

Working together to deliver SuDS:

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Gateshead Council

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Aspirations and Requirements

Newcastle Gateshead Core Strategy Policy CS17



NPPF 165

165. Major developments should incorporate sustainable drainage systems unless there is clear evidence that this would be inappropriate. The systems used should:

- take account of advice from the lead local flood authority;
- have appropriate proposed minimum operational standards;
- have maintenance arrangements in place to ensure an acceptable standard of operation for the lifetime of the development; and
- where possible, provide multifunctional benefits.

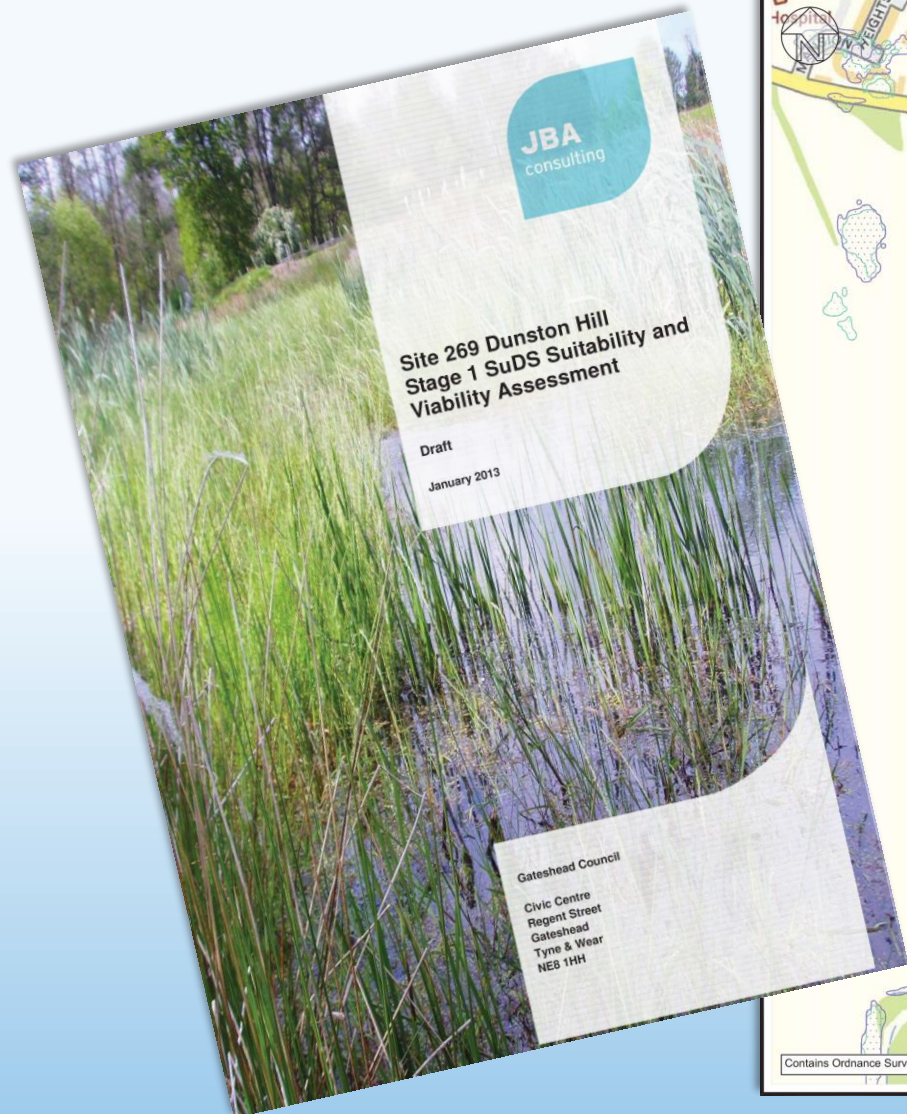
Policy CS17 Flood Risk and Water Management

Development will avoid and manage flood risk from all sources, taking into account the impact of climate change over its lifetime. Development will:

