



# Addressing drainage / flooding issues at Northstowe

A presentation to the Cottenham Village Design  
Group by The Fairfield Partnership

14 September 2004



# Introductions:

- **Steve Biart** - **Director of Strategic Land, The Fairfield Partnership**
- **Christopher Miles** - **Principal Engineer, Boreham Consulting Engineers**
- **Jenny Marshall** - **Community liaison, Camargue**



# Agenda:

- **Fairfield and Northstowe**
- **Ensuring appropriate flood mitigation**
- **Our approach**

The Fairfield  
Partnership



# Fairfield and Northstowe





# The Fairfield Partnership:

- **Specialist land promotion company, not a traditional developer or housebuilder**
- **Identifies and promotes sites for mixed use developments**
- **A partnership: Fairview Strategic Land Ltd and Marchfield Developments Ltd**



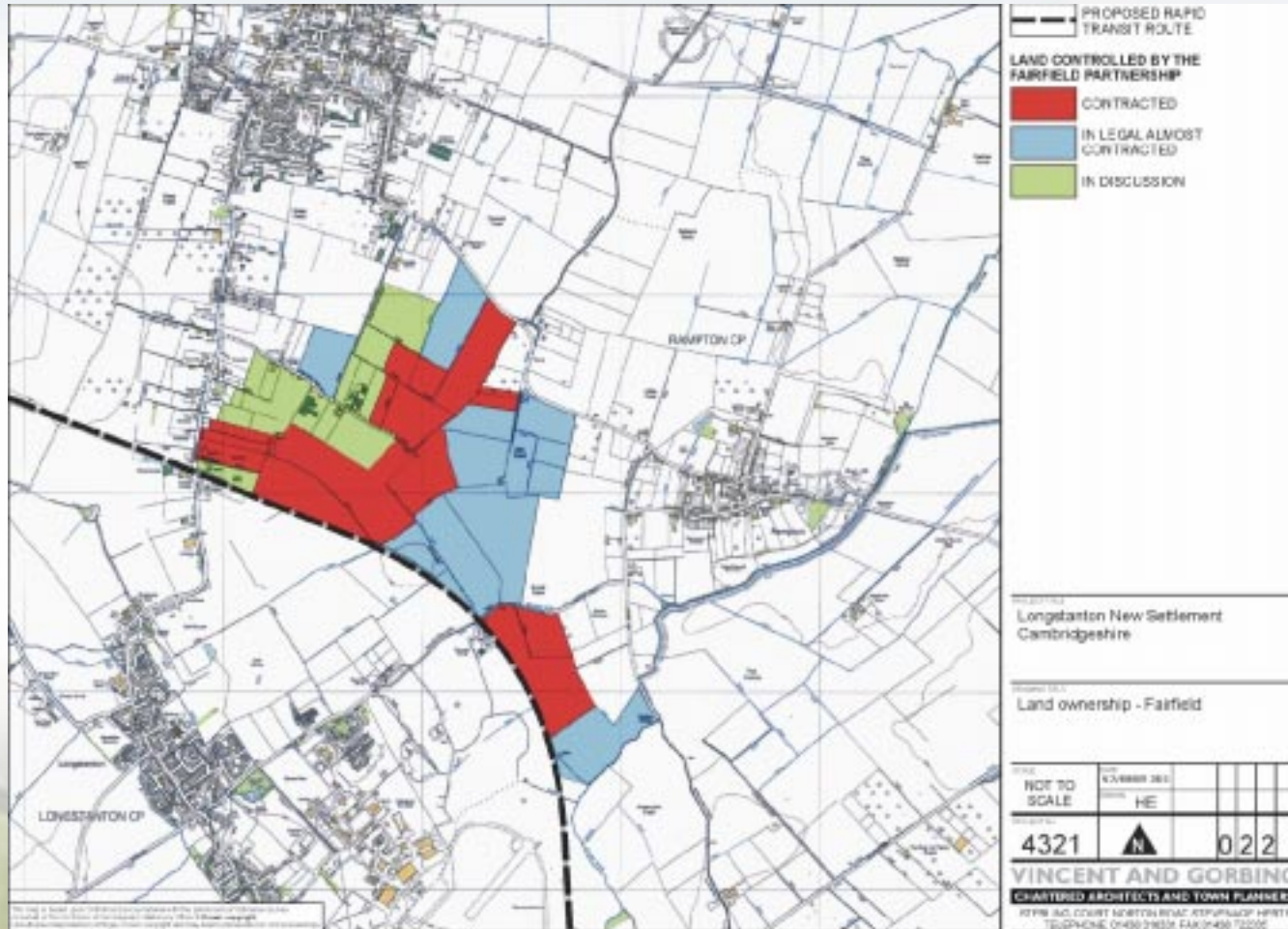
# Fairfield's landholding:

