

Why do it – in practice ...

- High quality design – CABI guidance
- Multiple benefits - good value for money
- Biodiversity mitigation*
- Create buffer zones
- Integrate with POS and access provision
- Increase property value

* (note – not usually acceptable for GCN mitigation)

Planning Stage

- Build into Masterplanning
- Underpin by robust ecological survey
- Location is important – strategic positioning for buffer zones, green corridors etc
- Consider multiple benefits – POS etc
- Incorporate existing habitat of value

Concept Design Stage



- Team work – drainage engineer, landscape architect, ecologist
- Size, shape, profile & cross-sections
- Water depth & flooding frequency
- What plants?
- Fauna
- Management considerations

Approval Stage



- Consultation
- Detailed specification
- Planning conditions

Construction Stage

- Ecological supervision & sign-off
- Method Statements
- CEMP
- Water quality & protected species considerations – fisheries, nesting birds, licences etc



Management Stage

- Establishment phase – 5yrs
- Monitoring & respond to issues – water depth, water quality, establishment failures, erosion control, algae
- Long term – Management Plan – tie in with POS/access/amenity and landscape requirements
- Vegetation management
- Ecological monitoring – invertebrates, birds, amphibians etc



KEY DESIGN CONSIDERATIONS FOR BIODIVERSITY



Defining target habitat structure

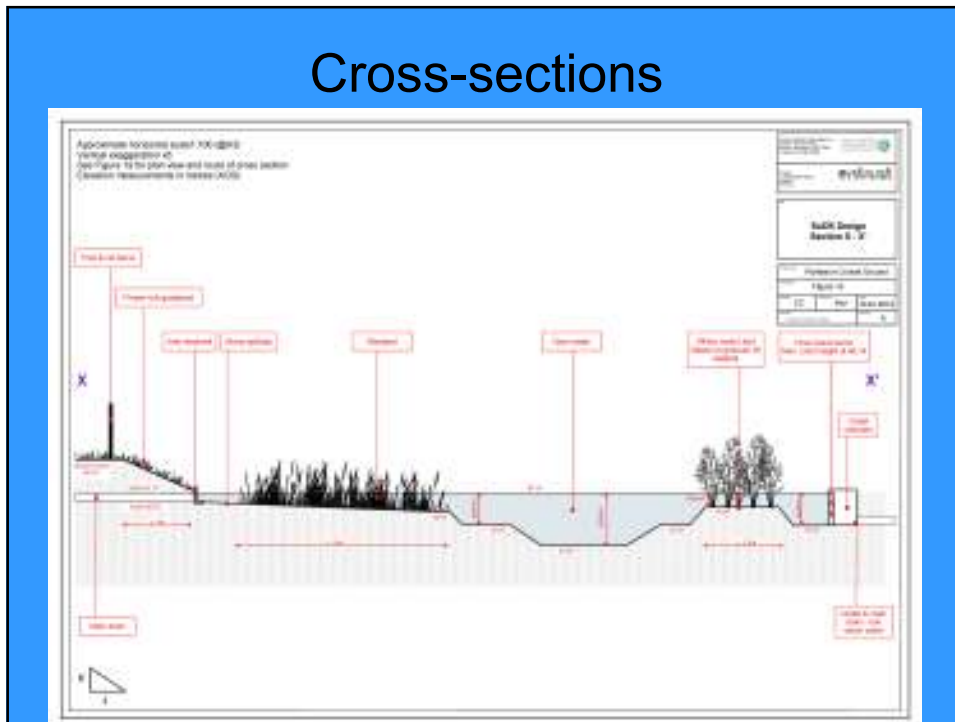
Selection of suitable plant species

Management requirements

**Structurally
diverse
wetland**



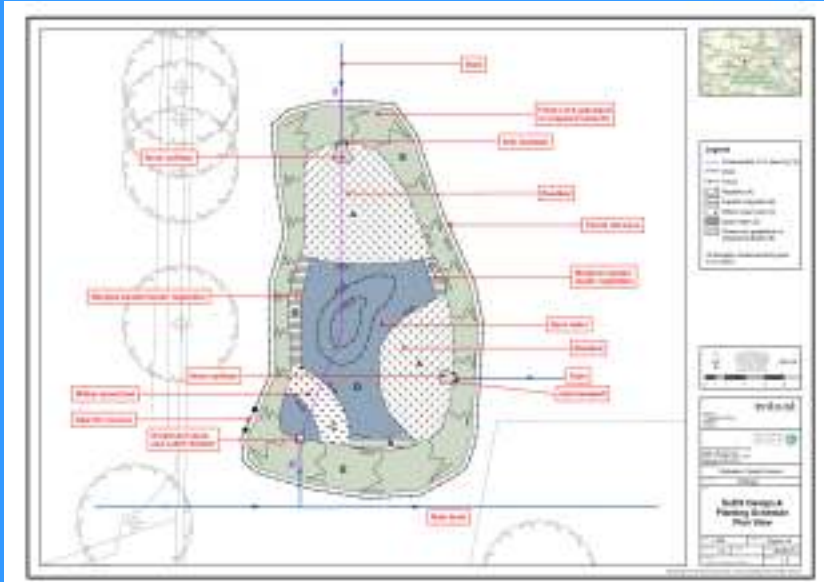
Cross-sections



Selection of Suitable Plant Species

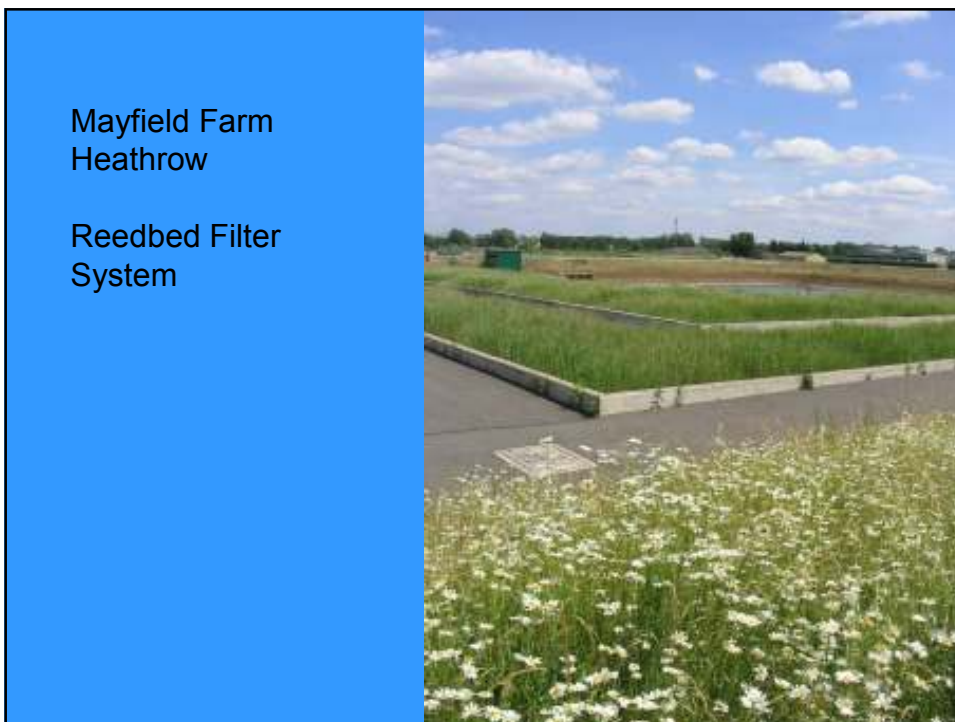
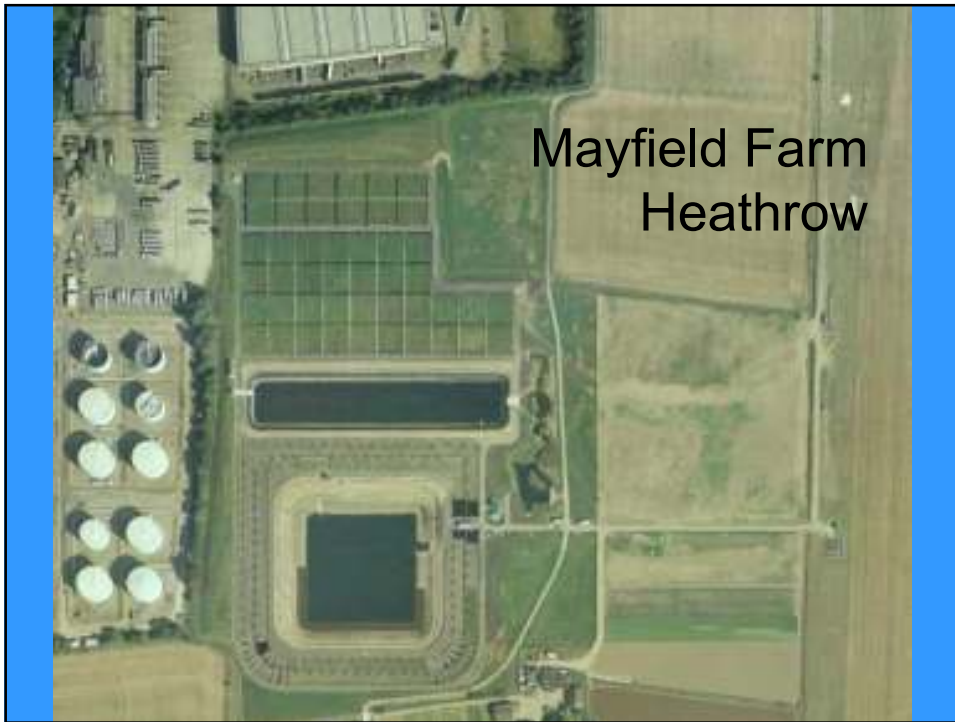
- Hydrological characteristics
- Water quality
- Appropriate to locality

