

KEY

- Flood Cell
- ⊙ Breach Location

Time To Inundation [Hours]

- < 1 Hour
- 1 - 4 Hours
- 4 - 8 Hours
- 8 - 12 Hours
- 12 - 16 Hours
- 16 - 20 Hours

Inundation from overtopping prior to breach

TECHNICAL NOTE

Hydraulic modelling has been undertaken using 2D hydraulic modelling software MIKE21-HDFM (ver. 2009), to assess the effect of breaches at specified points and/or overtopping of defences. The model simulates 3 tidal cycles with the peak level occurring on the second peak and two slightly smaller peaks either side. Breaches in the defence walls are modelled to occur immediately before the peak tidal level to assess the potential impact of rapid inundation of floodwater.

In order to map Time to inundation, time 0 (zero) is designated as the time when tidal water enters the breach. The < 1 hour band encompasses all areas that are inundated within the first hour of water passing through the breach and into the flood cell. Subsequent bands have been produced to show inundated cells for each 4 hour interval up to 20 hours. Areas that experience flooding as a result of overtopping of the defences prior to the breach event, are shown as hatched areas.

Time to inundation maps represent the onset of flooding from 1 specified breach. The rate will vary spatially if the breach locations are in different local areas. Changes in inundation extent or rate of onset of flooding are non-linear to changes in breach location. It should be noted that the breach width and depth, though based on EA guidance, are arbitrary and do not necessarily represent the actual dimensions of a potential breach at a given location.

USER NOTE

This plan has been produced in accordance with Planning Policy Statement 25 - Development and Flood Risk. Because the information is indicative rather than specific, local planning authorities will nevertheless need to consult the Environment Agency on individual applications.

FLOODABLE AREAS NOT SHOWN

Land adjacent to watercourses not included within this study. Areas susceptible to drainage system inadequacies or localised ponding. Areas flooded due to debris blockage unless shown for specific structures. Areas flooded from breaches not included in this study.

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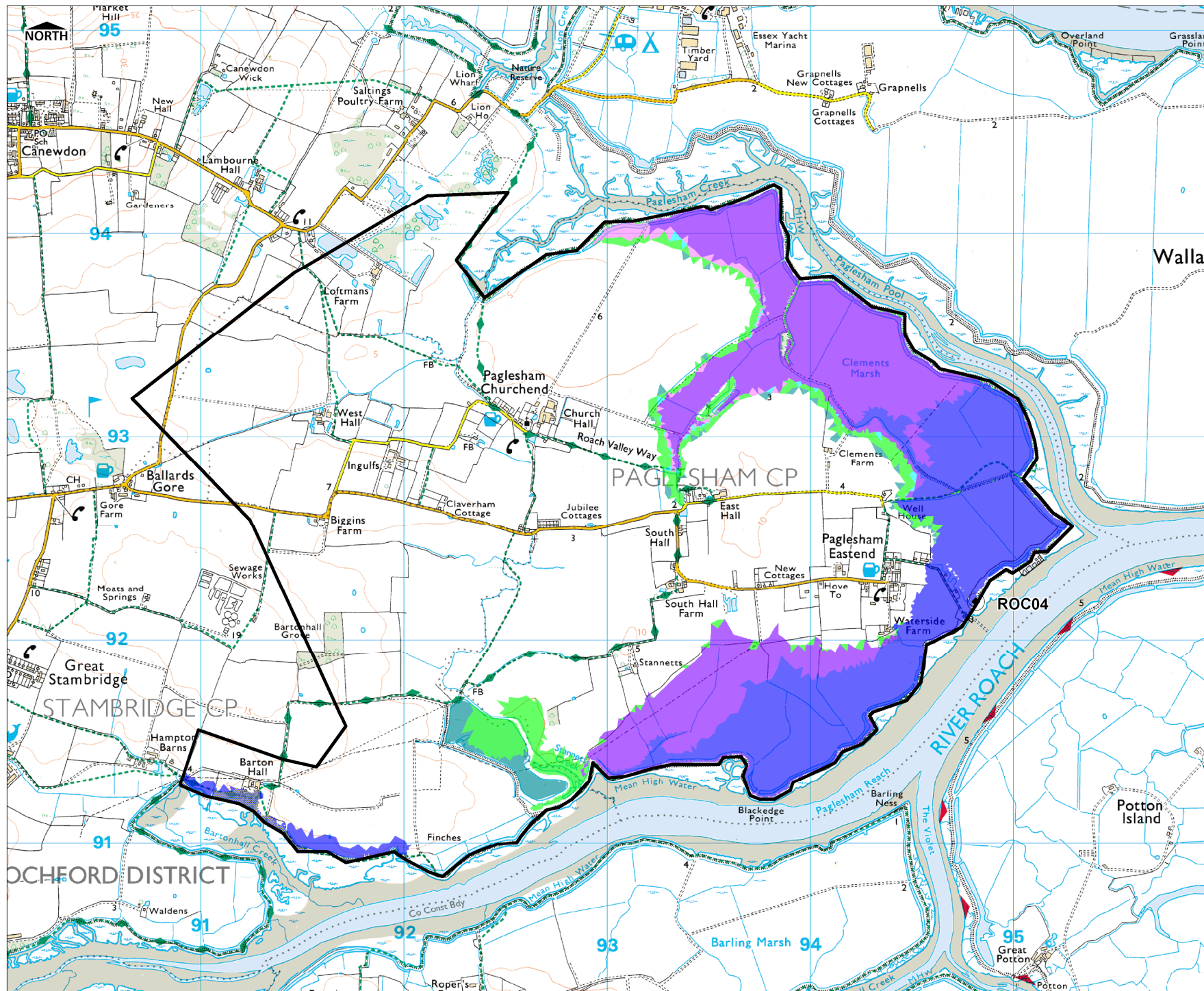
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SCALE @ A3 1 : 20,000		ISSUING OFFICE London

