River Leen & Day Brook – Blue Green Infrastructure Project

Introduction:

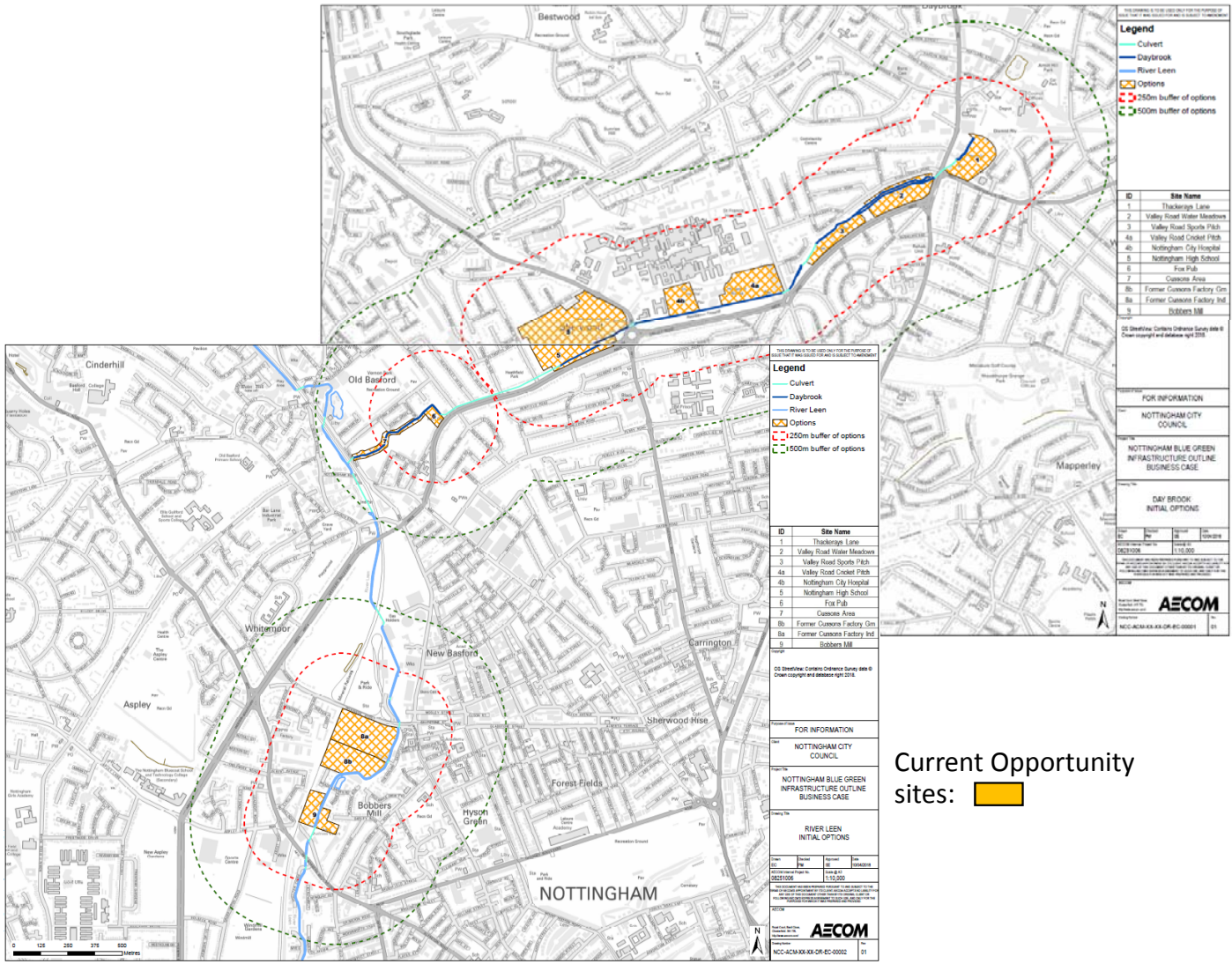
- Update on the development of the River Leen & Day Brook Blue Green Infrastructure Project Proposals

