

Isle of Wight Local Flood Risk Management Strategy

Appendix J: The Bay

July 2016

Isle of Wight Council, Planning and Housing Services

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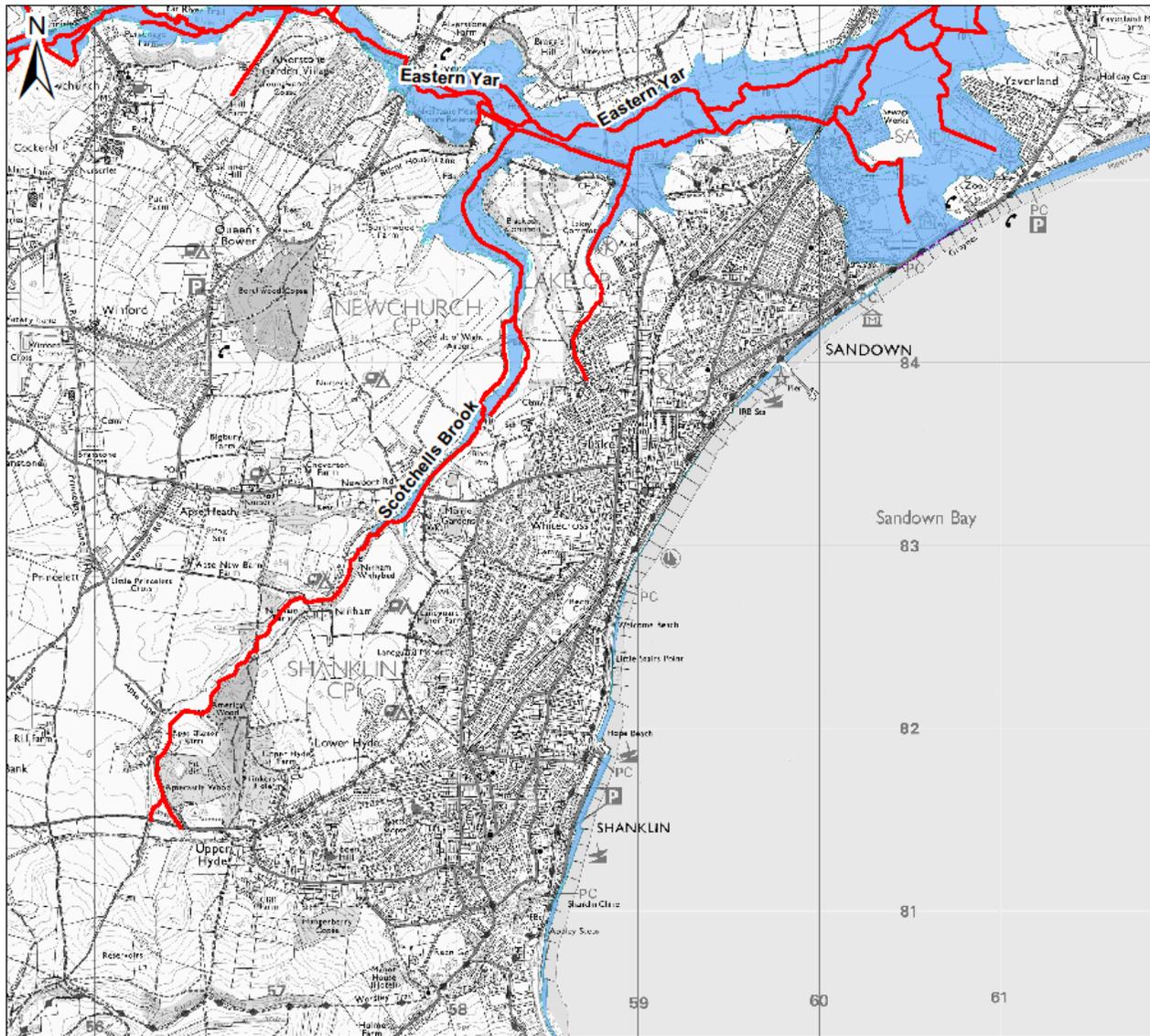
DOCUMENT CONTROL

General information

Title	Isle of Wight Local Flood Risk Management Strategy Appendices
Owner	Wendy Perera, Head of Planning and Housing Services – Isle of Wight Council
Version	Final Report
File status	Active

Revision history

Summary of changes	Completed by	Date	Current version?
First Draft	EA/IWC	28/11/2013	No
Second Draft	EA/IWC	02/05/2014	No
Third Draft	EA/IWC	05/02/2015	No
Consultation Draft	IWC	31/03/2016	No
Final Draft Report	IWC	14/06/2016	No
Final Report	IWC Executive Committee	14/07/2016	Yes
Programmed Review	IWC	31/07/2021	



