The Opportunities and Challenges for partnership delivery of Blue Green Infrastructure

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NORTHBURYAN WATER’S CORE OBJECTIVES
OUR OUTCOMES - 2020 TO 2025

• Our customers tells us we provide excellent customer service and resolve issues quickly.

• Our customers say that we are a company that they trust

• Our customers say our services are good value for money and we work hard to keep water and wastewater services affordable to all

• We are resilient and provide clean drinking water and effective sewerage services: now and for future generations

• Our sewerage service deals with sewage and heavy rainfall effectively

• We are innovative and efficient company

• We take care to protect and improve the environment in everything we do, leading by example

• We work in partnership with companies and organisations to achieve goals that are most important to our customers
Environment Agency

We help people and wildlife adapt to climate change and reduce its impacts.

We improve the quality of our water, land and air by tackling pollution.

We work as part of the Defra group to create a better place for people and wildlife.

**Total additional benefits to society from capital investment of £29.4 billion**

- **£600 million** in benefits through improved biodiversity and local environments
- **£5.0 billion** in long term benefits to transport, infrastructure, commerce and industry
- **£1.5 billion** in benefits to the agriculture sector through flood risk reduction
- **£22.3 billion** in benefits through damages avoided from 300,000 households being better protected
• 13 LLFAs, Environment Agency, Northumbrian Water
• establish a proactive cross organisation process and procedure
• Jointly funded integrated studies
• Prioritise areas for studies
• promote integrated sustainable drainage opportunities including natural flood management techniques
• establish and implement data sharing and communication protocols

The integrated collaborative approach championed by the NIDP promotes cost beneficial schemes and the use of sustainable drainage techniques such as natural flood management to deliver multiple benefits alongside flood risk reduction thereby further benefiting the environment, society and the economy. By working together, we identify the benefits and best fit solution and then work to identify the funding streams available.
Blue Green Schemes delivered in partnership
• Brunton Park, Gosforth, Newcastle upon Tyne

Scale of Flood Problem
• 89 Properties in Flood Zone 3 (1 in 100)
• 179 Properties within fluvial Flood Zone 2 (1 in 1000)
• Ouseburn Level critical to operation of the SW system.
• 56 properties on internal sewer flooding register.

Recent Flood History
• 2008 – 58 Properties
• 2009 – 9 Properties
• 2011 – 20 Properties
• 2012 – 85 Properties
Developing the integrated solutions

- 2km new/upgraded Sewer
- 450m³ Storage Tank
- 400m re-aligned channel
- 400m flood embankment
- 250m flood wall
- 7000m³ Suds Storage
Overcoming Challenges Delivers Benefits

- Initial stand-alone solutions were either not cost beneficial or impractical
- Collaborative project providing flood risk reduction to over 100 properties
- Creation of ½ ha of water dependent habitat
- Original channel to be used to store surface water in the natural environment
- Create the space to provide a cost effective fluvial flood defence and extended SuDs detention basin
- Gains include provision to attract kingfishers, variation of bank and bed profile to maximise ecological diversity and designed to encourage otters.
Killingworth and Longbenton
CONSIDERING BLUE GREEN ASPECTS FROM THE START OF THE STUDY
Reducing flooding using the environment
Some of the Challenges!

• Funding alignment
• VAT!
• Approval processes
• Different design standards
• Procurement.
Opportunities with Blue Green Partnership Approach

• Unlocking schemes as reduced costs per partner – making things more cost beneficial to partners
• Solutions considered are wider in scope producing “better schemes”
• Creating better places
• Reputation “enhancement”
• Better working partnerships
• One scheme delivery to resolve many issues
• Can deliver educational / amenity / environmental benefits along with flood reduction