

# Great Yarmouth Surface Water Management Plan - Options Appraisal Summary

## PROBLEM IDENTIFIED:

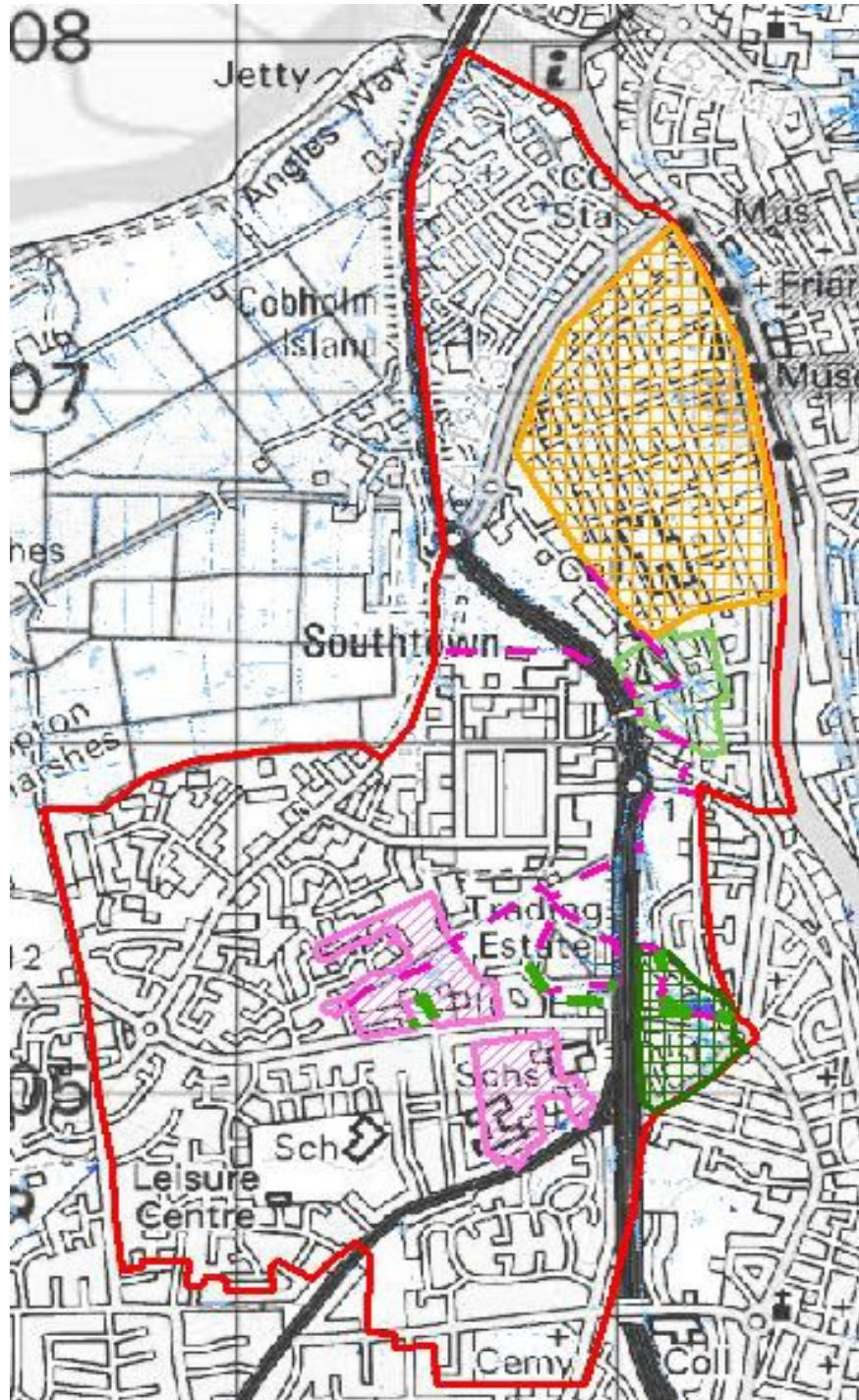
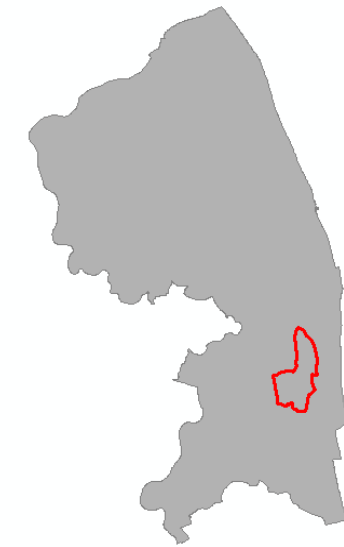
This CDA is located in the Claydon, Cobholm and Southtown area of Great Yarmouth. The pluvial modelling indicates surface water flooding across the central portion of the CDA as a result of the topography and surface water being trapped behind raised road embankments. The CDA contains several IDB managed land drains that assist in managing surface water flows from urbanised areas, but periodic routine maintenance is required to allow the drainage system to adequately collect and remove surface water and mitigate flood risk. The preferred solution for this area is a combination of improved maintenance, development control in undeveloped areas, large scale SUDS in both commercial (Southtown) / residential (east end of Burgh Road) areas and small scale embankments around the ditches in high risk locations.

