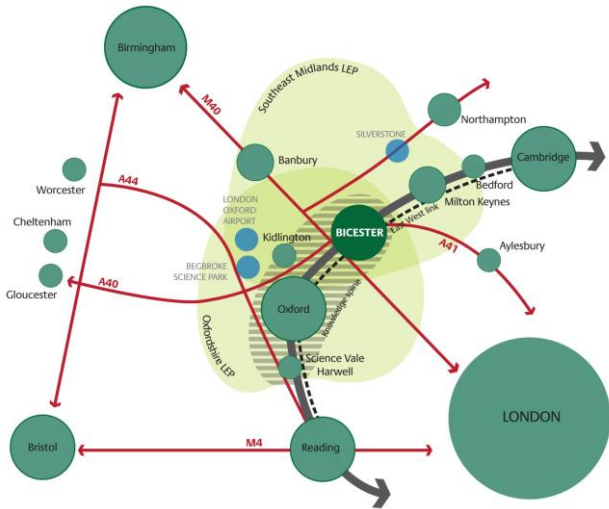


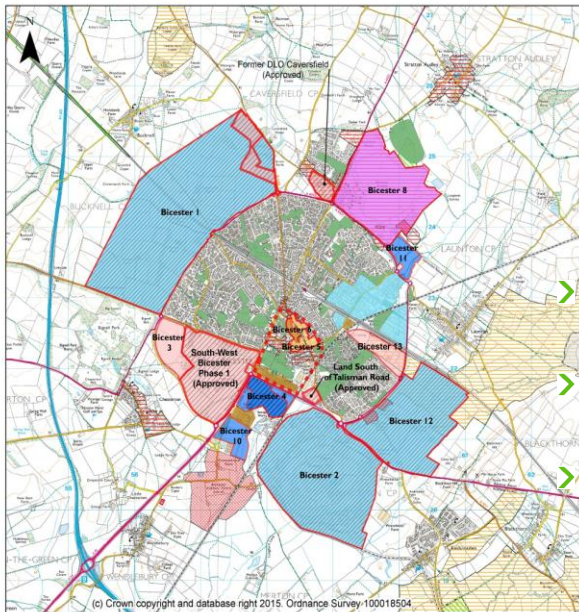
# Aspirations and drivers for SuDS and better water management at North West Bicester Eco Town

Jenny Barker Interim Assistant Director



## Bicester





## Bicester's Planned Growth

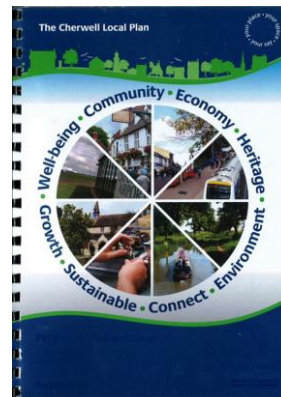
### Cherwell Local Plan

- 10,200 houses to 2031
- 13,000 homes in total
- 138 ha employment land
- Extensive infrastructure provision

## Cherwell Local Plan

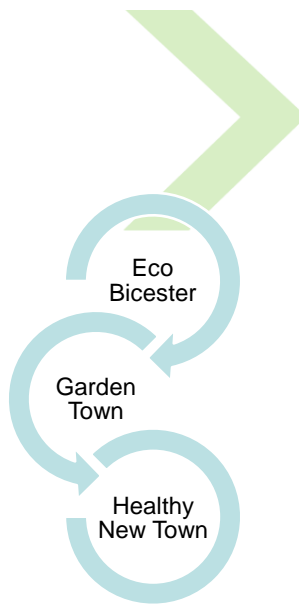
### 3 Policies re water

- Sustainable flood risk management
- Sustainable drainage systems
- Water resources



## Whole a Town Approach

- > Eco Bicester
- > *'To create a vibrant Bicester where people choose to live, to work and to spend their leisure time in sustainable ways'*
- > Garden Town  
*'Welcoming, Accessible, Enjoyable, Pioneering, Inclusive, Green & Pleasant'*
- > Healthy New Town
- > *'To create a healthy community by making it easy attractive and affordable for people of all ages to live healthy and sustainable lifestyles'*



