



Multi-Agency Flood Response Plan

ANNEX 4 TECHNICAL INFORMATION

Prepared By: Isle of Wight Local Authority
Emergency Management

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Section 1 - Weather Forecasting and Warning

1.1 Met Office

The Met Office is a Trading Fund within the Ministry of Defence and the official source of meteorological information in the UK, providing a number of services for use by the emergency services, government, military, general public, businesses and other organisations.

1.2 Public Weather Service (PWS)

This service provides a range of basic weather information and related warnings that enable the UK general public and emergency responder organisations to:

- make informed decisions in their day to day activities
- to contribute to the protection of life, welfare and property in the event of severe weather
- to warn of the potential for widespread disruption of communications or transport

1.2.1 Public Weather Service Advisors

The Met Office has a wide range of professional and technological resources to aid responder organisations in the management of an emergency. These resources can be requested for both severe weather situations and where weather will have an impact, so that responders can be sure of consistent and effective meteorological input to the management of the emergency.

The Met Office's team of regionally based Public Weather Service (PWS) Advisors are available to work with emergency responder organisations to assist in planning and responding to emergencies.

The role of the Advisor, in an emergency, is detailed in Annex 1 – Roles, Responsibilities and Actions.

1.3 National Severe Weather Warning Service (NSWWS)

As part of the Public Weather Service, this service provides advance notice warning of severe weather conditions likely to cause:

- widespread disruption
- widespread damage
- risk to life

so that the general public and emergency responder organisations can take action to reduce its impacts during and after the event.

1.3.1 Advisory Warnings

- Issued by 13:00hrs daily, on the Met Office website
- Indicating 20 - 60% confidence of severe or extreme weather
- With the potential to lead to a high-impact weather situation
- Aims to distinguish between severe and extreme situations by a traffic light colour matrix that indicates a percentage of confidence that severe or extreme weather is expected

The traffic light system colours should be interpreted as:

	No severe weather
	Be aware
	Be prepared
	Take action

'Be aware' means: Remain alert and ensure you access the latest weather forecast.

'Be prepared' means: Remain vigilant and ensure you access the latest weather forecast. Take precautions where possible.

'Take action' means: Remain extra vigilant and ensure you access the latest weather forecast. Follow orders and any advice given by authorities under all circumstances and be prepared for extraordinary measures.

Advisory Warning: Severe Weather - Example

Expected on a semi-regular basis, particularly in winter

Colour and risk levels for severe weather events					
	Green		Yellow	Amber	
Warning	None		Advisory	Early	Flash
Risk	Very low <20%	Low ≥20% <40%	Moderate ≥40% <60%	High ≥60% <80%	Very high ≥80%
Headline	No severe weather expected		Moderate risk of severe weather	High risk of severe weather	Severe weather is imminent or is occurring
Impact			Moderate risk of some damage to infrastructure and local disruption	High risk that there will be some damage to infrastructure and local disruption	Very high risk that there will be some damage to infrastructure and local disruption
Advice			Ensure you access the latest weather forecast	Remain vigilant and ensure you access the latest weather forecast	Ensure you access the latest weather forecast and take precautions where possible

Advisory Warning: Extreme Weather - Example

Much rarer and may occur typically only once or twice a year

Colour and risk levels for extreme weather events					
	Green	Yellow	Amber	Red	
Warning	None	Advisory	Advisory	Early	Flash
Risk	Very low <20%	Low ≥20% <40%	Moderate ≥40% <60%	High ≥60% <80%	Very high ≥80%
Headline	No extreme weather expected	Low risk of extreme weather	Moderate risk of extreme weather	High risk of extreme weather	Extreme weather is imminent or occurring
Impact		Low risk of major damage to infrastructure and the environment	Moderate risk of major damage to infrastructure and the environment	High risk of major damage to infrastructure and the environment. Casualties are possible	Major damage to infrastructure and the environment is likely. Casualties are possible
Advice		Ensure you access the latest weather forecast	Remain vigilant and ensure you access the latest weather forecast	Remain extra vigilant and access the latest weather forecast. Be aware of risks that might be unavoidable. Follow any advice given by authorities	Remain extra vigilant and access the latest weather forecast. Follow orders and any advice given by authorities under all circumstances and be prepared for extraordinary measures

When the confidence in a weather event reaches 60% or greater, an Advisory will be superseded by Early or Flash warnings:

1.3.2 Early Warning

- Pertinent to a regional area
- Issued up to five days in advance
- When confidence in the risk of widespread disruption due to severe or extreme weather is 60 - 80%
- The frequency of which Early Warnings are issued provides responder organisations time to prepare and activate plans

1.3.3 Flash Warnings

- Pertinent to a Unitary Local Authority area
- Issued when the risk of severe or extreme weather reaches 80% or greater
- Supersedes any Early Warnings or Advisories already in force
- However, it is common for Flash warnings to be issued when no Early warning has been issued
- Should provide a minimum two hours notice of the onset of the specified weather

1.3.4 Flash Warning for Heavy Rain - defined criteria and possible effects:

- Rain expected to continue for at least two hours and give at least 15mm in 3 hours
- Rain expected to give 25mm a day, if following previous heavy rain events
- Warning may be triggered by thunderstorms (if expected this would be stated)
- Possible effects: aquaplaning, flooding, squally winds, tornadoes, power surges

1.3.5 Emergency Flash Warnings

- May be issued on rare occasions, for extreme weather conditions which may have developed rapidly
- Format is the same as a Flash Warning

A National Severe Weather Service Warning for Heavy Rain is designed to warn for heavy rain, not for flooding.

Early Warning - Example

<i>National Severe Weather Warning Service</i>	
EARLY WARNING	

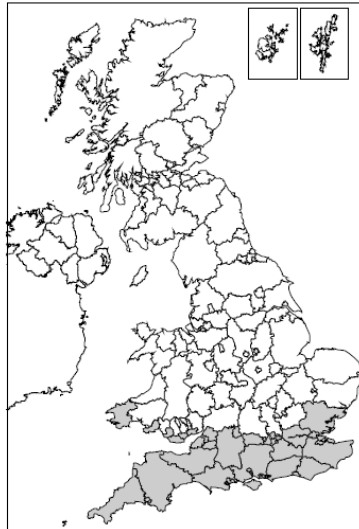


Early Warning of
• Heavy Rain

From: 15:00, Monday, 09th February 2009
To: 23:59, Monday, 09th February 2009

Regional risk assessments

60%	Severe	East of England
		London & SE England
		SW England
		Wales



Outbreaks of rain will be persistent and at times heavy. Accumulations of 25 to 35mm are expected. Combining this with melting snow, this may lead to localised flooding.

Issued by the Met Office at 12:22 on Sunday, 08th February 2009

Flash Warning - Example

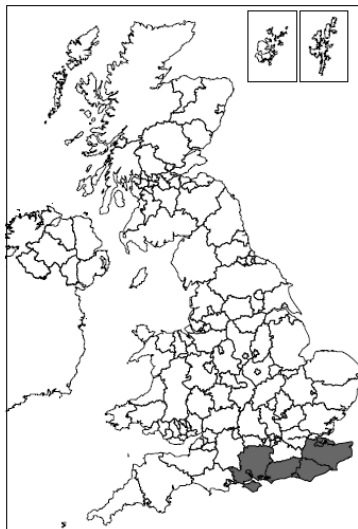
<i>National Severe Weather Warning Service</i>	
FLASH WARNING	



Flash Warning of
• Heavy Rain

For the following areas

- Brighton + Hove
- E Sussex
- Hampshire
- Isle of Wight
- Kent
- Medway
- Portsmouth
- Southampton
- W Sussex



Rain will become prolonged and at times heavy during today, with 20 to 30mm falling in many areas and up to 40mm falling in hilly areas. This warning is likely to be updated and extended this evening. The public are advised to take extra care and refer to the latest Environment Agency Floodline and 'Flood Warnings in Force', and also to the 'Highways Agency' for further advice on traffic disruption on motorways and trunk roads.

Issued by the Met Office at 08:18 on Monday, 09th February 2009

Valid from 11:00 on Monday, 09th February 2009 until 21:00 on Monday, 09th February 2009

1.4 Recipients of Met Office Weather Warnings

Basic national and regional forecasts and warnings are provided to the public without charge and distributed via the various media including television, the Met Office website www.metoffice.gov.uk, email, text, fax and local radio stations.

The Police, Fire and Rescue Service, Ambulance Service, NHS Primary Care Trust and Local Authority on the Isle of Wight have all registered to receive Met Office weather warnings via email, text and/or fax.

A more detailed list of the individuals, within the above named organisations, that have signed up to receive warnings is in Annex 3 – Contact Details and Resources, within the Met Office section.

1.5 Met Office Storm Tide Surge Forecasting Service

This service is provided by the Environment Monitoring and Response Centre (EMARC), one of the Met Office forecast production units, which:

- issue specialist forecasts to emergency services and government departments
- Provide coastal water levels and storm tide alerts to the Environment Agency, for assessing the risk of coastal flooding
- Monitors tidal levels and the meteorological situation around the coast
- Issue alerts when the meteorological influence on the tide may result in a hazardous situation

The Isle of Wight is within Division 6 of the 10 Divisions that comprise the coast of England and Wales for storm tide surge forecasting.

The Division has reference ports with tide gauges that measure water levels. Each reference port has a pre-defined danger level, when the alert levels are forecast to be reached or exceeded; the Met Office will issue a Storm Tide Alert to the Environment Agency.

1.6 Environment Monitoring and Response Centre (EMARC)

EMARC is a forecast production unit of the Met Office. It provides specialist forecasts to the UK emergency services and other government departments, as well as the international community and operates 24hrs/day, 365days/year.

It can provide an immediate response to customers requiring meteorological information to deal with a variety of environmental incidents, including advice on severe weather and storm tide forecasting.

1.7 Hazard Manager

This web portal service provides a one-stop source of information to Category 1 and 2 responders, co-ordinated through the Met Office regionally based Public Weather Service (PWS) Advisors.

The service is designed to supplement the role of the PWS Advisors in providing consistent weather-related information and interpretation. All previous web services from the Met Office and Flood Forecasting Centre available to emergency responders have been moved to Hazard Manager:

- Flood Forecasting Centre Extreme Rainfall Alert updates
- Interactive Map Viewer with weather information
- National Severe Weather Warning Service
- Emergency Support
- (FireMet and CHEMET services, for approved subscribers)

After registration, access to the service can be made using a single username and password.

The Hazard Manager Service replaces the previous Met Office Emergency Support (MOES) Service.

Section 2 - Flood Forecasting

2.1 Flood Forecasting Centre

This is a partnership between the Environment Agency and Met Office, combining their meteorology and hydrology expertise to forecast pluvial, fluvial, tidal, coastal and snowmelt flooding.

The Flood Forecasting Centre (FFC) provides the best possible intelligence and support to existing Environment Agency flood warning and Met Office weather warning services.

2.2 Flood Forecasting Centre Warnings

Even though the Environment Agency provides maps of areas at high risk of pluvial flooding produced from topographic and modelled data, there is currently no flood warning service for pluvial flooding, as by its nature, it can occur anywhere with very little lead time and therefore, is difficult to provide accurate advance warnings for.

However, the Flood Forecasting Centre issue daily:

- Flood Guidance Statements
- Extreme Rainfall Alerts

for use by Category 1 and 2 responders in determining locations where flooding may occur.

2.2.1 Flood Guidance Statements

- Provide an overview of flood risk for a five day period
- Identify possible situations which could cause flooding and significant disruption to normal life
- Are issued daily to responder organisations and government departments
- Provide county area information for days 1-3
- Provide a regional overview of the risk level for days 4-5
- Presents an assessment of the risk (probability and impact) of flooding based on meteorological information and an understanding of the situation across river catchments and the coast
- Provide responder organisations with a greater lead time to prepare before a flood situation occurs, to assist in considering what actions can be taken in advance, to help minimise the impact of the situation and reduce recovery time

The Flood Guidance Statement identifies the level of risk of a major flood situation for each of the five days. In assigning the risk level, various factors are taken into consideration:

- Likelihood of a severe or extreme weather situation occurring:
 - Low: 20-40%
 - Medium: 40-60%
 - High: 60%+
- Recent weather conditions, especially if shortly after a period of prolonged rain or other high impact weather
- Catchment saturation (how high are the river levels) in the risk area
- Expectation to be localised/affect a large geographical area/last may hours
- Coincides with a major sporting event, other outdoor activity or national holiday
- Impact of fluvial flow and spring tides – does a river outflow occur at a period of (spring) tides

Flood Guidance Statements are issued daily at:

- 10:30hrs = Very Low and Low risk situations
- 10:30hrs and 15:00hrs = Medium risk situations
- 10:30hrs 15:00hrs and 20:00hrs = High risk situations

Flood Guidance Statement – Example

FLOODFORECASTINGCENTRE

a working partnership between  Environment Agency |  Met Office

Appendix 1

Flood Guidance Statement 10:30hrs day/month/year

Our assessment of daily flood risk for England and Wales is below.

Improved FGS uses partner-facing county boundaries on all five days



10:30 – 2359hrs Sunday dd/month/year	0000 – 2359hrs Monday dd/month/year	0000 – 2359hrs Tuesday dd/month/year	0000 – 2359hrs Wednesday dd/month/year	0000 – 2359hrs Thursday dd/month/year
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General Overview of Flood Risk

Overview of the flood risk for the next 5 days.

Updated to focus the statement on Flood Risk.

Example text

The flood risk over the next 5 days remains very low.

Warnings and Alerts in force in England and Wales at 10:30hrs

Flood [\(click here\)](#)

0 Severe Flood Warnings / 0 Flood Warnings / 0 Flood Alerts

Updated to use new EA Flood Warning Codes terminology

Severe Weather [\(click here\)](#)

Advisory – no / Early – no / Flash – no

Extreme Rainfall

0 Alert

Best Judgement

River Flood Risk

Statement on the risk level for river flood risk. Forecaster commentary will explain how the risk level was determined.

Best judgement commentary now split under distinct headings for different types of flood risk

Coastal/tidal Flood Risk

Statement on the risk level for coastal/tidal flood risk. Forecaster commentary will explain how the risk level was determined.

Surface Water Flood Risk

Statement on the risk level for surface water flood risk. Forecaster commentary will explain how the risk level was determined.

Refers to Surface Water Flood Risk, instead of 'extreme rainfall that could cause surface water flooding'

Groundwater Flood Risk

Statement on the risk level for groundwater flood risk. Forecaster commentary will explain how the risk level was determined.

From April 2011 FGS will include Groundwater Flood risk

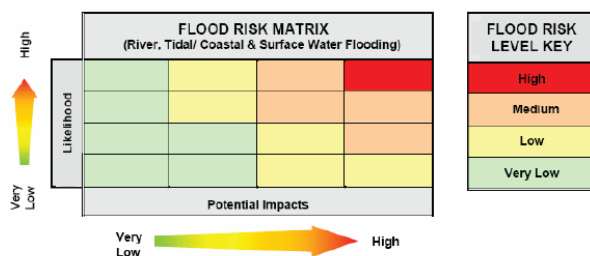
Next Statement Due: 10:30hrs on Day/month/year

Contact Details: Flood Forecasting Centre Duty Hydrologist. 0300 12345 01

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Flood Risk Matrix

New FGS Flood Risk Matrix combines likelihood and potential impacts



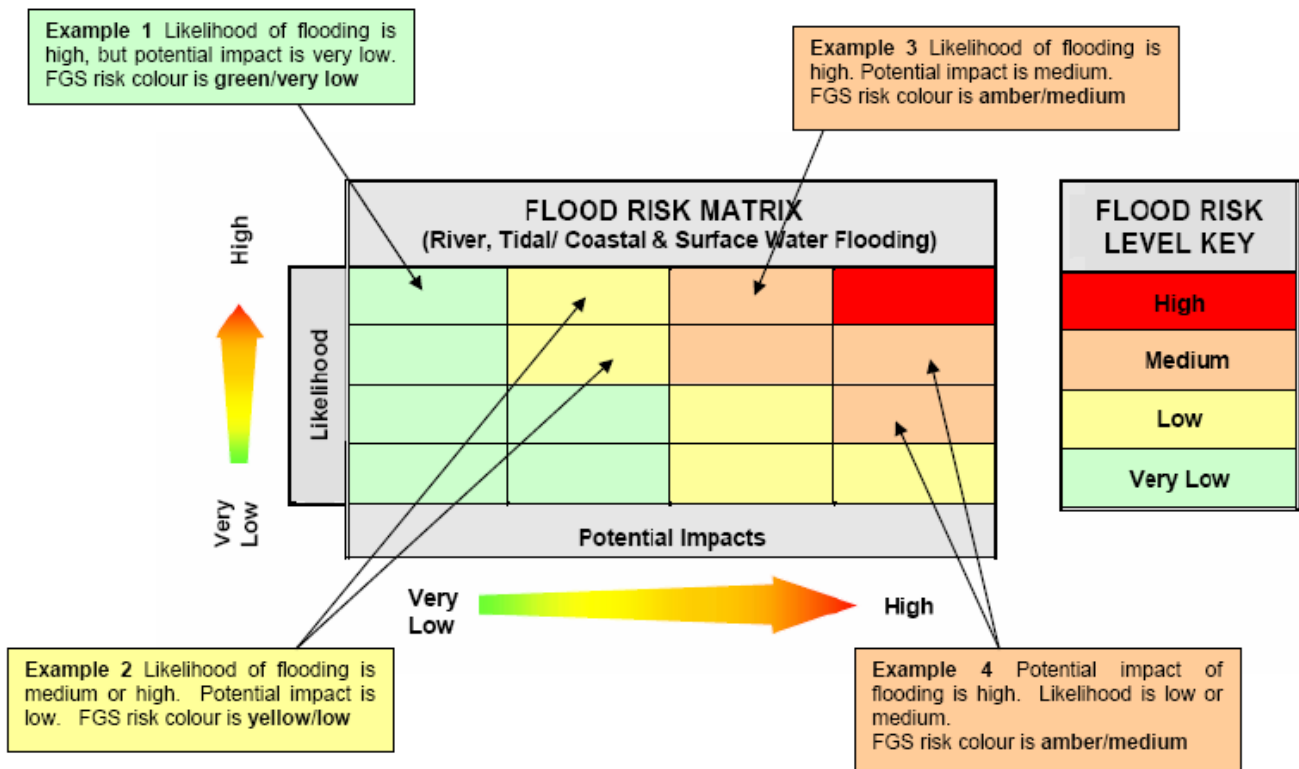
For the detailed version of the Flood Risk Matrix [click here](#)

Flood Risk Matrix hyperlinked from FGS to 'Detailed potential impacts key' (Appendix 2)

From April 2011, FGS will include facility to report post event on forecast v actual flood outcome.

2.2.1.1 Flood Risk Matrix

This matrix, located on a Flood Guidance Statement, combines the likelihood and potential impact of flooding



2.2.1.2 Potential Impacts Key

This key summarises likely impacts at very low (green), low (yellow), medium (amber) and high (red) risk levels

	Very low	Low	Medium	High
Typical impacts	<p>Minimal disruption</p> <ul style="list-style-type: none"> Generally no impact, however there may still be Isolated and minor flooding of low-lying land and roads Isolated instances of spray/wave overtopping on coastal promenades Little or no disruption to travel although wet road surfaces could lead to difficult driving conditions 	<p>Minor disruption</p> <ul style="list-style-type: none"> Localised flooding of land and roads – risk of aquaplaning Localised flooding could affect individual properties Individual properties in coastal locations affected by spray and/or wave overtopping Localised disruption to key sites identified in flood plans (e.g. railways, utilities) Local disruption to travel – longer journey times 	<p>Significant disruption</p> <ul style="list-style-type: none"> Flooding affecting properties and parts of communities Damage to buildings/structures is possible Possible danger to life due to fast flowing/deep water/ wave overtopping/ wave inundation Disruption to key sites identified in flood plans (e.g. railways, utilities, hospitals) Disruption to travel is expected. A number of roads are likely to be closed 	<p>Severe disruption</p> <ul style="list-style-type: none"> Widespread flooding affecting significant numbers of properties and whole communities Collapse of buildings/structures is possible Danger to life due to fast flowing/ deep water/ wave overtopping/ wave inundation Widespread disruption or loss of infrastructure identified in flood plans (e.g. railways, utilities, hospitals) Large scale evacuation of properties may be required Severe disruption to travel. Risk of motorists becoming stranded

2.2.1.3 Public Advice Key

This key provides consistent advice to the general public regarding the flood risk and potential impacts

	Very low	Low	Medium	High
Public Advice	<p>No action required</p> <ul style="list-style-type: none"> Keep an eye on the weather 	<p>Flooding is possible - be aware</p> <ul style="list-style-type: none"> Remain alert and ensure you access the latest weather forecast for up to date weather information. Be aware of conditions and drive accordingly Check flood warning page Call Floodline 0845 988 1188 for the latest flooding information 	<p>Flooding is expected - be prepared</p> <ul style="list-style-type: none"> Remain vigilant and ensure you access the latest weather forecast Consider re-scheduling your journey. Don't drive or walk through flood water Think about preparing for flooding and take precautions where possible Check flood warning page Call Floodline 0845 988 1188 for the latest flooding information 	<p>Significant risk to life - take action</p> <ul style="list-style-type: none"> Remain extra vigilant and ensure you access the latest weather forecast Avoid all non-essential travel or postpone journeys if at all possible Follow advice given by authorities under all circumstances, and be prepared for extraordinary measures Check flood warning page Call Floodline 0845 988 1188 for the latest flooding information

Pluvial flooding happens as a direct result of extreme rainfall and differs from fluvial flooding, as it can happen before the water enters a river or watercourse, or where none exists. Advance warning is difficult as it can happen rapidly when the level of rainfall is more than capacity of drainage.

Pluvial flooding

- Has a very short lead time
- Is complicated by the processes involved in overland flow (interaction with local topography, drainage infrastructure, etc)
- The lead time between alert and situation occurring is between 1 to 11 hours



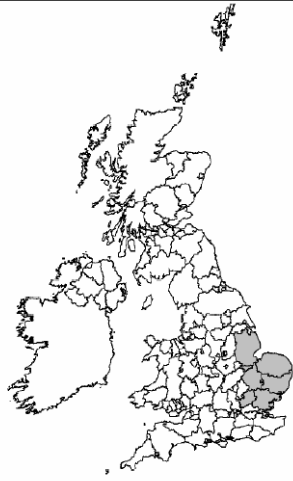
Extreme rainfall has three thresholds above which pluvial flooding is likely, particularly in urban areas:

- 30mm in one hour
- 40mm in three hours
- 50mm in six hours

2.2.2 Extreme Rainfall Alerts

- Issued when there is a 20% or greater chance of extreme rainfall
- Provide more localised and targeted information than that of a Met Office National Severe Weather Warning
- Comprises county area information
- Warns for extreme rainfall that could lead to pluvial flooding, particularly in urban areas
- Updated when there is a change in forecast (i.e. an increase in confidence from 20% to 40%)
- Not able to provide a site specific, real-time surface water flood forecast

Extreme Rainfall Alert - Example

Extreme Rainfall Alert FLOODFORECASTINGCENTRE <small>a working partnership between</small>   	
<p>An alert for the following regions:</p> <ul style="list-style-type: none"> ■ Cambridgeshire ■ Essex ■ Hertfordshire ■ Lincolnshire ■ Norfolk ■ Peterborough ■ Suffolk 	
<p>Issued by the Flood Forecasting Centre at 10:17 on Thursday, 4 November 2010 ERA reference number: 6</p> <p>Extreme Rainfall Alert</p> <p>Start of event: 18:17 on Thursday, 4 November 2010 End of event: 00:17 on Friday, 5 November 2010</p> <p>There is a 20% probability of rainfall amounts exceeding 30 millimetres in one hour Event total accumulations of 30 millimetres are possible</p> <p>In some areas within those highlighted extreme rainfall may lead to surface water flooding Consider activating your emergency procedures</p> <p>All times are local</p>	
<p>For enquiries regarding this alert please contact the Flood Forecasting Centre Phone: 0300 123 4501 Email: FFCenquiries@environment-agency.gov.uk Visit www.metoffice.gov.uk for the National Severe Weather Warning Service Visit www.environment-agency.gov.uk for river and sea flood warnings © Crown copyright Met Office</p>	

2.3 Recipients of Flood Forecasting Centre Warnings

Flood Guidance Statements and Extreme Rainfall Alerts are not issued to the public.

The Police, Fire and Rescue Service, Ambulance Service, NHS Primary Care Trust and Local Authority on the Isle of Wight have all registered to receive Flood Forecasting Centre information via email, text and/or fax.

A more detailed list of the individuals, within the above named organisations, that have signed up to receive such warnings is in Annex 3 – Contact Details, within the Flood Forecasting Centre section.

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Section 3 - Flood Warning

3.1 Environment Agency

Information from the Met Office is synthesised with Environment Agency data to help forecast whether coastal or fluvial flooding is likely in a flood risk area.

The Environment Agency has the lead role for managing the issue of flood warnings and aims to give timely and effective warnings to people and property at risk, where practicable and possible.

Telemetry technology monitors river flows, flood risk, state of catchment saturation, tides times and heights 24 hours a day, to help forecast the likelihood of flooding for most major rivers and the sea.

Environment Agency flood warnings are based on detailed local forecasting models, actual river levels and local flood defence information. When there is a risk of a flood, the Environment Agency aims to issue warnings either via the media or directly to individuals likely to be affected.

Decisions on whether to issue flood warnings also draw on the judgement of Environment Agency Flood Warning Duty Officers.




The Environment Agency have designated specific Flood Warning Areas, which have a heightened risk of flooding. These areas are monitored for changes in weather conditions or rise in river level and warnings are issued based on set thresholds.

In areas that receive the Flood Warning Service, it can be assumed that there will be minimum two hour lead time between the warning and an actual fluvial or coastal flooding situation. The Environment Agency aims to provide a six hour lead time between the warning and an actual tidal or coastal flooding situation.

Even though the Environment Agency aims to issue warnings two hours in advance of an expected flooding situation, it may not always be possible; weather forecasts may be incorrect, warnings may be issued too late or flash flooding may occur suddenly without any prior expectation.

3.2 Environment Agency Warnings

The following codes can be issued in any order, usually ending with a Warning No Longer in Force message.

Flood Warning	What it means	What to do
<p>Flood Alert</p>  <p>FLOOD ALERT</p>	<ul style="list-style-type: none"> • Flooding is possible • Be prepared <p>(issued 2 hours to 2 days in advance of flooding)</p>	<ul style="list-style-type: none"> • Be prepared to act on your flood plan • Prepare a flood kit of essential items • Monitor local water levels and the flood forecast on the EA website
<p>Flood Warning</p>  <p>FLOOD WARNING</p>	<ul style="list-style-type: none"> • Flooding is expected. • Immediate action required <p>(issued half an hour to 1 hour in advance of flooding)</p>	<ul style="list-style-type: none"> • Move family, pets & valuables to a safe place • Turn off gas, electricity and water supplies if safe to do so • Put flood protection equipment in place • Protect yourself and help others
<p>Severe Flood Warning</p>  <p>SEVERE FLOOD WARNING</p>	<ul style="list-style-type: none"> • Severe flooding is expected • There is danger to life <p>(issued when there is a significant threat to life)</p>	<ul style="list-style-type: none"> • Stay in a safe place with a means of escape • Be ready should you need to evacuate your home • Co-operate with the emergency services • Call 999 if you are in immediate danger
<p>Warning No Longer In Force</p>	<ul style="list-style-type: none"> • No further flooding is currently expected for this area <p>(issued when river or sea conditions begin to return to normal)</p>	<ul style="list-style-type: none"> • Be careful, flood water may still be around for several days • If you've been flooded ring your insurance company as soon as possible

3.2.1 Flood Alert

- Applies to flooding for a whole flood plain catchment area i.e. Eastern Yar
- Applies to flooding from additional/other sources related to rivers and the sea, i.e.:
 - sewers unable to discharge into rivers or sea with already high water levels
 - long stretches of coastline

3.2.1 Flood Warning

- Applies to flooding of communities
- Within specific locations - known as Flood Warning Areas
- From water courses designated as main rivers
- From the sea

3.2.2 Severe Flood Warning


- Applies only to areas forecast for a major flooding emergency, where:
 - It is likely to pose danger to life and property
 - Or at least 100 homes or businesses may be flooded

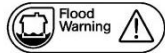
Severe Flood Warnings can be issued before, during or after actual flooding has occurred. However, they will only be issued for a situation that is within the Civil Contingencies Act (2004) definition of an emergency i.e. exceptional flooding with significant risk to life or significant disruption to communities (e.g. Boscastle 2004, Carlisle 2005).