Concept Design Rolleston



Concept Design Framwellgate



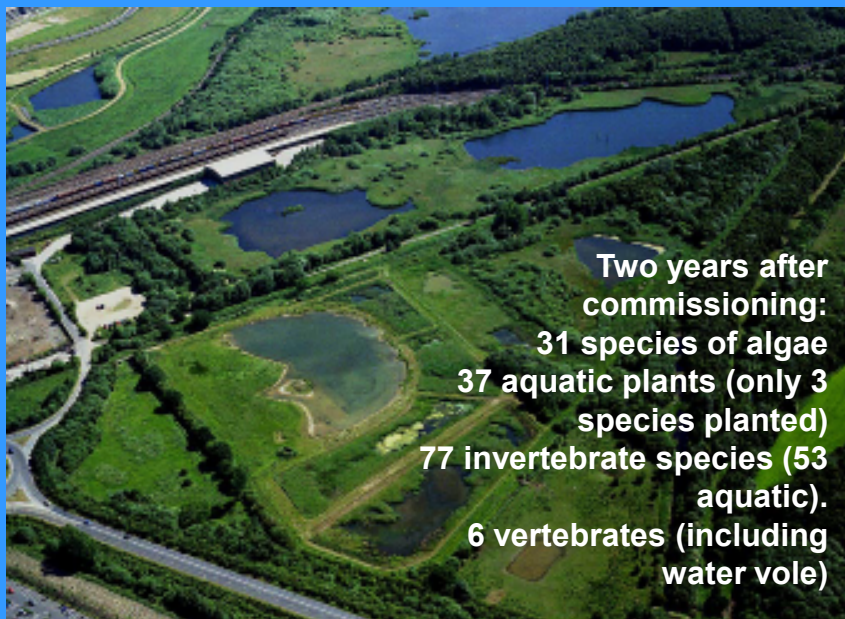




Broadlands Business Park, Norwich

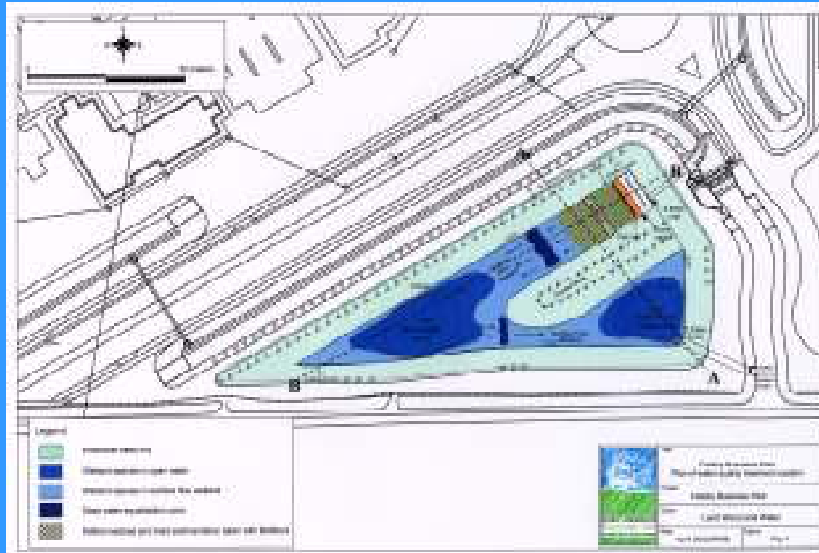


Potteric Carr, Doncaster





Catesby Business Park



Catesby, Doncaster



Inlet of Catesby Business Park SuDS wetland showing rafted wetland (2005)



Mature reedbed (2013)

Where to find more guidance ...

- **SuDS Manual** - due soon
- **Susdrain Checklists** www.susdrain.org
- **RSPB/WWT 'Maximising the Potential for People and Wildlife'**