Despite numerous known surface water flooding issues in the Southtown area, the modelling did not predict any substantial surface water flooding. It is noted that Anglian Water is currently updating their sewer models in this area and additional information will be available in the near future. Further investigation is proposed as the interim 'solution' in this area.

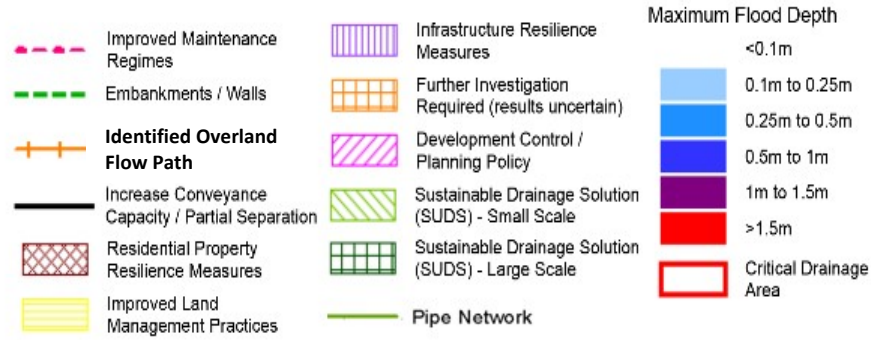
## Critical Drainage Area

### Claydon, Southtown and Cobham

Great Yarmouth Borough



## LEGEND



## PREFERRED OPTIONS SUMMARY:

Options Summary	Available Option	Preferred
Do Nothing		
Do Minimum		
Improved Maintenance		
Planning Policy		
SUDS (Source Control - Small Scale)		
SUDS (Large Scale - Flood Storage)		
Separate Surface Water and Foul Water Sewer Systems		
De-culvert / Increase Conveyance		
Identified Overland Flow Routes		
Community Resilience		
Infrastructure Resilience		
Other - Improvement to Drainage Infrastructure		
Other or Combination of Above		

## Flood Risk Source

Surface Water	Yes
Groundwater	Yes
Ordinary Watercourse	Yes
Fluvial	No
Tidal	No

## Validation

Historic Events	Yes
Site Inspection	Yes



**GREAT YARMOUTH SURFACE WATER MANAGEMENT PLAN  
SURFACE WATER OPTIONS**

**HIGH LEVEL CONSTRUCTION COST ESTIMATE**

**Critical Drainage Area ID: Claydon, Southtown and Cobham**

Description	Unit Type	Unit Measure	Unit Rate	Quantity (approx)	Cost (rounded)	Assumptions
Improved maintenance						No capital cost - assumed to be paid for by revenue budgets
Embankments	Embankment	Volume of Embankment m <sup>3</sup>	£5	1350	£6,000	1200m long, 1.5m tall, 1.5m wide, triangular
Development Control						No cost associated - set policy to be implemented by developer
SUDS - Large Scale	Permeable paving	m <sup>2</sup> Surface Area	£54	1350	£73,000	300m of road at 4.5m wide
SUDS - Large Scale	Ponds and wetlands	m <sup>3</sup> Detention Volume	£40	5000	£202,000	
SUDS - Small Scale	Permeable paving	m <sup>2</sup> Surface Area	£54	10000	£538,000	Commercial area around Boundary Road / Suffolk Road - Assumed to be 50% funded by land owners
Further Investigation			£10,000	1	£10,000	Consultancy fee for further investigation
				TOTAL	£829,000	

**NOTES:**

The following standard assumptions have also been applied:

- The costs are the capital costs for implementation of the scheme only.
- Costs do not include provisions for consultancy, design, supervision, planning process, permits, environmental assessment or optimum bias.
- No provision is made for weather (e.g. winter working).
- No provision is made for access constraints.
- Land acquisition costs are not included
- No operational or maintenance costs are included.
- No provision is made for disposal of materials (e.g. for flood storage or soakaway clearance).

These should be considered as approximate order of magnitude costs only.