

# SuDS in Nottingham

## The evolutionary story of becoming a statutory consultee

Fay Bull BSc (hons) MSc MCIWEM CWEM CSci

Principal Consultant, Flood & Water Management

June 2015

**AECOM**

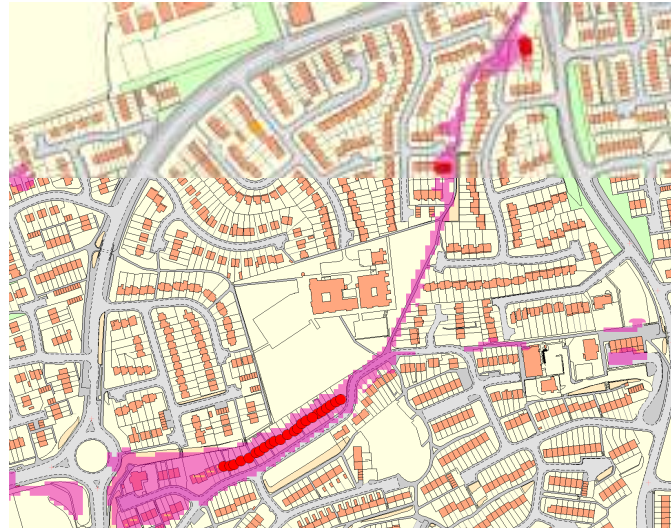
### **Presentation Overview**

- The importance of flood risk input in planning
  
- Nottingham City's timeline of involvement in planning and lessons learnt:
  - Pre April 2015
  - Post April 2015
  
- Ongoing work streams and future challenges

SuDS in Nottingham

**AECOM**

## The Importance of Flood Risk Input in Planning



## The Importance of Flood Risk Input in Planning

– Development provides opportunities.....

- To build 'safe' sites
- To manage flood risk in downstream areas
- To create betterment



– Intervention stages:

- Pre-Application
- Application(s)
- Construction
- Maintenance



SuDS in Nottingham

**AECOM**

Pre-April 2015

June, 2015

**AECOM**

## Nottingham City's involvement in planning Pre-April 2015

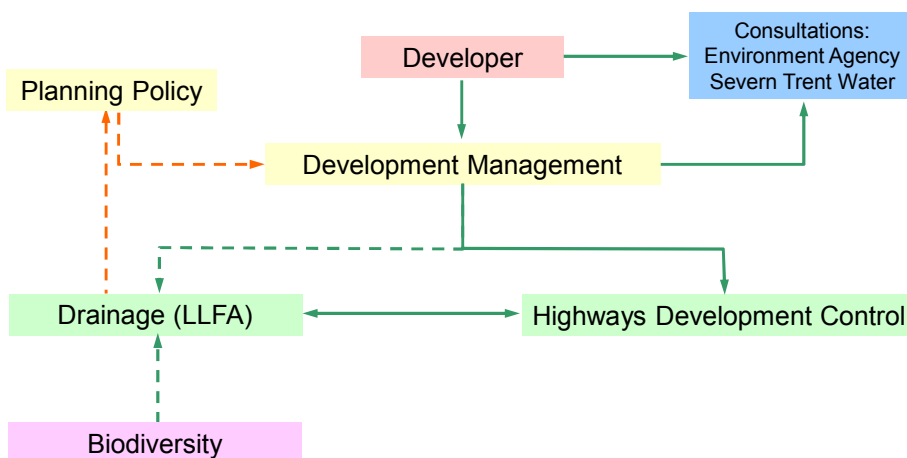
- Departmental decision to comment on planning applications due to historic flooding
- Commenting on all flood sources where possible
- 'Best endeavors' approach
- Non-statutory consultee
- Built skills and knowledge in team



SuDS in Nottingham

AECOM

## Nottingham City's involvement in planning Pre-April 2015



SuDS in Nottingham

AECOM

## Nottingham City's involvement in planning Pre-April 2015

### Toolbox for Planning Consultations

- Fluvial flood risk - *Flood Map for Planning*
- Surface water flood risk - *Flood Map for Surface Water*
- Proximity to open / culverted watercourses – *sewer records, OS map, DRN, internal info*
- Proximity to historic flooding location – *internal dataset*
- SuDS proposals - *Greenfield / Brownfield / SFRA policies / infiltration tests / future adoption and maintenance / building regs*



## Nottingham City's involvement in planning Pre-April 2015



### Planning Application Flood Risk Technical Assessment Checklist

A Flood Risk Assessment **MUST** accompany a planning application if:

- The site area is 5 hectares or greater.
- The site is partially or completely located within an area of medium or high risk of river flooding (Flood Zone 3 or 2 respectively).
- There is a known history of flooding at or in close vicinity to the site.