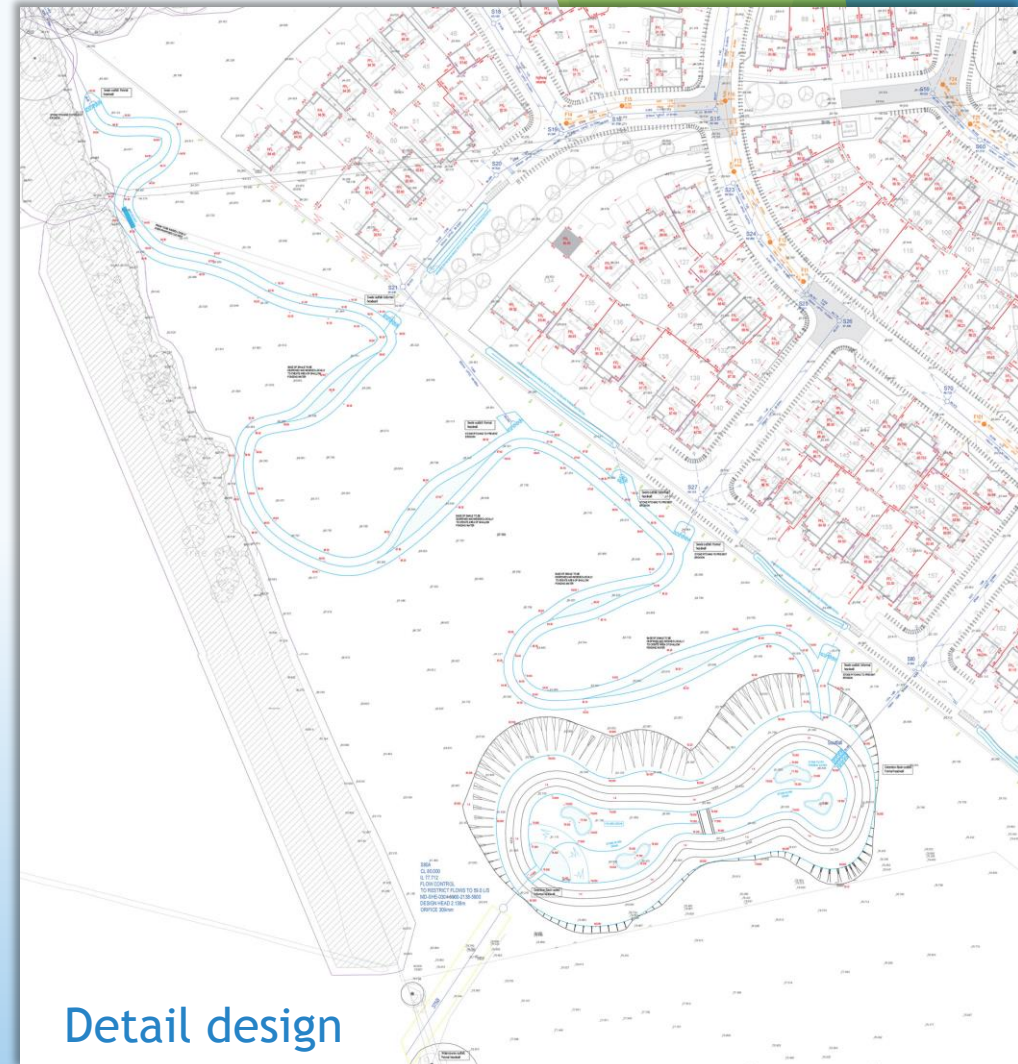
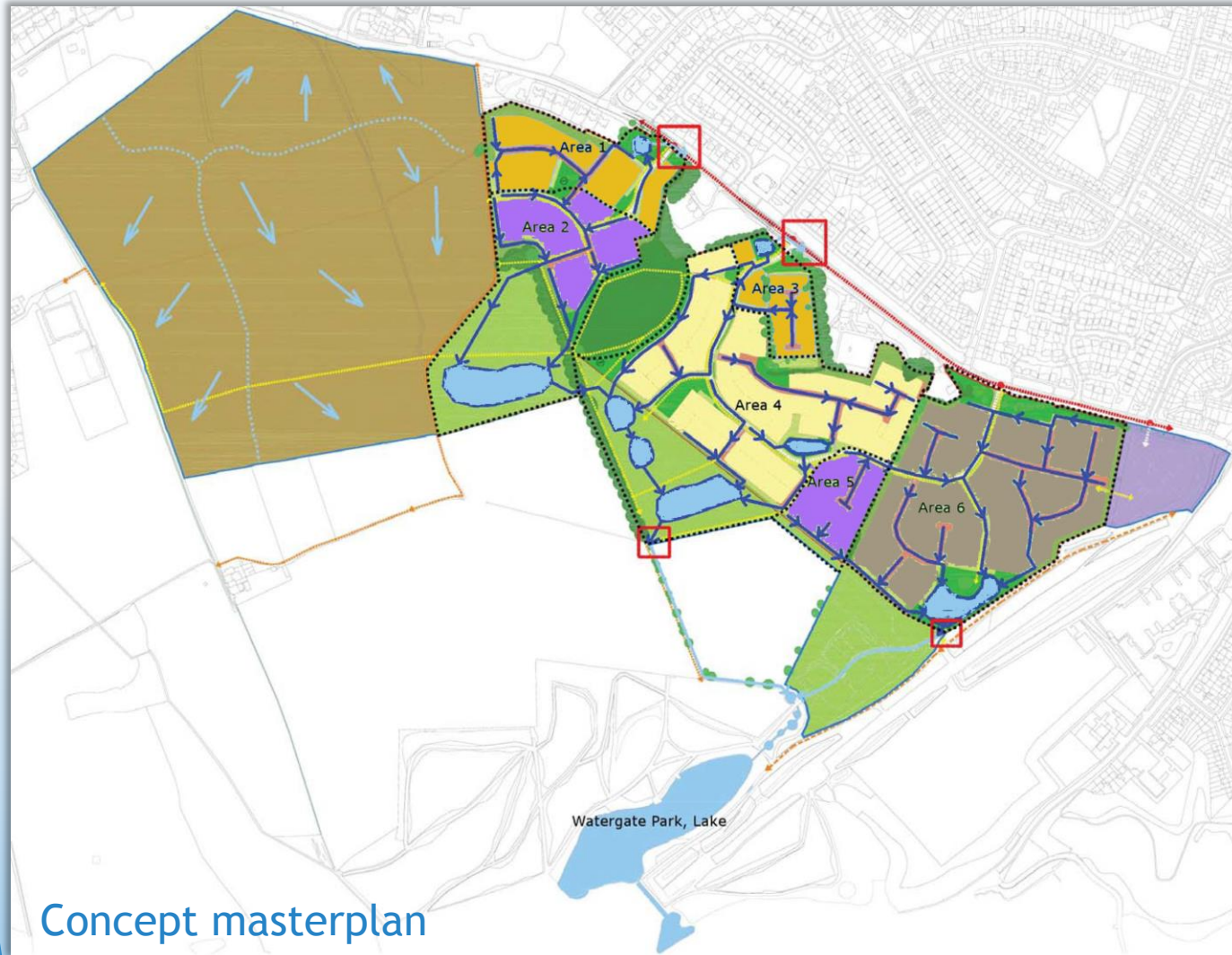
- Avoid and manage flood risk to people and property by:
 - Locating new development in areas with the lowest risk where appropriate by applying the Sequential Test,
 - Managing flood risk from development to ensure that the risk is not increased on site and/or elsewhere, where appropriate by applying the Exception Test,
 - Ensuring opportunities for development to contribute to the mitigation of flooding elsewhere are taken,
 - Prioritise the use of Sustainable Drainage Systems (SuDS), given the multifunctional benefits to water quality, green space and habitat enhancement,
 - Ensuring development is in accordance with the Council's Strategic Flood Risk Assessment, and
 - Requiring a Flood Risk Assessment for sites over 0.5ha in Critical Drainage Areas as identified in the Council's Strategic Flood Risk Assessments.
- Ensure water supply and foul and surface water infrastructure are provided with adequate capacity.
- Not adversely affect water quality and where possible seek to improve water quality.
- Separate, minimise and control surface water runoff, discharging in order of priority to:
 - Infiltration based Sustainable Drainage Systems,
 - A watercourse,
 - A surface water sewer, and
 - A combined sewer.