- Last Presented to Area Committee in December 2018

River Leen & Day Brook – Blue Green Infrastructure

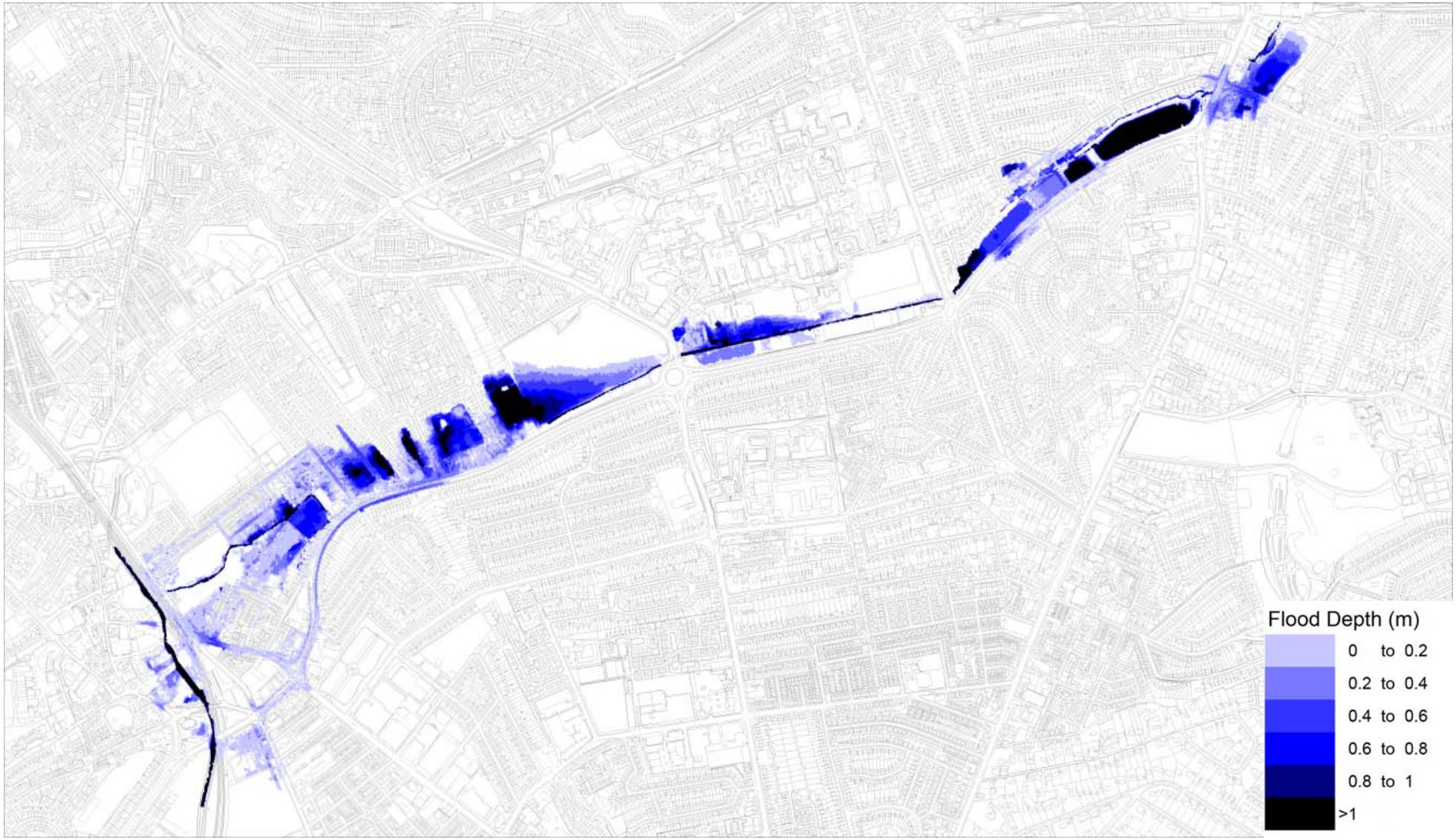
Project Highlights

- Aim is to create Blue Green corridors of soft engineered features along the rivers.
- Total funding £3 million – match funding between; FDGiA, Local Levy and ERDF funding.
- 160 properties better protected.
- Deliver environmental enhancements.
- Project to be completed by December 2019 (Phase 1).