Legend

- Main River
- Flood Zone 3
- Flood Zone 2

0 200 400 800 1,200 1,600
Metres
1:20,000 - When printed @ A3

Notes

Flood Map Areas (assuming no defences)

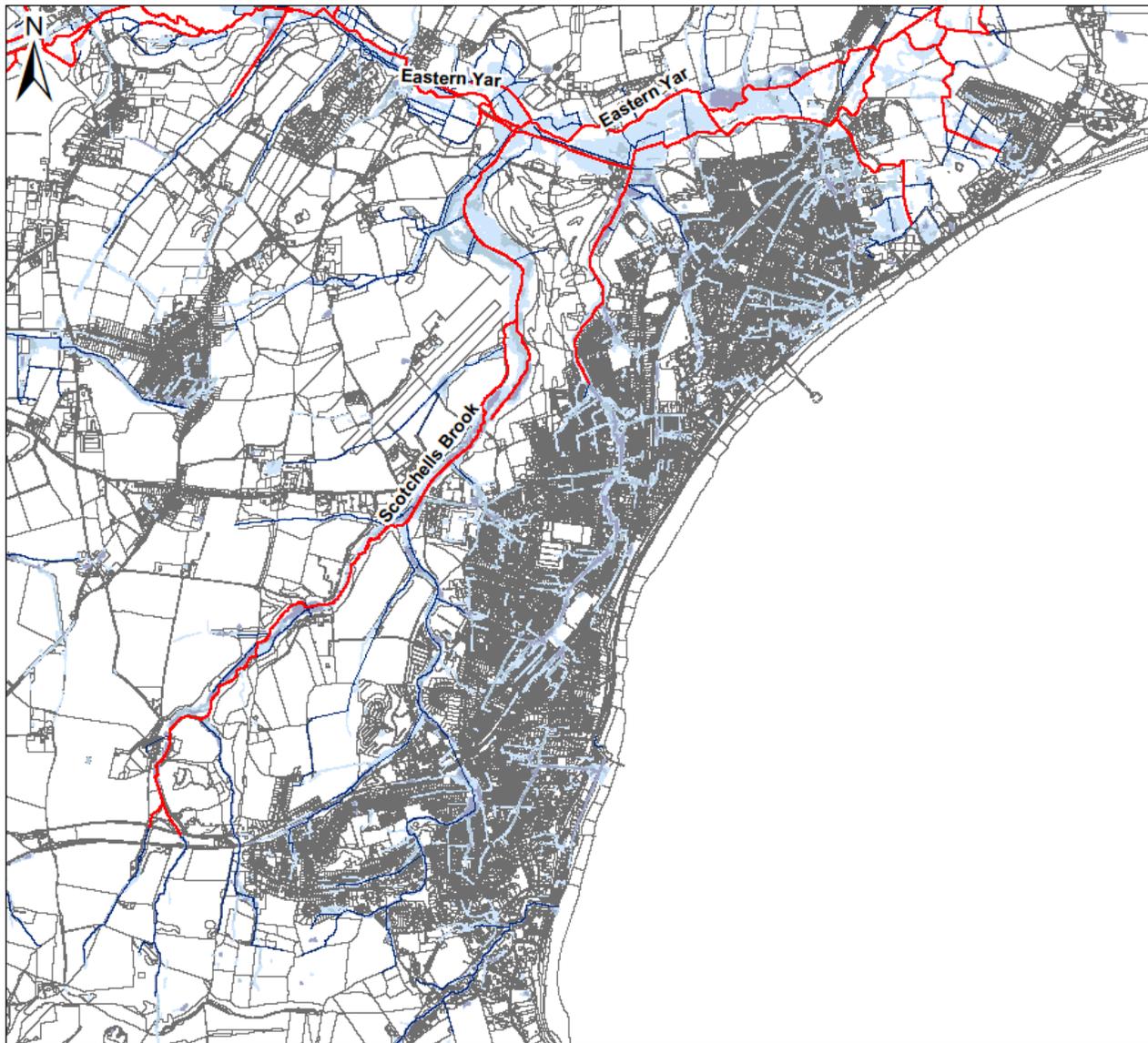
Flood Zone 3
Shows the area that could be affected by flooding:
- from the sea with a 1 in 200 (0.5%) or greater chance of happening each year.
- or from a river with a 1 in 100 (1%) or greater chance of happening each year.