Significant risk to life is defined as being caused by:

- Deep and fast flowing water (e.g. caused by significant overtopping of defences or sudden onset flooding from defence failure)
- Rapid onset flooding
- Presence of debris in the water that could cause death or injury
- Potential/observed collapse of buildings/structures
- The vulnerability of the population or their surroundings (e.g. deep/fast flowing water through a caravan park)

Flood Warning - Example

<p>WARNINGS DIRECT BY PHONE, FAX, MOBILE, PAGER AND EMAIL</p> <p>call Floodline now on 0845 988 1188 or visit www.environment-agency.gov.uk/floodline</p>	
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Important Flooding Information

A Flood Warning has been issued for the Langbridge and Averstone on the Eastern Yar area. Flooding of homes and businesses is expected. Act Now!

SITUATION

A Flood Warning has been issued for the Langbridge and Averstone on the Eastern Yar area.

Locations that may be affected include: Langbridge and Averstone on the Eastern Yar.

River Levels are rising and floodplains are expected to be inundated causing flooding to homes, businesses and roads from rivers, small watercourses, overland flow and surface water problems. Main roads and rail lines may be vulnerable and flood defences may be damaged.

River levels remain high on the Eastern Yar following rainfall on Sunday morning. Further heavy rainfall is forecast from 2 o'clock until lunchtime Monday. River levels are expected to remain high following this rain.

This Flood Warning is now in force until further notice.

ADVICE

The Environment Agency advises that people should act now:

- Ring Floodline on 0845 988 1188 for up to date flooding information, quickdial code; 0121221
- Stay tuned to radio and television weather, news and travel bulletins
- Keep a watch on water levels
- Move family, pets and valuables to safety
- Help neighbours
- Use sandbags or flood boards to block doors and airbricks
- Don't drive through flood water
- Be prepared to turn off gas and electricity supplies

Contact:

Environment Agency Southern Region
Solent & South Downs Area Flood Incident Management Team
Colvedene Court, Wessex Way
Colden Common, Winchester
SO21 1NP
Telephone Floodline on: 0845 988 1188

Time of issue:

This message was issued at 23.02 on Sunday 21 February 2010


Distribution:

Distribution of this fax includes national and local radio and television.
Mtr Office, text/travel services
Fax reference:
S/SSD/PUB/FW072FWF7101A32

KEY TO FLOOD CODES

 Flood Watch Flooding of low lying land and roads is expected. Be aware. Be prepared. Watch out!	 Flood Warning Flooding of homes and businesses is expected. Act now.	 Severe Flood Warning Severe flooding is expected. There is extreme danger to life and property. Act now!	 All Clear Flood Watches or Warnings are no longer in force in this area.
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Severe Flood Warning - Example

<p>WARNINGS DIRECT BY PHONE, FAX, MOBILE, PAGER AND EMAIL</p> <p>call Floodline now on 0845 988 1188 or visit www.environment-agency.gov.uk/floodline</p>	
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Important Flooding Information

A SEVERE FLOOD WARNING has been issued for the Carisbrooke and Hunny Hill on the Lukely Brook area. SEVERE FLOODING is expected. There is extreme danger to life and property. Act Now!

SITUATION

A SEVERE FLOOD WARNING has been issued for the Carisbrooke and Hunny Hill on the Lukely Brook area.

Locations that may be affected include: Carisbrooke and Hunny Hill on the Lukely Brook.

River levels are rising and floodplains are expected to be severely inundated causing significant flooding to homes, businesses and roads, with extreme danger to life and property. Flood defences may be breached.

\$(Situation #1)

This Severe Flood Warning is now in force until further notice.

ADVICE

The Environment Agency advises that people should act now:

- Protect yourself, your family, pets and valuables - floods can kill
- Co-operate with emergency services and the authorities - people may be evacuated from their homes to rest centres
- Ring Floodline on 0845 988 1188 for up to date flooding information, quickdial code; 0121212
- Stay tuned to radio and television weather, news and travel bulletins
- Be prepared to turn off power supplies and be ready for power cuts and loss of services
- Avoid contact with floodwater - it may be contaminated

Contact:

Environment Agency Southern Region
Solent & South Downs Area Flood Incident Management Team
Colvedene Court, Wessex Way
Colden Common, Winchester
SO21 1NP
Telephone Floodline on: 0845 988 1188

Time of issue:

This message was issued at 14:38 on Tuesday 20 July 2010

Distribution:

Distribution of this fax includes national and local radio and television.
Mtr Office, text/travel services
Fax reference:
S/SSD/PUB/SFW072FWF70028(Fax Reference)

KEY TO FLOOD CODES

 Flood Watch Flooding of low lying land and roads is expected. Be aware. Be prepared. Watch out!	 Flood Warning Flooding of homes and businesses is expected. Act now.	 Severe Flood Warning Severe flooding is expected. There is extreme danger to life and property. Act now!	 All Clear Flood Watches or Warnings are no longer in force in this area.
--	---	---	---

3.3 Recipients of Environment Agency Flood Warnings

Wherever possible, the Environment Agency aims to issue warnings at least two hours before flooding starts. Warnings are disseminated to properties (homes and businesses) via a number of routes including:

- Direct automatic voice messaging – Floodline Warnings Direct
- Television and radio broadcasts:
 - BBC South television
 - Meridian Television
 - BBC Radio Solent
 - Isle of Wight Radio
 - Ocean FM
 - Wave FM
- Environment Agency website www.environment-agency.gov.uk
- Ceefax page 419, Teletext page 169
- Volunteer flood wardens
- Loudhailer

The free warning service, Floodline Warnings Direct, provides flood warnings 24 hours a day directly to the public whose properties are at a high risk of coastal and/or fluvial flooding.

The Environment Agency automatically registers property owners in affected areas to receive warning messages via phone (landline or mobile). This service operates on an opt-out basis. Upon request, messages can be additionally received by fax, text, email or pager.

Additionally, the dedicated telephone service, Floodline (0845 988 1188), operates 24 hours a day with trained operators and recorded information that is accessed via Quickdial codes relative to each Flood Warning Area.

For further information in the designated Environment Agency Flood Warning Areas on the Isle of Wight and their Community Flood Risk Summaries, please refer to Section 5 of this Annex.

The Police, Fire and Rescue Service, Ambulance Service, NHS Primary Care Trust and Local Authority on the Isle of Wight have all registered to receive Environment Agency Flood Warnings via email, text and/or fax.

A more detailed list of the individuals, within the above named organisations, that have signed up to receive such warnings is in Annex 3 – Contact Details, within the Environment Agency section.

Section 4 – Standard Terms and Definitions

In an aim to create a common understanding between all those involved in the response to a flood emergency situation and to minimise misinterpretation, below is a list of some standard terms that may be used, along with their definition.

4.1 Sources/Types of Flooding

- **Coastal Flooding**

From the sea, estuary or tide; with severe flooding generally occurring as result of a combination of high astronomical tides and a significant positive surge; caused by stormy conditions and low atmospheric pressure. These conditions may result in sea defences being overtopped or breached

- **Fluvial (River) Flooding**

From a river or watercourse; occurring when it cannot cope with the water draining into it from the surrounding land. This can happen, for example, when heavy rain falls on an already waterlogged catchment

- **Pluvial (Surface Water) Flooding**

Occurring when the capacity of a natural/man-made drainage system is overwhelmed by heavy rainfall (this can be exacerbated by non-permeable surfaces, surface saturation, gradients, etc). This type of flooding is difficult to predict and pinpoint much more so than coastal or fluvial flooding. Urban areas are most often at risk; where drainage networks are likely to have lower capacity and therefore intense rainfall is unable to drain efficiently

- **Groundwater Flooding**

From water levels rising up above the natural surface from underground, or from water flowing from abnormal springs. Occurring after long periods of substantial high rainfall (water infiltrating the ground causes the water table to rise above the normal levels). Ground water flooding is most likely to occur underlain with permeable rocks (aquifers) and takes longer to dissipate

4.2 Effects of Flooding

- **Clear Water Flooding**

Water issues from the ground and is not connected / associated with a fluvial watercourse

- **Flood Zone 2**

Environment Agency mapped outline of land assessed as having a less than 1 in 1000 annual probability of fluvial or coastal flooding in any year (<0.1%)

- **Flood Zone 3**

Environment Agency mapped outline of land assessed as having a less than 1 in 100 and 1 in 1000 annual probability of fluvial flooding (1% 0.1) or between a 1 in 200 and 1 in 1000 annual probability of coastal flooding (0.5% - 0.1%) in any year

- **Property**

All residential dwellings and commercial premises, including occupied mobile homes and caravan sites in low lying coastal zones

- **Flooded Property**

A residential or commercial building where the flood water has entered to a level that has resulted in damage or limitation of use, including basements that are habitable or of commercial use

- **Impacted Property**

A residential or commercial building where flood water that has entered the boundary of the land but not resulted in the property itself being flooded

- **Affected Property**

A residential or commercial building where flood water has affected the utilities (power, water, etc) that supply that property

4.3 Tides

- **Astronomic High Tides**

Tide heights predicted using the position of the earth, moon and sun, based on a 'standard day'. Tide tables show Astronomic Tide predictions, the actual tide height will vary depending on the weather

Insert table

- **High Tide/High Water**

When the tide is at its highest. There are two high tides/high waters each day, approximately 12 hours and 25minutes apart

- **Low Tide/Low Water**

When the tide is at its lowest

- **Tidal Range**

The difference between High Tide and Low Tide.

- Spring Tides (Springs) have the largest tidal range, i.e. the highest high tide and the lowest low tide.
- Neap Tide (Neaps) have the lowest tidal range

Insert table

- **Spring and Neap Tides**

When the earth, sun and moon align, gravitational forces cause a tidal bulge, resulting in higher tides. These are called Spring Tides.

When the sun and moon are not aligned, there is less gravitational forces and a smaller bulge, resulting in lower tides. These are called Neap Tides

The earth's position in relation to the sun and moon is always changing, so the tides are always gradually building towards Springs or falling towards Neaps

Spring Tides occur every fortnight throughout the year with Neap Tides occurring in between. Spring Tides in The Solent occur around midday and midnight, two or three days after a New moon or Full moon

Insert table

- **Tidal Surge**

Astronomical tides are calculated in advance using a standard pressure of 1013mb. Wind velocity and atmospheric pressure on the day will cause the actual tide height to be different. The difference between the Astronomical Tide and Actual or Observed Tide is called the surge. Surges can be both positive (adding to the height) and negative (reducing the height of the tide).

The Met Office provides a forecast of the surge around the UK

- **Actual Tide**

The actual tide height that occurs on the day. The Actual Tide differs from the predicted Astronomical Tide quoted in tide tables due to the surge

- **Ordnance Datum (OD) N**

Is the benchmark datum used to measure land heights across the UK. Mpa contours and sea defence heights relate to this datum

- **Chart Datum (CD)**

A local datum for sailors and mariners based on the Lowest Astronomical Tide. Therefore, 0.0m Chart Datum is the Lowest Astronomical Tide. This varies from harbour to harbour, hence Chart Datum is different at Portsmouth, Southampton, Lymington and Cowes

Insert table

- **Return Periods**

These are a measure of the probability of a given tide level occurring in any one year. The Environment Agency Flood Warning Area Maps are based on the occurrence of a 1 in 200 year of 1 in 1000 year flooding situation

- 1 in 200 year – a tide with a 0.5% chance of happening in any year
- 1 in 1000 year – a tide with a 0.1% chance of happening in any year

4.4 Wind

- **Wind Speed**

A measurement of the strength of the wind. Wind speed can be measured in three standard units:

- metres per second
- knots per second
- Beaufort Force

All three units are interchangeable

- **Wind Force**

Is measured between categories of one and twelve on the Beaufort Scale. It is also descriptive scale of wind conditions. i.e. a Force 3 wind is a “gentle breeze”

Insert table

- **Wind Direction**
Measured in degrees and/or compass points, identifying the direction that the wind is coming from. 0° and 360° are Northerly winds
- **Veering**
A change in wind direction clockwise i.e. South Westerly to Westerly
- **Backing**
A change of wind direction anticlockwise i.e. South Easterly to Easterly

Insert table

4.5 Waves

- **Wave Direction**
Measured in degrees and/or compass points. Wave direction identifies the direction the waves are coming from. 0° and 360° are Northerly waves
- **Wind-Waves**
Generated by local wind conditions
- **Swell-Waves**
Generated in a different location and have moved out of the generating area, or generated some time ago. Swell-waves can often have more energy than locally formed waves

- **Total Waves**

A representation of both the Wind-Wave and Swell-Waves, which may be present at the same time

The following definitions can apply to any type of wave:

- **Wave Height**

The distance between the Crest (top) and the Trough (bottom) of the wave. Wave Height is often measured using the term Significant Wave Height. Significant Wave Height is the average Wave Height of the one-third largest Waves

- **Wavelength**

The distance between two Wave Crests

- **Wave Period**

The time it takes two successive waves to pass a fixed point

Insert table

4.6 Sea Defences

- **Defences**

Are owned and maintained by many different organisations, including:

- The Environment Agency
- Local Authority
- Private Owners

Can be classed as:

- Hard Defences i.e. sea walls
- Soft Defences i.e. beaches or shingle banks

The condition of the defence should be taken into consideration when attempting to predict flooding. Defences in poor or damaged condition (perhaps from earlier storm situations) may be more susceptible to flooding

- **Overtopping**

Occurs when waves crash against a defence, with the resulting water flowing, wave breaking or wind-blown spray travelling over the top of the defence. This does not usually result in serious damage to sea defences themselves. During periods of high water levels, extreme wave action or wind-blown spray, moderate amounts of water can pass over the defences. The resulting damage will depend on the drainage available behind the defences

- **Overwashing**

Occurs when the tide level is higher than the defence. Water can then simply flow over the top of the defence

- **Breaching**

Will generally result from damage to some part of the flood defence, resulting in the lowering of the top level of the defence, allowing possible large amounts of water to flow through

4.7 Forecasting

The Environment Agency uses Met Office forecast data to predict the Actual Tide Level and sea conditions for forthcoming tides.

The National Oceanographic Centre provides the Environment Agency with Astronomical Tide forecasts.

The Met Office take observations of the atmosphere, and run a Numerical Weather Prediction (NWP), using complex mathematical models. The National Water Prediction forms the basis of the weather forecasts:

- Wind forecasts
- Wave forecasts
- Surge forecasts

Which are provided to the Environment Agency and other organisations.

Forecast data is provided for the ensuing 36 hour period, four times per day.

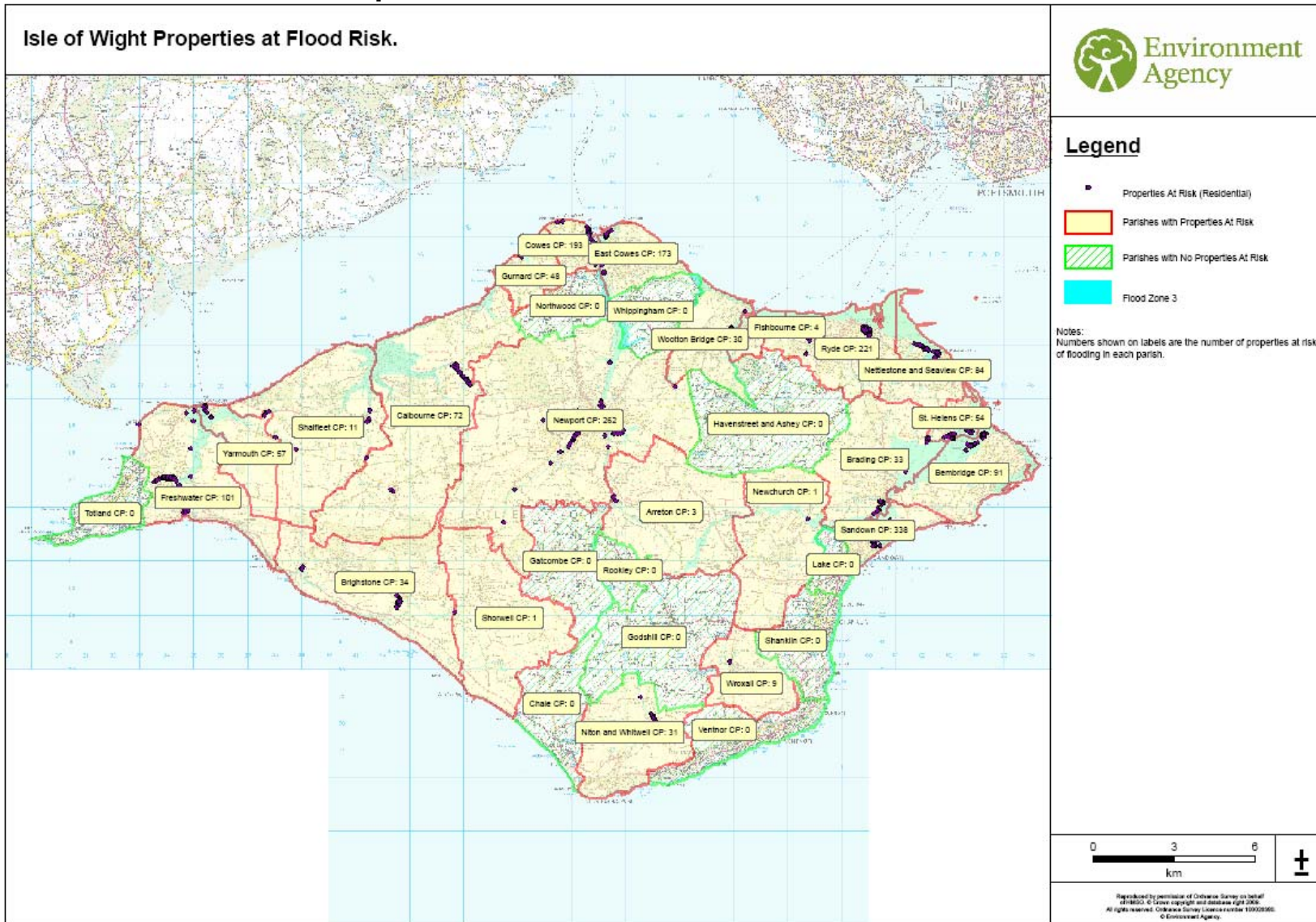
It is often difficult to accurately capture the initial conditions which go into the Numerical Weather Prediction models. 'Ensemble' forecasts are now recently starting to be used. Ensemble forecasting systems produce multiple forecasts by changing the initial conditions ever so slightly, and re-running the model, generating many results. An Ensemble forecast system is designed so that each forecast should be equally as likely to occur.

When the results produced by the different forecasts are similar, then we have higher confidence in the forecast and when the results are very different we have lower confidence.

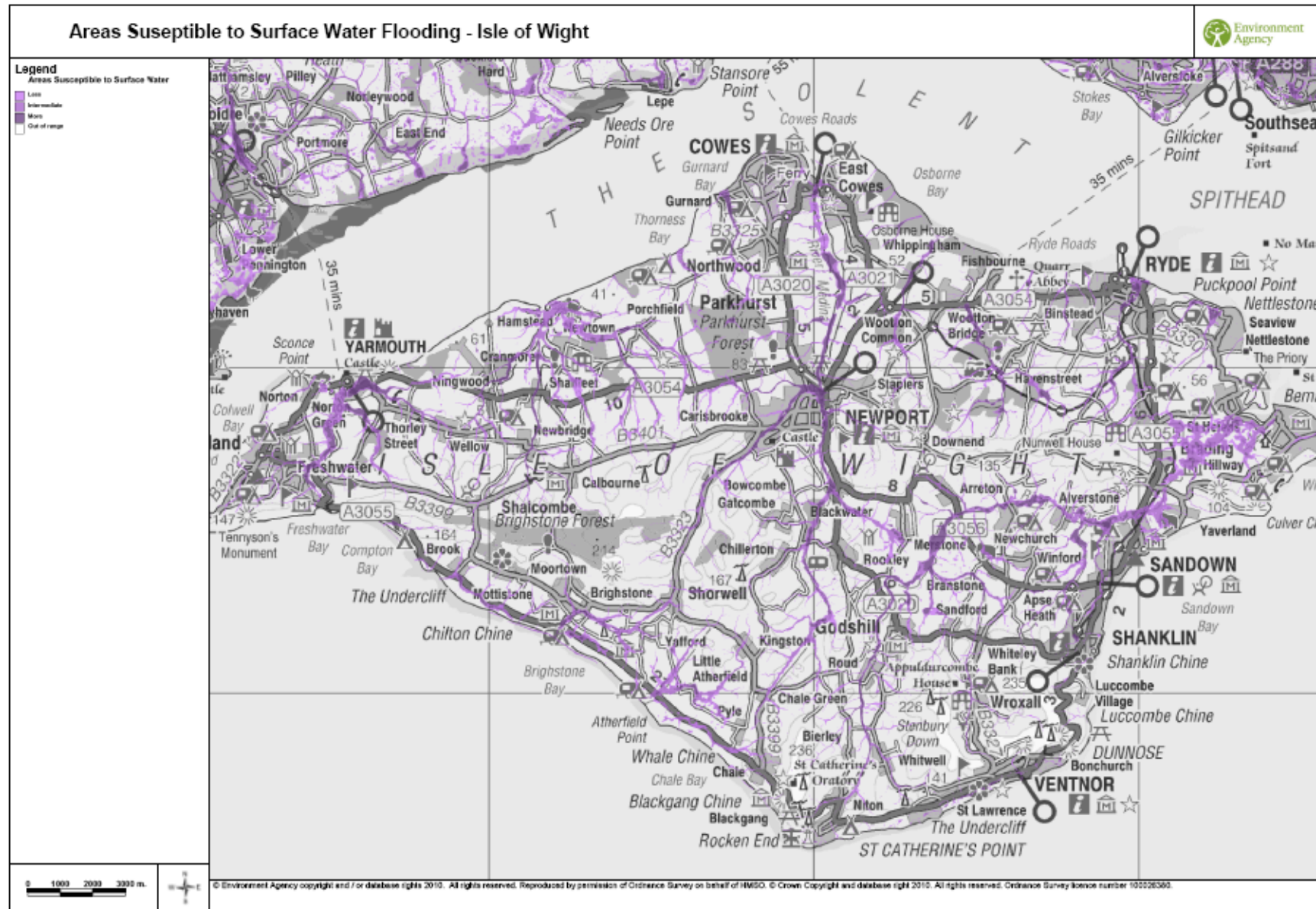
Forecasts generally decrease in accuracy as they move further from their start time.