Current Opportunity sites:

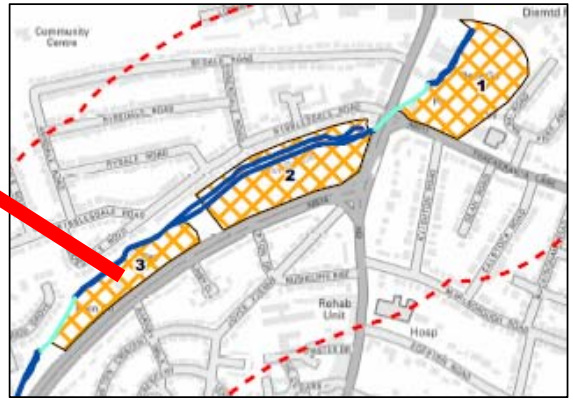
What is the problem?



What are we trying to achieve?

Valley Park
- Before & After

Implement a flood risk management scheme which delivers multiple benefits, namely; environmental enhancement, improved biodiversity, habitat creation and improved public access to open spaces.



Aiming to achieve this by:

- Upgrading amenity grassland – as above
- Re-naturalising the watercourses and re-connecting flood plains
- Providing flood water storage

Day Brook Options

Jubliee Ponds

Site Key Facts

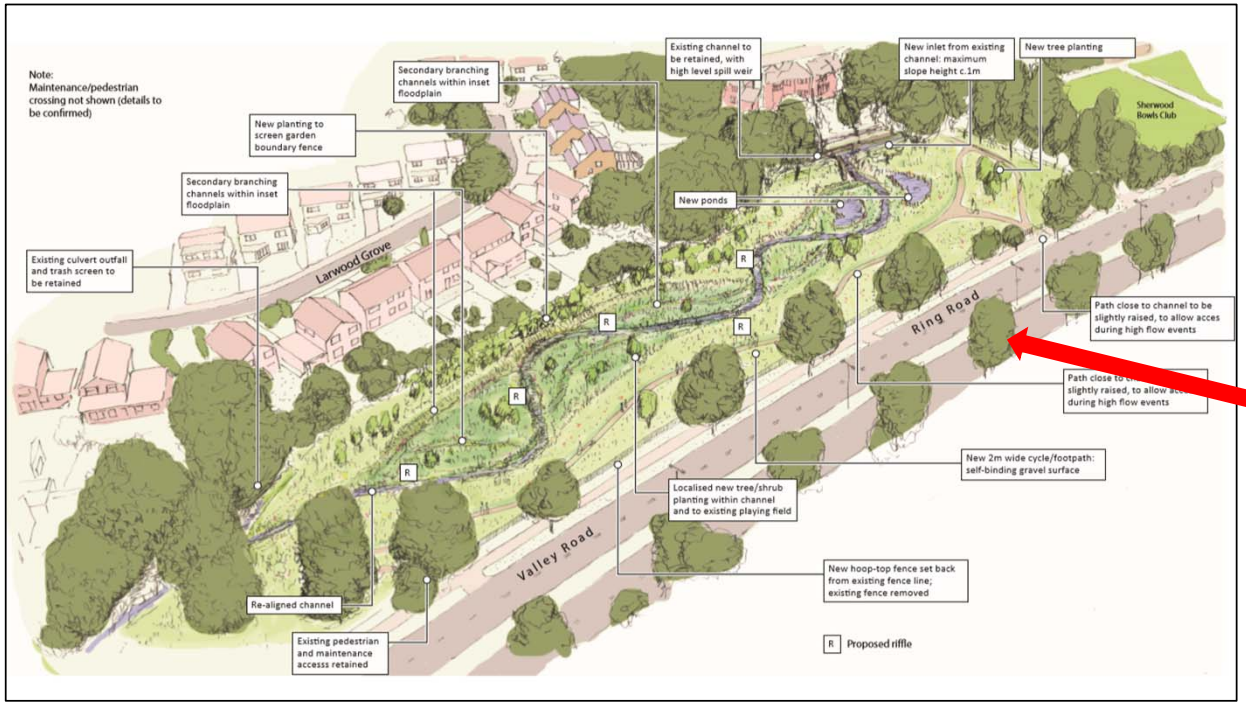
- Privately owned by Severn Trent Water.
- The site requires refurbishment i.e. optimising the performance of the pumps.
- Potential to create a huge storage area for flood water.

