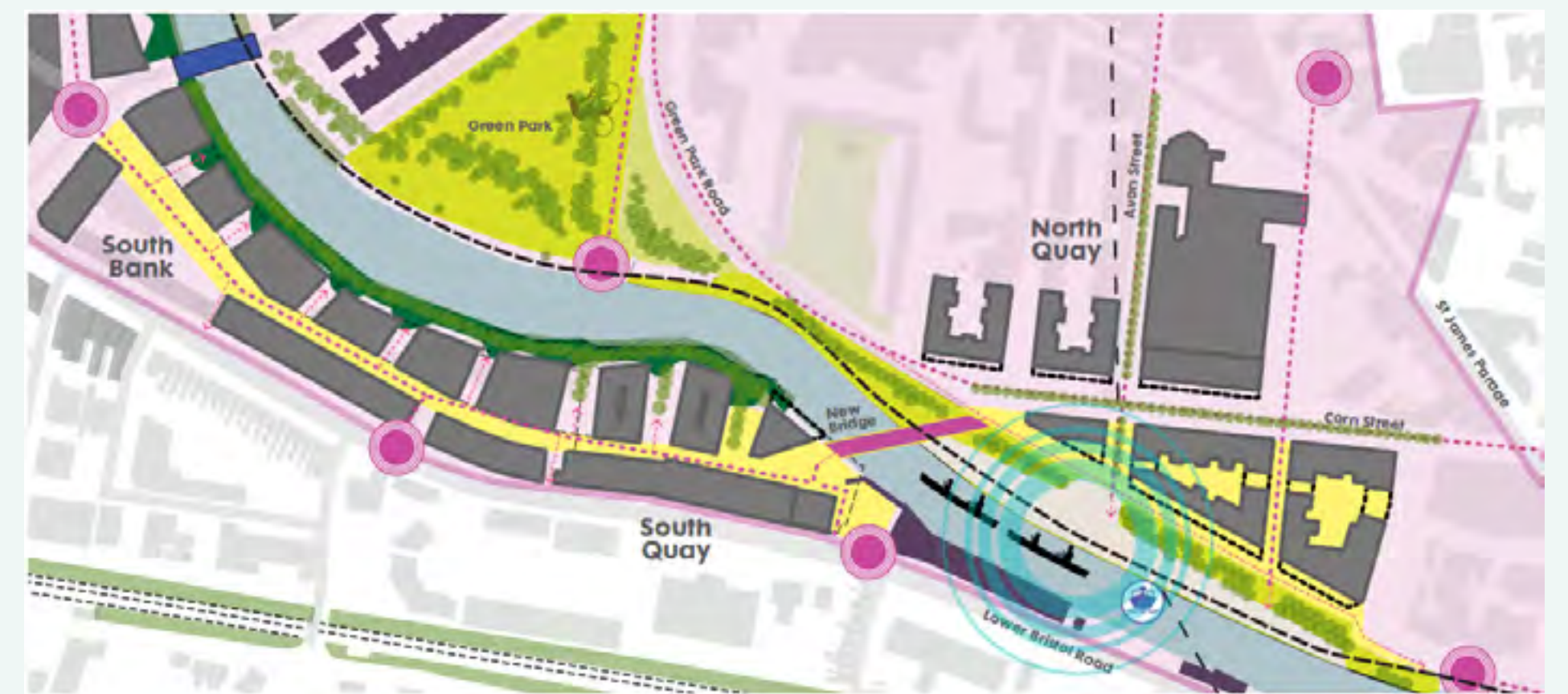
The existing flood defences in Bath were designed to pass flood water through the City as quickly as possible. This was achieved by providing a large 'self-cleansing' river channel. This means that any silt that settled within the channel was washed away by any large flow of water down the river. Recent surveys of the river show that the 1960s design has been successful in avoiding the build-up of silt in the river. This means that dredging of the river is not required as part of this scheme.

Bath City Riverside Enterprise Area



(above) plan view of 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.



(above) plan of Bath Quays Waterside in context of Bath City Riverside Enterprise Area