Section 5 – Flood Risk Information Maps

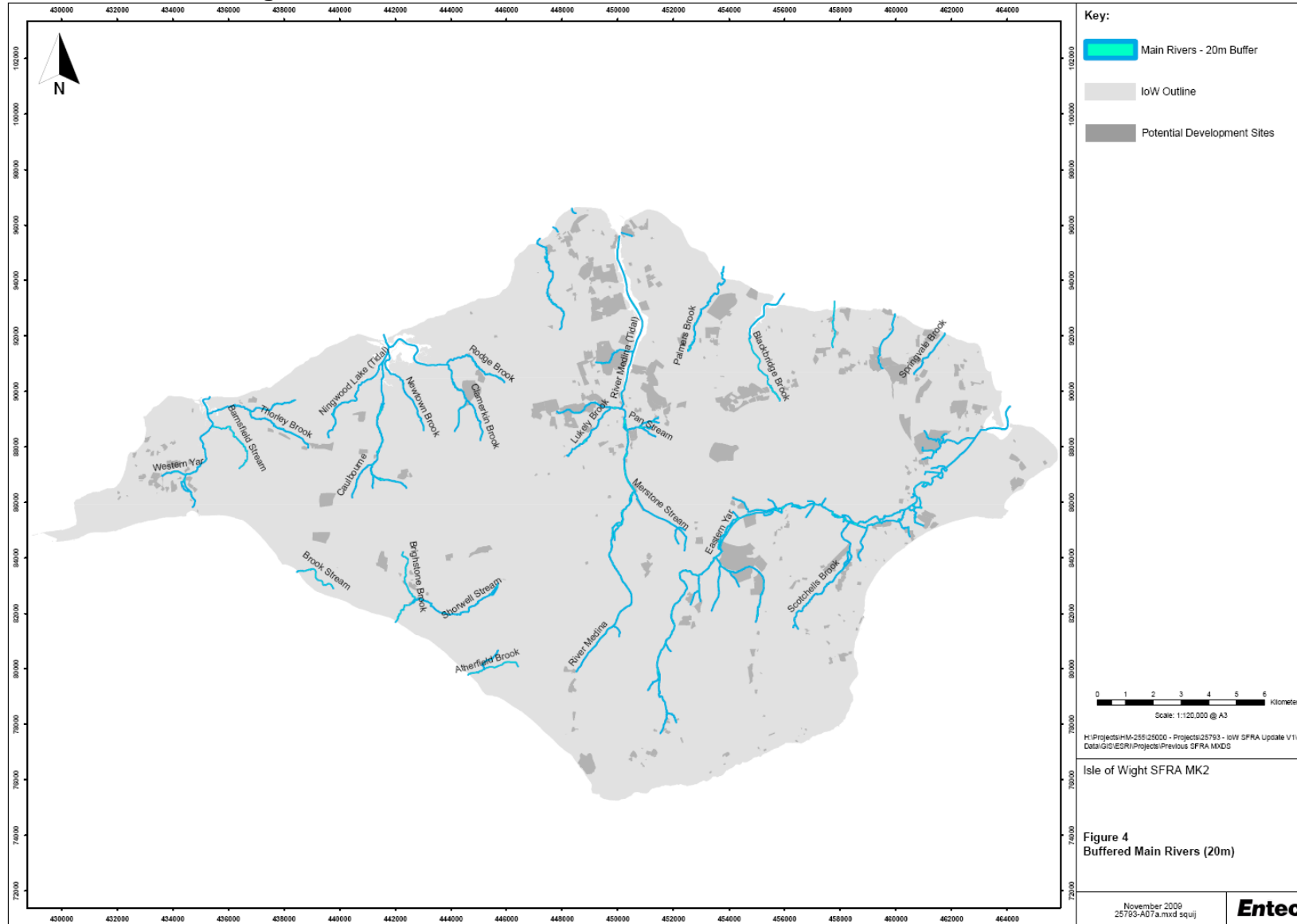
5.1



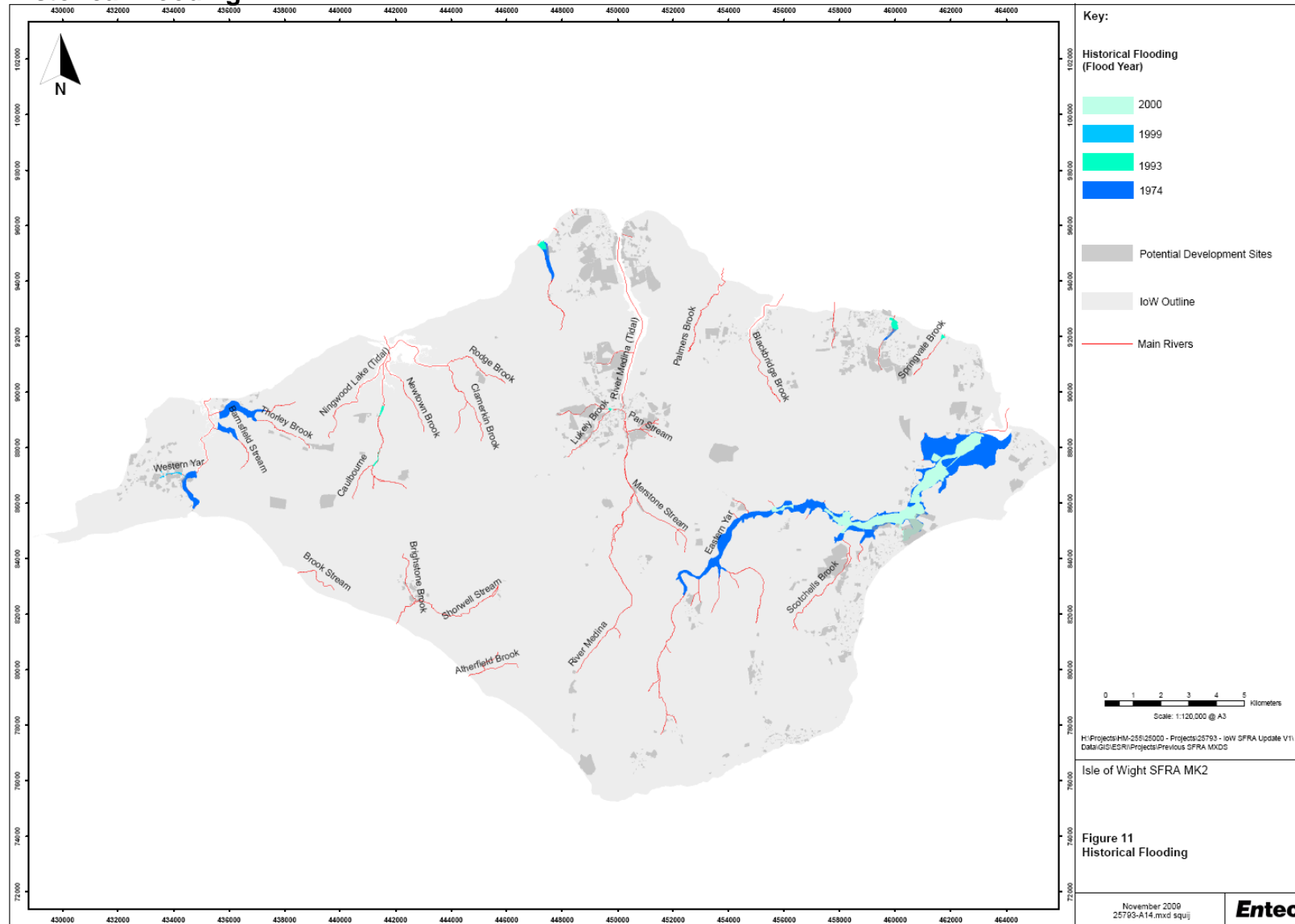
5.2



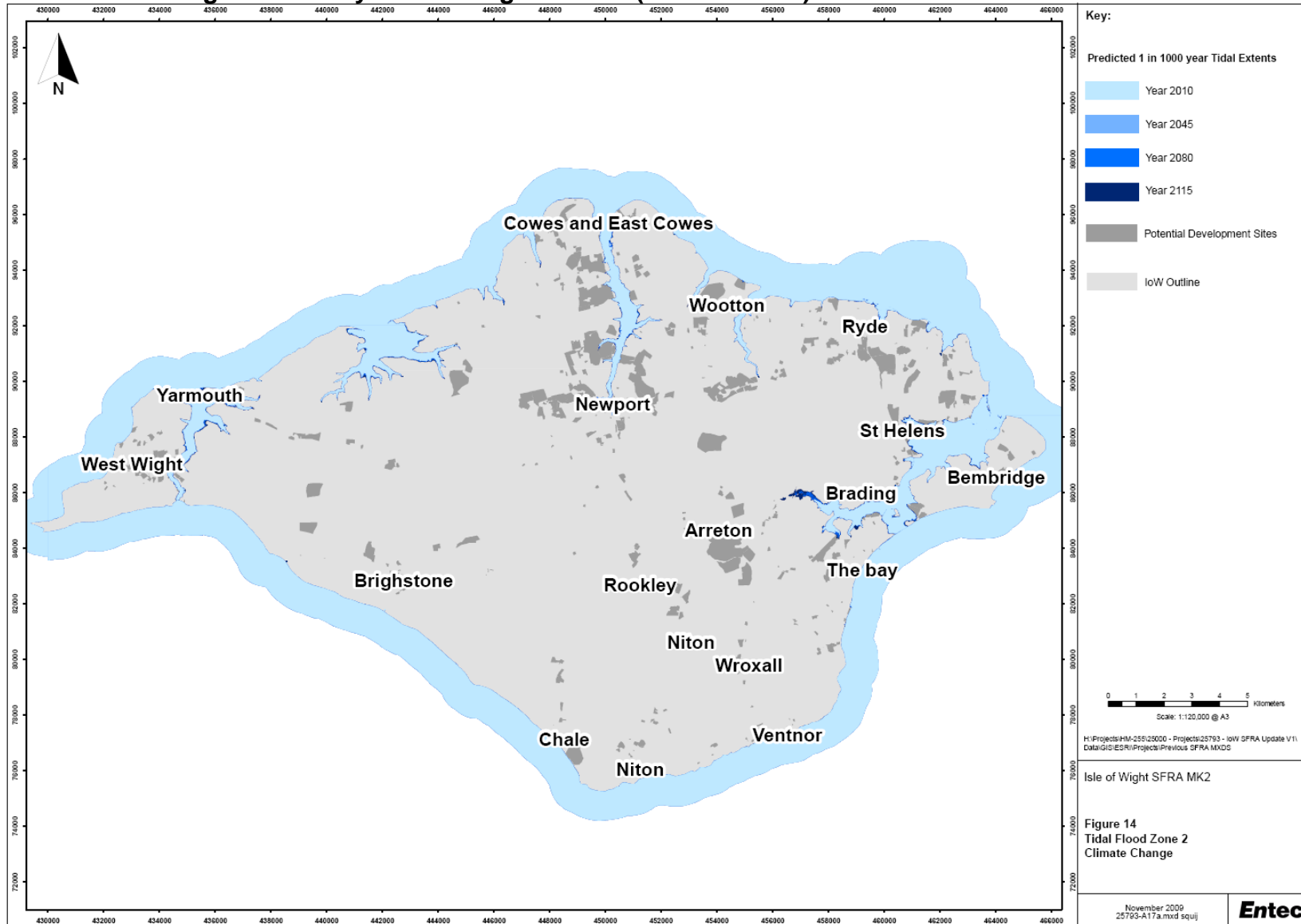
5.3 Water Courses - designated as Main Rivers



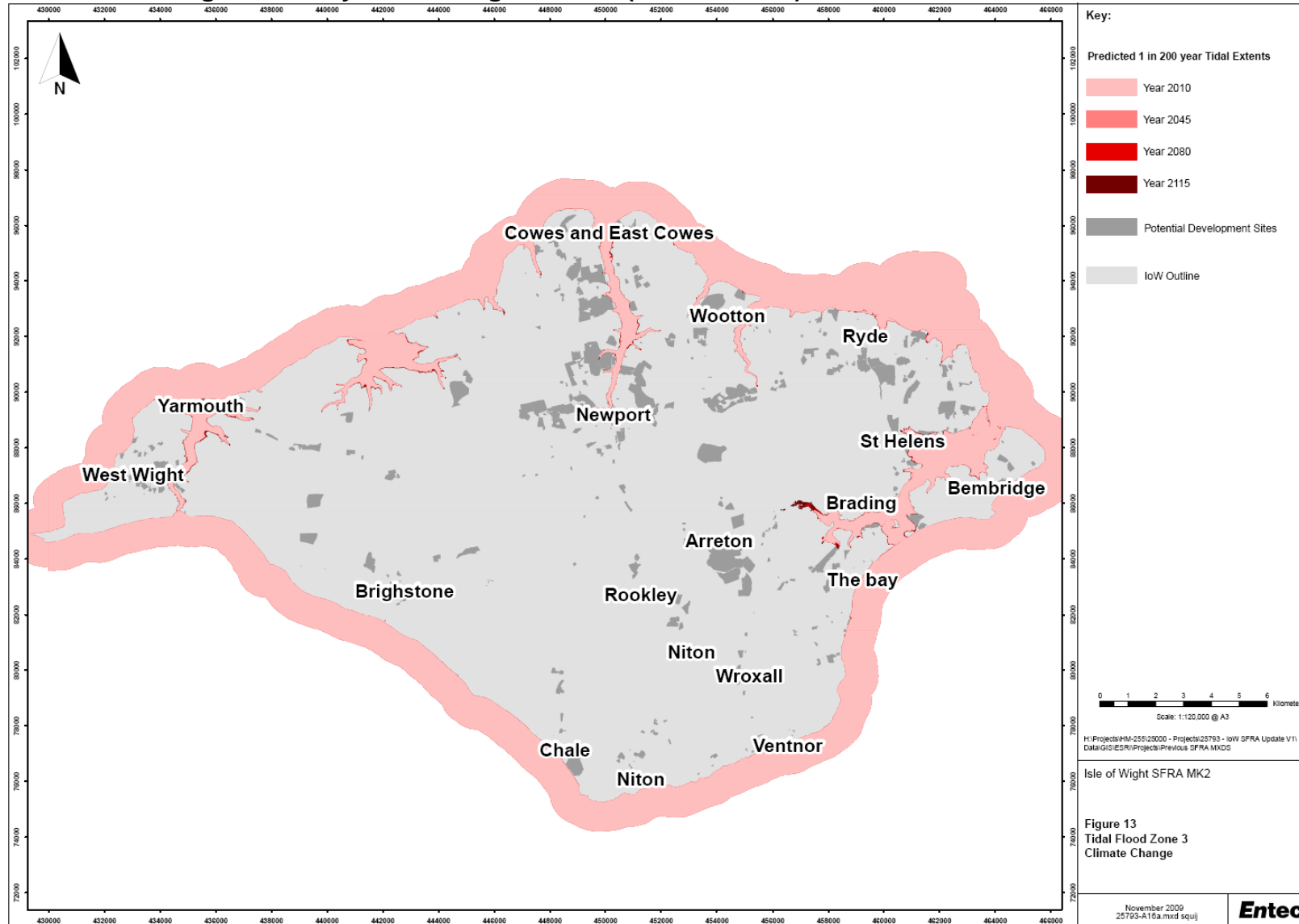
5.4 Historical Flooding



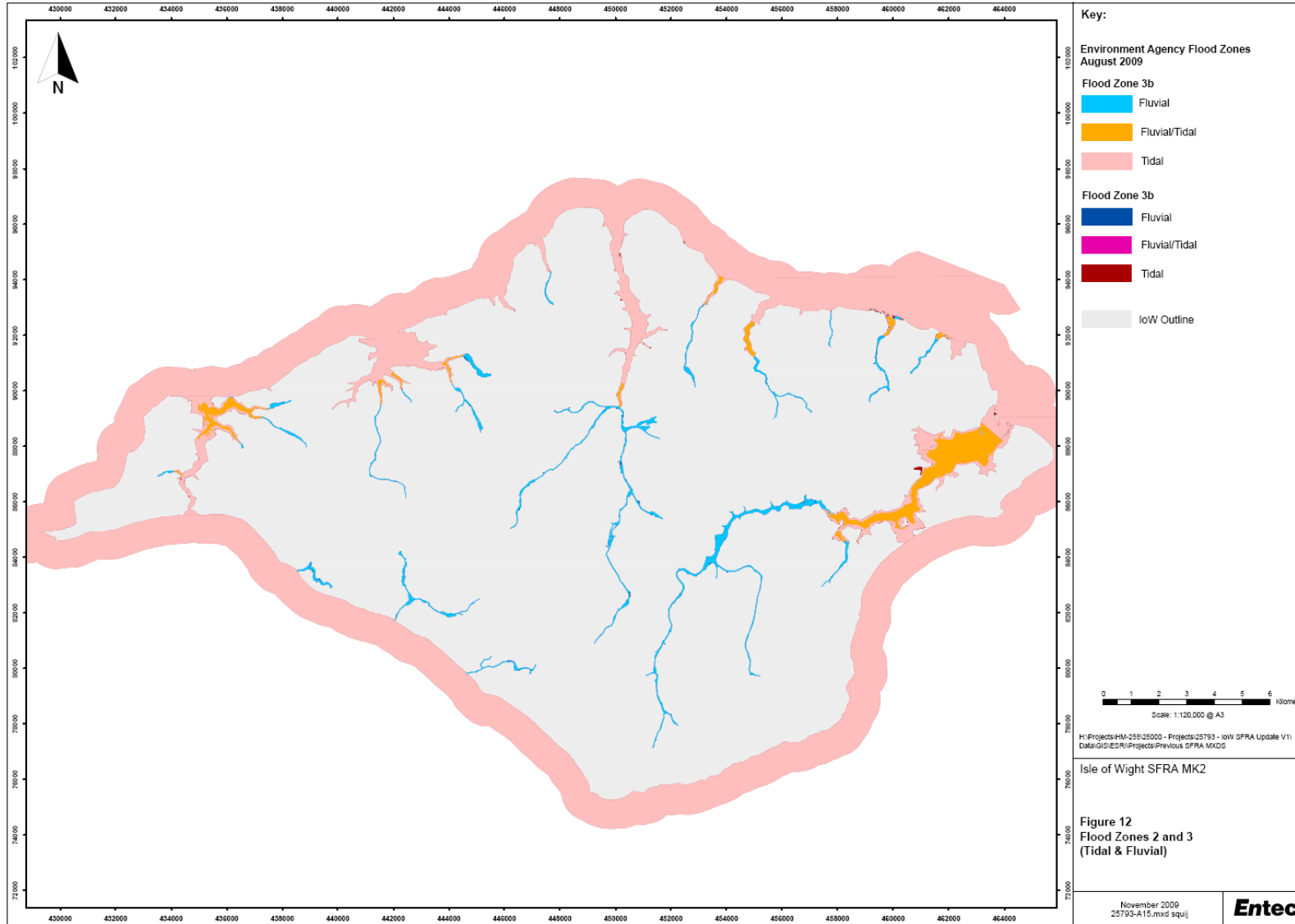
5.5 Coastal Flooding – 1 in 1000 year flooding situation (Flood Zone 2)



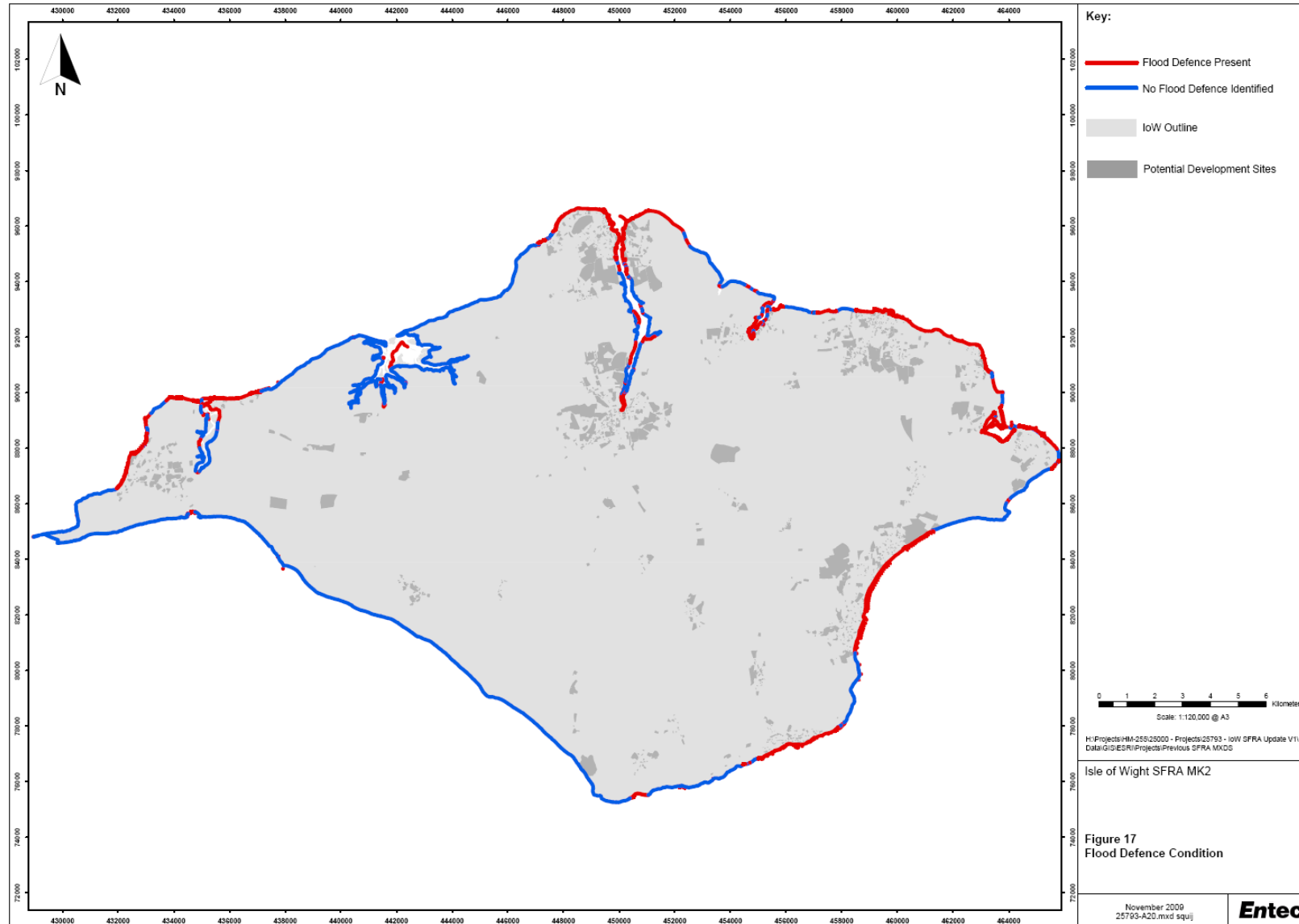
5.6 Coastal Flooding - 1 in 200 year flooding situation (Flood Zone 3)



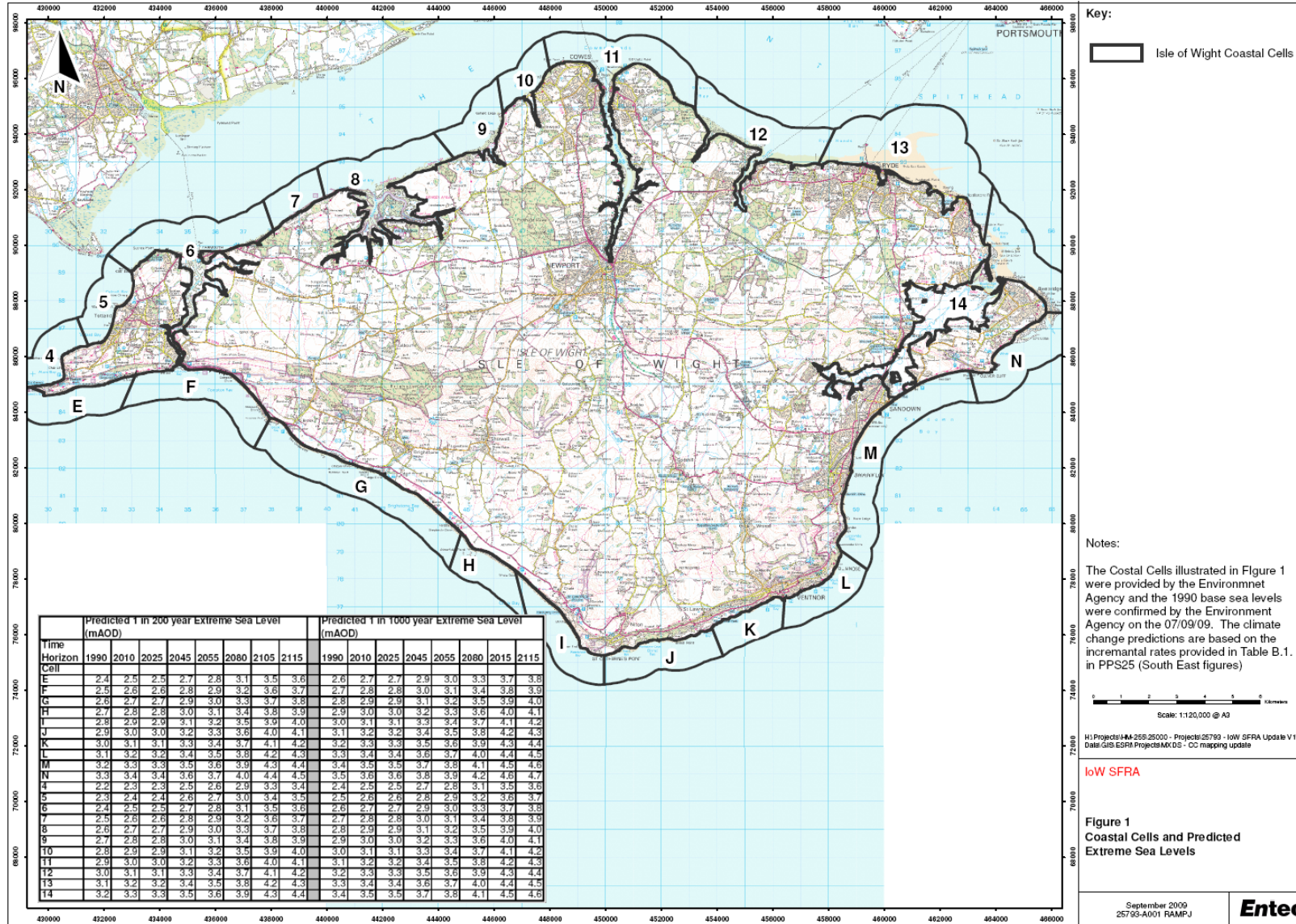
5.7 Coastal and Fluvial Flooding – for 1 in 200 year and 1 in 1000 year flooding situation



5.8 Flood Defence Locations



5.9 Coastal Cell Designations and table of predicted Extreme Sea Levels



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Section 6 - Flood Warning Areas

Flood Warning Areas are locations within a community that have been designated by the Environment Agency as being at the highest risk of coastal and/or fluvial flooding.

Dedicated telemetry instruments monitor the affect of weather (rainfall or a rise in river levels) and flood warnings are issued upon the telemetry threshold being reached in combination with the additional expert judgement of the Environment Agency Flood Warning Duty Officer at the time.

Property owners that are at risk of coastal and/or fluvial flooding are automatically subscribed to the Environment Agency Flood Warning Service 'Floodline Warnings Direct'. Upon receipt of a Flood Alert, Flood Warning or Severe Flood Warning, property owners are provided with a telephone number and quick dial reference number to obtain further specific information for their area.

As detailed in Section 3.2, Environment Agency flood warnings are issued in stages - Flood Alert, Flood Warning, Severe Flood Warning.

However, it is relevant to note that the entire coastline of the Isle of Wight (as a collective of individual coastal flood warning areas) is a designated Flood Warning Area in itself - at the level of Flood Alert. Once the risk increases, separate Flood Warnings / Severe Flood Warnings are issued for each specific coastal area at risk.

Similarly, the whole of the Eastern Yar is a designated Flood Warning Area in itself - at the level of Flood Alert. Once the risk increases, separate Flood Warnings / Severe Flood Warnings are issued for each specific fluvial area at risk along the Eastern Yar.

6.1 Communities at a high risk of flooding, provided with a Flood Warning Service

Flood Warning Area	Type of Flooding	Number of Properties At Risk
Bembridge	Coastal	105
Carisbrooke and Hunny Hill on the Lukely Brook	Fluvial	196
Cowes, East Cowes and Newport	Coastal	614
Freshwater on the Western Yar	Fluvial	113
Gurnard	Coastal	50
Gurnard on the Gurnard Luck	Fluvial	46
Langbridge and Alverstone on the Eastern Yar	Fluvial	4
Newport on the River Medina	Fluvial	15
Ryde	Coastal	22
Ryde on the Monktonmead Brook	Fluvial	349
Sandown	Coastal	362
Sandown, Brading and Bembridge on the Eastern Yar	Fluvial	423
Wootton and Seaview	Coastal	126
Yarmouth	Coastal	154
		Total 2579

The Environment Agency's designated Flood Warning Areas on the Isle of Wight are mapped on the following pages. These are produced as a result of topographic, modelled and historical information.

In addition to the designated Flood Warning Areas, it is acknowledged that there are other areas that are susceptible to and at some risk of fluvial and pluvial flooding. However, it is not considered that these other areas are at as great a risk as those designated to receive the Flood Warnings Direct Service. Additionally, there is not sufficient modelled or historical data at this time to provide an accurate warning service for pluvial flooding.

6.2 Community Flood Risk Summaries

Community Flood Risk information is also detailed on the following pages and aims to compliment the Flood Warning Area maps.

The Environment Agency has provided the information detailed under the headings:

- Area Description
- Type of Flooding, Estimated Return Period, Lead Time from Warning to Impact
- Floodline Warnings Direct Target Area Reference Code
- Floodline Warnings Direct Telephone Number & Quick Dial Reference
- Number of Properties At Risk
- Number of Properties signed up to Floodline Warnings Direct
- Flood History
- Flood Defences And Assets

The Local Authority has compiled the information detailed under the headings:

- Infrastructure at Risk
- Other at Risk
- Local Authority Designated Rest Centres
- Other Known Possible Temporary Shelter

The term Infrastructure defines any facility, service and installation needed for the functioning of a community or society, including:

- Utility installations / systems (water, energy, telecommunication)
- Transportation routes
- Category 1 responder facilities
- Health provision facilities
- Food provision facilities
- Banking and Financial services

Therefore, 'Infrastructure at Risk' defines that the location of the facility, service or installation is in or near to a flood warning area, which could become flooded or access to it be restricted.

There are no infrastructure sites, assets, systems or functions on the Isle of Wight that are designated by the government as having a Critical National Infrastructure status, which are so vital that their incapacity or destruction would have a debilitating impact on economic security and/or public health and/or safety on a national scale.

'Other at Risk' defines buildings known to be used by those who have a known vulnerability status or the potential to become vulnerable if the property becomes at risk or access to it is restricted, including:

- Schools & Nurseries
- Care and residential facilities
- Campsites

The information detailed within Infrastructure at Risk and Other at Risk is only as accurate as at the time of publication and does not aim to be exhaustive or identify all possible risks entities.