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## Bicester's Water Environment



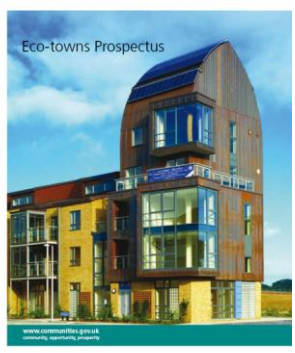
- > Bicester within the Thames catchment
- > Small streams run through the town
- > Limited areas affected by flooding
- > SUDs have been provided as part of new development
- > One sewerage treatment plant serves the town
- > Some issues of water quality
- > Identified as an area of water stress

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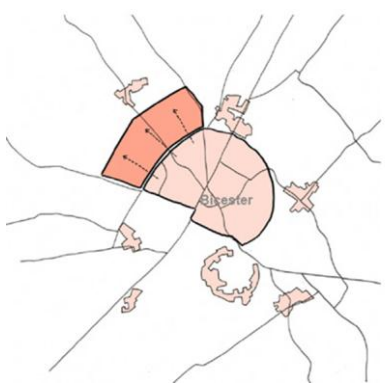
### Eco Towns

- > 2007 Central Government initiative
- > Looking to increase housing delivery
- > Looking to move faster to address impacts of climate change
- > Create sustainable communities
- > Attractive places to live



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### North West Bicester Eco Town



- > Locally identified site
- > Part of the town rather than a separate town

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## NW Bicester Eco Development Standards


- > Zero Carbon
- > Climate Change Adaptation
- > Homes
- > Employment
- > Transport
- > Healthy lifestyles
- > Local services
- > Green infrastructure
- > Landscape and Historic Environment
- > Biodiversity
- > Water
- > Flood risk management
- > Waste
- > Masterplanning
- > Transition
- > Community and Government



## Eco Towns PPS – Water


- > ET 17.1 Eco-towns should be ambitious in terms of water efficiency across the whole development, particularly in areas of serious water stress, and should contribute, where existing water quality leaves scope for further improvement, towards improving water quality in their localities.



- 
- > Planning applications should be accompanied by a **water cycle strategy** that provides a plan for the necessary water services infrastructure improvements.
  - > The water cycle strategy should have been **developed in partnership**. The strategy should:
    - > (a) **assess the impact on water demand** within the framework of the water companies' water resource management plans and **set out the proposed measures which will limit additional water demand**
    - > (b) demonstrate that the development **will not result in a deterioration** in the status of any surface waters or groundwaters; and
    - > (c) set out proposed **measures for improving water quality and avoiding surface water flooding**

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- > ET 17.3 Eco-towns should:
    - > (a) incorporate measures in the water cycle strategy for **improving water quality** and managing surface water, groundwater and local watercourses to **prevent surface water flooding** from those sources; and
    - > (b) **incorporate sustainable drainage systems (SUDS)** and, except where this is not feasible, as identified within a relevant Surface Water Management Plan, avoid connection of surface water run-off into sewers.
  - > Planning applications for all eco-towns should include a **strategy for the long term maintenance**, management and adoption of the SUDS.

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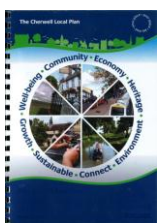




- ET 17.5 Eco-towns in areas of serious water stress should **aspire to water neutrality**, ie achieving development without increasing overall water use across a wider area. In particular, the water cycle strategy should set out how:
  - (a) the development would be designed and delivered to **limit the impact of the new development on water use**, and any plans for additional measures, e.g. within the existing building stock of the wider designated area, that would contribute towards water neutrality
  - (b) new homes will be equipped to meet the water consumption requirement of **Level 5 of the Code for Sustainable Homes**; and
  - (c) new non-domestic buildings will be equipped to meet similar high standards of water efficiency with respect to their domestic water use.