Aspirations and Requirements

Site Specific Policies



Aspirations and Requirements



Aspirations and Requirements

Gateshead Local Plan -

Making Spaces for Growing Places

MSGP30 Flood Risk Management

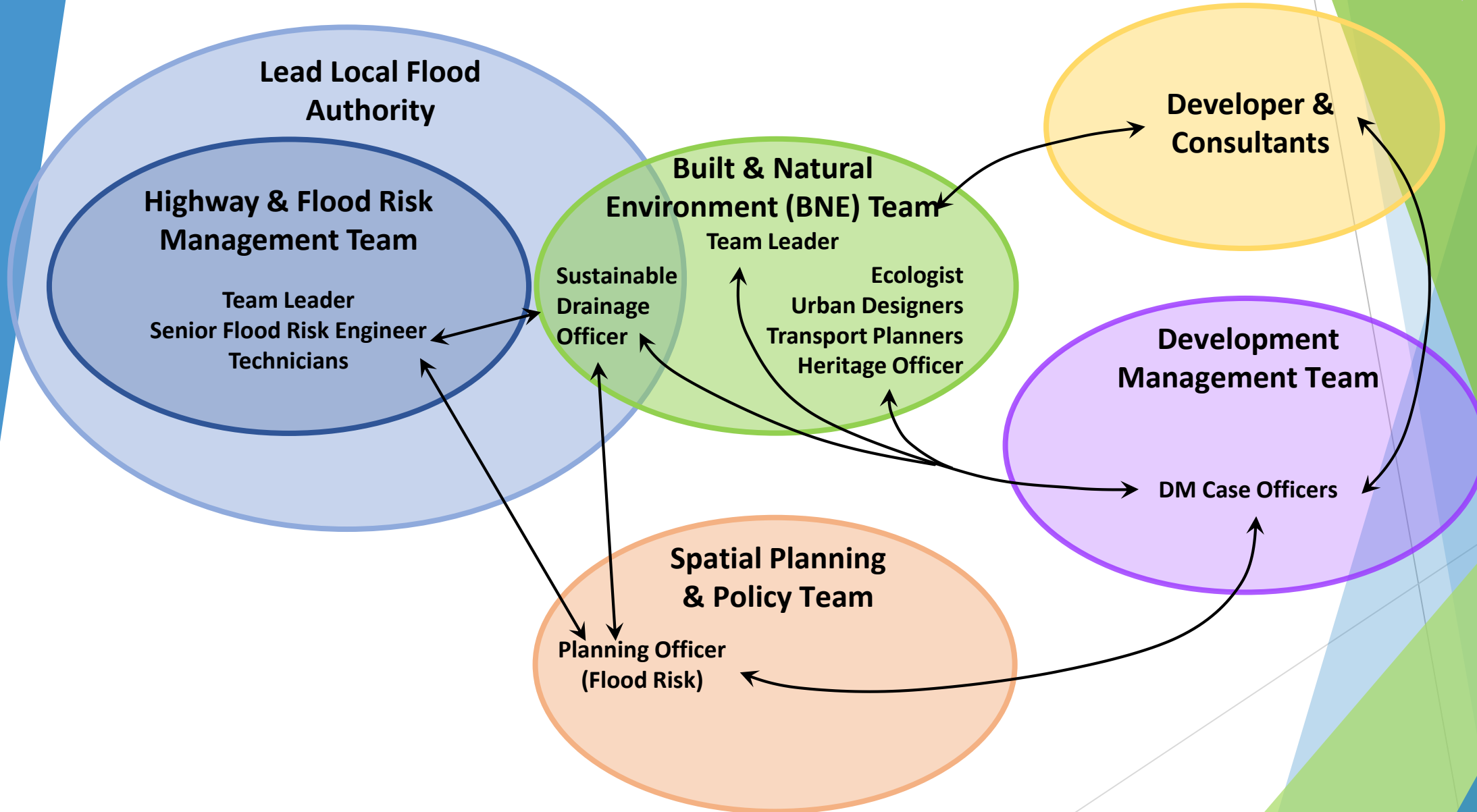
- ▶ ‘Development within the River Team catchment should where reasonably practicable accord with the **Team Valley Surface Water Management Plan.**’

MSGP31 Water Quality and River Environments

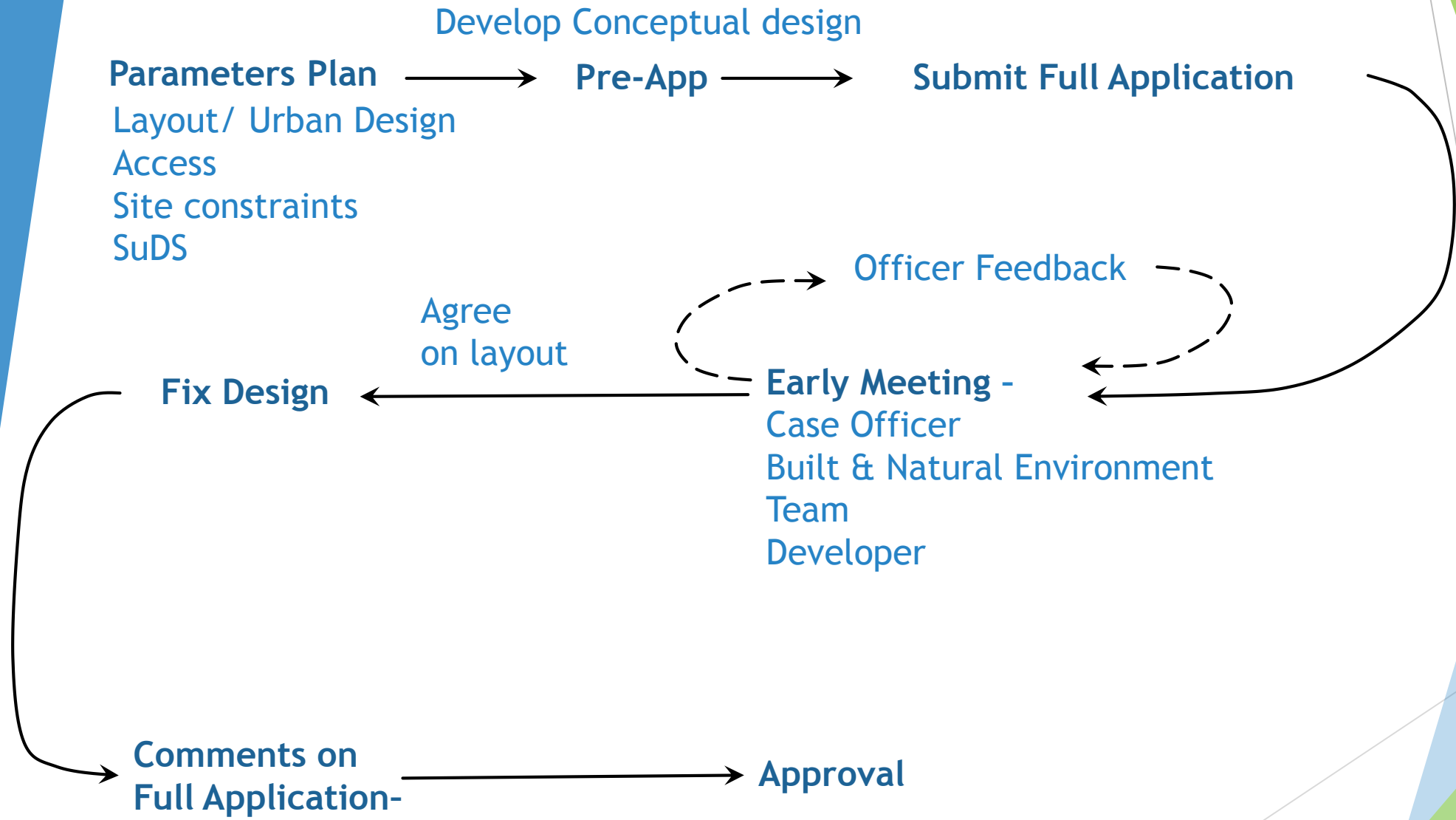
- ▶ ‘New development that discharges water into a watercourse or the ground will be required to **incorporate appropriate water pollution control measures.**’
- ▶ ‘New and altered **transport infrastructure** will be required to:
 - assess the impact on waterbodies and water quality;
 - **Incorporate pollution control measures.**’
- ▶ ‘Development adjacent to, over or in a watercourse should consider opportunities to improve the river environment and water quality, by:
 - **Mitigating diffuse agricultural and urban pollution;**
 - **Seeking opportunities to incorporate creation of wetland habitat in designs where appropriate;**