- **Approximately 160 hectares (400 acres) to the north of the former Cambridge-St Ives railway line**
- **Single control**





# Fairfield's landholding:





# Planning a new market town at Northstowe:

- **Structure Plan requirement for 6,000 dwellings by 2016**
- **Ultimately 8,000 - 10,000**
- **South Cambridgeshire DC developing Area Action Plan to establish principles for development**
- **AAP subject to public consultation**
- **Detailed master planning to follow**





# Planning a new market town at Northstowe:

- Land north of proposed Guided Bus Expressway only included as option for consultation at 10,000 dwellings
- But north provides significant benefits at 8,000, 9,000 or 10,000



# Fairfield's vision for Northstowe:

- **Fairfield's vision:**
  - **Centres Northstowe around Expressway, encouraging patronage**
  - **Provides additional land for range of densities and other uses**
  - **Maximises separation to Longstanton / Oakington**
  - **Guarantees long-term separation to Willingham / Rampton**
  - **Gives greater flexibility for flood mitigation**



# Ensuring appropriate flood mitigation





# Considerations:

- **Legal and Planning framework**
- **Feasibility**
- **Beyond Feasibility / Detailed Master Planning**



# National and local policy:

- **Land Drainage Act 1991**
- **PPG 12 - Need to consider land drainage issues**
- **PPG 25 - Need to ensure wider consideration of flood risk**
- **Building Regulations - Encourage use of Sustainable Drainage Systems**
- **Structure Plan - Avoid additional / mitigate existing flood risks**



# Emerging LDF:

- **District Council obligation to ensure sustainable approach**
- **Drainage considered at early stage of development**
- **AAP objectives: no increase to flood risk / mitigate current risks**

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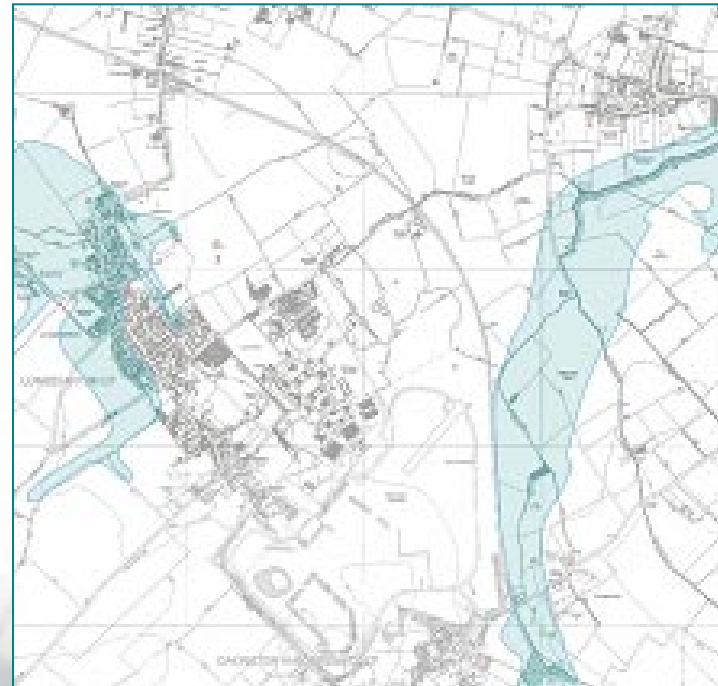
# Feasibility Study



