

Great Yarmouth Surface Water Management Plan - Options Appraisal Summary

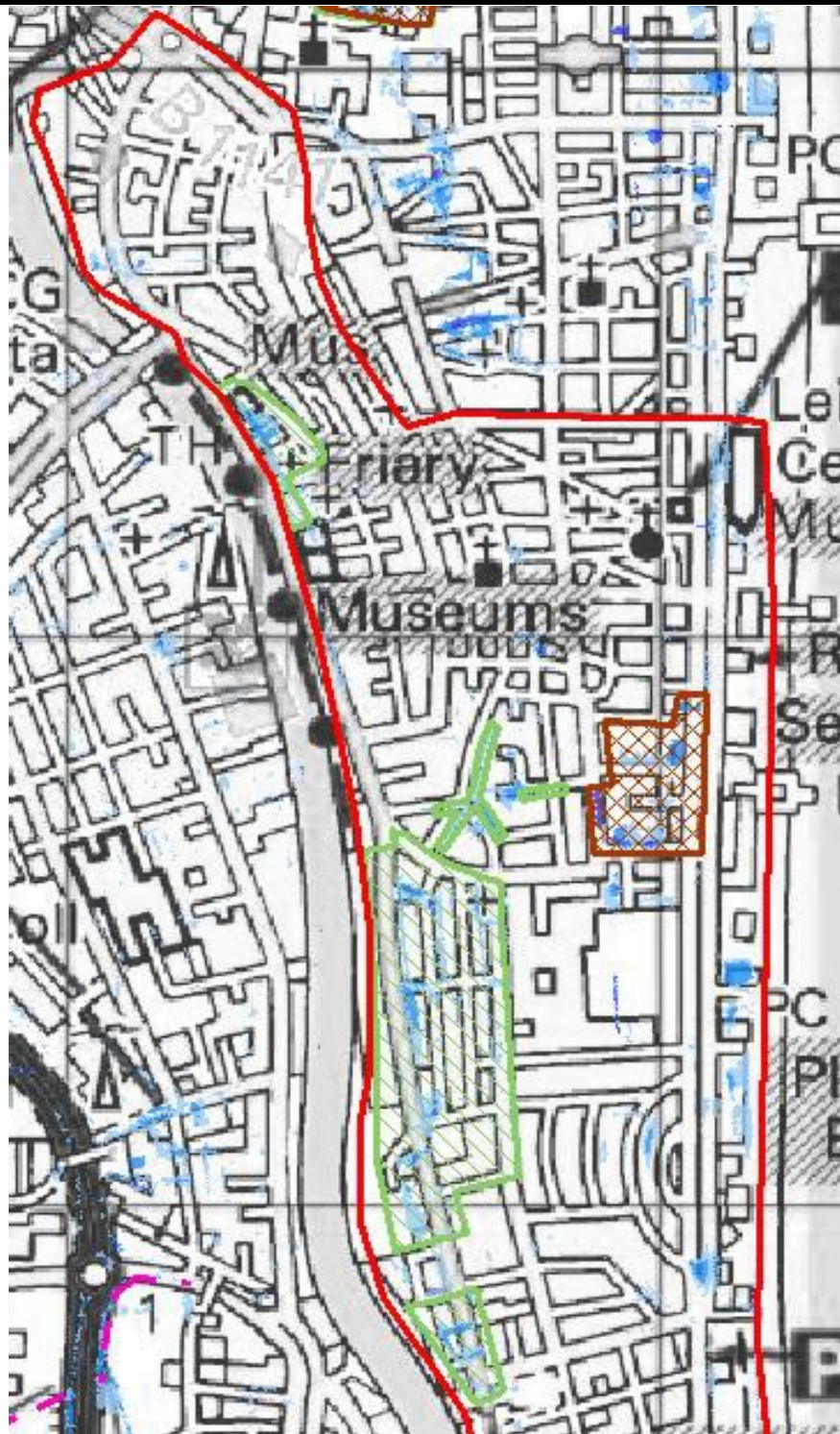
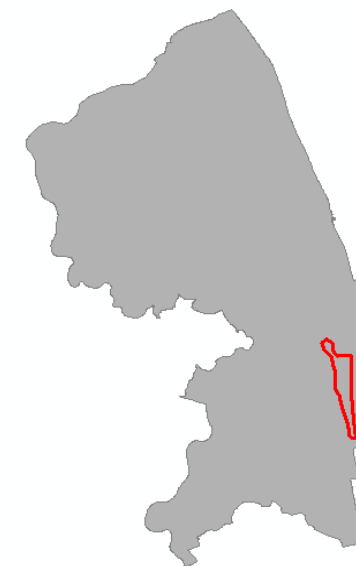
PROBLEM IDENTIFIED:

This CDA is located in the South Yarmouth area of Great Yarmouth. The pluvial modelling indicates surface water flooding across the localised areas of the CDA as a result of the topography and water being trapped behind raised building pads. The CDA contains residential and commercial buildings, many of the properties are known to contain basements and are potentially at greater risk of being affected by surface water ponding on roads and around buildings (Camperdown Road). Flood zone 3 extends across the south western portion of the CDA and extends to 25% of the area. Tidal flooding affects land in close proximity to the beach frontages and measures along the coastline frontage are in place to mitigate tidal flooding, but adversely may act to retain surface water landward. The CDA is classified as being at low risk of groundwater flooding. The CDA is low lying and there is limited scope to create effective storage areas in built up areas, some capacity may be available under roads.

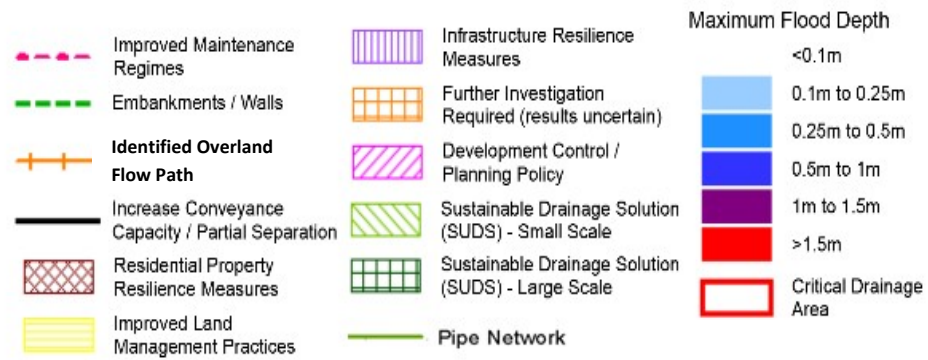
Critical Drainage Area

South Yarmouth

Great Yarmouth Borough



LEGEND



PREFERRED OPTIONS SUMMARY:

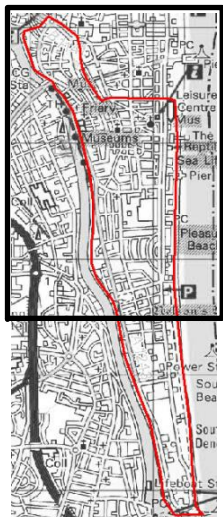
Options Summary	Available Option	Preferred
Do Nothing		
Do Minimum		
Improved Maintenance		
Planning Policy		
SUDS (Source Control - Small Scale)		
SUDS (Large Scale - Flood Storage)		
Separate Surface Water and Foul Water Sewer Systems		
De-culvert / Increase Conveyance		
Identified Overland Flow Routes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

Flood Risk Source

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

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: South Yarmouth

Description	Unit Type	Unit Measure	Unit Rate	Quantity (approx)	Cost (rounded)	Assumptions
Property level resilience	Improved resilience and resistance measures	per property protected	£5,000	15	£75,000	
SUDS - Small Scale	Permeable paving	m ² Surface Area	£54	45175	£2,428,000	
SUDS - Small Scale	Road side Rain Garden	m ² area	£21	2600	£54,000	2.6km of road in upper catchment - 1m wide rain gardens on one side
				TOTAL	£2,557,000	

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.