6.3 Causes of Flooding in the Main Catchments

Location	Key Issues of Flooding
Eastern Yar	<ul style="list-style-type: none"> • Rainfall runoff leading to surface water flooding • Structure blockages impeding drainage in the upper catchment • High groundwater levels imposing a high baseflow on the river • Overbank flooding as a result of insufficient channel capacity • Lower catchment is reclaimed from the sea and below high tide level • Tide locked sluice • Surge tide overtopping
River Medina	<ul style="list-style-type: none"> • Tidal flooding • Problem with intervention in the channel impeding free drainage • High water levels in the Lukely Brook tributary • Flash response to storm events reported in Merston Brook
Western Yar	<ul style="list-style-type: none"> • Flash catchment with rapid response to rainfall • River flooding unable to drain • Tide locking
Gurnard Luck	<ul style="list-style-type: none"> • Tide locking
Monktonmead Brook	<ul style="list-style-type: none"> • Flash urban catchment • Tide flap and supporting pumping during high flow • Sewer flooding

Isle of Wight Catchment Flood Management Plan Scoping Report (Feb 2007)

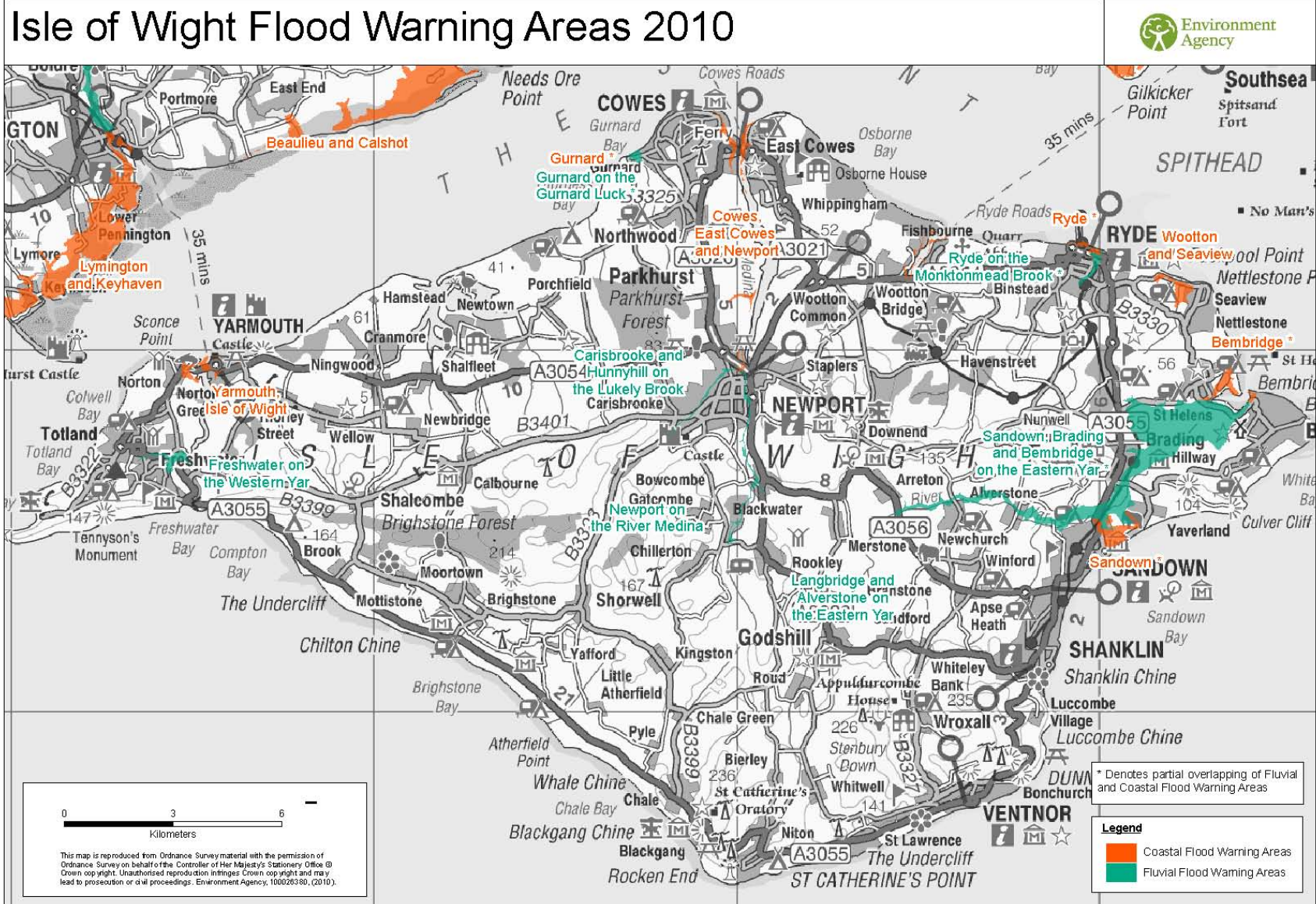
The Isle of Wight Catchment Flood Management Plan Scoping Report notes that prior to 2000 there are a limited number of records of fluvial flooding on the Island. Flood situations affecting more than 10 properties appear to be quite low, with the exception of Ryde, which has a long history of flooding dating back over 100 years.

6.4 Key Flood Risk Locations based on 2000/2001 Flooding Situations

Watercourse	Location	Cause	Properties Impacted	Previous Recorded Flooding Situations
Monktonmead Brook	Ryde	Pump Failure / drainage	20, 74	1914, 1662, 1971, 1974, 1975, 1989, 1993, 1999
River Medina	Newport	Fluvial, drainage, tide locking	8	1934, 1951, 1960/61 (150 properties), 1993, 1999
Western Yar	Freshwater	Extreme rainfall, drainage	1	1954, 1968, 1999 (45 properties)
Eastern Yar	Small numbers of properties at several locations	Drainage, fluvial	Less than 10 at 11 locations	1934, 1954, 1960

Isle of Wight Catchment Flood Management Plan Scoping Report (Feb 2007)

6.5



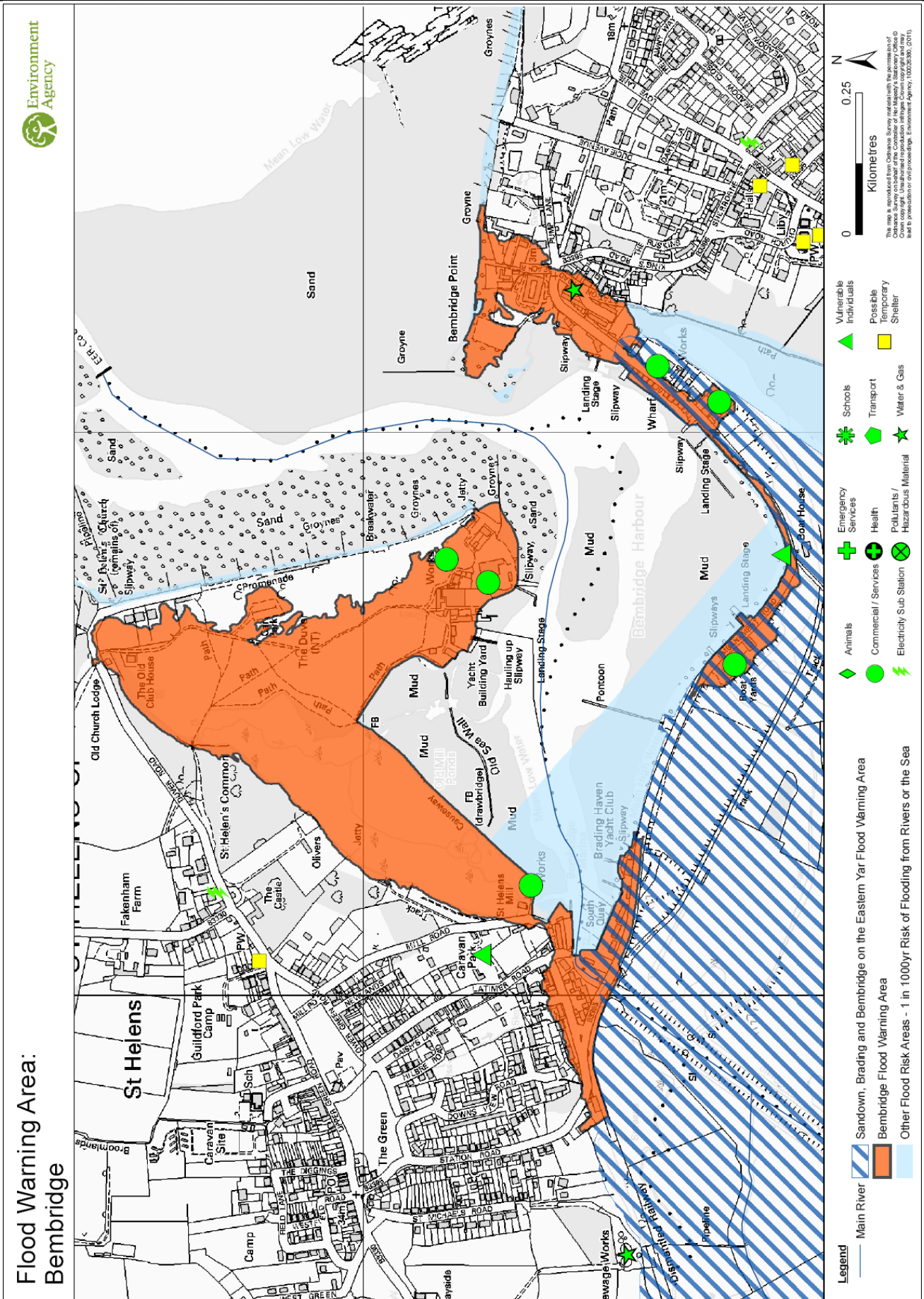
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Contents

Section 6 – Flood Warning Areas		Page Number
Bembridge	Coastal	301
Carisbrooke and Hunny Hill on the Lukely Brook	Fluvial	305
Cowes, East Cowes and Newport	Coastal	309
Freshwater on the Western Yar	Fluvial	317
Gurnard	Coastal	321
Gurnard on the Gurnard Luck	Fluvial	325
Langbridge and Alverstone on the Eastern Yar	Fluvial	329
Newport on the River Medina	Fluvial	333
Ryde	Coastal	341
Ryde on the Monktonmead Brook	Fluvial	347
Sandown	Coastal	353
Sandown, Brading and Bembridge on the Eastern Yar	Fluvial	359
Wootton and Seaview	Coastal	365
Yarmouth	Coastal	371

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BEMBRIDGE



Community Flood Risk Summary

Environment Agency Information

Area Description	Coastal areas at Bembridge. This Flood Warning Area runs adjacent to Sandown, Brading and Bembridge on the Eastern Yar Flood Warning Area		
Type of Flooding	Coastal	Lead Time from warning to impact	2 hours
Estimated Return Period	1:100 years		
Floodline Warnings Direct Target Area Reference Code	072FWC8303	Floodline Warnings Direct Telephone Number & Quick Dial Reference	0845 988 1188 Ref.012117
Number of Properties at Risk	105	Number of Properties Signed Up to Floodline Warnings Direct	62
Flood History	Oct 2000: 3 properties flooded in High Street and Steyne Road, probably as a result of surface water and high groundwater levels		
	Dec 2003: At least 2 properties flooded in Fishermans Walk and Steyne Road and further flooding of cellars in Binstead Road occurred as a result of sewer backup		
	Oct 2005: Flooding at Bembridge and St Helens Harbours and in the vicinity of Home Farm		
Flood Defences And Assets	There are no known Environment Agency flood defences in this area. Other defences not owned or operated by the Environment Agency exist		

Local Authority Information

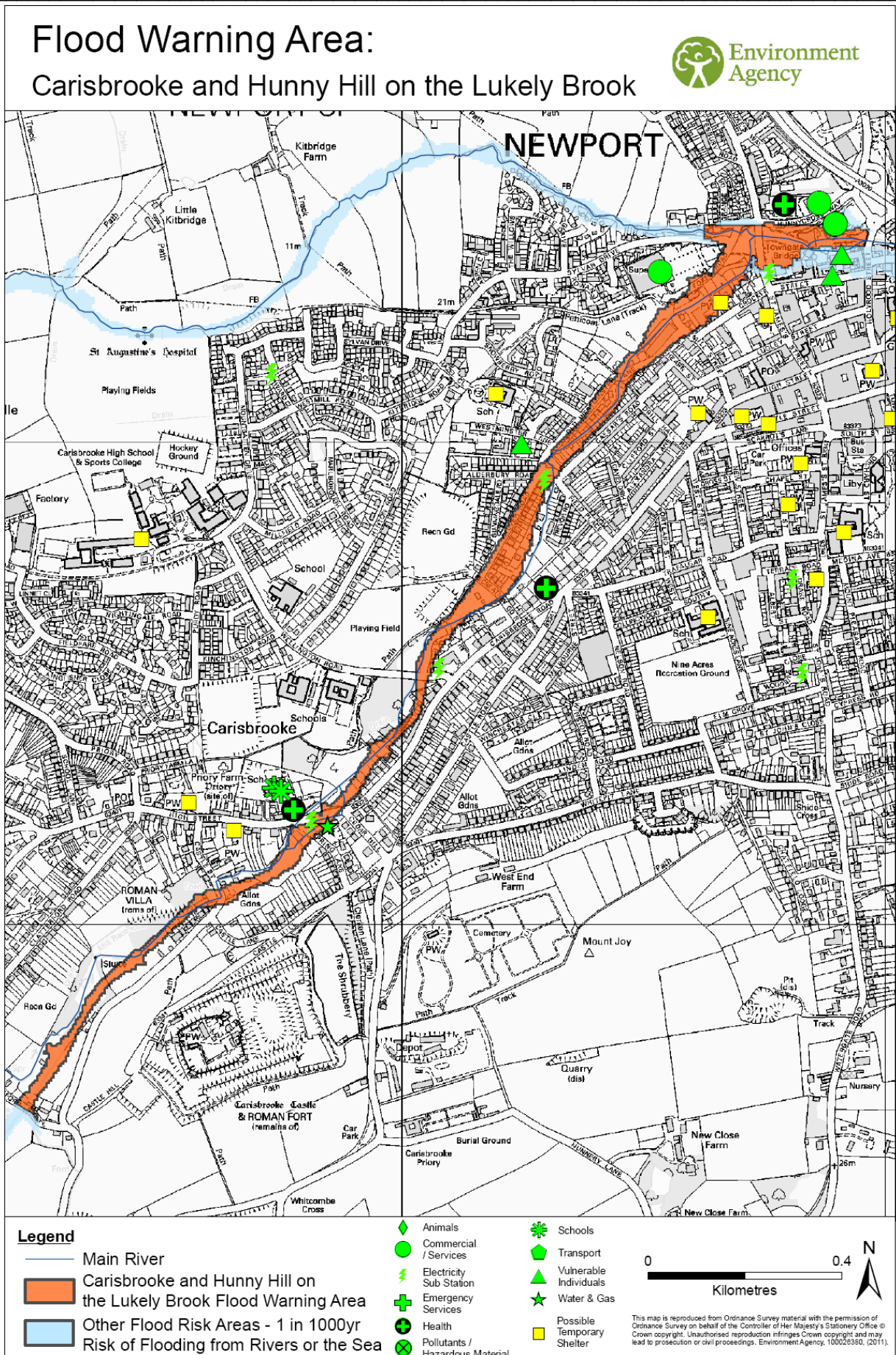
<p>Infrastructure at Risk</p> <p>refer to: Local Authority Emergency Response Plan Annex 3</p>	<p>Water/Gas</p> <ul style="list-style-type: none"> Southern Water Sewage Works at end of Magdella St Michaels, St Helens PO33 1YJ Southern Water Pumping Station, Bembridge PO35 5NP <p>Electricity</p> <ul style="list-style-type: none"> Electricity Sub Station, Embankment Road, Bembridge PO35 5NS <p>Transport</p> <ul style="list-style-type: none"> Bembridge Airport
<p>Other at Risk</p> <p>refer to: Local Authority Emergency Response Plan Annex 3</p>	<p>Vulnerable Individuals</p> <ul style="list-style-type: none"> The Old Mill Holiday Park, Mill Road, St Helens, Ryde PO33 1UE Privately owned boathouses in Bembridge Harbour PO35 5NS Information provided by NHS PCT & LA Social Care GIS databases <p>Commercial/Services</p> <ul style="list-style-type: none"> Woodnuts (Yacht Building) Yards, The Duver, St Helens PO33 1YB Boat Yards, Embankment Rd, Bembridge PO35 5NR/PO33 2DL x3 Works at: St Helen's Mill, The Duver and along Embankment Road near to Bembridge Point Works, Bembridge PO35 5HR <p>Pollutants and Hazardous Materials</p> <ul style="list-style-type: none"> Locations of commercial premises that contain significant pollutants and hazardous materials will be known to the Environment Agency and Fire and Rescue Service
<p>Local Authority Designated Rest Centre</p>	<p>refer to: Local Authority Emergency Response Plan Annex 3</p>
<p>Other Known Possible Temporary Shelter</p> <p>refer to: Local Authority Emergency Response Plan Annex 3</p>	<ul style="list-style-type: none"> Parish Council Offices, 5 Forelands Road, Bembridge PO35 5XN Community Centre, Steyne Park, Steyne Rd, Bembridge P035 5UL Village Hall, High Street, Bembridge PO35 5SD The Cloisters, High Street, Bembridge PO35 5SE Methodist Church Hall, Foreland Road, Bembridge PO35 5UD St Helen's Community Centre, Upper Green Road, St Helens, Ryde PO33 1UD St Helens Community Centre, Guildford Road, St Helens PO33 1UH

The locations listed within Infrastructure at Risk and Other at Risk are only as accurate as at the time of publication and do not aim to be exhaustive or identify all possible risks entities.

This information relates to coastal flooding. For additional information relevant to fluvial flooding:

- Also see:** Sandown, Brading and Bembridge on the Eastern Yar Community Flood Risk Summary

CARISBROOKE & HUNNY HILL on the LUKELY BROOK



Community Flood Risk Summary

Environment Agency Information

Area Description	Carisbrooke and Hunny Hill on the Lukely Brook		
Type of Flooding	Fluvial	Lead Time from warning to impact	2 hours
Estimated Return Period	1:20 years		
Floodline Warnings Direct Target Area Reference Code	072FW7002	Floodline Warnings Direct Telephone Number & Quick Dial Reference	0845 988 1188 Ref. 0121212
Number of Properties at Risk	196	Number of Properties Signed Up to Floodline Warnings Direct	102
Catchment Response	River flooding is aggravated by tidal factors that limit the discharge of floodwater to the estuary		
Flood History	1960: Severe flooding occurred on the River Medina		
	Dec 1993: 6 properties in St James Street, Hunnycross Way and St Cross Lane, Forest Hills, Nunnery Lane, Gunville Road and Wyatts Lane flooded due to a blocked weedscreen		
	Dec 1999: Surface water caused 3 properties in St Cross Lane to flood		
	Oct-Nov 2000: Surface water caused 7 properties in Garden Way, Fairlee Road, St Cross Lane, Forest Hills, Nunnery Lane, Gunville Road and Wyatts Lane to flood		
	Sep 2008: Flooding of Priory Road and High Street		
Flood Defences and Assets	<p>In response to the incidents during the 1960s a comprehensive flood relief scheme for 4km of the River Medina and another for the Lukely Brook between Towngate and Westminster Mill were installed by the IOW Rivers Authority. These schemes improved retaining walls, removed construction, re-aligned the channel and provided seven velocity control weirs.</p> <p>Since 1993 the Lukely Brook weed screen upstream of the Brewery culvert has been improved. Estimated channel capacity for the Medina through Newport is in excess of the 1 in 100 year flood and between Blackwater and Chale Green a 1 in 10 year standard. The Lukely Brook scheme was designed to cope with a 1 in 100 year flood but flooding to property upstream of the Brewery culvert continues during heavy rainfall. There are other defences which are not owned or operated by the Environment Agency. These are not listed in this section.</p>		

Local Authority Information

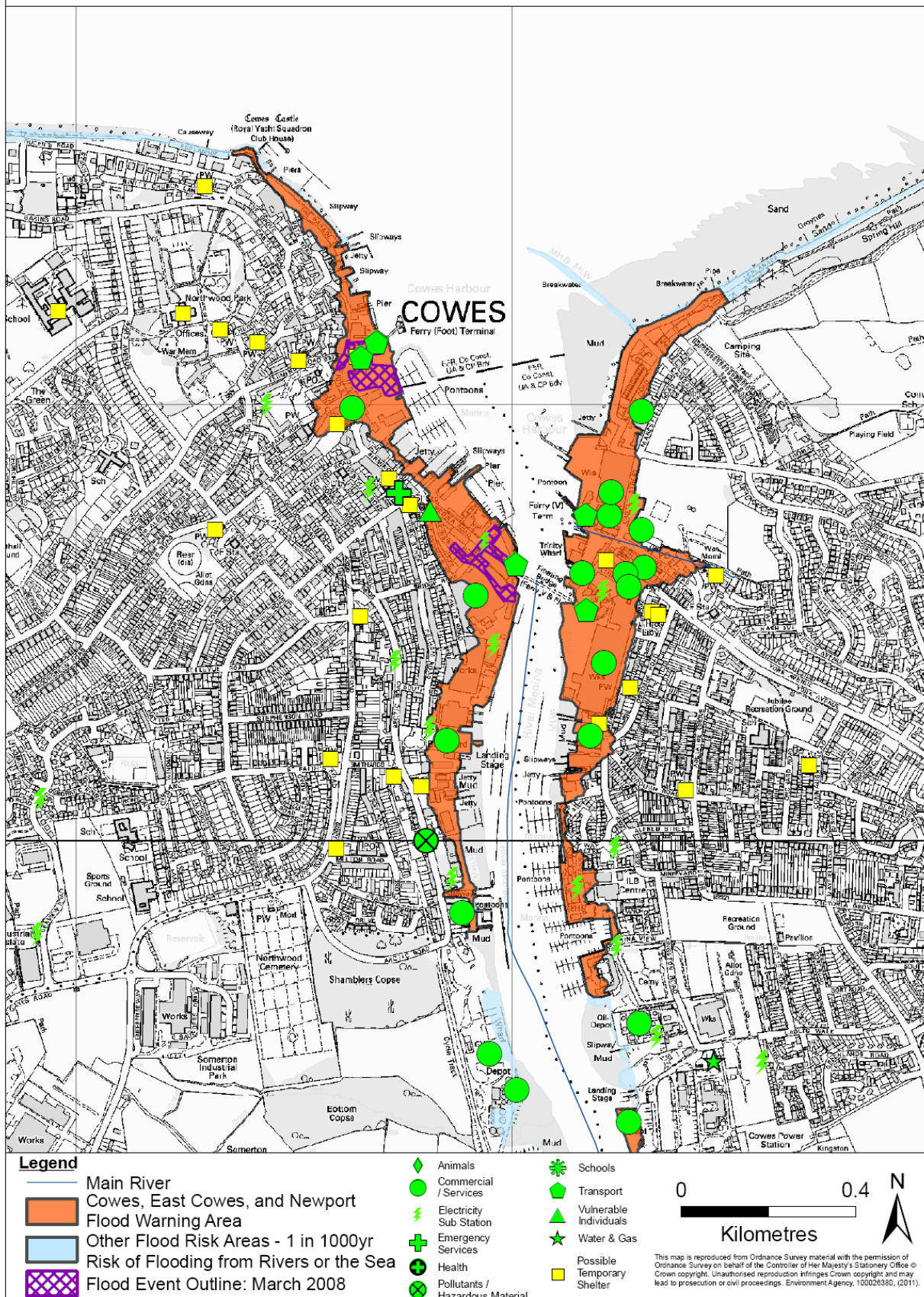
<p>Infrastructure at Risk</p> <p>refer to: Local Authority Emergency Response Plan Annex 3</p>	<p>Water/Gas</p> <ul style="list-style-type: none"> Southern Water Water Supply Works, Carisbrooke High Street <p>Transport</p> <ul style="list-style-type: none"> Highway B3323 Carisbrooke Road <p>Health</p> <ul style="list-style-type: none"> Buccleuch House, 102 Carisbrooke Road PO30 1DB (50m from Flood Warning Area) Carisbrooke Health Centre, 22 Carisbrooke High Street PO30 1NR (30m from Flood Warning Area) Red Cross Ambulance HQ, Hunnycross Way, Newport PO30 5ZD
<p>Other at Risk</p> <p>refer to: Local Authority Emergency Response Plan Annex 3</p>	<p>Schools</p> <ul style="list-style-type: none"> St Thomas of Canterbury RC Primary School, Carisbrooke High Street PO30 1NR (c.40m from Flood Warning Area) Bluebell Pre-School, Carisbrooke High Street PO30 1NR (c.40m from Flood Warning Area) <p>Vulnerable Individuals</p> <ul style="list-style-type: none"> Westminster House Resource Centre, Westminster Lane, Newport PO30 5DP Information provided by NHS PCT & LA Social Care GIS databases <p>Commercial/Services</p> <ul style="list-style-type: none"> Sainsbury Supermarket & Fuel Station, Foxes Road PO30 5ZB Lidl Supermarket, Riverway PO30 5GL <p>Pollutants and Hazardous Materials</p> <ul style="list-style-type: none"> Locations of commercial premises that contain significant pollutants and hazardous materials will be known to the Environment Agency and Fire and Rescue Service
<p>Local Authority Designated Rest Centre</p>	<p>refer to: Local Authority Emergency Response Plan Annex 3</p>
<p>Other Known Possible Temporary Shelter</p> <p>refer to: Local Authority Emergency Response Plan Annex 3</p>	<ul style="list-style-type: none"> Village Hall, Carisbrooke High Street PO30 1NR Methodist Church Hall, Gunville Road, Gunville PO30 5LS Hunnyhill Primary School, Albany Road, Newport PO30 5HZ Newport Youth & Community Centre, 118-119 St James Street, Newport PO30 5HE St John's Church Hall, Drake Road, Newport PO30 1EQ Nine Acres Primary School, Southview, Newport PO30 1QP Castlehold Baptist Church, High Street, Newport PO30 1BH Church PO30 1NT Church PO30 1BG Prince of Wales Pub, 36 South Street, Newport PO30 1JE Bethany Evangelical Church, Union Street, Newport PO30 1QB St Johns Church, St John's Road, Newport PO30 1LN The Salvation Army, 72 Pyle Street, Newport PO30 1UJ

The locations listed within Infrastructure at Risk and Other at Risk are only as accurate as at the time of publication and do not aim to be exhaustive or identify all possible risks entities.