Proposals

- Refurbish the ponds to create extra water storage.

Day Brook Options

Valley Road Park

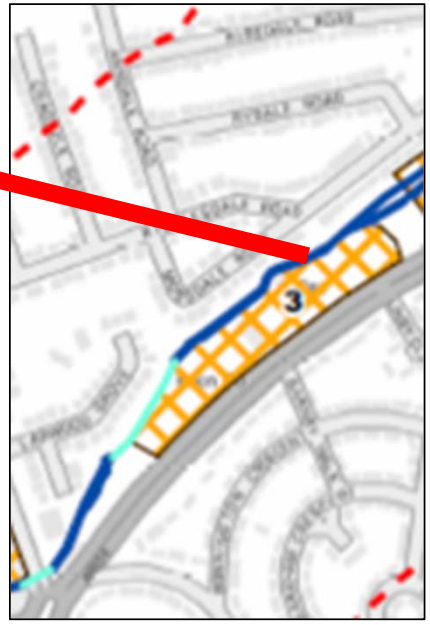


Proposals

- Re-naturalise the watercourse.
- Re-connect the floodplain

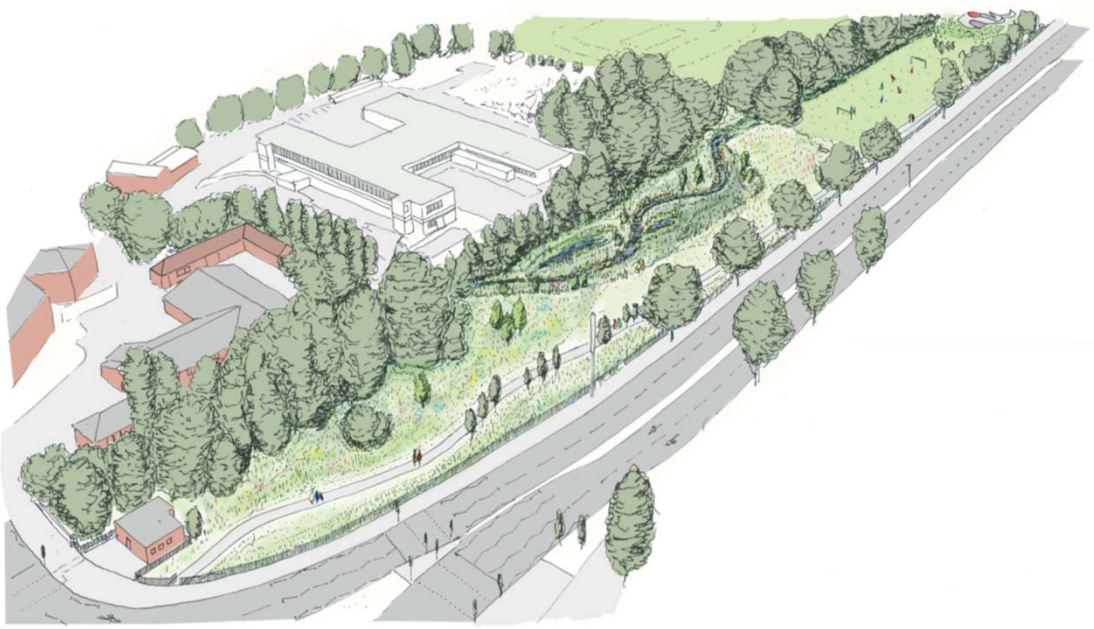
Site Key Facts

- The site is used as amenity grassland.
- The site is already susceptible to flooding.
- Will re-locate the football pitch to the Jason Spencer Sports Ground.