How we collaborate: Internally



How we collaborate: Externally



How we collaborate:

Regional LLFA co-operation:



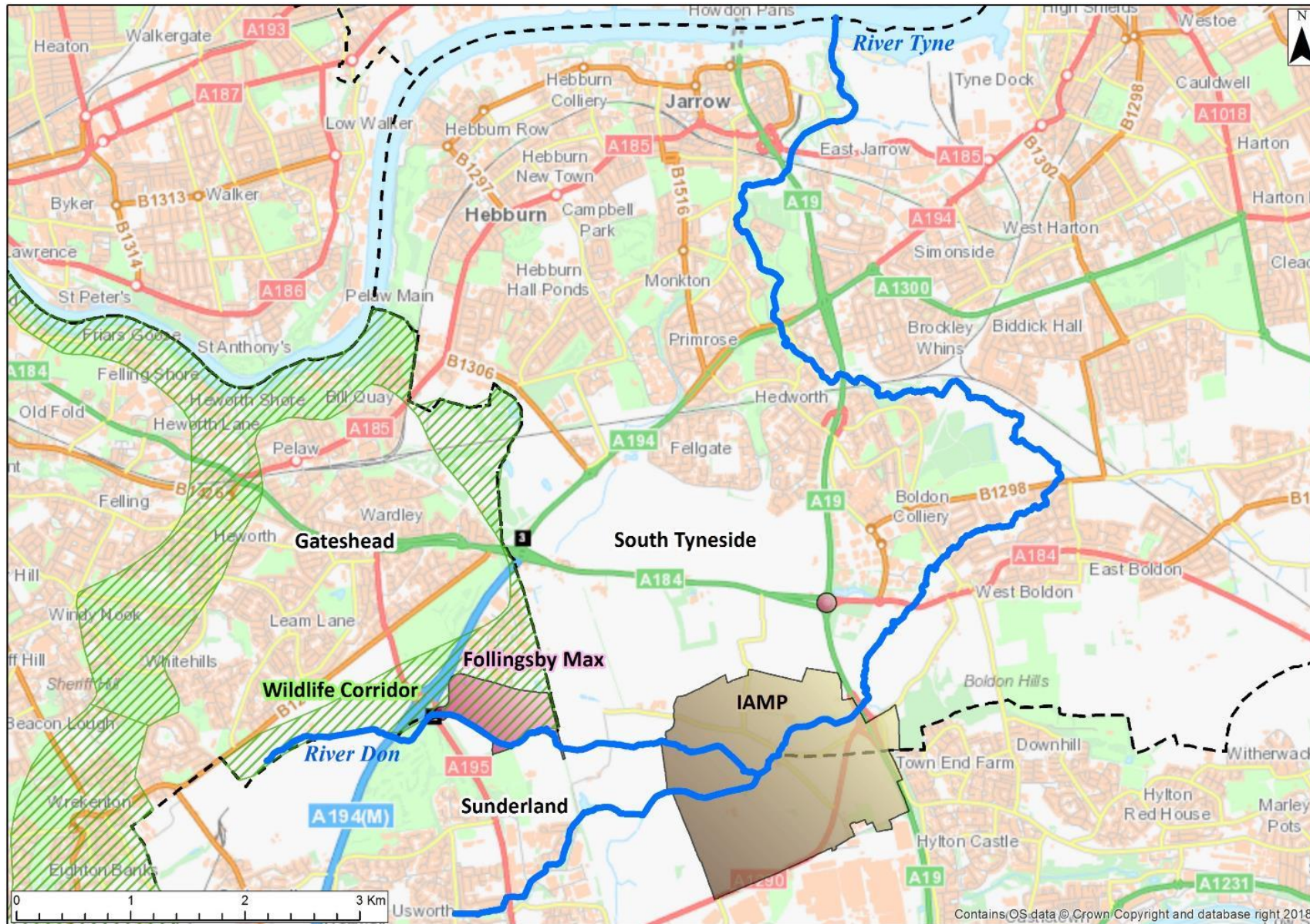
'SuDS should be designed to be accessible and useable spaces outside of frequent storm extents both for amenity and wildlife with appropriate health and safety assessments considered'

Local Standard 16- The NNE LLFA consider SuDS to be overland "green SuDS" that show multifunctional benefit (including quantity control, water quality, biodiversity and amenity) in line with the NPPF and FWMA definitions

Local Standard 19- SuDS can be used as Open Space outside of the area wetted by a 1-year return storm