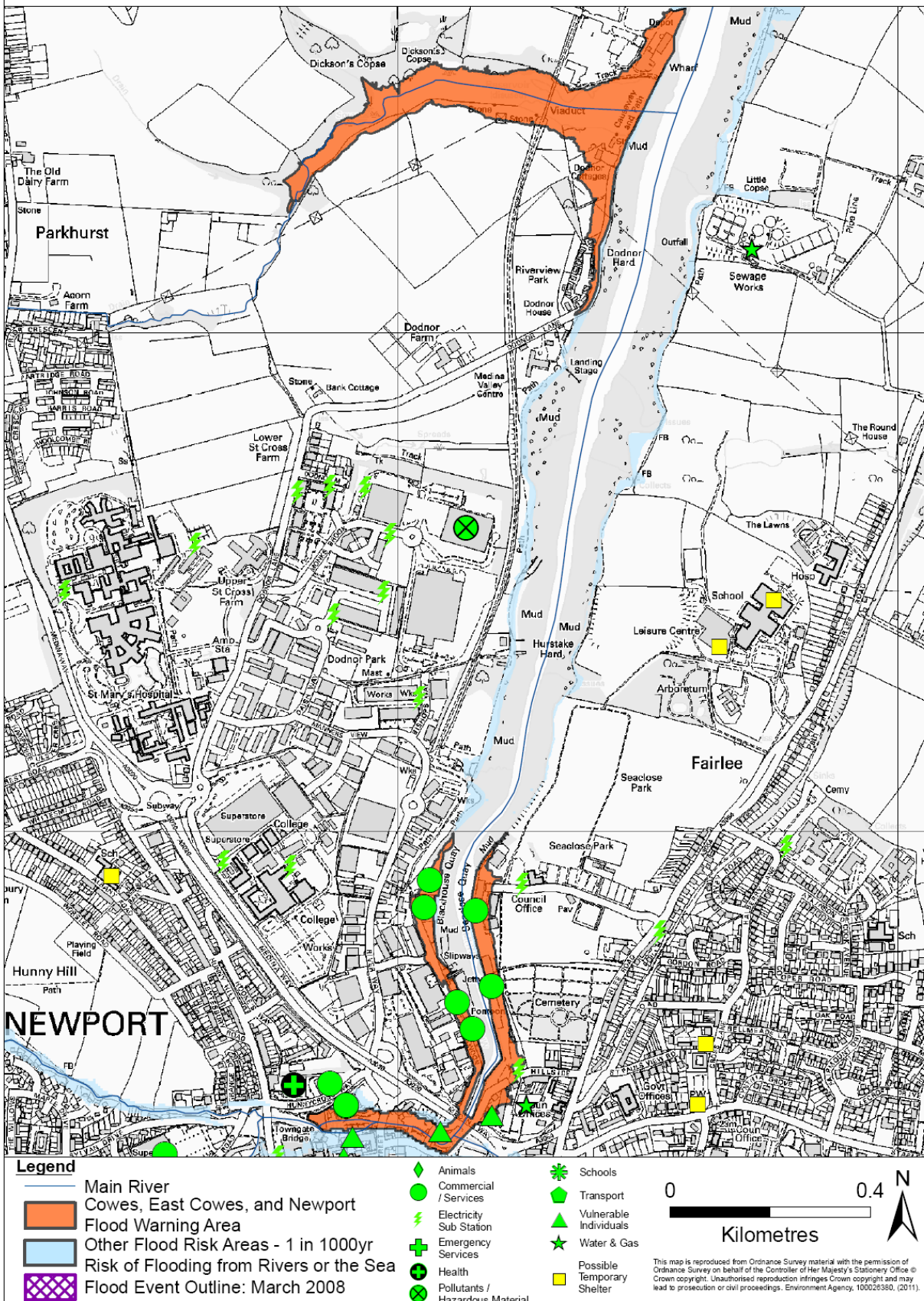
Also see: Newport on the River Medina Community Flood Risk Summary

COWES, EAST COWES & NEWPORT

Flood Warning Area: Cowes, East Cowes and Newport (Map 1)



Flood Warning Area: Cowes, East Cowes and Newport (Map 2)



Community Flood Risk Summary

Environment Agency Information

Area Description	Coastal areas at Cowes, East Cowes and tidal areas of Newport. This Flood Warning Area runs adjacent to Carisbrooke and Hunny Hill on the Lukely Brook Flood Warning Area And overlaps with Newport on the River Medina Flood Warning Area		
Type of Flooding	Coastal	Lead Time from warning to impact	2 hours
Estimated Return Period	1:20 years		
Floodline Warnings Direct Target Area Reference Code	072FWC8101	Floodline Warnings Direct Telephone Number & Quick Dial Reference	0845 988 1188 Ref. 012115
Number of Properties at Risk	614	Number of Properties Signed Up to Floodline Warnings Direct	364
Flood History	1912: Notable flooding occurred in Cowes		
	Dec 1989: Severe flooding in Cowes caused by high winds and high rainfall on top of the high tide		
	Oct 1992 - Jan 1993: Flooding of Egypt Esplanade, Queens Road, High Street, and Cowes ferry terminal caused by high winds and heavy rainfall on top of high spring tides and surge		
	Dec 1992: 6 properties in St James Street, Hunnycross Way and St Cross Lane, Forest Hills, Nunnery Lane, Gunville Road and Wyatts Lane flooded due to a blocked weedscreen		
	Dec 1999: 1 property flooded in Albany Road, Cowes and at least one other property affected		
	Dec 1999: Surface water caused 3 properties in St Cross Lane, Newport to flood		
	Oct – Nov 2000: Surface water caused 7 properties in Garden Way, Fairlee Road, St Cross Lane, Forest Hills, Nunnery Lane, Gunville Road and Wyatts Lane to flood		
	Dec 2003: Forest Road flooded		
Aug 2005: Flooding affected St James Street and Coppins Bridge caused by works being carried out by Southern Water Services on storm sewer system			

Flood History continued	Mar 2008: Flood event resulted from the coincidence of high spring tides and tidal surge. 2 properties flooded internally in the High Street, Cowes and others were affected by the flooded roadway. Brunswick Road flooded affecting 1 property internally. 2 Units at Medina Village and 2 properties at Medina Road flooded as did surrounding roads. 1 property flooded at The Arcade, Cowes. The access way to the floating bridge, Cowes was flooded. Flooding also affected the Esplanade, Cowes and Newport Quay, Sea Street, Castle Parade and Queens Esplanade in Newport
	Sep 2008: Major flooding of Bowcombe Road
	Feb 2009: Heavy rainfall combined with low pressure and strong southerly winds. There were significant surges along the coast which occurred on top of spring tides. Castle Street flooded
Flood Defences And Assets	There are no known Environment Agency flood defences. Other defences not owned or operated by the Environment Agency exist

Local Authority Information

<p>Infrastructure at Risk</p> <p>refer to: Local Authority Emergency Response Plan Annex 3</p>	<p>Water/Gas</p> <ul style="list-style-type: none"> • Southern Water – Water Supply Works, East Cowes <p>Emergency Services</p> <ul style="list-style-type: none"> • Cowes Police Station, Birmingham Road, W. Cowes PO31 7BH <p>Transport</p> <ul style="list-style-type: none"> • Red Funnel Red Jet Terminal, Fountain Quay, W. Cowes PO31 7AR • Cowes Harbour Commission, Town Quay, W. Cowes PO31 7AS • Floating Bridge connecting East and West Cowes • Red Funnel Car Ferry Terminal, Trinity Road, E. Cowes PO32 6RA
<p>Other at Risk</p> <p>refer to: Local Authority Emergency Response Plan Annex 3</p>	<p>Vulnerable Individuals</p> <ul style="list-style-type: none"> • Rope Walk Sheltered Accom., Medina Rd, W. Cowes PO31 7DX • Information provided by NHS PCT & LA Social Care GIS databases <p>Commercial/Services</p> <ul style="list-style-type: none"> • Depot (Fuel Terminal) off Kingston Road, E. Cowes PO32 6HF • Depot (Power Station) off Kingston Road, E. Cowes PO32 6JS • Works off Well Road and off Clarence Road, East Cowes • Works PO32 6EZ • Works PO32 6ET • Works PO32 6RG • Boatyard PO32 6SL • Waitrose supermarket, Well Road, E. Cowes PO32 6SP • Somerfield supermarket, 16-22 York Avenue, E. Cowes PO32 6QY • Local Authority Offices, York Avenue, E. Cowes PO32 6QY • Depot (Green Gate Industrial Estate) Thetis Road PO31 7UL • Depot (Medina Court Industrial Estate) Arctic Road PO31 7XD • Depot off Shamblers Copse Cycle Track, West Cowes • Boat Yard off Arctic Road, West Cowes PO31 7DW • Shops off High Street & Shooters Hill, West Cowes • Depot & Works PO30 5YH • Works PO30 5BS • Depot PO31 7PG • Local Authority Offices, Jubilee Stores, The Quay, Newport PO30 2EH • Lidl supermarket, Riverway, Newport PO30 5GL <p>Pollutants and Hazardous Materials</p> <ul style="list-style-type: none"> • Locations of commercial premises that contain significant pollutants and hazardous materials will be known to the Environment Agency and Fire and Rescue Service
<p>Local Authority Designated Rest Centre</p>	<p>refer to: Local Authority Emergency Response Plan Annex 3</p>

See over page

<p>Other Known Possible Temporary Shelter</p> <p>refer to: Local Authority Emergency Response Plan Annex 3</p>	<ul style="list-style-type: none"> • East Cowes Town Hall, York Avenue, East Cowes PO32 6RU • E. Cowes Methodist Church Hall, Yarborough Rd, E. Cowes PO32 6SB • E. Cowes Methodist Church, Adelaide Grove, E. Cowes PO32 6DD • E. Cowes Evangelical Church, Clarence Road, E. Cowes PO32 6ES • E. Cowes Conservative Working Mens Club, 11 Clarence Road, E. Cowes PO32 6EP • Red Cross Hall, York Avenue, East Cowes PO32 6RU • Victoria Tavern Pub, 62 Clarence Road, East Cowes PO32 6ET • Whippingham Community Centre, Alverstone Road, Whippingham, East Cowes PO32 6NZ • Church PO32 6DP • Church PO31 7TP • St Thomas of Canterbury Church, Terminus Road, Cowes PO31 7TJ • Church PO31 7HH • Church PO31 8HA • Church PO31 7QU • Church PO31 7JJ • Church PO31 7PA • The Painters Arms Pub, 51 Cross Street, Cowes PO31 7TA • Cowes Methodist Church, Birmingham Road, Cowes PO31 7BH • The Scout Hall, Smithards Lane, W. Cowes PO31 7PG • The Community Hall, Northwood House, Ward Ave PO31 8AZ • IOW Community Club, Park Road, West Cowes PO31 7NP • Island Youth Centre, Arctic Road, Cowes PO31 7PG • Duke of York Pub, Mill Hill Road Cowes PO31 7BT • Vectis Tavern Pub, 103 High Street, Cowes PO31 7AT • Kingston Arms Pub, 176 Newport Road, Cowes PO31 7PS • Northwood Women’s Institute Hall, 75 Pallance Rd PO31 8LP • The Princess Royal Pub, 25 Cross Lane, Newport PO30 2JL • Ship & Castle Pub, 21 Castle Street, Newport PO32 6RB • Medina High School, Fairlee Road, Newport PO30 2DX
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The locations listed within Infrastructure at Risk and Other at Risk are only as accurate as at the time of publication and do not aim to be exhaustive or identify all possible risks entities.

This information relates to coastal flooding. For additional information relevant to fluvial flooding:

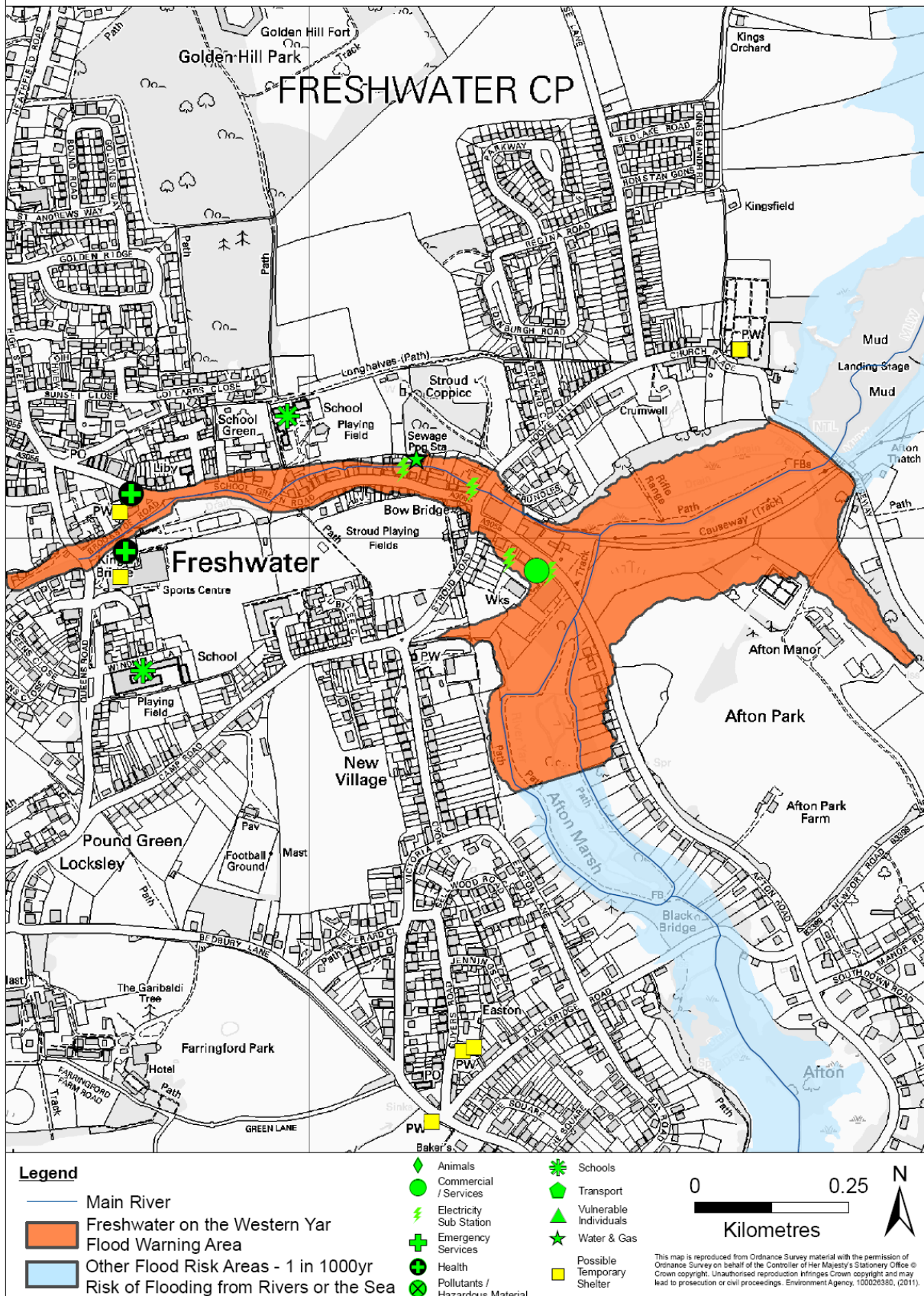
Also see: Newport on the River Medina Community Flood Risk Summary

Also see: Carisbrooke and Hunny Hill on the Lukely Brook Community Flood Risk Summary

BLANK

FRESHWATER ON THE WESTERN YAR

Flood Warning Area: Freshwater on the Western Yar



Community Flood Risk Summary

Environment Agency Information

Area Description	Freshwater on the Western Yar		
Type of Flooding	Fluvial	Lead Time from warning to impact	2 hours However, due to the nature of flash flooding this may not always be possible
Estimated Return Period	1:50 years		
Floodline Warnings Direct Target Area Reference Code	072FWF7401	Floodline Warnings Direct Telephone Number & Quick Dial Reference	0845 988 1188 Ref.0121233
Number of Properties at Risk	113	Number of Properties Signed Up To Floodline Warnings Direct	74
Catchment Response	The combination of a small catchment area and steep gradient means that rainfall runoff is rapid and the river responds quickly to rainfall		
Flood History	June 1999: 24 properties flooded in Queens Road, School Green Road, Brookside Road, Moa Place, Spinfish Lane, Tennyson Buildings, Avenue Road and Afton Road due to a combination of blocked channels and insufficient channel capacity of the Western Yar		
	Sep 2000: 1 property in Afton Road flooded, probably due to surface water runoff		
	Nov 2005: Coastal car park and road flooded when all defences were overtopped by waves		
Flood Defences and Assets	<p>A Flood Relief Scheme to an estimated 1 in 30 year standard was completed at Schoolgreen in 1960.</p> <p>However, it is now considered that the river in its present condition has a capacity below that required to contain a flood from a 1 in 5 year storm event. It is estimated that 6 properties may be flooded on a 1 in 5 year event, 11 on a 1 in 10 year event, 17 on a 1 in 50 year event, and 25 on a 1 in 100 year event.</p> <p>There are other defences which are not owned or operated by us. These are not listed in this section.</p>		

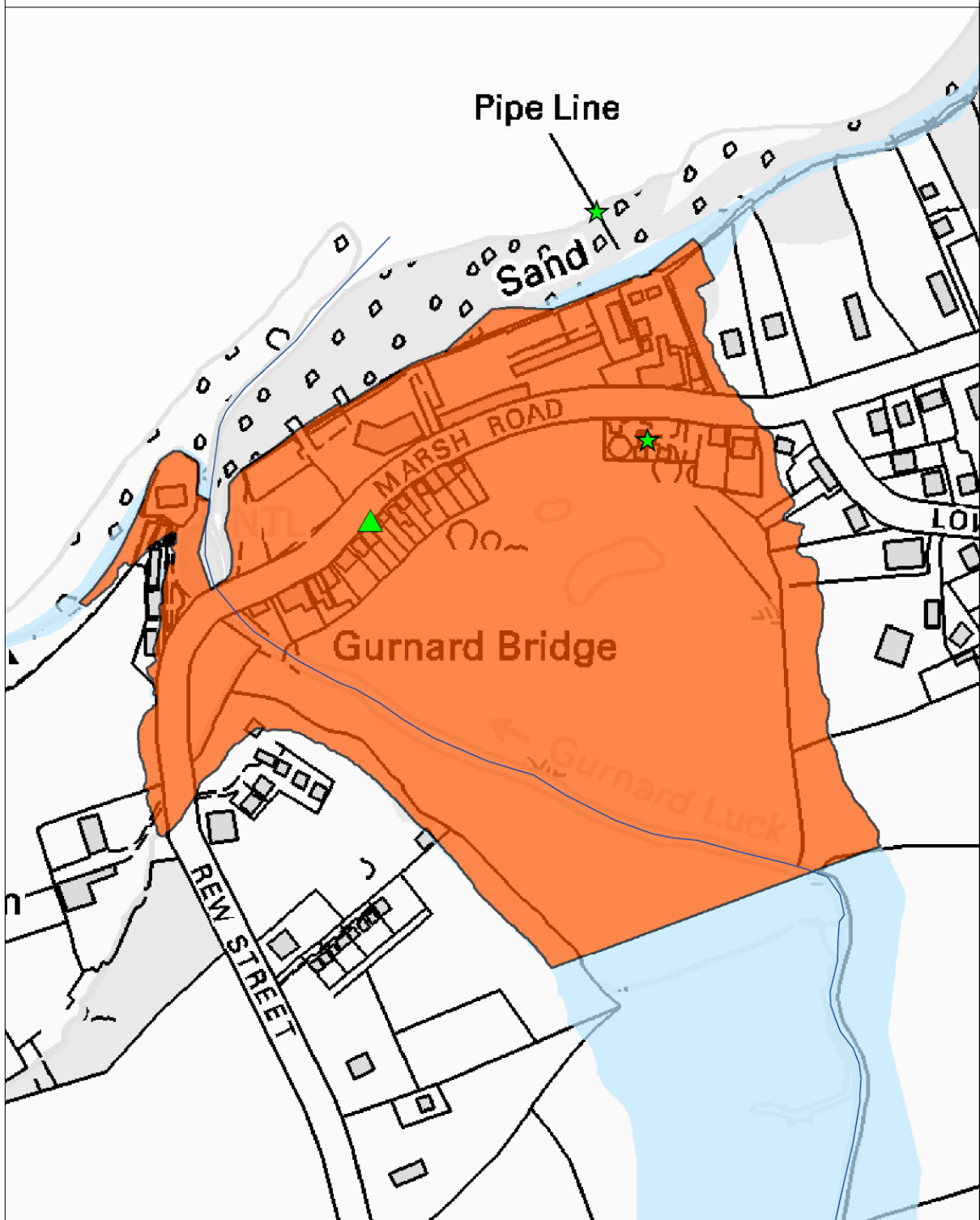
Local Authority Information

<p>Infrastructure at Risk</p> <p>refer to: Local Authority Emergency Response Plan Annex 3</p>	<p>Water/Gas</p> <ul style="list-style-type: none"> Southern Water Sewage Pumping Works, off School Green Road, by Stroud Coppice and Bow Bridge <p>Transport</p> <ul style="list-style-type: none"> Highway A3055 Afton Road and School Green Road <p>Health</p> <ul style="list-style-type: none"> Brookside Health Centre, Queen's Road, Freshwater PO40 9DT (5m from the Flood Warning Area) Alliance Pharmacy, 1 Moa Place, Freshwater PO40 9DS (within the Flood Warning Area)
<p>Other at Risk</p> <p>refer to: Local Authority Emergency Response Plan Annex 3</p>	<p>Vulnerable Individuals</p> <ul style="list-style-type: none"> Information provided by NHS PCT & LA Social Care GIS databases <p>Commercial/Services</p> <ul style="list-style-type: none"> Works off Stroud Road and Afton Road <p>Schools</p> <ul style="list-style-type: none"> West Wight Middle School, Windmill Lane, Freshwater PO40 9DX All Saints CE Primary School, 79 School Green Road, Freshwater PO40 9AX <p>Pollutants and Hazardous Materials</p> <ul style="list-style-type: none"> Locations of commercial premises that contain significant pollutants and hazardous materials will be known to the Environment Agency and Fire and Rescue Service
<p>Local Authority Designated Rest Centre</p>	<p>refer to: Local Authority Emergency Response Plan Annex 3</p>
<p>Other Known Possible Temporary Shelter</p> <p>refer to: Local Authority Emergency Response Plan Annex 3</p>	<ul style="list-style-type: none"> Memorial Hall, Avenue Road, Freshwater PO40 9UU St Saviours RC Primary School, Summers Lane, Totland Bay PO39 0HQ Church PO40 9BP Church PO40 9PZ Church PO40 9QD Sunday School PO40 9QL Church PO40 9AN

The locations listed within Infrastructure at Risk and Other at Risk are only as accurate as at the time of publication and do not aim to be exhaustive or identify all possible risks entities.

GURNARD

Flood Warning Area: Gurnard



Legend		◆ Animals	✱ Schools	0 0.1 Kilometres	N ↑
— Main River	● Commercial / Services	✱ Transport	◆ Possible Temporary Shelter		
■ Gurnard Flood Warning Area	⚡ Electricity Sub Station	▲ Vulnerable Individuals	★ Water & Gas	<small>This map is reproduced from Ordnance Survey material with the permission of Ordnance Survey on behalf of the Controller of Her Majesty's Stationery Office © Crown copyright. Unauthorised reproduction infringes Crown copyright and may lead to prosecution or civil proceedings. Environment Agency, 100026380, (2011).</small>	
■ Other Flood Risk Areas - 1 in 1000yr Risk of Flooding from Rivers or the Sea	⊕ Emergency Services	★ Health	⊗ Pollutants / Hazardous Material		
	⊕ Health				
	⊗ Pollutants / Hazardous Material				

Community Flood Risk Summary

Environment Agency Information

Extent of the Flood Warning Area	Coastal areas at Gurnard. This Flood Warning Area overlaps with the Gurnard on the Gurnard Luck Flood Warning Area		
Type of Flooding	Coastal	Lead Time from warning to impact	2 hours
Estimated Return Period	1:20 years		
Floodline Warnings Direct Target Area Reference Code	072FWC8201	Floodline Warnings Direct Telephone Number & Quick Dial Reference	0845 988 1188 Ref. 012116
Number of Properties at Risk	50	Number of Properties Signed Up to Floodline Warnings Direct	29
Flood History	Dec 1989: At least 1 property in Marsh Road flooded due to extreme tide levels		
	Winter 1992 – 1993: Flooding occurred in the vicinity of Marsh Road		
	Dec 1993: 28 properties in Marsh Road flooded		
	Dec 1999: 5 properties in Marsh Road flooded and 2 others were affected by coupling of the high tide and high river levels		
	Nov 2000: At least 5 chalets in Marsh Road flooded as a result of tide locking of the flood gates at high tide		
	Dec 2003: 3 properties in Marsh Road were flooded and 5 others were affected		
	10 March 2008: Area affected by coastal flooding due to coincidence of high spring tides and large tidal surges		
Flood Defences and Assets	There are no known Environment Agency flood defences in this area. Other defences not owned operated by the Environment Agency exist		

Local Authority Information

Infrastructure at Risk refer to: Local Authority Emergency Response Plan Annex 3	Water/Gas <ul style="list-style-type: none"> • Southern Water Pumping Station, Marsh Road PO31 8JQ • Southern Gas Networks Cross Solent Gas Pipeline, Beachside off Marsh Road
Other at Risk refer to: Local Authority Emergency Response Plan Annex 3	Vulnerable Individuals <ul style="list-style-type: none"> • Information provided by NHS PCT & LA Social Care GIS databases • Wooden, chalet style private homes in Marsh Road (some not on stilts) Pollutants and Hazardous Materials <ul style="list-style-type: none"> • Locations of commercial premises that contain significant pollutants and hazardous materials will be known to the Environment Agency and Fire and Rescue Service
Local Authority Designated Rest Centres	refer to: Local Authority Emergency Response Plan Annex 3
Other Known Possible Temporary Shelter refer to: Local Authority Emergency Response Plan Annex 3	<ul style="list-style-type: none"> • Gurnard Village Hall, Worsley Road, Gurnard PO31 8JS • Gurnard Primary School, Hilton Road, Gurnard PO31 8JB • Gurnard Pines Holiday Village, Cockleton Lane, Gurnard PO31 8QE • Woodvale Pub, 1Prince's Esplanade PO31 8LE • Hillbrow Hotel, Tuttons Hill, Gurnard PO31 8JA • The Portland Inn Pub/Hotel, 2 Worsley Road, Gurnard PO31 8JN • Solent Middle School, Baring Road, Cowes PO31 8DS

The locations listed within Infrastructure at Risk and Other at Risk are only as accurate as at the time of publication and do not aim to be exhaustive or identify all possible risks entities.