Day Brook Options

Jason Spencer Sports Ground



Site Key Facts

- The site is used as amenity grassland.
- The site is already susceptible to flooding.
- Nottingham City Council owns the land

Proposals

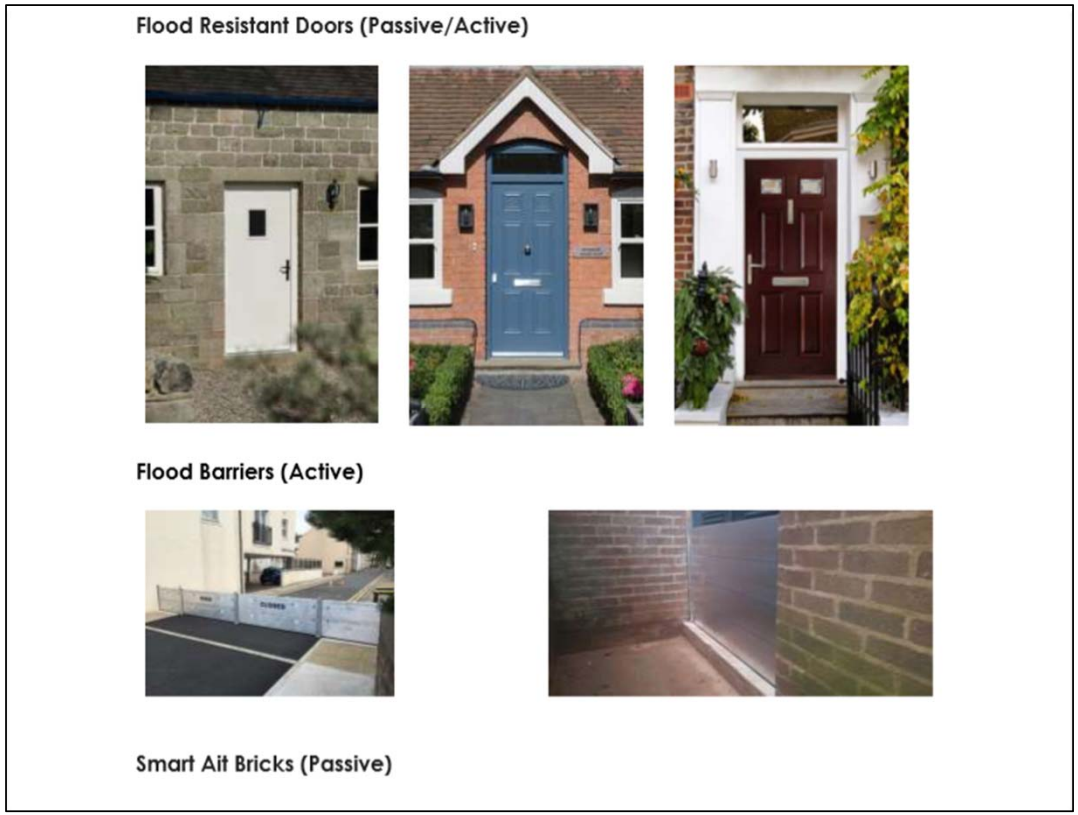
- Re-naturalise the watercourse.
- Re-connect the floodplain

Day Brook Options

Individual Property Level Resilience

Proposals

- Install flood resilient doors, barriers and air brick covers
- 16 residential and 1 commercial property to be included