Local Standard 21 - Water quality information should be assessed using criteria in the current CIRIA SuDS Manual

Outcomes: Follingsby Max Development

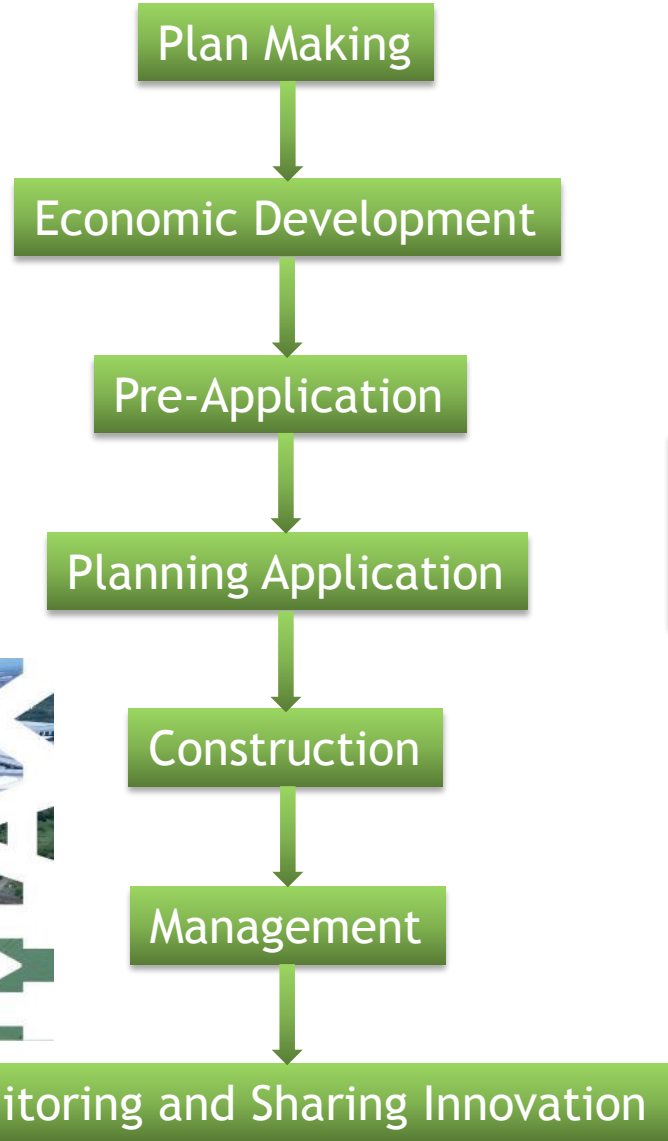


Embedding Blue Green Infrastructure

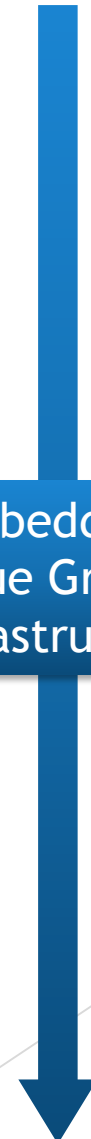
Gateshead's Core Strategy Figure 17.15



Follingsby Max



Embedding Blue Green Infrastructure



Site specific policy

Policy KEA2 South of Follingsby Lane:

Land south of Follingsby Lane is allocated for development and will deliver:

1. Approximately 22 hectares of net developable employment land for B8 uses.
2. Approximately 90,000 sq.m. of warehouse premises (B8 use class).
3. Development within the allocated area will be comprehensively planned and must provide:

iv. Mitigation of the impacts of the development on biodiversity including the provision of landscape and ecology buffers along the southern, eastern and western site boundaries.

v. Enhancement of the River Don Wildlife Corridor, including the incorporation of a sustainable drainage system and water pollution control measures, supported by a Drainage Impact Assessment and a Flood Risk Assessment.

vi. Enhancement of the green infrastructure network across the site.

x. Measures to ensure existing greenfield runoff rates for up to a 100 year rainfall event taking into account anticipated climate change and maintaining overland flow paths.



A collaborative partnership:

Gateshead Council's Multi-Disciplinary Team

Development Management
Spatial Policy Planning
SuDS/ LLFA
Ecologist
Landscape Architect
Highways
Economic Development

Developer and Consultants

An Enlightened Developer
Drainage Engineer
Landscape Architect
Ecologist
Planners



External Partners

North East Local Nature Partnership
Urban Observatory, Newcastle University
Water Hub, Durham University

Tyne Catchment Coordinator
Planner
Gateshead Council
South Tyneside Council
Sunderland City Council

Environment Agency
River Don Catchment Partnership

Fisheries/Biodiversity
Hydro/Geomorphologist
Durham Wildlife Trust
Northumbrian Water
Tyne Rivers Trust

Planning Process

- 2017 ▶ Collaborative working between Gateshead's Multidisciplinary Team, Highgrove's consultants and external stakeholders

Group Site Visits Group Discussions Iterations made to design

- 2018 ▶ Outline planning granted for whole development- 225,000m² and 1,500 jobs
- ▶ Full details granted for blue green infrastructure zone

- ▶ 13ha high quality blue green infrastructure
- ▶ Integrated SuDS network
- ▶ 1.3km of River Don restoration and enhancement



Follingsby - Habitats and Biodiversity

Creation and restoration of wetland and terrestrial habitats providing enhanced opportunities for biodiversity