THAMES GATEWAY SOUTH ESSEX
STRATEGIC FLOOD RISK ASSESSMENT

TIME TO INUNDATION
0200YR (2010)
BREACH ROC03



Scott Wilson
6-8 Greencoat Place
London, SW1P 1PL
Tel: (020) 7798 5000



KEY

- Flood Cell
- ◆ Breach Location

Time To Inundation [Hours]

- < 1 Hour
- 1 - 4 Hours
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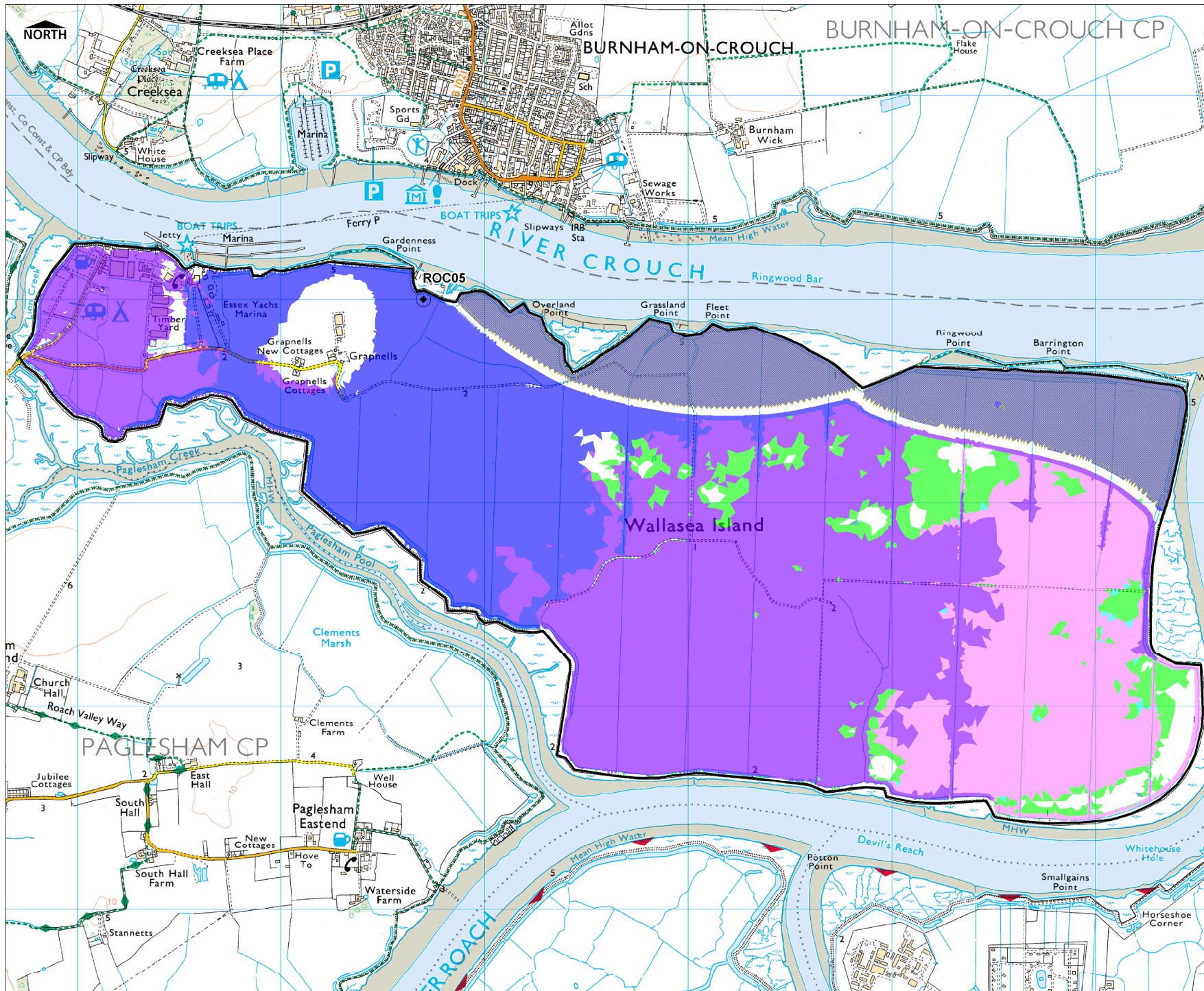
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**THAMES GATEWAY SOUTH ESSEX
STRATEGIC FLOOD RISK ASSESSMENT**

**TIME TO INUNDATION
0200YR (2010)
BREACH ROC04**

Scott Wilson
 6-8 Greencot Place
 London, SW1P 1PL
 Tel: (020) 7798 5000



KEY

- Flood Cell
- ⊙ Breach Location

Time To Inundation [Hours]

 < 1 Hour	 Inundation from overtopping prior to breach
 1 - 4 Hours	
 4 - 8 Hours	
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**THAMES GATEWAY SOUTH ESSEX
STRATEGIC FLOOD RISK ASSESSMENT**

**TIME TO INUNDATION
0200YR (2010)
BREACH ROC05**

Scott Wilson 6-8 Greencot Place London, SW1P 1PL Tel: (020) 7798 5000		