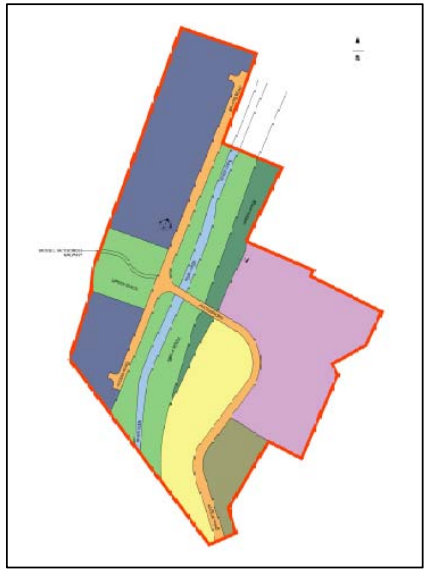


Hydraulic Option – River Leen

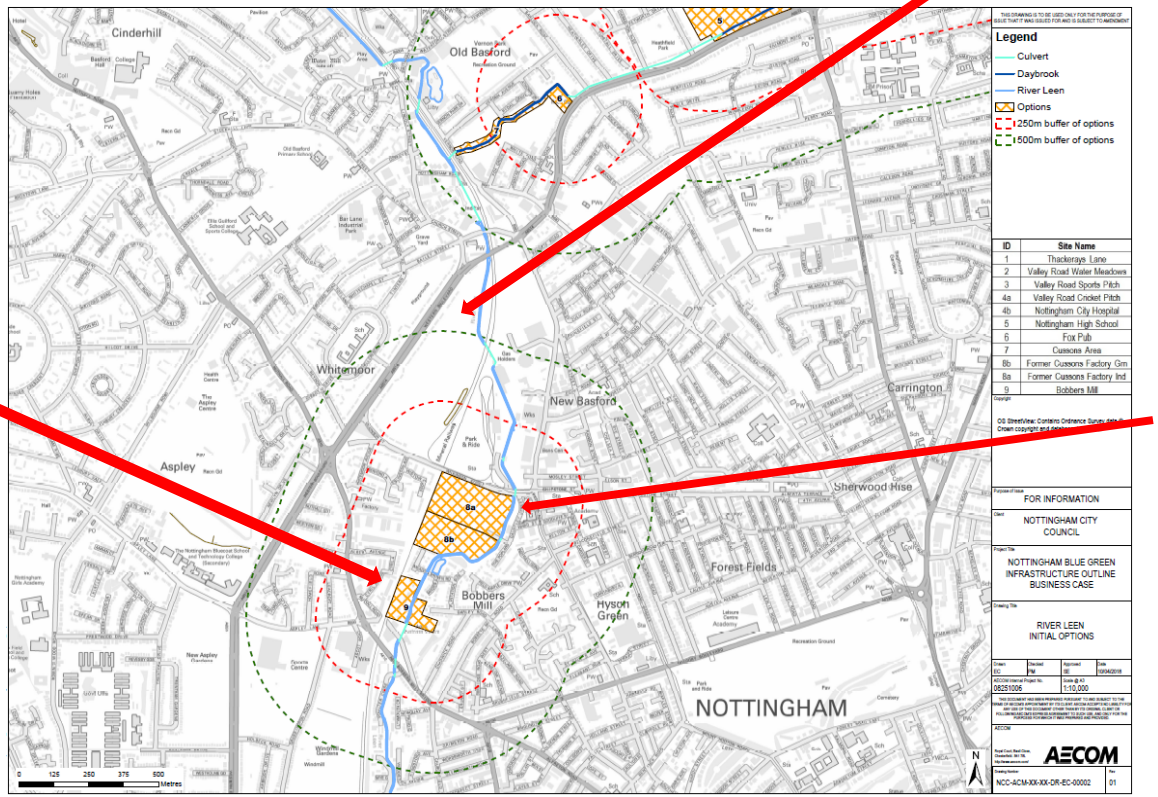
- Leen way Allotments
- PZ Cussons
- Bobbers Mill

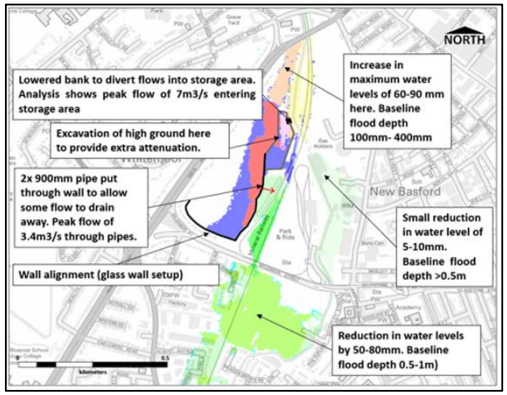
Economics

- Cost Benefit Ratio: 5.21 to 1
- Partnership Funding Score: 57%
- Currently a £10m shortfall of funding