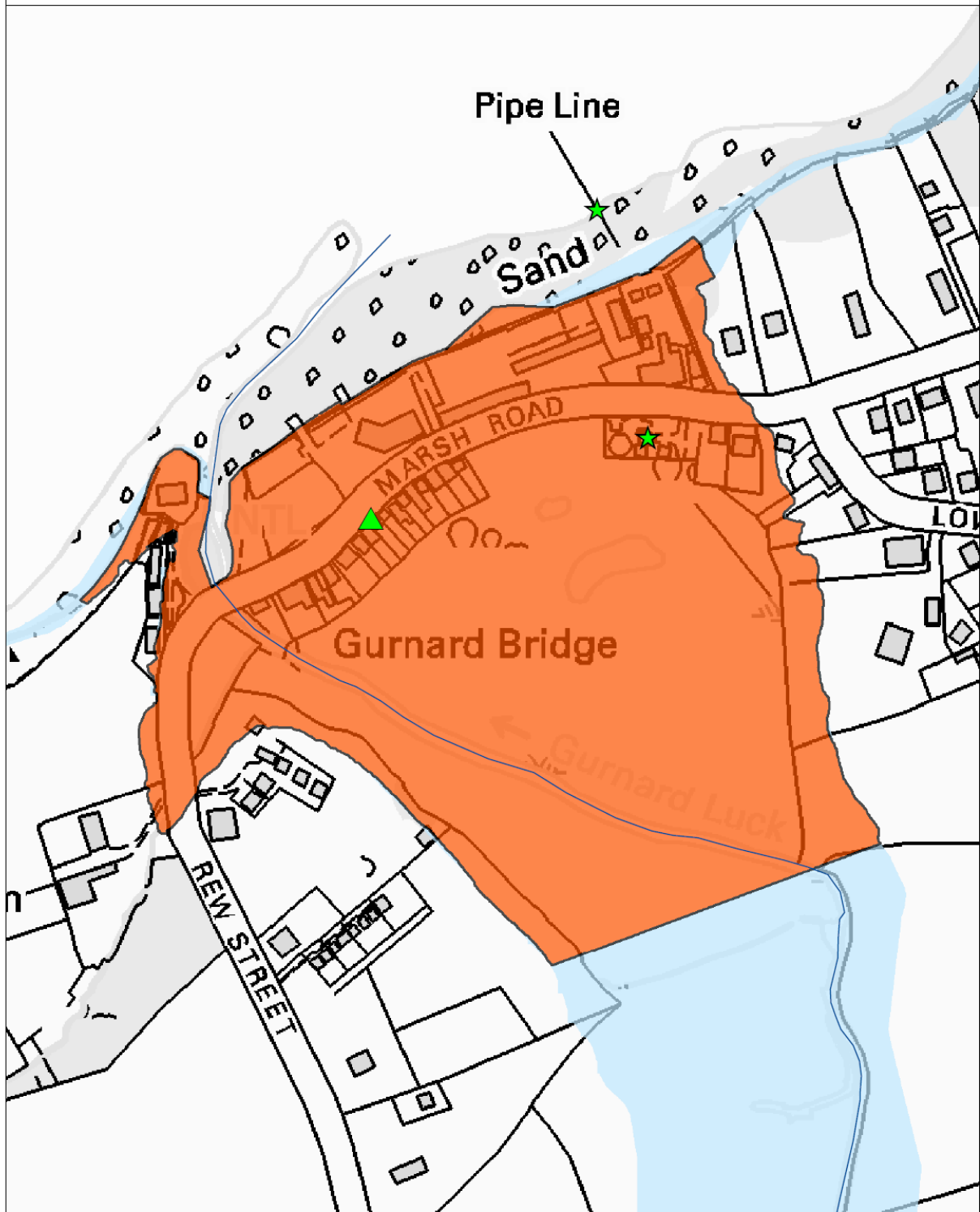
This information relates to coastal flooding. For additional information relevant to fluvial flooding:

Also see: Gurnard on the Gurnard Luck Community Flood Risk Summary

GURNARD

on the GURNARD LUCK

Flood Warning Area: Gurnard on the Gurnard Luck



Legend

- Main River
- Gurnard Flood Warning Area
- Other Flood Risk Areas - 1 in 1000yr Risk of Flooding from Rivers or the Sea
- Animals
- Commercial / Services
- Electricity Sub Station
- Emergency Services
- Health
- Pollutants / Hazardous Material
- Schools
- Transport
- Vulnerable Individuals
- Water & Gas
- Possible Temporary Shelter



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Community Flood Risk Summary

Environment Agency Information

Area Description	Gurnard on the Gurnard Luck. This Flood Warning Area overlaps with Gurnard Flood Warning Area		
Type of Flooding	Fluvial	Lead Time from warning to impact	2 hours
Estimated Return Period	1:20 years		
Floodline Warnings Direct Target Area Reference Code	072FWF7301	Floodline Warnings Direct Telephone Number & Quick Dial Reference	0845 988 1188 Ref. 0121232
Number of Properties at Risk	46	Number of Properties Signed Up To Floodline Warnings Direct	26
Catchment Response	A combination of high river flows and adverse tidal conditions causes flooding in the catchment.		
Flood History	Dec 1989: At least 1 property in Marsh Road flooded due to extreme tide levels		
	Winter 1992-1993: Flooding occurred in the vicinity of Marsh Road		
	Dec 1993: 28 properties in Marsh Road flooded		
	Dec 1999: 5 properties in Marsh Road flooded and 2 others were affected by coupling of the high tide and high river levels		
	Nov 2000: At least 5 chalets in Marsh Road flooded as a result of tide locking of the flood gates at high tide		
	Dec 2003: 3 properties in Marsh Road were flooded and 5 others were affected		
Flood Defences and Assets	There are no known Environment Agency flood defences in the area. Other defences exist which are not owned or operated by the Environment Agency		

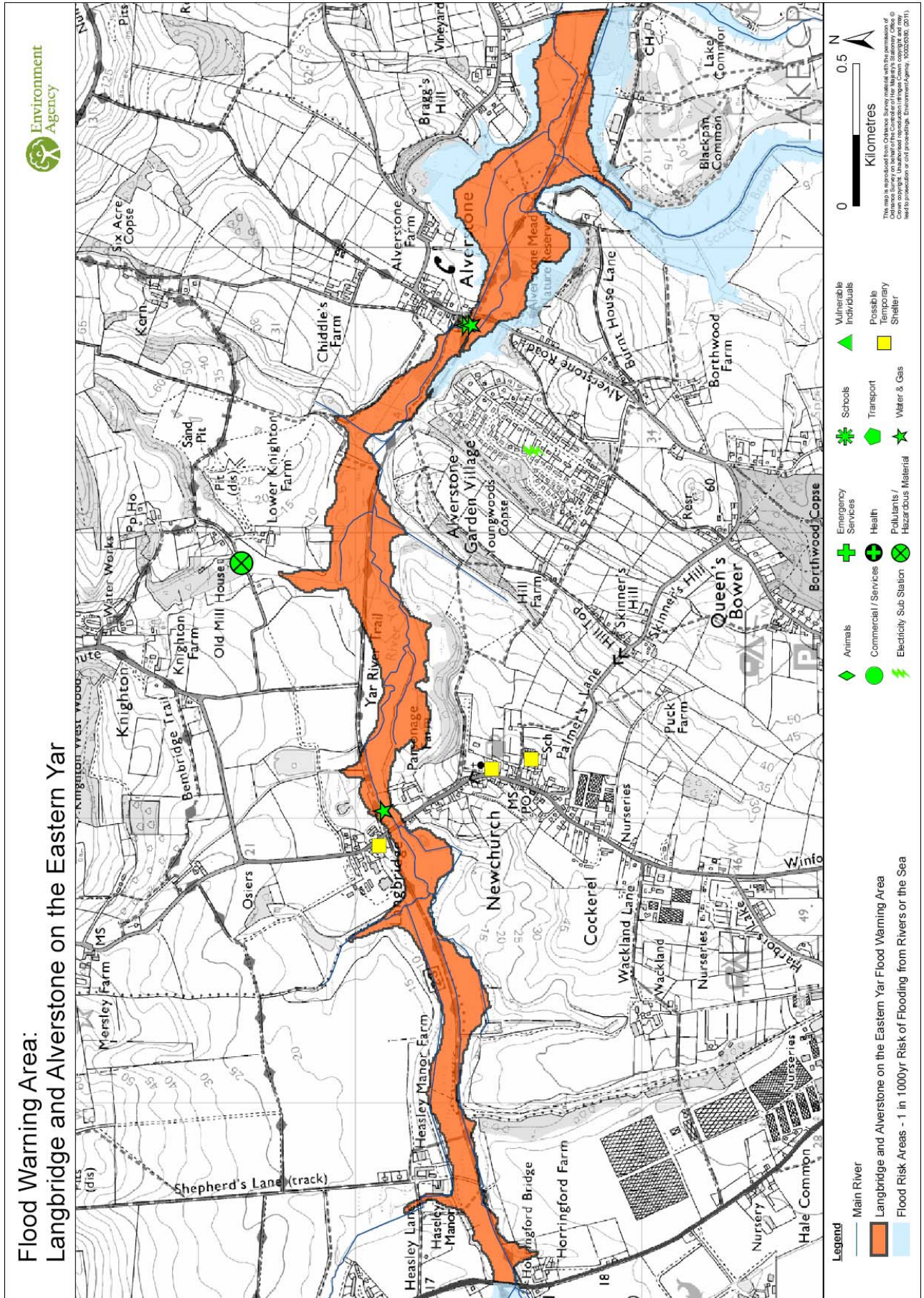
Local Authority Information

Infrastructure at Risk refer to: Local Authority Emergency Response Plan Annex 3	Water/Gas <ul style="list-style-type: none"> • Southern Water Pumping Station, Marsh Road PO31 8JQ • Southern Gas Networks Cross Solent Gas Pipeline, Beachside off Marsh Road
Other at Risk refer to: Local Authority Emergency Response Plan Annex 3	Vulnerable Individuals <ul style="list-style-type: none"> • Information provided by NHS PCT & LA Social Care GIS databases • Wooden, chalet style private homes in Marsh Road (some not on stilts) Pollutants and Hazardous Materials <ul style="list-style-type: none"> • Locations of commercial premises that contain significant pollutants and hazardous materials will be known to the Environment Agency and Fire and Rescue Service
Local Authority Designated Rest Centre	refer to: Local Authority Emergency Response Plan Annex 3
Other Known Possible Temporary Shelter refer to: Local Authority Emergency Response Plan Annex 3	<ul style="list-style-type: none"> • Gurnard Village Hall, Worsley Road, Gurnard • Gurnard Primary School, Hilton Road, Gurnard PO31 8JB • Gurnard Pines Holiday Village, Cockleton Lane, Gurnard PO31 8QE • Woodvale Public House, 1Prince’s Esplanade PO31 8LE • Hillbrow Hotel, Tuttons Hill, Gurnard PO31 8JA • The Portland Inn, 2 Worsley Road, Gurnard PO31 8JN • Solent Middle School, Baring Road, Cowes PO31 8DS

The locations listed within Infrastructure at Risk and Other at Risk are only as accurate as at the time of publication and do not aim to be exhaustive or identify all possible risks entities.

Also see: Gurnard Community Flood Risk Summary

LANGBRIDGE AND ALVERSTONE on the EASTERN YAR



Community Flood Risk Summary

Environment Agency Information

Area Description	Langbridge and Alverstone on the Eastern Yar. Adjacent to the Sandown, Brading and Bembridge on the Eastern Yar Flood Warning Area		
Type of Flooding	Fluvial	Lead Time from warning to impact	2 hours
Estimated Return Period	1:10 years		
Floodline Warnings Direct Target Area Reference Code	072FWF7101	Floodline Warnings Direct Telephone Number & Quick Dial Reference	0845 988 1188 Ref.0121221
Number of Properties at Risk	4	Number of Properties Signed Up to Floodline Warnings Direct	4
Catchment Response	The catchment responds rapidly to rainfall		
Flood History	Dec 1993: 2 properties on Main Road, Alverstone flooded		
	Oct 2000: 1 property flooded and 3 more affected on Main Road, Alverstone. 845 properties flooded in Langbridge and a further 3 were affected		
	2001: Extensive floodplain inundation from the Eastern Yar affected properties in Alverstone, Newchurch and Sandown		
	Dec 2003: 1 property flooded on Main Road, Alverstone and 1 further property affected in Langbridge		
	Aug & Dec 2005: 1 property affected by flooding in these months		
Flood Defences And Assets	Floodbanks upstream of the Bembridge Sluices flood annually. It is estimated that the level of protection to properties within the area is 1 in 20 years. There are other defences which are not owned or operated by the Environment Agency.		

Local Authority Information

Infrastructure at Risk refer to: Local Authority Emergency Response Plan Annex 3	Water/Gas <ul style="list-style-type: none"> • Southern Water Pump House PO36 0EZ • Southern Water Pumping Station PO36 0EZ • Southern Water Pumping Station PO36 0NP
Other at Risk refer to: Local Authority Emergency Response Plan Annex 3	Vulnerable Individuals <ul style="list-style-type: none"> • Caravan and camping sites off Lower Road, Braggs Hill & Golf Links Road, Sandown PO36 0HL • Fairway Holiday Park, off Perowne Way PO36 9PS • Fort Holiday Park, Avenue Road, Sandown PO36 8BD • Information provided by NHS PCT & LA Social Care GIS databases Agriculture & Horticulture <ul style="list-style-type: none"> • Farmland and nurseries through Alverstone, Alverstone Garden Village, Langbridge and Newchurch Pollutants and Hazardous Materials <ul style="list-style-type: none"> • Locations of commercial premises that contain significant pollutants and hazardous materials will be known to the Environment Agency and Fire and Rescue Service
Local Authority Designated Rest Centre	refer to: Local Authority Emergency Response Plan Annex 3
Other Known Possible Temporary Shelter refer to: Local Authority Emergency Response Plan Annex 3	<ul style="list-style-type: none"> • Newchurch Parish Hall, High Street, Newchurch PO36 0NN • Newchurch Primary School, School Lane, Newchurch PO36 0NL • Sandham County Middle School, Perowne Way, Sandown PO36 9JU • Sandown & Shanklin Golf Course Club House, Lake Common, off Golf Links Road, Sandown PO36 9PR • Congregational Church, Langbridge, Sandown PO36 0NP

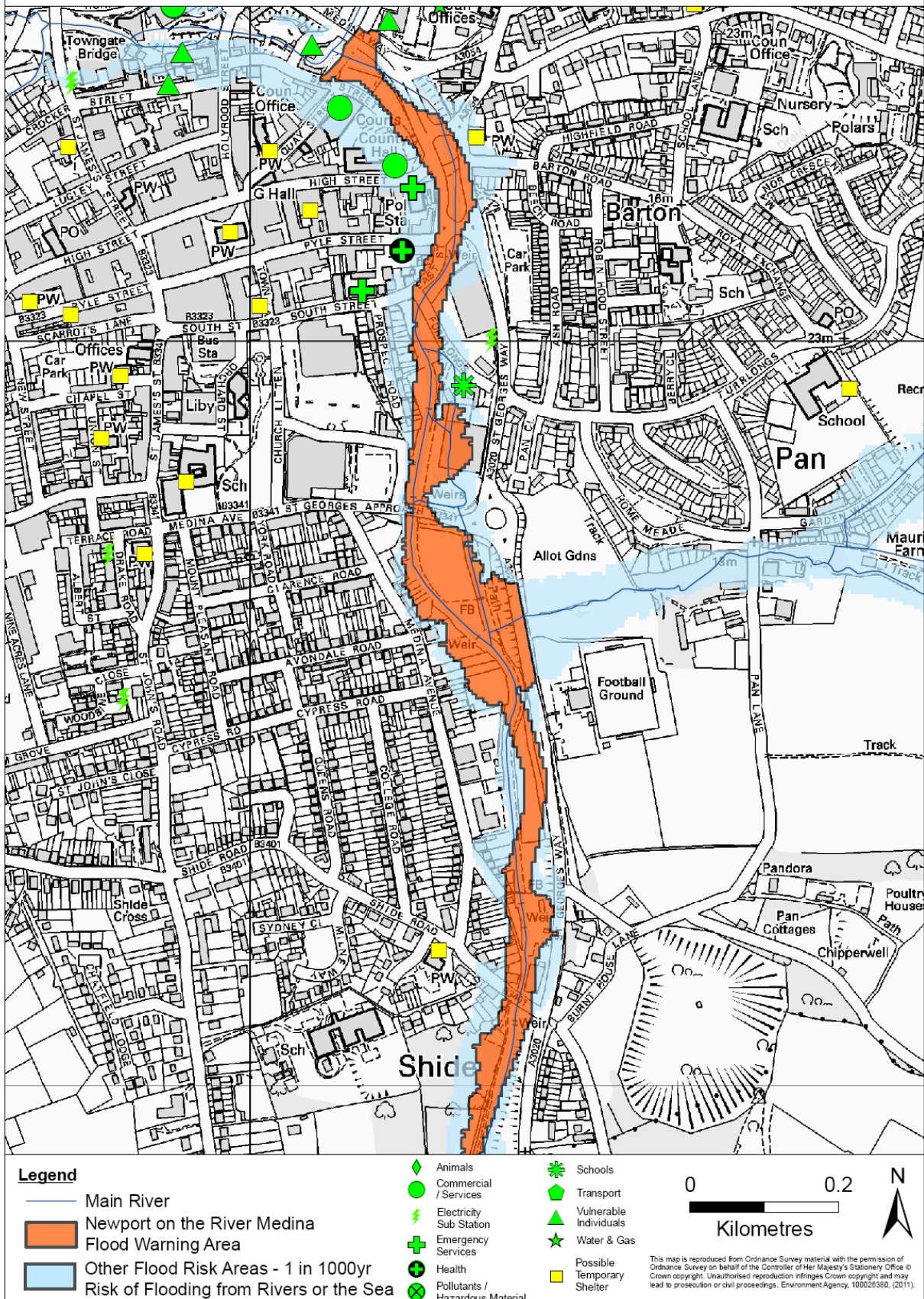
The locations listed within Infrastructure at Risk and Other at Risk are only as accurate as at the time of publication and do not aim to be exhaustive or identify all possible risks entities.

Also see: Sandown, Brading and Bembridge on the Eastern Yar Community Flood Risk Summary

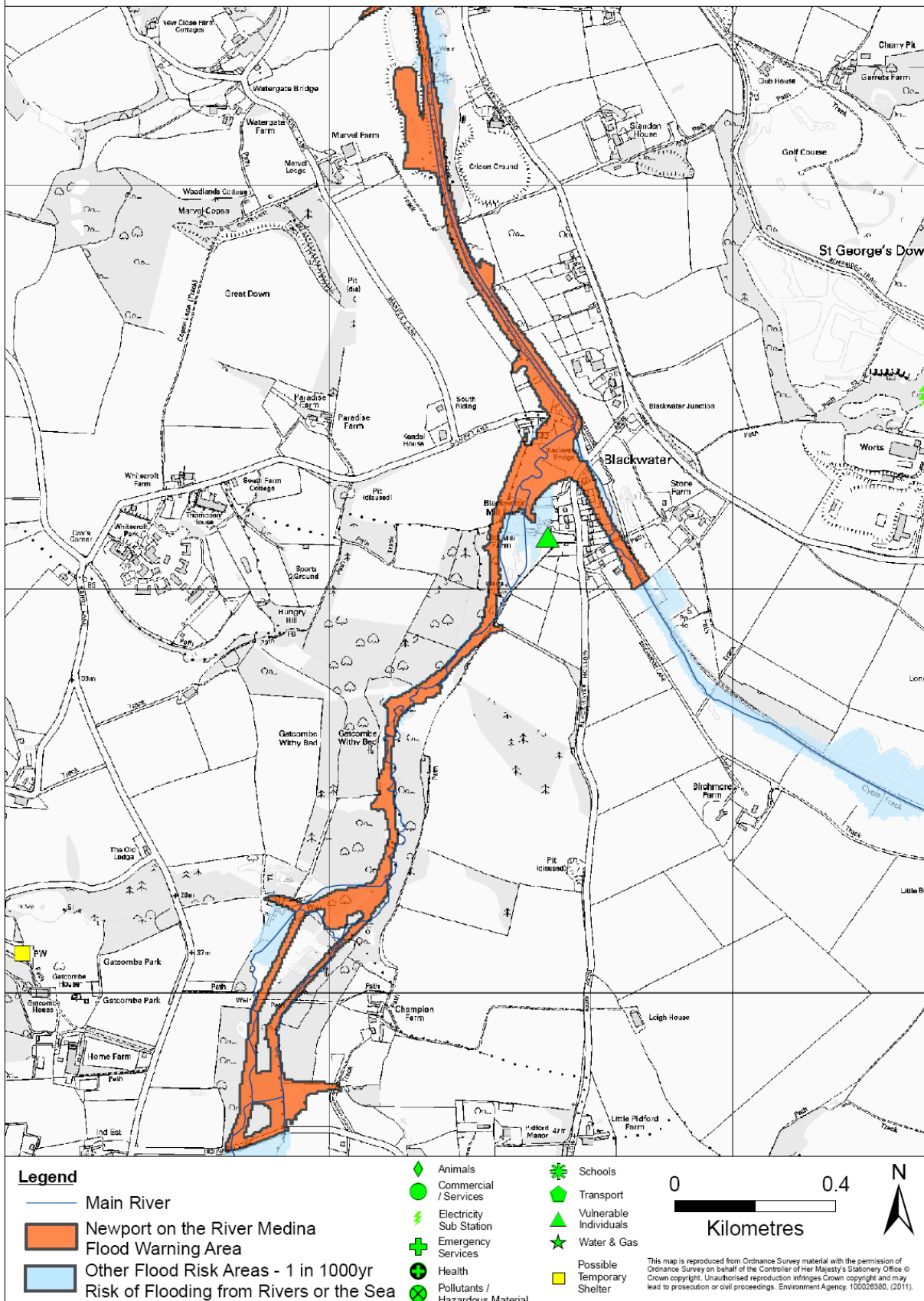
NEWPORT

on the RIVER MEDINA

Flood Warning Area: Newport on the River Medina (Map 1)



Flood Warning Area: Newport on the River Medina (Map 2)



Community Flood Risk Summary

Environment Agency Information

Area Description	Blackwater and Newport on the River Medina. This Flood Warning Area is near the Carisbrooke and Hunny Hill on the Lukely Brook Flood Warning Area It overlaps with Cowes, East Cowes and Newport Flood Warning Area		
Type of Flooding	Fluvial	Lead Time from warning to impact	2 hours
Estimated Return Period	1:50 years		
Floodline Warnings Direct Target Area Reference Code	072FWF7001	Floodline Warnings Direct Telephone Number & Quick Dial Reference	0845 988 1188 Ref. 0121211
Number of Properties at Risk	15	Number of Properties Signed Up to Floodline Warnings Direct	14
Catchment Response	River flooding is aggravated by tidal factors that limit the discharge of floodwater to the estuary. The Medina flooded in 1960, when 60mm of rain fell following a wet summer and autumn. The valley flooded from Blackwater to Newport. A second flooding incident occurred in Jan 1961 when rainfall of 60-70mm produced further flooding in Newport		
Flood History	1960: Severe flooding occurred on the River Medina		
	Dec 1993: 6 properties in St James Street, Hunnycross Way and St Cross Lane, Forest Hills, Nunnery Lane, Gunville Road and Wyatts Lane flooded due to a blocked weedscreen		
	Dec 1999: Surface water caused 3 properties in St Cross Lane, Newport to flood		
	Oct – Nov 2000: Surface water caused 7 properties in Garden Way, Fairlee Road, St Cross Lane, Forest Hills, Nunnery Lane, Gunville Road and Wyatts Lane to flood		
	Dec 2003: Forest Road flooded		
	Aug 2005: Flooding affected St James Street and Coppins Bridge caused by works being carried out by Southern Water Services on storm sewer system		
	Sep 2008: Major Flooding of Bowcombe Road, Newport		

Flood Defences and Assets	<p>In response to the incidents during the 1960s a comprehensive flood relief scheme for 4km of the River Medina and another for the Lukely Brook between Towngate and Westminster Mill were installed by the IOW Rivers Authority. These schemes improved retaining walls, removed construction, re-aligned the channel and provided seven velocity control weirs.</p> <p>Since 1993 the Lukely Brook weed screen upstream of the Brewery culvert has been improved. Estimated channel capacity for the Medina through Newport is in excess of the 1 in 100 year flood and between Blackwater and Chale Green a 1 in 10 year standard. The Lukely Brook scheme was designed to cope with a 1 in 100 year flood but flooding to property upstream of the Brewery culvert continues during heavy rainfall.</p> <p>There are other defences which are not owned or operated by the Environment Agency. These are not listed in this section.</p>
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Local Authority Information

<p>Infrastructure at Risk</p> <p>refer to: Local Authority Emergency Response Plan Annex 3</p>	<p>Transport</p> <ul style="list-style-type: none"> • Highway A3020 Medina Way at Coppins Bridge • Highway A3020 at St George's Way • Highway A3020 Blackwater Road at Shide <p>Emergency Services</p> <ul style="list-style-type: none"> • Newport Fire & Rescue Station, South Street PO30 1JQ (on the edge of the Flood Warning Area) • Newport Police Station, High Street PO30 1SZ (on the edge of the Flood Warning Area) <p>Health</p> <ul style="list-style-type: none"> • Newport Clinic, Pyle Street, Newport PO30 1JW (23m from the Flood Warning Area and Coastal Flood Warning Area) • Red Cross HQ, Hunnycross Way, Newport PO30 5ZD
<p>Other at Risk</p> <p>refer to: Local Authority Emergency Response Plan Annex 3</p>	<p>Vulnerable Individuals</p> <ul style="list-style-type: none"> • St Cross Court Sheltered Accom., Holyrood St, Newport PO30 5AT • Malthouse Court Sheltered Accom., Crocker St & Holyrood St, Newport PO30 5AL • The Riverside Day Centre, Quay Street, Newport PO30 2QR • Quay Arts Centre, Sea Street, Newport PO30 5BD • Blackwater Mill Rest Home, Blackwater, Newport PO30 3BJ • The Island Day Nursery, Mill Court, Furlongs, Newport PO30 2AA • Information provided by NHS PCT & LA Social Care GIS databases <p>Commercial/Services</p> <ul style="list-style-type: none"> • County Courts, Quay Street, Newport PO30 5YT • County Hall (and car park), Sea Street/High Street PO30 1UD • Local Authority Offices: Jubilee Stores, Quay Street PO30 5BD • Local Authority Offices: Housing Dept, 7 High Street PO30 1SS • Sainsbury supermarket and Fuel Station, Foxes Road PO30 5ZB • Lidl supermarket, Riverway, Newport PO30 5GL • Boat Yards, Little London riverside, Newport <p>Pollutants and Hazardous Materials</p> <ul style="list-style-type: none"> • For commercial premises with significant pollutants and hazardous materials refer to Environment Agency and Fire & Rescue Service
<p>Local Authority Designated Rest Centre</p>	<p>refer to: Local Authority Emergency Response Plan Annex 3</p>

See over page

<p>Other Known Possible Temporary Shelter</p> <p>refer to: Local Authority Emergency Response Plan Annex 3</p>	<ul style="list-style-type: none"> • Newport Youth & Community Centre, St James Street, Newport PO30 5HE • Isobel Centre, Furlongs, Newport PO30 2AX • St John's Church Hall, Drake Road, Newport PO30 1EQ • Nodehill Middle School, St James's Street, Newport PO30 1LJ • Newport CE Primary School, Kitbridge, Hazel Close PO30 5GD • Community Centre, Newport PO30 2BB • Prince of Wales Pub, South Street, Newport PO30 1JE • Elim Pentecostal Church, Coppins Bridge, Newport PO30 2BX • Newport Methodist Church, Quay Street, Newport PO30 5BA • Church PO30 3EJ • The Hogs Head Pub, 20 High Street Newport PO30 1SS • The Church of Jesus Christ Latter Day Saints, Shide Road, Newport PO30 1YE • Church PO30 1BG • Bethany Evangelical Church, Union Street, Newport PO30 1QB • Church PO30 1SG • St John's Church, St John's Road, Newport PO30 1LN • The Salvation Army, Pyle Street, Newport PO30 1UJ • Various private food retail establishments, pubs etc off High Street, Newport
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The locations listed within Infrastructure at Risk and Other at Risk are only as accurate as at the time of publication and do not aim to be exhaustive or identify all possible risks entities.