1 [Redacted]

### Local Plan v's PPS



- |   |   |
|---|---|
| <ul style="list-style-type: none"> <li>➤ Focus on flood risk and SUDs</li> <li>➤ maintain water quality, ensure adequate water resources and promote sustainability in water use</li> </ul> | <ul style="list-style-type: none"> <li>➤ Water cycle study</li> <li>➤ Sets standards</li> <li>➤ Aspiration of water quality</li> <li>➤ Improve water quality</li> </ul> |
|---|---|

1 [Redacted]

### Elmsbrook NW Bicester



- > Greenfield site
- > Crossed by a small water course
- > Limited areas that flood along the water course



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### Elmsbrook NW Bicester



#### Planning permission:

- > 393 dwellings
- > local centre
- > community hall
- > eco business centre,
- > primary school
- > 40% green space
- > Being developed by A2Dominion



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## Elmsbrook under construction



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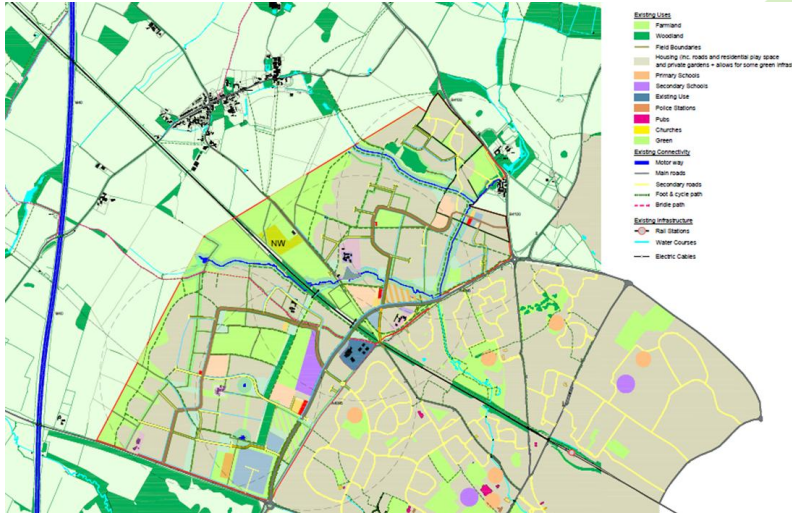
## Elmsbrook an Exemplar Development

- > Retains flood plain and allowance for climate change
  - > Reduced water use with rainwater harvesting
  - > SUDs system with long term management
  - > Sustainable construction
  - > True zero carbon
  - > Net biodiversity gain
  - > Target of 1 job per dwelling
  - > Ambitious targets for modal shift to reduce use of private car
- BUT water neutrality not viable**



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### NW Bicester Masterplan



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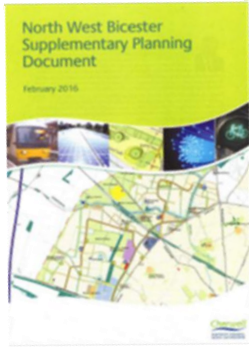
### North West Bicester Landscape Masterplan



Figure 13 - Landscape

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## North West Bicester Supplementary Planning Document

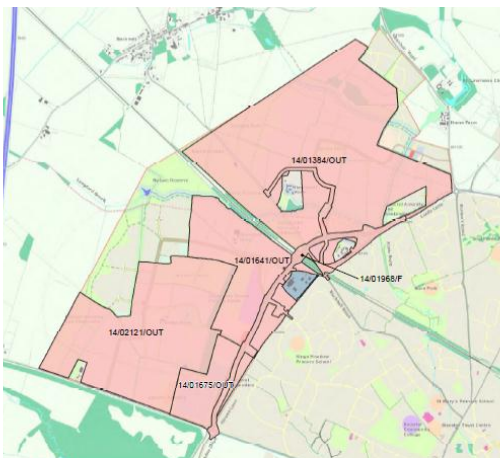


- > Provides additional policy support to Local Plan and embodies Eco Town PPS standards
- > Includes master plan water cycle study key principles

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## NW Bicester Planning Applications



- > 6 Planning applications
- > Each has a water cycle study
- > Broadly accord with the masterplan

However;

- > Challenges to ensure a comprehensive approach

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## Conclusions

- Eco Towns PPS provided a clear policy basis
- Elmsbrook has demonstrated the ability to reduce water use at scale
- Water neutrality is a challenging target
- Emerging local plan part 2 is looking to develop existing policies re water further



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