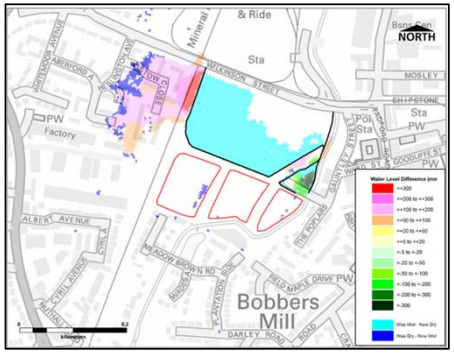


Bobbers Mill – create a two stage channel





Leen Way Allotments – create a raised bund and flooding allotments



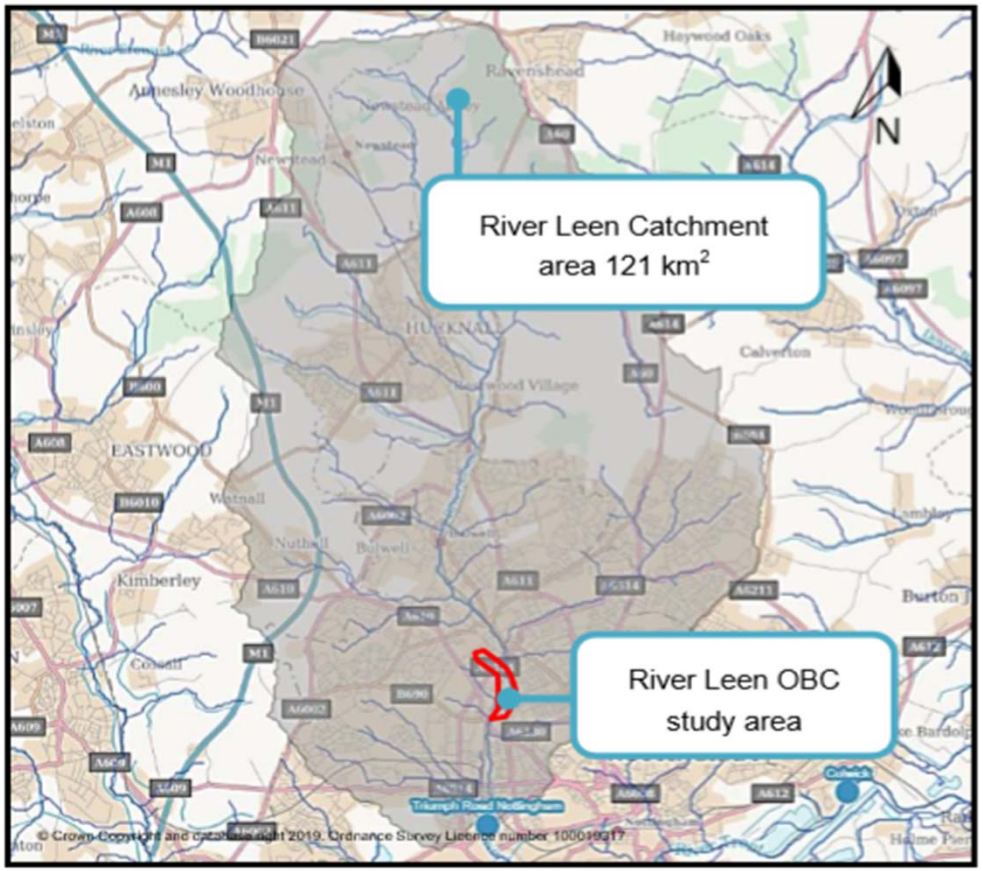
PZ Cussons – create a raised bund

River Leen Hydraulic Option Constraints

- The project cost requires an additional £10m at present
- The extent of contamination on the PZ Cussons and Bobbers Mill site is currently unknown
- The deliverability of the hydraulic option falls outside the current ERDF lifecycle
- The extent of landowner compensation hasn’t been quantified and is likely to increase the funding shortfall
- Any intervention on the upper reaches of the River Leen may sterilise the catchment based approach to the whole watercourse
- The three identified sites are hydraulically inter-dependant, so all three landowners buy-in will be required

Potential Next Steps - River Leen

- Continue to identify and explore options for development (requires additional funding)
- Develop the current hydraulic option with recognising the risks (some yet to be quantified)
- Discontinue development until further funding is identified, or funding (FDGiA) parameters change
- Review the outputs of the Lower Leen feasibility study to develop a long term strategy for the River Leen
- Pause the scheme development and continue the wider stakeholder cross border engagement



Next Steps – Day Brook

- Continue the stakeholder engagement plan
- Complete the Detailed Design
- Construct the preferred solution

Day Brook Project Highlights

- Total funding £3m – match funding between; FDGiA, Local Levy and ERDF funding.
- 160 properties better protected.
- Deliver environmental enhancements.
- Undertake a holistic/catchment based approach.
- Project to be completed by December 2019 (Phase 1).