Flooding from Rivers	Resource
<p>R1 Is there an <b>open watercourse</b> within the site or within 20m of the site?</p> <ul style="list-style-type: none"> <li>• Flood risk from small watercourses isn't shown on EA Flood Maps but they may still present a risk of flooding.</li> <li>• May need to request that the applicant quantifies flood risk using hydraulic modelling.</li> </ul>	<p>GIS workspace:</p> <ul style="list-style-type: none"> <li>• 1:10,000 mapping or MasterMap</li> </ul>
<p>R2 Is there a <b>culverted watercourse</b> within the site or within 20m of the site boundary?</p> <ul style="list-style-type: none"> <li>• As above (R1), flood risk may be undefined.</li> <li>• May need to request that the applicant quantifies flood risk using hydraulic modelling.</li> </ul>	<p>GIS workspace:</p> <ul style="list-style-type: none"> <li>• Watercourses layer</li> <li>• Sewer records</li> </ul>
<p>R3 Is the site identified as being <b>at risk of flooding</b> from rivers?</p> <ul style="list-style-type: none"> <li>• Any application for a site in Flood Zone 2 or 3 must be accompanied by an FRA and meet NPPF requirements (84).</li> </ul>	<p><a href="#">Environment Agency Flood Map for Planning</a></p>
<p>R4 If the answer to any of the above is 'yes', check compliance with National Planning Policy Framework, including:</p> <ul style="list-style-type: none"> <li>• A sequential approach to land use planning within the site (highest vulnerability uses in lowest risk areas)</li> <li>• Consideration of residual flood risk for sites behind defences, including standard of protection, breach and overtopping analysis</li> <li>• Provision of level-for-level compensatory flood storage to offset land reprofiling.</li> <li>• Consideration of the impact of development on flood flow rates, depths and velocities within the site</li> <li>• Raising of finished floor levels above the 100-year + CC flood level including a suitable freeboard</li> <li>• Provision of safe access and egress for post-development site users</li> </ul>	<p><a href="#">National Planning Policy Framework Chapter 10</a></p> <p><a href="#">Technical Guidance to the NPPF (2-10)</a></p>

## Nottingham City's involvement in planning Pre-April 2015

### Issues Encountered & Lessons Learned

- Conflicting responses to planning applications from NCC  
Drainage and Environment Agency
- Adoption and maintenance responsibilities difficult to  
overcome
- Resources – especially when flooding happens!
- Construction – examples of HydroBrakes not installed

AECOM

Post-April 2015

June, 2015

AECOM

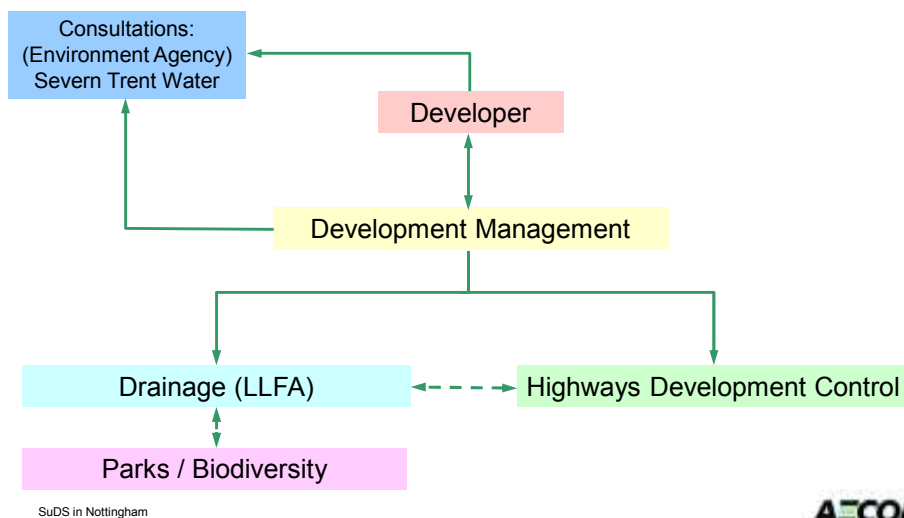
## Nottingham City's involvement in planning Post-April 2015

### Changes since legislation change

- Standard response template developed, including standard conditions
- Amendments to the planning application validation checklist requested
- SuDS Supplementary Planning Document drafted – out for internal consultation
- Working with the EA to address ongoing challenges regarding greenfield runoff rate requirement in the River Leen and Day Brook catchment – CDA / ACDP?
- Working with surrounding LPAs to discuss potential update to SFRAs
- Amended process to give Drainage Team full statutory consultation timescale

AECOM

## Nottingham City's involvement in planning Post-April 2015



AECOM

## Nottingham City's involvement in planning Post-April 2015

### What's being checked

- Surface water flood risk to and from the site:
  - Sense check on drainage layout
  - Are SuDS proposed?! (heirarchy, triangle, train)
  - Runoff rates – pre-development V post-development & SFRA policies
  - Minimum attenuation of 5 l/s, infiltration tests, groundwater levels
  - Adoption and maintenance arrangements
- Also check flood records, spring emergence records, targeted gully cleansing areas, fluvial flood risk, sewer plans,

AECOM

## Nottingham City's involvement in planning Post-April 2015

### Ongoing challenges

- Smaller sites – cumulative effects
- Level of detail and checking models – skills, capacity and resource
- Adoption and maintenance seems easier to overcome at planning stage, but concerns about futureproofing agreements
- Construction checks – drainage is often the first stage of construction – is what was planned actually being built?

AECOM



Thank You

fay.bull@aecom.com

01246 244 765

June, 2015

**AECOM**