# Fairfield's land:

## 1 in 100 year flood plain

- Not in 1 in 100 year flood plain







# Fairfield's land:

- Element in 1 in 1,000 year flood plain - north and south

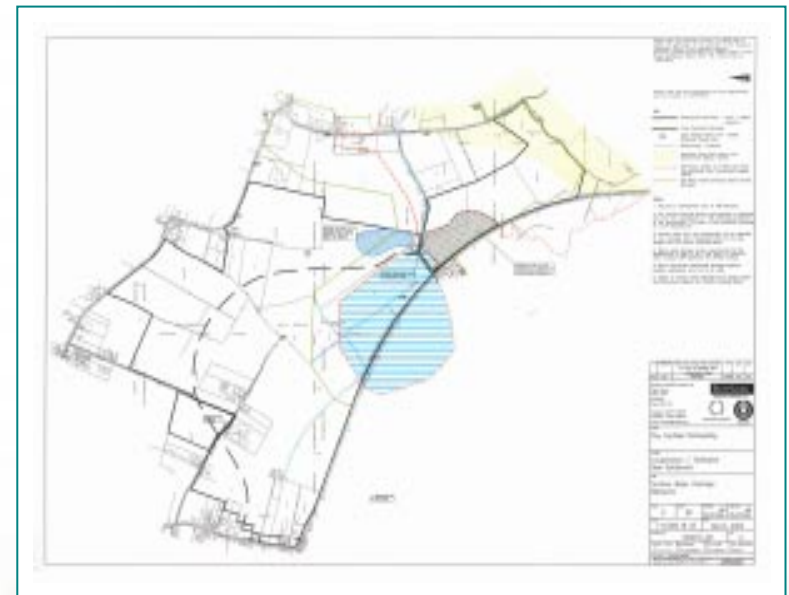
## 1 in 1,000 year flood plain





# Fairfield's land:

- **Flood Compensation can be accommodated elsewhere on Fairfield land**
- **Limitations with South of Expressway development only option**





## Fairfield's land:

- **Surface water runoff restricted to existing rate through appropriate balancing**
- **Anglia Water to provide sewerage facilities for entire development**
- **Sufficient water supply for 10,000 dwellings**
- **No constraints to development north**



# Our approach



# Approach to flood mitigation:

- **Maximise options for flood mitigation**
- **Incorporation of Sustainable (Urban) Drainage Systems (SUDS) to:**
  - **Control drainage at source**
  - **Reduce rate of runoff - wider public benefit**
  - **Positive benefits for landscaping / public amenity**
- **Detailed strategy to evolve through joint master planning**



# Preliminary flood attenuation proposals:

- **Provision of extensive 36,000 sq m lake to:**
  - **Accommodate rainfall - manage storm conditions**
  - **Allow controlled surface water run off**
  - **Landscaping opportunities / public amenity benefits**



# Preliminary flood attenuation proposals:





# Complementary flood attenuation measures:

- **SUDS:**
  - Infiltration systems
  - Swales
  - Detention ponds
  - Retention ponds
  - Wetland areas
- **Informal waterways / water parklands**





# Complementary flood attenuation measures:





# Conclusions



# Maximising the options:

- Land exclusively South restricted even at 8,000 houses
- Restricted options for flood mitigation
- More land = greater options for mitigation north and south





# Your questions:

- Will development north of the Expressway increase flooding problems in Cottenham?
- How will water run off / storage be managed?
- What about runoff into the Cottenham Lode?
- How will Northstowe deal with its foul drainage?
- Will the Guided Bus Expressway restrict options for managing surface water run off?



## In summary:

- **No barriers to development north of Expressway**
- **Can provide 8,000, 9,000 or 10,000 new homes**
- **Maximum flexibility for flood mitigation**
- **Surface water runoff restricted to existing levels**
- **Benefits for Northstowe and wider area**



## Way forward:

- **Detailed strategy requires inclusive, partnership approach**
- **Commitment to working with District Council and Gallaghers**
- **Listen to and reflect local knowledge and concerns**



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