Wading Birds

Great Crested Newt

Pollinators

Water Vole

Otter

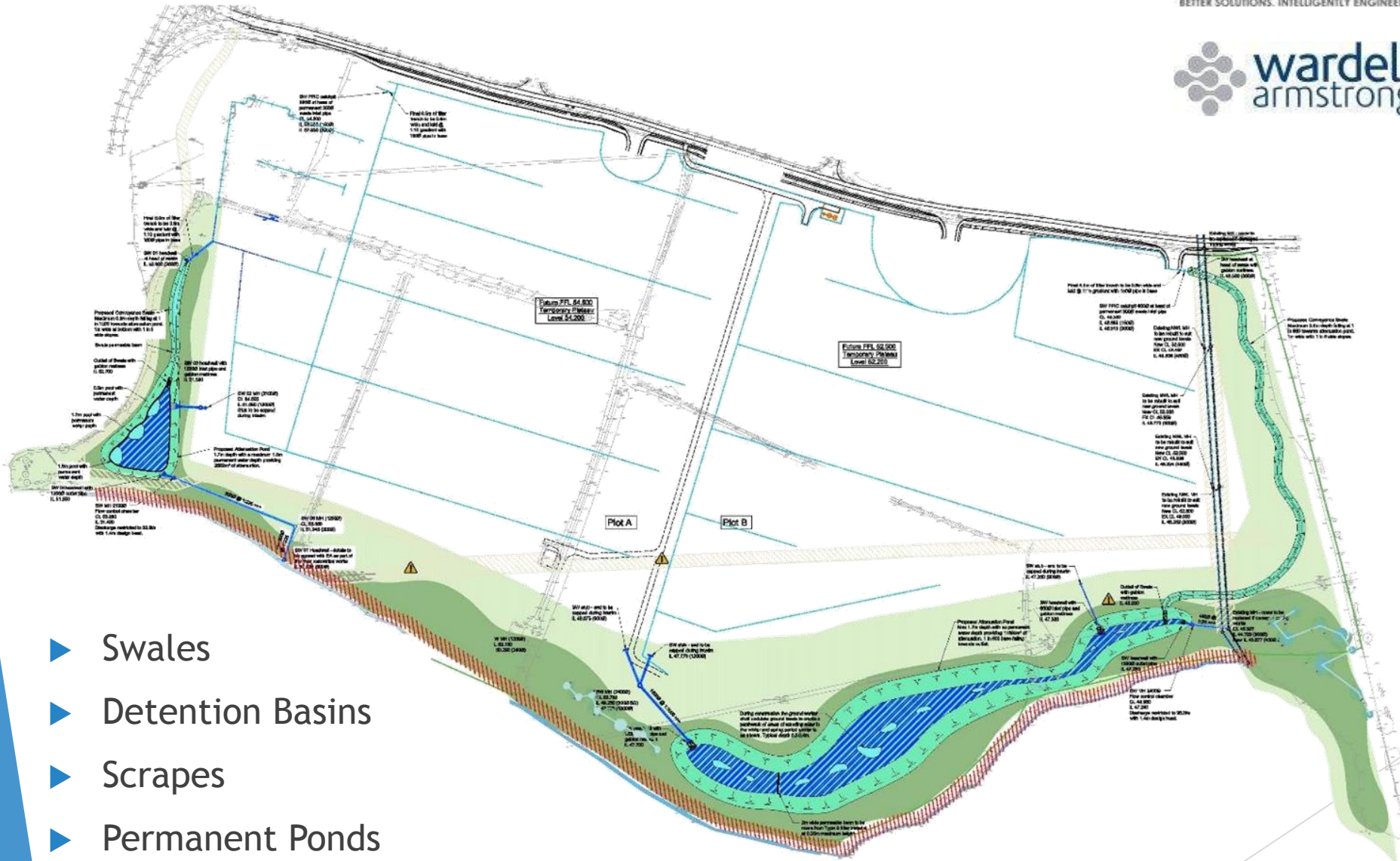


Great Crested Newt



Water Vole

SuDS Layout



- ▶ Swales
- ▶ Detention Basins
- ▶ Scrapes
- ▶ Permanent Ponds

Construction

Mid 2018

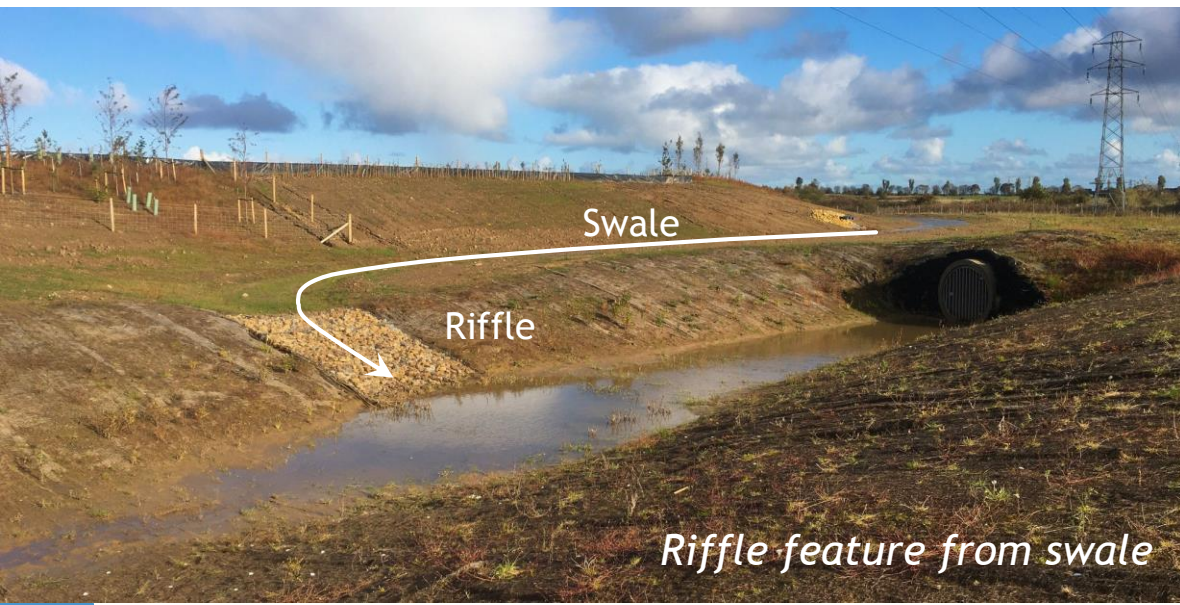
- ▶ Construction of development platform and blue green infrastructure