Flood Zone 2
Shows the extent of an extreme flood from rivers or the sea with up to a 1 in 1000 (0.1%) chance of occurring each year.

Figure J1
Environment Agency Flood Zones 2 & 3 for The Bay

November 2014

Based upon the Ordnance Survey Map with the permission of the Controller of Her Majesty's Stationery Office. © Crown Copyright. AL100001776



Local Flood Risk Management Strategy

Legend

- Main River
- Ordinary Watercourses
- High
- Medium
- Low

0 200 400 800 1,200 1,600
 Metres
 1:20,000 - When printed @ A3

Notes

Likelihood of flooding from Surface Water

- High :**
Greater than or equal to 1 in 30 (3.3%) chance in any given year.
- Medium :**
Less than 1 in 30 (3.3%) but greater than or equal to 1 in 100 (1%) chance in any given year.
- Low :**
Less than 1 in 100 (1%) but greater than or equal to 1 in 1,000 (0.1%) chance in any given year.
- Very Low :**
Less than 1 in 1,000 (0.1%) chance in any given year.

Figure J2

Updated Flood Map for Surface Water (UFMfSW) for The Bay

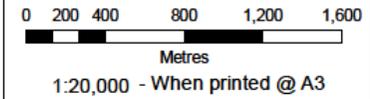
May 2015



Local Flood Risk Management Strategy

Legend

- Recorded Flood Events



Notes

Location of reported flooding incidents

Figure J3

Historic flood events for The Bay

May 2015

Area overview

The Bay as a locality is comprised of Sandown, Lake and Shanklin which are located along the stretch of coastline in the south east of the Island.

Topography changes from low lying areas north east and west of Sandown, to higher lying areas south of Shanklin.

Flood risk to The Bay area is associated with tidal flooding along the coast and fluvial/tidal flooding in the low lying areas in the north of the area. It should be noted that the tidal flood risk to the Sandown area is a modelled flood risk originating from Bembridge and not the coastline at Sandown itself. Fluvial flooding from the Scotchells Brook in the west of The Bay is also a potential issue.

Tidal flood risk

Tidal flood risk to the Sandown area is a modelled flood risk originating from Bembridge and not the coastline at Sandown itself. The height of the ground and associated seawall at the Sandown frontage is deemed to be of sufficient height for now and into the future when taking the impact of climate change into account. There are current day occurrences of wave overtopping of this frontage however, and this will remain a risk, that will be likely to increase into the future. As the tidal risk is modelled from Bembridge, its route to Sandown follows that of the Eastern Yar. Therefore, it is generally the Eastern part of Sandown that is in this modelled extent. The current day risk approximately extends to *Avenue Road* and *Fort Street*. In terms of infrastructure, the sewage works are also at risk from flooding as is the railway line. There is little in the way of modelled tidal risk for Shanklin, however, wave overtopping and spray could still cause localised flooding issues along the coastline.

Fluvial flood risk

Fluvial flood risk for the Bay area relates to two Main Rivers, the Eastern Yar and the Scotchells Brook (which feeds into the Eastern Yar at the *Alverstone Cycle Track*). Generally, the fluvial extent is smaller than the tidal extent, with the exception of the Scotchells Brook south of *Blackpan Common*. Fluvial flood risk in The Bay can be exacerbated by tide locking of the Eastern Yar at Bembridge. The majority of land that can be affected by fluvial flooding in The Bay area is undeveloped or agricultural land with the exception of the industrial estate, caravan park and sewage works downstream of the railway line.

Surface water flood risk

The modelled surface water risk for The Bay generally tends to follow the line of the watercourses; however, there are several flow paths throughout Sandown, Lake and Shanklin that follow the highway network to the various watercourses. The area around *Shanklin Bus Station* could be subject to surface water ponding as a localised low spot. *North Road* and *Hope Road* in Shanklin are also identified as being flow routes for surface water. There is a clear surface water flow route from *Lake Green Road* which could affect several highways in the area between it and *Green Lane*. Surface water flow in Sandown is generally south of the railway line, with most roads affected in some way from surface flow

or localised ponding. Most notable of these is around the extent of fluvial flooding around the industrial estate, caravan park and sewage works south of the railway line.

Groundwater flood risk

There have been no incidents of groundwater flooding recorded for The Bay area. As such, groundwater flood risk is considered to be low.

Reservoir flood risk

There are currently no known reservoirs on the Island that meet the requirements of the Reservoirs Act 1975, which are reservoirs that hold at least 25,000 cubic metres of water above ground level. As such flood risk from this source is considered to be nil.