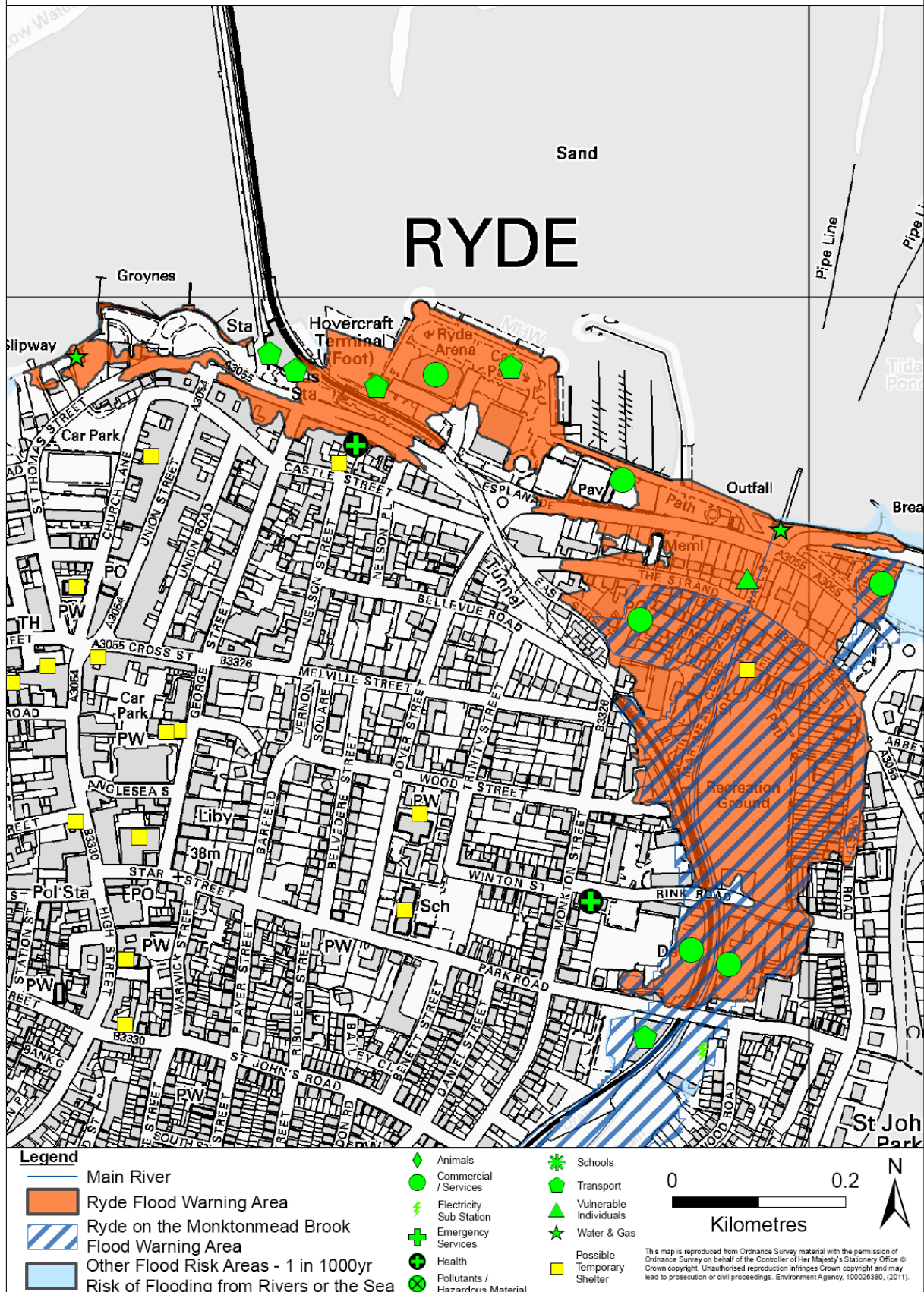
Also see: Carisbrooke and Hunnyhill on the Lukely Brook Community Flood Risk Summary

Also see: Cowes, East Cowes and Newport Community Flood Risk Summary

BLANK

RYDE

Flood Warning Area: Ryde



Community Flood Risk Summary

Environment Agency Information

Area Description	Coastal areas at Ryde. This Flood Warning Area is adjacent to the Ryde on the Monktonmead Brook Flood Warning Area		
Type of Flooding	Coastal	Lead Time from warning to impact	2 hours
Estimated Return Period	1:200 years		
Floodline Warnings Direct Target Area Reference Code	072FWC8302	Floodline Warnings Direct Telephone Number & Quick Dial Reference	0845 988 1188 Ref. 012113
Number of Properties at Risk	22	Number of Properties Signed Up to Floodline Warnings Direct	12
Flood History	Nov 1936: Extreme flood event		
	Jan 1965: 6 properties flooded in West Hill Road and several more flooded in Simeon Street as a result of high rainfall coupled with a tidal surge of 0.68m on top of a spring tide		
	Dec 1989: Flooding due to high tides and poor drainage		
	Jan 1993: Flooding of properties at sites not protected by maintained sea defences		
	Dec 1993: 6 properties flooded in West Hill Road and flooding in Simeon St, Monkton St and The Strand, probably caused by overloading of surface water sewers		
	Nov 1995: Flooding occurred along Esplanade.		
	Jun 1999: Foul water flooding		
	Dec 1999: 43 properties flooded in West Hill Road, Simeon Street, Monkton Street and The Strand due to overwhelmed sewerage systems as a result of high groundwater, high river levels and high tide		
	Nov/Dec 2003: 4 properties flooded in West Hill Road, The Strand and other properties in Rink Road were affected by sewer surcharge. Ryde St Johns Road Railway station flooded causing disruption to transport services		
	Sep 2008: Flooding of Church Lane		
Feb 2009: Heavy rain combined with low pressure and strong southerly winds. Significant surges along the coast occurring with spring tides			

Flood Defences and Assets	There are no known Environment Agency Flood Defences in the area. Other flood defences not owned or operated by the Environment Agency exist
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Local Authority Note

- Although there is no mention in the above Environment Agency information. There exists the Environment Agency owned and operated Monktonmead Pumping Station, located on The Esplanade, at bottom of Cornwall Street, Ryde.

Monktonmead Brook in Ryde has a long history of flooding, dating back c.100 years. The Environment Agency re-built the pumping station in 2001 as part of a Flood Alleviation Scheme to reduce the problem of flooding in Ryde from Monktonmead Brook.

The Brook flows out to the sea via the outfall on Ryde Sands, which is visible at low tide. The building houses two high volume pumps that pump water from the Brook (which flows along underneath Cornwall Street) to the sea during high tides.

Flooding can occur at Ryde when extreme rainfall co-incides with high tides. The high sea level means that water from the Brook is unable to flow out to sea, causing it to back up and flood.

Between June 1999 and November 2000 there were four situations of flooding from Monktonmead Brook with up to 80 properties flooded on each occasion. The most severe was at Christmas, December 1999.

This information was directly transcribed from the general public information notice-boards positioned on the wall of the pumping station. For further information on the Flood Alleviation Scheme please refer to the Environment Agency.

Local Authority Information

<p>Infrastructure at Risk</p> <p>refer to: Local Authority Emergency Response Plan Annex 3</p>	<p>Water/Gas</p> <ul style="list-style-type: none"> Southern Water (Foul Water) Pumping Station, Prince Consort, St Thomas St Car Park, Ryde PO33 2DL Southern Water Pumping Station, Ryde PO33 1JA <p>Health</p> <ul style="list-style-type: none"> The Esplanade Surgery, 19 The Esplanade, Ryde PO33 2EH <p>Transport</p> <ul style="list-style-type: none"> Island Line Railway Station, Ryde Pier Head PO33 2HF Southern Vectis Bus Terminal, Ryde Esplanade Southern Vectis Bus Depot, Ryde PO33 2BE Ryde Pier Head, The Esplanade, Ryde PO33 2HF Hovertravel Terminal, Quay Road, Ryde PO33 2HB <p>Telecommunications</p> <ul style="list-style-type: none"> British Telecom Exchange, Rink Road, Ryde PO33 1LR
<p>Others at Risk</p> <p>refer to: Local Authority Emergency Response Plan Annex 3</p>	<p>Vulnerable Individuals</p> <ul style="list-style-type: none"> Esplanade Residential Home, 20 The Strand, Ryde PO33 1JE Information provided by NHS PCT & LA Social Care GIS databases <p>Transport</p> <ul style="list-style-type: none"> Quay Car Park, between Ryde Esplanade and Ryde Harbour <p>Commercial/Services</p> <ul style="list-style-type: none"> Planet Ice Arena, Quay Road, Ryde PO33 2HH Outdoor Amusements and Play Park, opposite Ryde Harbour Waterside Pool, Esplanade, Ryde PO33 1JA <p>Pollutants and Hazardous Materials</p> <ul style="list-style-type: none"> Locations of commercial premises that contain significant pollutants and hazardous materials will be known to the Environment Agency and Fire and Rescue Service
<p>Local Authority Designated Rest Centres</p>	<p>refer to: Local Authority Emergency Response Plan Annex 3</p>
<p>Other Known Possible Temporary Shelter</p> <p>refer to: Local Authority Emergency Response Plan Annex 3</p>	<ul style="list-style-type: none"> Ryde Youth and Community Centre, 97 High Street, Ryde PO33 1SZ All Saints Church Hall, West Street, Ryde PO33 3BG United Reform Church Hall, Beechgrove, Corbett Road, PO33 3LE Dover Park CP School, Dover Street, Ryde PO33 2BN Ryde School, Queen's Road, Ryde PO33 3BE Ryde Methodist Church, Garfield Road, Ryde PO33 2PT Leo Leisure Centre, 2 Star Street, Ryde PO33 2HX The Castle Pub, 164 High Street PO33 2HT Church PO33 2RE & The Vine Pub, 16 Castle Street, Ryde PO33 2EG Church PO33 2NE Community Centre, Ryde PO33 2RL Ryde Leisure Centre, 5 St Thomas Square, Ryde PO33 2PJ The Crown Pub, 10 St Thomas Square, Ryde PO33 2PJ Ryde Baptist Church, George Street, Ryde PO33 2JF Simeon Arms Pub, 21 Simeon Street, Ryde PO33 1JG Holy Trinity Church, Dover Street, Ryde PO33 2BN Various private food retail establishments, Union Street, Ryde

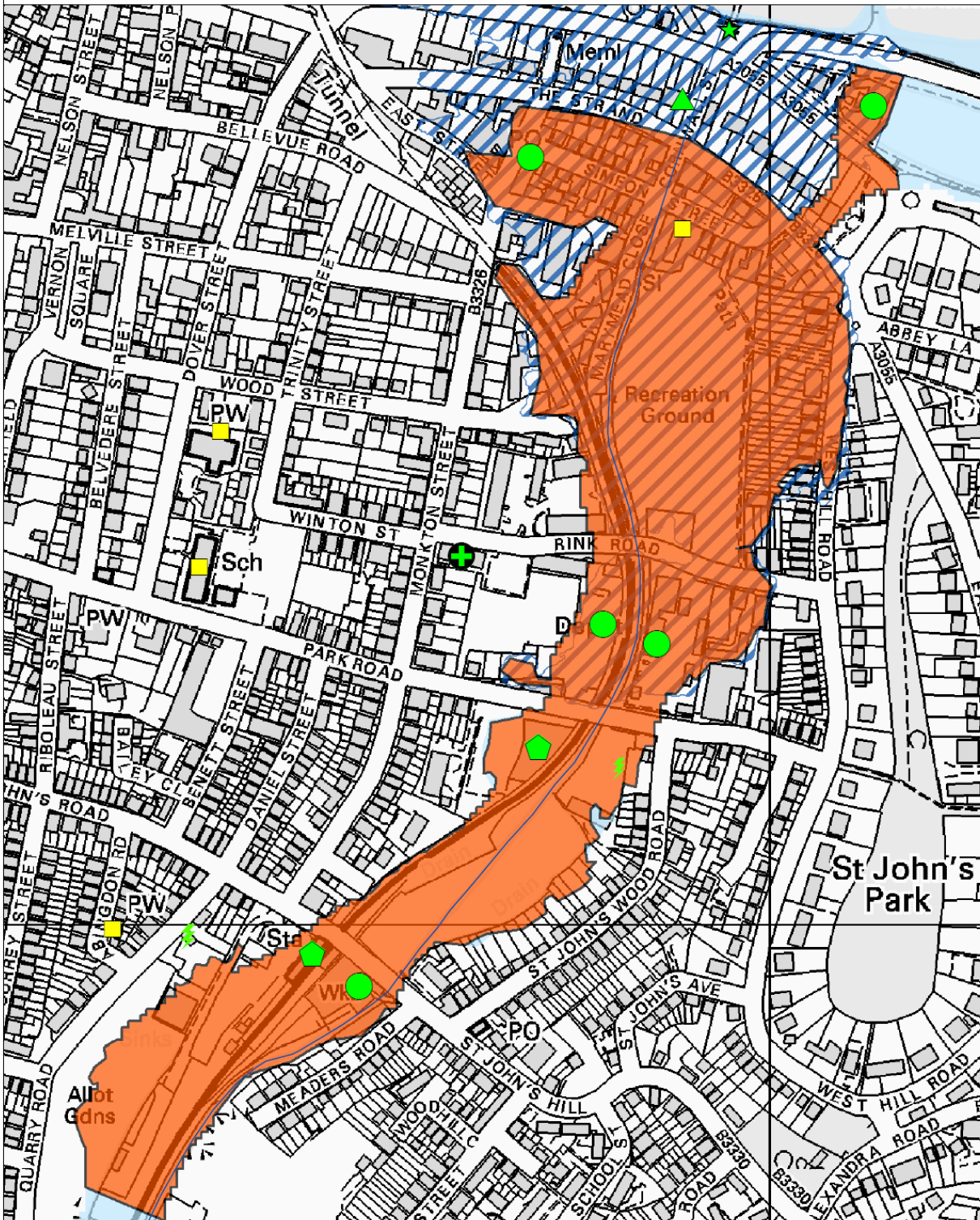
The information detailed within Infrastructure at Risk and Other at Risk is only as accurate as at the time of publication and does not aim to be exhaustive or identify all possible risks entities.

This information relates to coastal flooding. For additional information relevant to fluvial flooding:

Also see: Ryde on the Monktonmead Brook Community Flood Risk Summary

RYDE on the MONKTONMEAD BROOK

Flood Warning Area: Ryde on the Monktonmead Brook



Legend	
	Main River
	Ryde on the Monktonmead Brook Flood Warning Area
	Ryde Flood Warning Area
	Other Flood Risk Areas - 1 in 1000yr Risk of Flooding from Rivers or the Sea
	Animals
	Commercial / Services
	Electricity Sub Station
	Emergency Services
	Health
	Pollutants / Hazardous Material
	Schools
	Transport
	Vulnerable Individuals
	Water & Gas
	Possible Temporary Shelter

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Kilometres

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Community Flood Risk Summary

Environment Agency Information

Area Description	Ryde on the Monktonmead Brook. This Flood Warning Area is adjacent to Ryde Flood Warning Area		
Type of Flooding	Fluvial	Lead Time from warning to impact	2 hours
Estimated Return Period	1:10 years		
Floodline Warnings Direct Target Area Reference Code	072FWF7201	Floodline Warnings Direct Telephone Number & Quick Dial Reference	0845 988 1188 Ref. 0121231
Number of Properties at Risk	349	Number of Properties Signed Up to Floodline Warnings Direct	169
Catchment Response	The catchment responds quickly to rainfall. Flooding is complex and can also occur as a result of tidelock and surcharging sewers.		
Flood History	Nov 1936: Extreme flood event		
	Jan 1965: 6 properties flooded in West Hill Road and several more flooded in Simeon Street as a result of high rainfall coupled with a tidal surge of 0.68m on top of a spring tide		
	Dec 1989: Flooding due to high tides and poor drainage		
	Jan 1993: Flooding of properties at sites not protected by maintained sea defences		
	Dec 1993: 6 properties flooded in West Hill Road and flooding in Simeon St, Monkton St and The Strand, probably caused by overloading of surface water sewers		
	Nov 1995: Flooding occurred along Esplanade. Some confusion over exact date		
	Jun 1999: Foul water flooding		
	Dec 1999: 43 properties flooded in West Hill Road, Simeon Street, Monkton Street and The Strand due to overwhelmed sewerage systems as a result of high groundwater, high river levels and high tide		
	Nov-Dec 2003: 4 properties flooded in West Hill Road, The Strand and other properties in Rink Road were affected by sewer surcharge. Ryde St Johns Road Railway station flooded causing disruption to transport services		
Sep 2008: Flooding of Church Lane			

Flood History continued	Feb 2009: Heavy combined with low pressure and strong southerly winds. There were significant surges along the coast which occurred on top of spring tides
Flood Defences And Assets	The estimated level of protection of the Monktonmead Pumping Station is 1 in 100 years There are other defences which are not owned or operated by the Environment Agency

Local Authority Note

- Although there is no mention in the above Environment Agency information. There exists the Environment Agency owned and operated Monktonmead Pumping Station, located on The Esplanade, at bottom of Cornwall Street, Ryde.

Monktonmead Brook in Ryde has a long history of flooding, dating back c.100 years. The Environment Agency re-built the pumping station in 2001 as part of a Flood Alleviation Scheme to reduce the problem of flooding in Ryde from Monktonmead Brook.

The Brook flows out to the sea via the outfall on Ryde Sands, which is visible at low tide. The building houses two high volume pumps that pump water from the Brook (which flows along underneath Cornwall Street) to the sea during high tides.

Flooding can occur at Ryde when extreme rainfall co-incides with high tides. The high sea level means that water from the Brook is unable to flow out to sea, causing it to back up and flood.

Between June 1999 and November 2000 there were four situations of flooding from Monktonmead Brook with up to 80 properties flooded on each occasion. The most severe was at Christmas, December 1999.

This information was directly transcribed from the general public information notice-boards positioned on the wall of the pumping station. For further information on the Flood Alleviation Scheme please refer to the Environment Agency.

Local Authority Information

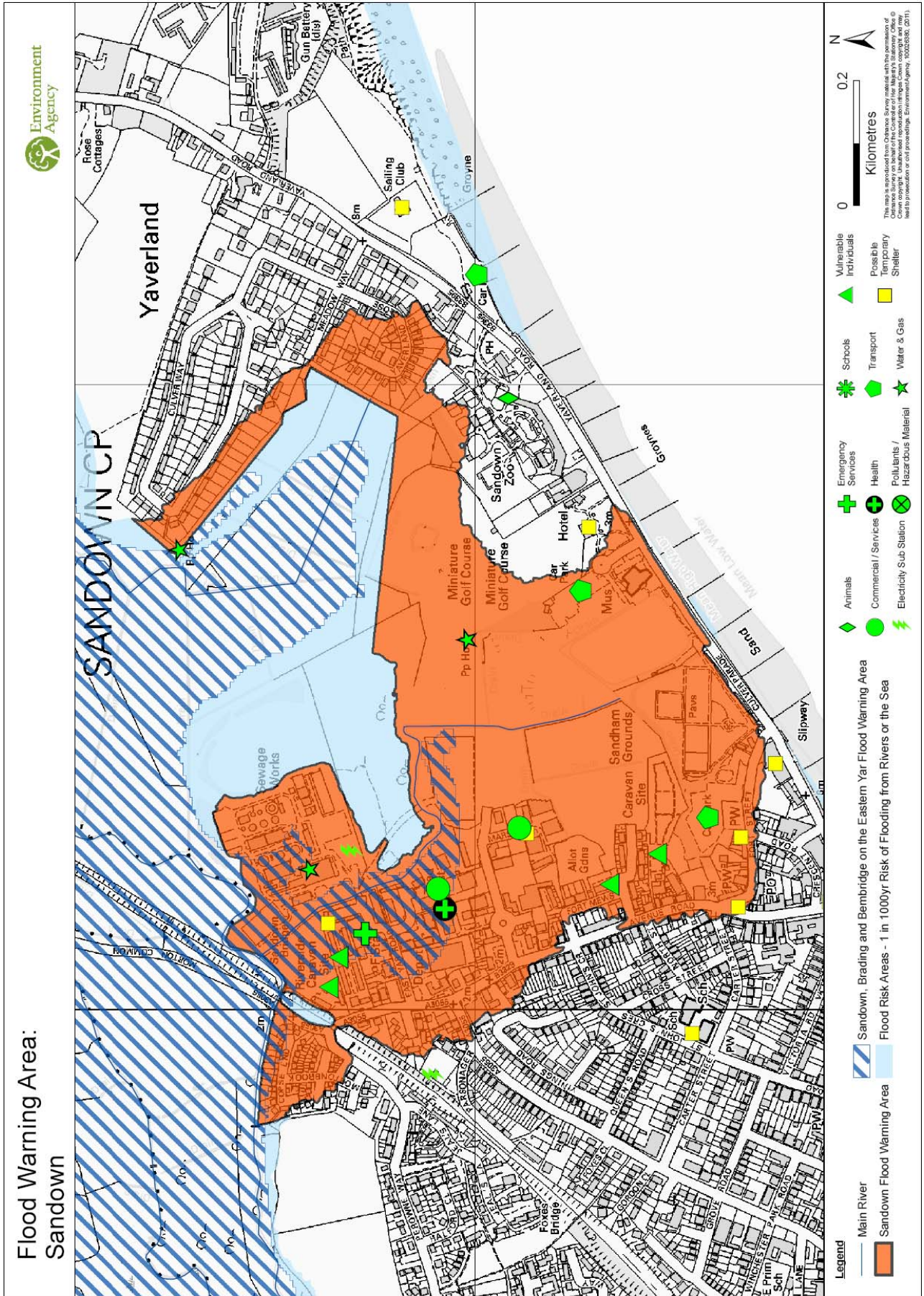
<p>Infrastructure at Risk</p> <p>refer to: Local Authority Emergency Response Plan Annex 3</p>	<p>Water/Gas</p> <ul style="list-style-type: none"> Southern Water Pumping Station, Ryde PO33 1JA <p>Transport</p> <ul style="list-style-type: none"> Island Line Railway Track Island Line Railway Station, St John's Road, Ryde PO33 2BA Highway access to the St John's Park and Eastern areas of Ryde via The Esplanade, The Strand, Simeon Street, Rink Road, Park Road, St John's Hill Southern Vectis Bus Depot, Ryde PO33 2BE <p>Telecommunications</p> <ul style="list-style-type: none"> British Telecom Exchange, Rink Road, Ryde PO33 1LR <p>Health</p> <ul style="list-style-type: none"> Tower House Surgery, Rink Road, Ryde PO33 1LP (85m from Flood Warning Area)
<p>Others at Risk</p> <p>refer to: Local Authority Emergency Response Plan Annex 3</p>	<p>Vulnerable Individuals</p> <ul style="list-style-type: none"> Gobles Close Sheltered Accommodation, Ryde PO33 2HJ Esplanade Residential Home, 20 The Strand, Ryde PO33 1JE Information provided by NHS PCT & LA Social Care GIS databases <p>Commercial/Services</p> <ul style="list-style-type: none"> Depot at Rink Road, Ryde Works at St John's – junction of St John's Hill & Meaders Road Post Office at the end of Simeon Street, Ryde PO33 1JQ <p>Pollutants and Hazardous Materials</p> <ul style="list-style-type: none"> Locations of commercial premises that contain significant pollutants and hazardous materials will be known to the Environment Agency and Fire and Rescue Service
<p>Local Authority Designated Rest Centre</p>	<p>refer to: Local Authority Emergency Response Plan Annex 3</p>
<p>Other Known Possible Temporary Shelter</p> <p>refer to: Local Authority Emergency Response Plan Annex 3</p>	<ul style="list-style-type: none"> St Mary's RC Primary School, Ampthill Road, Ryde PO33 1LJ Bishop Lovett Middle School, Appley Road, Ryde PO33 1NE Oakfield CE Primary School, Great Preston Road, Ryde PO33 1DR Elmfield Congregational Church Schoolroom, Marlborough Road, Ryde Simeon Arms Pub, 21 Simeon Street, Ryde PO33 1JG Holy Trinity Church, Dover Street, Ryde PO33 2BN

The information detailed within Infrastructure at Risk and Other at Risk is only as accurate as at the time of publication and does not aim to be exhaustive or identify all possible risks entities.

Also see: Ryde Community Flood Risk Summary

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SANDOWN



Community Flood Risk Summary

Environment Agency Information

Area Description	Coastal areas at Sandown. This Flood Warning Area overlaps with Sandown, Brading and Bembridge on the Eastern Yar Flood Warning Area		
Type of Flooding	Coastal	Lead Time from warning to impact	2 hours
Estimated Return Period	1:250 years		
Floodline Warnings Direct Target Area Reference Code	072FWC8401	Floodline Warnings Direct Telephone No. & Quick Dial Reference	0845 988 1188 Ref. 012112
Number of Properties at Risk	362	Number of Properties Signed Up to Floodline Warnings Direct	216
Flood History	Jul 1992: Surface water caused by 30mm rainfall in 11 hours		
	Oct 2000: 4 properties flooded at East Yar Road and 1 property was affected at Avenue Road Caravan Park.		
	Feb 2009: Heavy rain, low pressure and strong southerly winds combined to create strong surges flooding 1 property and an Industrial Estate		
Flood Defences and Assets	The Environment Agency maintains a seawall and embankment at Culver Parade, Sandown. The section of seawall at Yaverland Road is maintained by the Local Authority		

Local Authority Information

<p>Infrastructure at Risk</p> <p>refer to: Local Authority Emergency Response Plan Annex 3</p>	<p>Emergency Services</p> <ul style="list-style-type: none"> Sandown Fire & Rescue Station, East Yar Road, Sandown PO36 9AX <p>Transport</p> <ul style="list-style-type: none"> Railway Track through Sandown, Moreton, Yarbridge and Brading Railway Station, Brading Highway A3055 Moreton Road at Sandown Bridge <p>Water/Gas</p> <ul style="list-style-type: none"> Southern Water Pump House, Sandown PO36 8ED Southern Water Pump House, Sandown PO36 8QJ
<p>Other at Risk</p> <p>refer to: Local Authority Emergency Response Plan Annex 3</p>	<p>Vulnerable Individuals</p> <ul style="list-style-type: none"> Riverside Caravan Site, Avenue Road, Sandown PO36 9AL Sandown Holiday Chalets, Avenue Road, Sandown PO36 9AP Caravan Site off Brickfields Way, Sandown PO36 8BU Yarborough House, Homeless Accom., 11 Fort Mews, Sandown PO36 8BH Hotels, B&B's and tourist accommodation in Sandown town centre Information provided by NHS PCT & LA Social Care GIS databases <p>Animals</p> <ul style="list-style-type: none"> Sandown Zoo, Yaverland Seafront, Sandown PO36 8QB (on the edge of the Flood Warning Area) <p>Commercial/Services</p> <ul style="list-style-type: none"> Tourist attractions in Brading and Sandown Seafront Senator Trading Estate, College Close, Sandown PO36 8EU Redstone Business Centre, Marsh Close, Sandown PO36 8EU <p>Pollutants and Hazardous Materials</p> <ul style="list-style-type: none"> Locations of commercial premises that contain significant pollutants and hazardous materials will be known to the Environment Agency and Fire and Rescue Service
<p>Local Authority Designated Rest Centre</p>	<p>refer to: Local Authority Emergency Response Plan Annex 3</p>
<p>Other Known Possible Temporary Shelter</p> <p>refer to: Local Authority Emergency Response Plan Annex 3</p>	<ul style="list-style-type: none"> Lions Day & Community Centre, New Road, Lake PO36 9LA Sandham County Middle School, Perowne Way, Sandown PO36 9JU Yaverland Sailing & Boating Club, Yaverland Road PO36 8QS Beverley Community Hall & Annex, St John's Church, Carter St, Sandown PO36 8EQ New Hope Christian Fellowship, Hope House, Fort Street, Sandown PO36 8BA Wight Leisure Centre, Culver Parade, Sandown PO36 8QA Coastal Leisure Centre, 13 Marsh Close, Sandown PO36 8EU Wight City Leisure Centre, 37 Culver Parade PO36 8AT The Jolly Sailor Pub, Culver Parade, Sandown PO36 8AS Wight Leisure Centre, Unit 2-3, East Yar Road, Sandown PO36 9AY

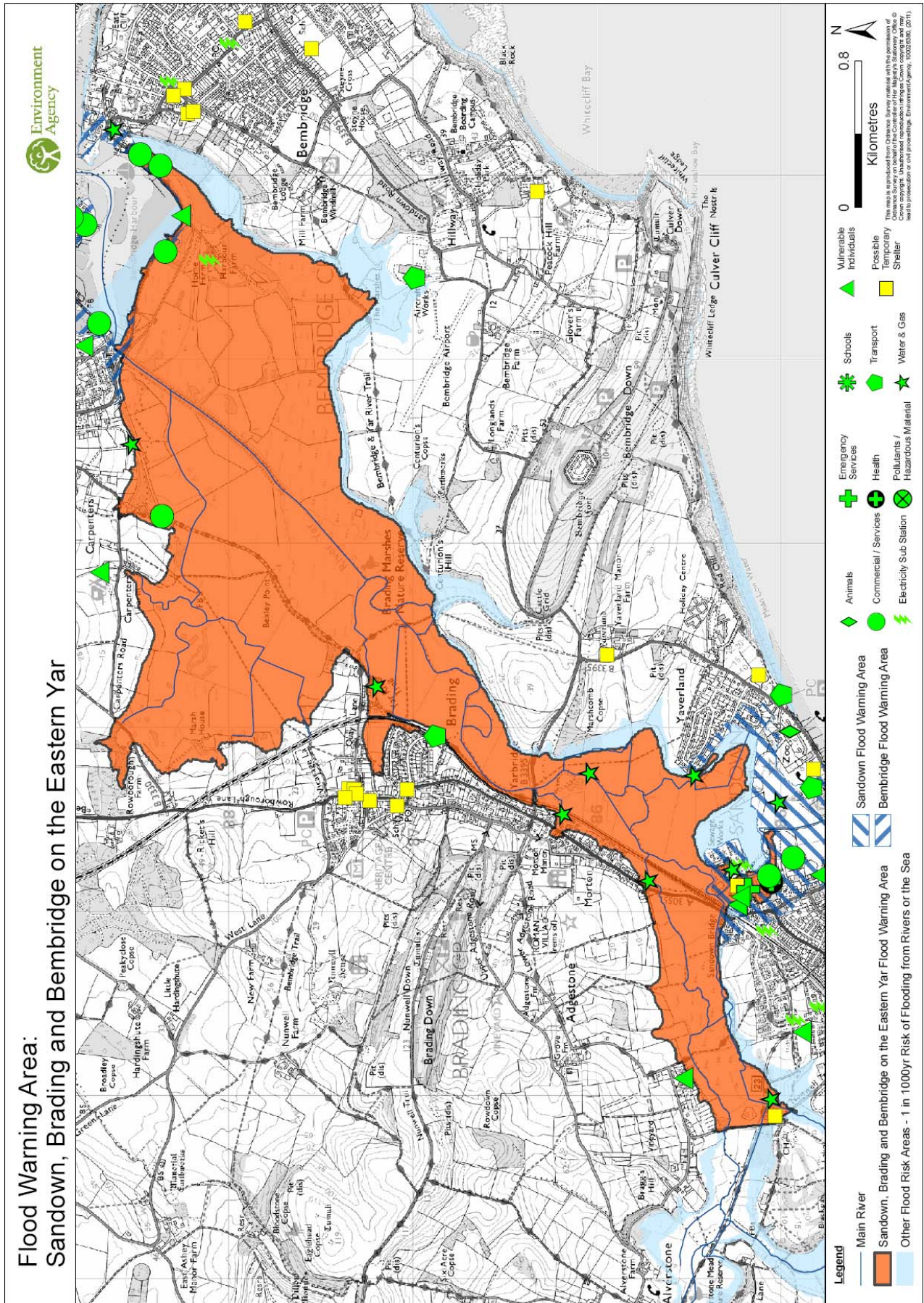
The locations listed within Infrastructure at Risk and Other at Risk are only as accurate as at the time of publication and do not aim to be exhaustive or identify all possible risks entities.

