

# Great Yarmouth Surface Water Management Plan - Options Appraisal Summary

## PROBLEM IDENTIFIED:

This CDA is located in the northern part area of Great Yarmouth. There is a general movement of surface water from the south west to north east as a result of the natural topography. The model also indicates a build up of floodwater along the A419 Caister Road. Due to its close proximity to the River Bure it could be possible to mitigate potential surface water flooding by increasing the conveyance capacity and discharging surface water into the river mitigating the risk of properties flooding. Existing infrastructure could be improved by targeted maintenance. Localised SUDS solutions could mitigate flood risk to individual homes where adapting existing infrastructure is not possible.

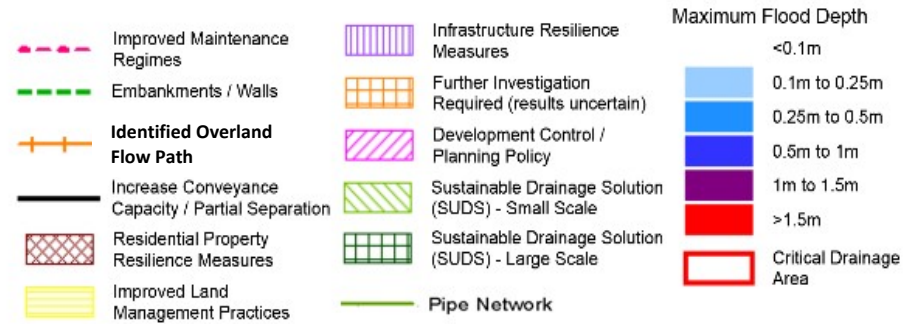
## Critical Drainage Area

## North 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: North Yarmouth**

Description	Unit Type	Unit Measure	Unit Rate	Quantity (approx)	Cost (rounded)	Assumptions
SUDS - Small Scale	Water butts & rainwater harvesting	m <sup>3</sup> of stored volume	£1,188	105	£125,000	
SUDS - Small Scale	Road side Rain Garden	m <sup>2</sup> area	£21	1200	£25,000	1.2km of road - 1m wide rain gardens on one side
SUDS - Large Scale	Ponds and wetlands	m <sup>3</sup> Detention Volume	£40	5000	£202,000	
Partial separation and diversion of pipes			£1,100	650	£715,000	650m of 900mm pipe at £1100 / m (including headwalls, outlet, manholes and an allowance for working in a Priority 1 Road)
Improved maintenance						No capital cost - assumed to be paid for by revenue budgets
				TOTAL	£1,067,000	

**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.