Spring 2019

- ▶ Completion



Construction - SuDS



Construction - SuDS

Main Basin: February 2019



October 2019

October 2019



Eastern swale

Western swale with check dams

Check dam

River Restoration



River restoration: February 2019

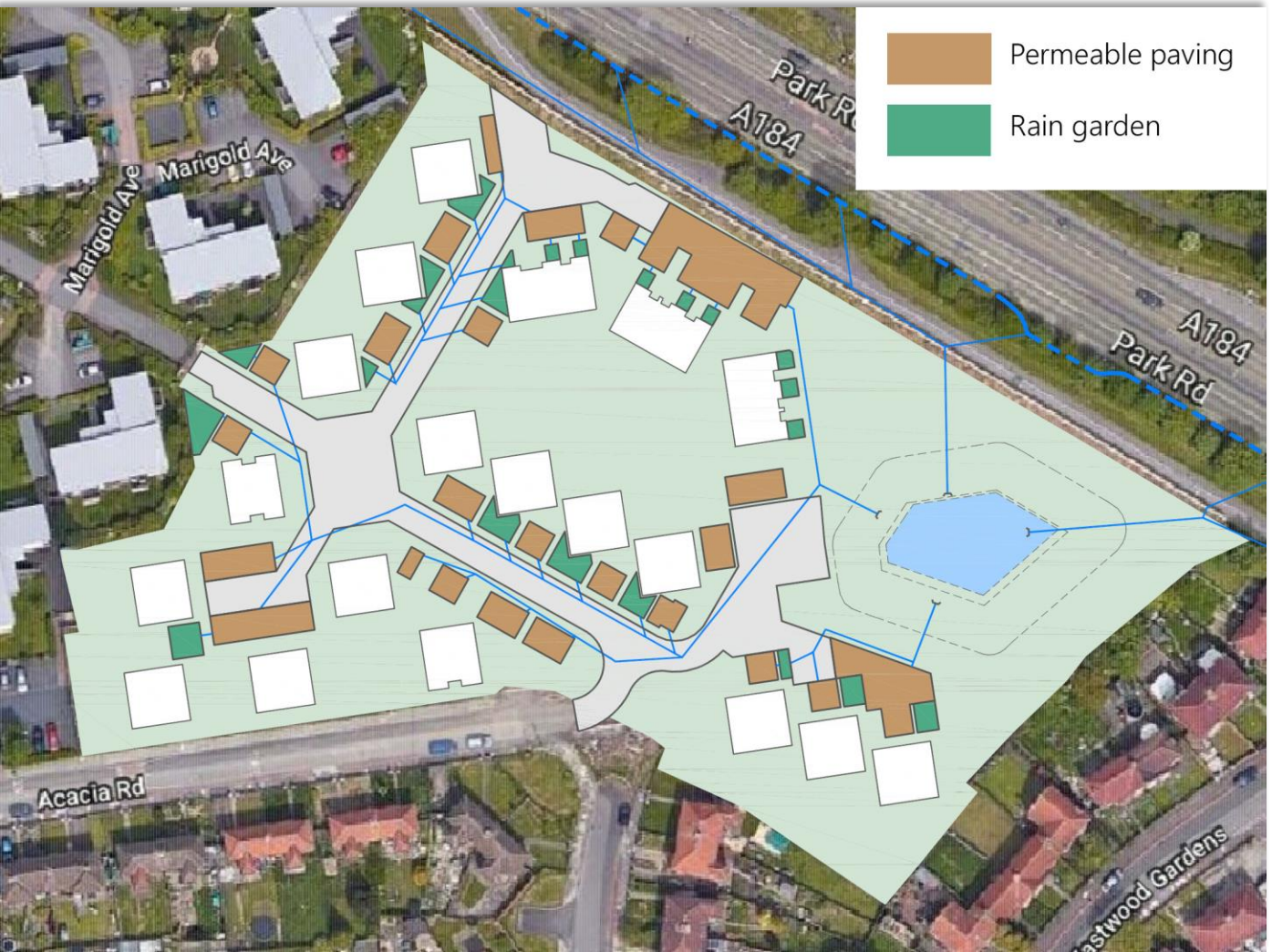
River restoration: October 2019



Outcomes 2: Innovation Village



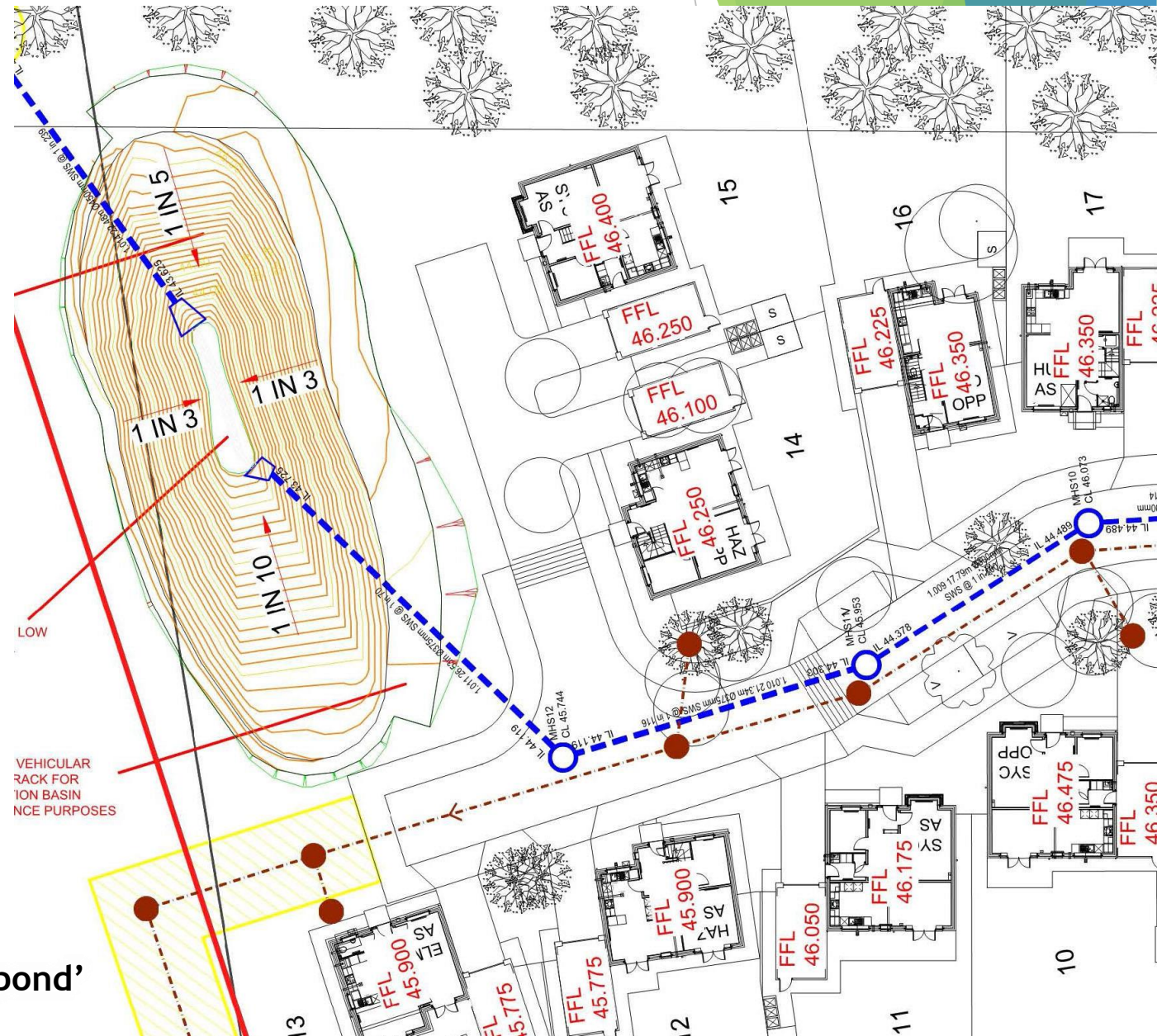
Outcomes 2: Innovation Village



Outcomes: Where things have gone less well

Many developers still appear less willing to embrace 'green' SuDS (in Gateshead):

- Viability/ perceived costs
- Planning balance/need to deliver homes
- Lack of knowledge of benefits / fear over perceived risk
- Maintenance/ adoption difficulties
- Conservatism
- Lack of skills? or lack of multi-disciplinary working?



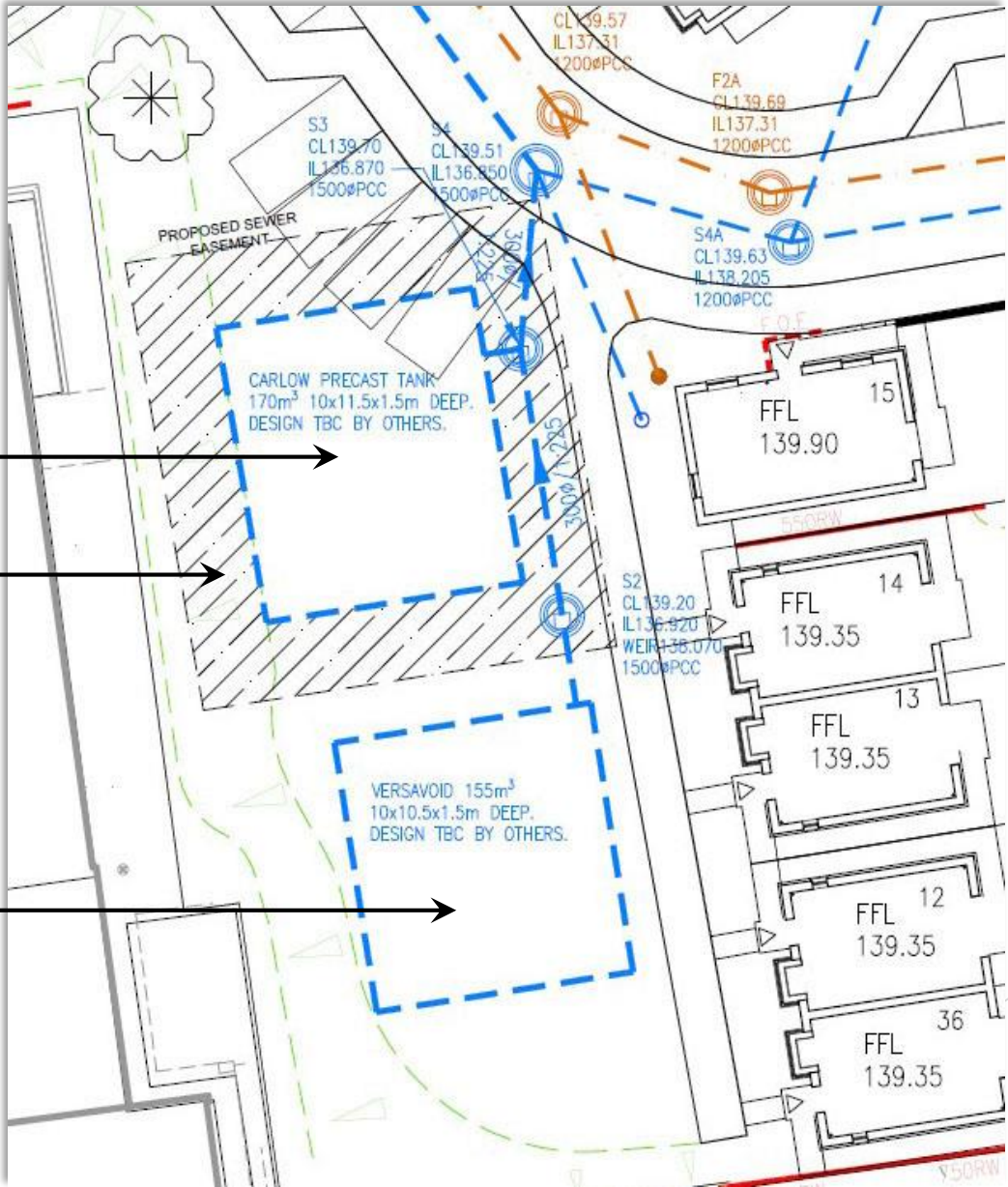
Poorly-designed 'pipe to pond'

Outcomes: Where things have gone less well

Pre-cast tank

Easement

Geocellular storage



Outcomes: Where things have gone less well

- Contamination/ mining legacy
- Over-engineering
- Lack of design at sub-catchment scale
- Lack of knowledge of treatment trains
- Lack of monitoring resources
- Hard to combine highway and private runoff in same features



Key Messages

- ▶ **Sound policy framework**
 - Strong site specific policies.
- ▶ **Collaborative and productive working**
 - Internally, and between developer and stakeholders.
- ▶ **Genuine multi-disciplinary involvement & collaboration**
- ▶ **Seize opportunities**
 - Turn constraints into opportunities and take advantage of other policy requirements eg habitat delivery.
- ▶ **Better understanding of costs and land take implications of SuDS amongst land agents/ owners**
- ▶ **Better education and promotion on benefits of SuDS (for developers)**
- ▶ **More resources for SuDS monitoring within Local Authorities**
- ▶ **Promote successful SuDS schemes from big housing sites to demonstrate that it is possible**

Thank you for listening !