This information relates to coastal flooding. For additional information relevant to fluvial flooding:

Also see: Sandown, Brading and Bembridge on the Eastern Yar Community Flood Risk Summary

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SANDOWN, BRADING & BEMBRIDGE on the EASTERN YAR



Community Flood Risk Summary

Environment Agency Information

Area Description	Sandown, Brading and Bembridge on the Eastern Yar. This Flood Warning Area is adjacent to Bembridge Flood Warning Area And overlaps with Sandown Flood Warning Area		
Type of Flooding	Fluvial	Lead Time from warning to impact	2 Hours
Estimated Return Period	1:25 years		
Floodline Warnings Direct Target Area Reference Code	072FWF7102	Floodline Warnings Direct Telephone Number & Quick Dial Reference	0845 988 1188 Ref. 0121222
Number of Properties at Risk	423	Number of Properties Signed Up to Floodline Warnings Direct	264
Catchment Response	The catchment responds rapidly to rainfall		
Flood History	July 1992: Surface water flooding caused by 30mm rainfall in 11 hours		
	Oct 2000: 4 properties flooded at East Yar Road and 1 property was affected at Avenue Road Caravan Park, Sandown. 1 property in Nicholas Close, Brading flooded and 5 others were affected. A further property in Moreton Road was affected. 3 properties flooded in High Street and Steyne Road, Bembridge probably as a result of surface water and high groundwater levels. Water levels caused damage to Island Rail's Monktonmead Brook track		
	2001: Extensive floodplain inundation from the Eastern Yar affected properties in Alverstone, Newchurch and Sandown		
	Dec 2003: At least 1 property in Nicholas Close, Brading flooded and the road was also affected by high groundwater levels. At least 2 properties flooded in Fishermans Walk and Steyne Road, Bembridge and further flooding of cellars in Binstead Road occurred as a result of sewer backup		
	Oct 2005: Flooding at Bembridge and St Helens Harbours and in the vicinity of Home Farm		
Feb 2009: Heavy rainfall fell with totals of up to 50mm in 24 hours and 38mm in 12 hours. Due to a combination of low pressure and strong southerly winds there were significant surges along the coast which occurred on top of spring tides			

Flood Defences And Assets	<p>The Environment Agency maintains a section of channel and natural bank defences upstream of the Bembridge Sluices. The banks extend across the dismantled railway and through Carpenters Farm, up to Carpenters Road. The floodbanks flood annually just upstream of the Bembridge Sluices. It is estimated that the level of protection to properties within the area is 1 in 20 years.</p> <p>There are other defences which are not owned or operated by the Environment Agency</p>
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Local Authority Information

Infrastructure at Risk <p>refer to: Local Authority Emergency Response Plan Annex 3</p>	Emergency Services <ul style="list-style-type: none"> • Sandown Fire & Rescue Station, East Yar Road, Sandown PO36 9AX Transport <ul style="list-style-type: none"> • Railway Track through Sandown, Moreton, Yarbridge and Brading • Railway Station, Brading • Highway A3055 Moreton Road at Sandown Bridge • Bembridge Airport, and Aircraft Works, off Sandown Road, Bembridge • x3 Car Parks at Sandown and Yaverland Seafront Water/Gas <ul style="list-style-type: none"> • Southern Water Sewage Treatment Centre, Sandown PO36 0BD • Southern Water Pump House, Sandown PO36 8QL • Southern Water Pump House, Sandown PO36 8QJ • Southern Water Pumping Station, Sandown PO36 0BL • Southern Water Treatment Centre, Sandown PO36 9PR • Southern Water Pump House, Sandown PO36 0EL • Southern Water Pump House, Sandown PO36 8ED • Southern Water Pumping Station, Bembridge PO35 5NP • St Helen's Sewage Works, at end of Magdella St Michaels PO33 1YJ
Other at Risk <p>refer to: Local Authority Emergency Response Plan Annex 3</p>	Vulnerable Individuals <ul style="list-style-type: none"> • Riverside Caravan Site, Avenue Road, Sandown PO36 9AL • Sandown Holiday Chalets, Avenue Road, Sandown PO36 9AP • Caravan Site off Brickfields Way, Sandown PO36 8BU • Yarborough House, Homeless Accom., 11 Fort Mews, Sandown PO36 8BH • Information provided by NHS PCT & LA Social Care GIS databases • Hotels, B&B's and tourist accommodation in Sandown town centre Agriculture <ul style="list-style-type: none"> • Farmland surrounding Home Farm and Harbour Farm, Bembridge, Yaverland and Sandown Animals <ul style="list-style-type: none"> • Sandown Zoo, Yaverland Seafront, Sandown PO36 8QB (on the edge of the Flood Warning Area)

<p>Other at Risk</p> <p>refer to: Local Authority Emergency Response Plan Annex 3</p>	<p>Commercial/Services</p> <ul style="list-style-type: none"> • Works PO33 1YW • Works, Bembridge PO35 5NR • Senator Trading Estate, College Close, Sandown PO36 8EA • Redstone Business Centre, Marsh Close, Sandown PO36 8EU • Tourist attractions in Brading and Sandown Seafront <p>Pollutants and Hazardous Materials</p> <ul style="list-style-type: none"> • Locations of commercial premises that contain significant pollutants and hazardous materials will be known to the Environment Agency and Fire and Rescue Service
<p>Local Authority Designated Rest Centre</p>	<p>refer to: Local Authority Emergency Response Plan Annex 3</p>
<p>Other Known Possible Temporary Shelter</p> <p>refer to: Local Authority Emergency Response Plan Annex 3</p>	<ul style="list-style-type: none"> • Sandham County Middle School, Perowne Way, Sandown PO36 9JU • Yaverland Sailing and Boating Club, Yaverland Road PO36 8QS • Beverley Community Hall & Annex, St John's Church, Carter St, Sandown • Church PO36 0DX • St Mary's Church Hall, High Street, Sandown PO36 0ED • Civic Hall, PO36 0DG • The Stables Pub, 30 High Street, Sandown PO36 0DG • Church & Civic Hall PO36 0ED • Church / Place of Worship PO36 8QW • Brading Town Hall, The Bull Ring, High Street, Brading PO36 0DF • Brading Youth Club, High Street, Sandown PO36 0DH • Wight Leisure, Culver Parade, Sandown PO36 8QA • Wight Leisure, Unit 2-3, East Yar Road, Sandown PO36 9AY • Coastal Leisure, 13 Marsh Close, Sandown PO36 8EU • Bembridge Methodist Church Hall, Foreland Rd, Bembridge PO35 5UD • Bembridge Village Hall, High Street, Bembridge PO35 5SD • Community Centre PO35 5UL • Country Club PO35 5PL • Church / Place of Worship PO35 5SE

The locations listed within Infrastructure at Risk and Other at Risk are only as accurate as at the time of publication and do not aim to be exhaustive or identify all possible risks entities.

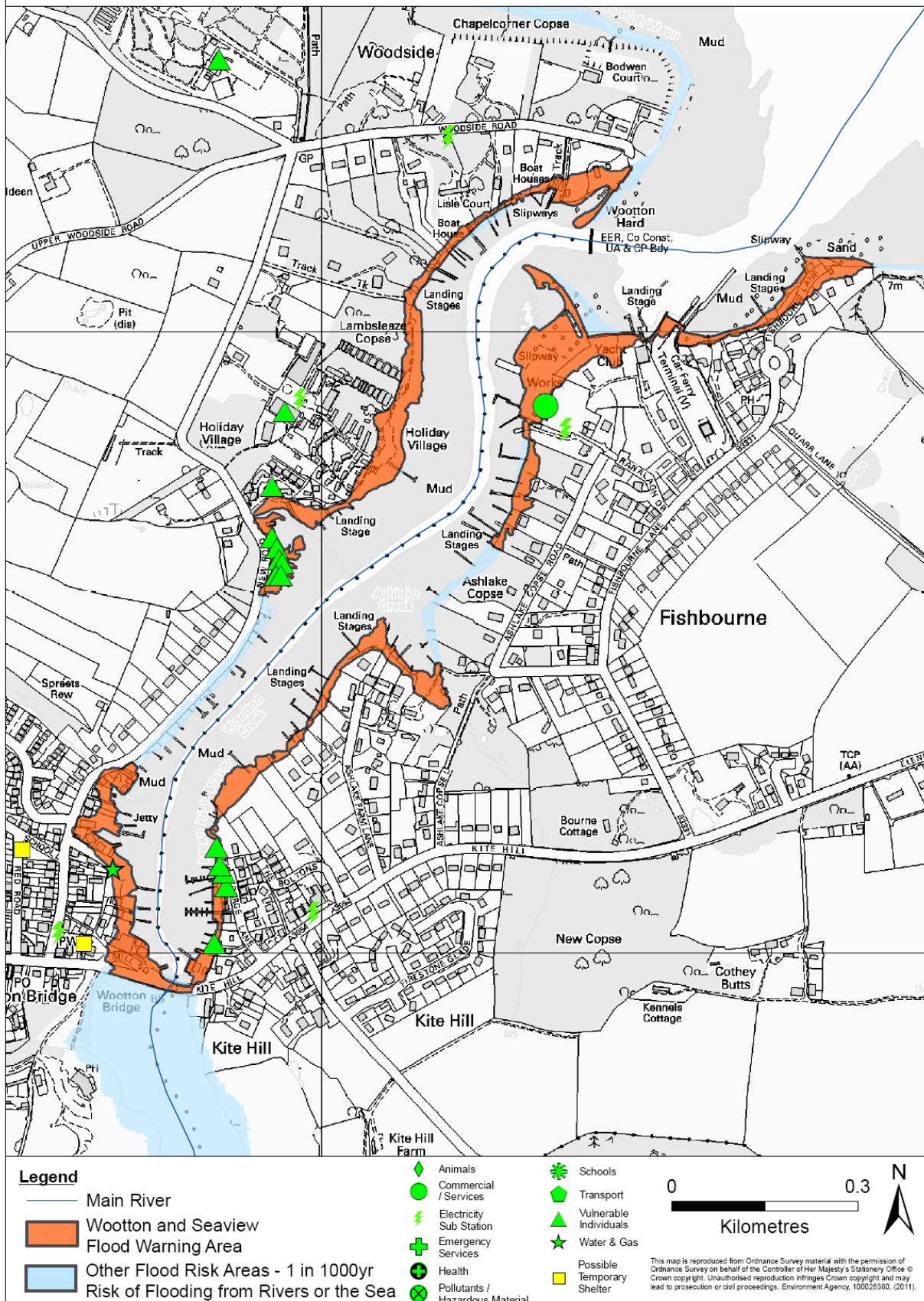
Also see: Sandown Community Flood Risk Summary

Also see: Bembridge Community Flood Risk Summary

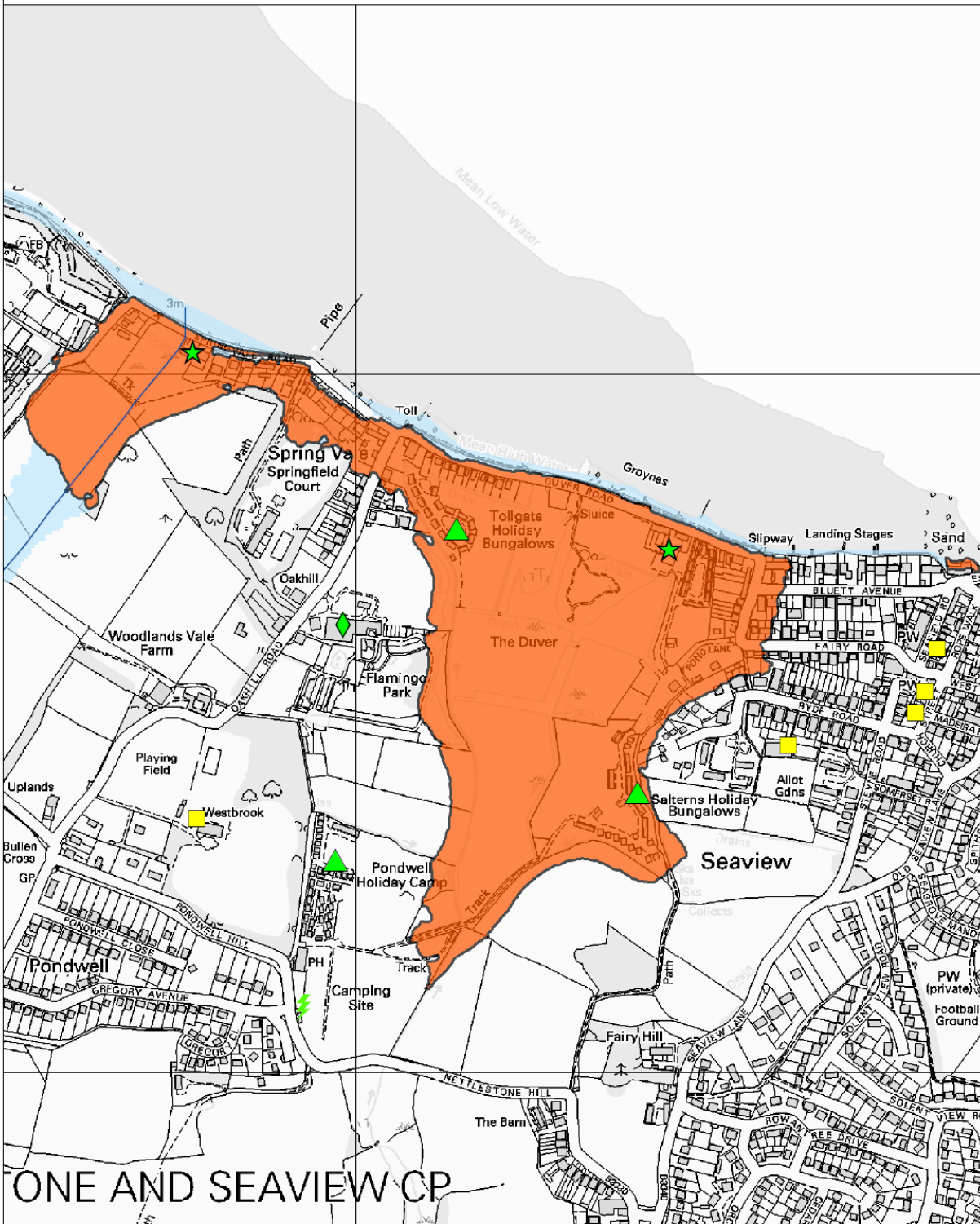
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WOOTTON & SEAVIEW

Flood Warning Area: Wootton and Seaview (Map 1)



Flood Warning Area: Wootton and Seaview (Map 2)

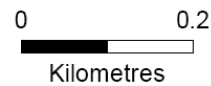


Legend

- Main River
- Wootton and Seaview Flood Warning Area
- Other Flood Risk Areas - 1 in 1000yr Risk of Flooding from Rivers or the Sea

- Animals
- Commercial / Services
- Electricity Sub Station
- Emergency Services
- Health
- Pollutants / Hazardous Material

- Schools
- Transport
- Vulnerable Individuals
- Water & Gas
- Possible Temporary Shelter



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Community Flood Risk Summary

Environment Agency Information

Area Description	Coastal areas at Wootton and Seaview		
Type of Flooding	Coastal	Lead Time from warning to impact	2 hours
Estimated Return Period	1:10 years		
Floodline Target Area Reference Code	072FWC8301	Floodline Warnings Direct Telephone Number & Quick Dial Reference	0845 988 1188 Ref. 012111
Number of Properties at Risk	126	Number of Properties Signed Up to Flood Warnings Direct	100
Flood History	Jan 1993: Flooding of Mill Square, Wootton cause by high spring tides coupled with heavy rain, wind and sea surge		
	Dec 1993: Flooding of 3 properties at Puckpool Hill and Springvale Road, Seaview		
	Dec 1999: Flooding of 3 properties in Duver Road, Seaview caused by overtopping of defences. 4 other properties in Duver Road also affected. Flooding of Mill Square, Wootton caused by high tide coinciding with high river levels		
	Sep 2000: Flooding of Mill Square		
	Dec 2000: Flooding of Mill Square		
Flood Defences and Assets	There are no known Environment Agency Flood Defences in this area, but other defences not owned or operated by the Environment Agency do exist		

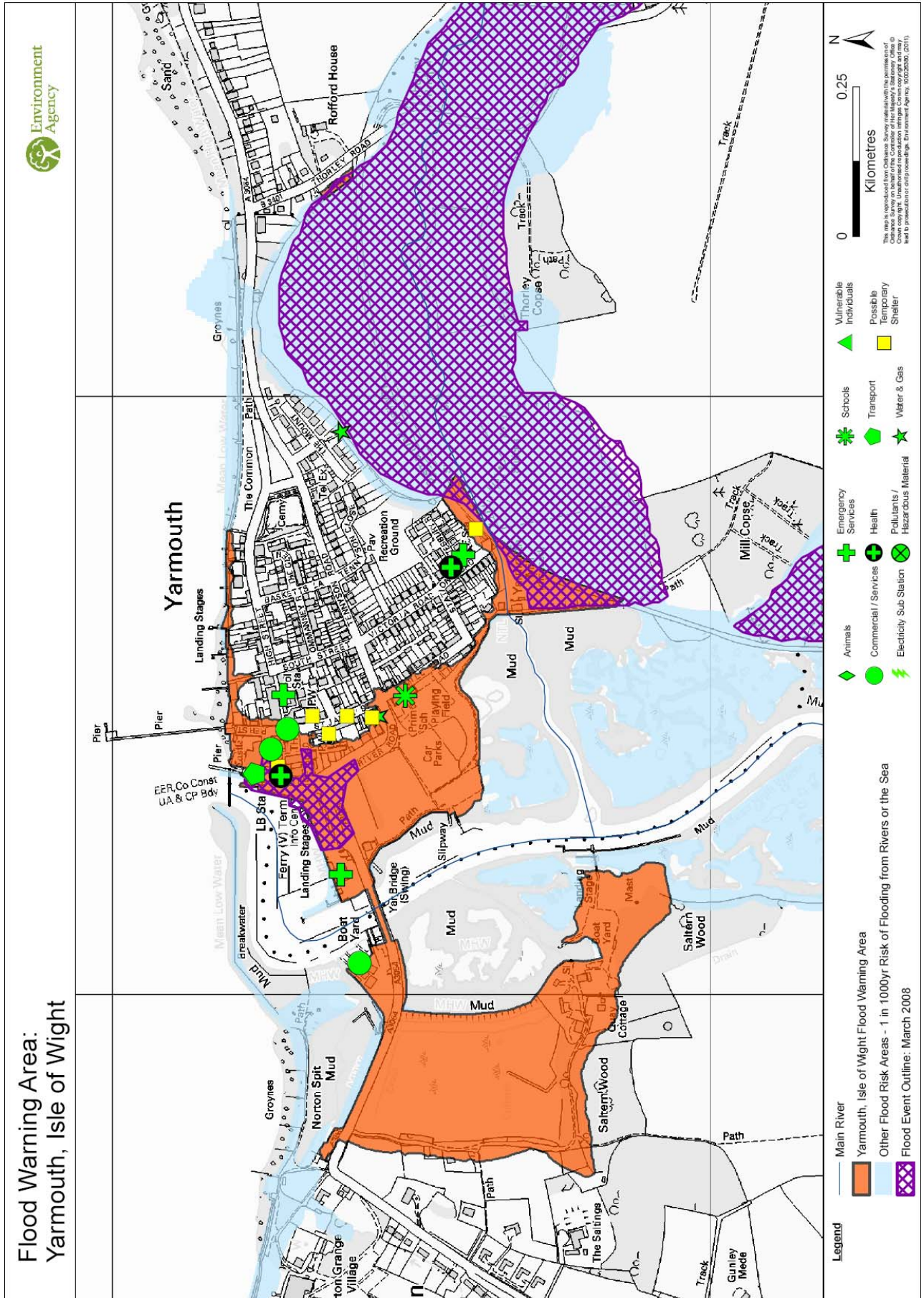
Local Authority Information

Infrastructure at Risk refer to: Local Authority Emergency Response Plan Annex 3	Water/Gas <ul style="list-style-type: none"> • Southern Water Pumping Station PO34 5AU • Southern Water Sewage Pumping Station PO33 4HX • Southern Water Pumping Station PO34 5AW
Other at Risk refer to: Local Authority Emergency Response Plan Annex 3	Vulnerable Individuals <ul style="list-style-type: none"> • Little Canada Holiday Village, New Road, Wootton PO33 4JP • Creek Gardens Holiday Village, New Road, Wootton PO33 4JN • Privately owned, moored houseboats, Wootton Creek • Salterns Holiday bungalows, off Salterns Road, Seaview PO34 5AQ • Tollgate Holiday bungalows off Duver Road, Seaview PO34 5AQ • Pondwell Holiday Camp, off Pondwell Hill, Pondwell PO34 5AQ • Information provided by NHS PCT & LA Social Care GIS databases • Hotels and B&B's along Springvale Road and Duver Road Animals <ul style="list-style-type: none"> • Flamingo Park, Springvale Road, Seaview PO34 5AP Commercial/Services <ul style="list-style-type: none"> • Works on Wootton Creek, off Ashlake Copse Road Pollutants and Hazardous Materials <ul style="list-style-type: none"> • Locations of commercial premises that contain significant pollutants and hazardous materials will be known to the Environment Agency and Fire and Rescue Service
Local Authority Designated Rest Centre	refer to: Local Authority Emergency Response Plan Annex 3
Other Known Possible Temporary Shelter refer to: Local Authority Emergency Response Plan Annex 3	<ul style="list-style-type: none"> • Beulah Evangelical Hall, Steyne Road, Seaview • Nettlestone Primary School, Nettlestone Green, Seaview PO34 5DY • Wootton Bridge Community Centre, Brannon Way, Wootton Bridge PO33 4NU • Wootton Methodist Church, High Street, Wootton, Ryde PO33 4PE • St Peter's Church, Church Street, Seaview PO34 5EN • Wootton Youth Centre, New Road, Wootton, Ryde PO33 4HX • Isle of Wight Sports Club, Ryde Road, Seaview PO34 5AD • Crusaders Union Youth Club, Oakhill Road, Ryde PO33 1PU • Catholic Church, Seafield Road, Seaview PO34 5HD

The locations listed within Infrastructure at Risk and Other at Risk are only as accurate as at the time of publication and do not aim to be exhaustive or identify all possible risks entities.

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YARMOUTH



Community Flood Risk Summary

Environment Agency Information

Area Description	Coastal areas at Yarmouth		
Type of Flooding	Coastal	Lead Time from warning to impact	2 hours
Estimated return Period	1:20 years		
Floodline Warnings Direct Target Area Reference Code	072FWC8001	Floodline Warnings Direct Telephone Number and Quick Dial Reference	0845 988 1188 Ref. 012114
Number of Properties at Risk	154	Number of Properties Signed Up to Floodline Warnings Direct	112
Flood History	<p>Dec 1989: Serious flooding affected 2 properties in Gasworks Lane as a result of overtopping of flood defences</p> <p>10 Mar 2008: 2 properties at The Quay, Yarmouth flooded and others were affected by flooding caused by coincidence of a high tide and tidal surge. The garden of the Kings Head Pub was flooded, as was the carpark area at Yarmouth Harbour. Bridge Road, Quay Street, The Quay and River Road were also affected by flooding</p>		
Flood Defences and Assets	There are no known Environment Agency Flood Defences. Other defences not owned or operated by the Environment Agency exist		

Local Authority Information

<p>Infrastructure at Risk</p> <p>refer to: Local Authority Emergency Response Plan Annex 3</p>	<p>Water/Gas</p> <ul style="list-style-type: none"> Southern Water Pumping Station, Yarmouth PO41 0NU Southern Water Pumping Station, Yarmouth P041 0RB <p>Emergency Services</p> <ul style="list-style-type: none"> Yarmouth Fire & Rescue Service Station, Station Road PO41 0QT Yarmouth Police Station, High Street PO41 0PL RLNI Lifeboat Station, A3054 PO41 0PG <p>Transport</p> <ul style="list-style-type: none"> Wightlink Car Ferry Terminal PO41 0PB Yarmouth road bridge and River Road Highway A3054 Tennyson Road <p>Health</p> <ul style="list-style-type: none"> The Surgery, Station Road, Yarmouth PO41 0QP (50m from the Flood Warning Area)
<p>Other at Risk</p> <p>refer to: Local Authority Emergency Response Plan Annex 3</p>	<p>Vulnerable Individuals</p> <ul style="list-style-type: none"> Information provided by NHS PCT & LA Social Care GIS databases <p>School</p> <ul style="list-style-type: none"> Yarmouth CE Primary School <p>Commercial/Services</p> <ul style="list-style-type: none"> Food stores, cafes and Public Houses in Yarmouth village Boat yard, Yarmouth marina Post Office, Yarmouth village <p>Pollutants and Hazardous Materials</p> <ul style="list-style-type: none"> For commercial premises with significant pollutants and hazardous materials refer to Environment Agency and Fire & Rescue Service
<p>Local Authority Designated Rest Centre</p>	<p>refer to: Local Authority Emergency Response Plan Annex 3</p>
<p>Other Known Possible Temporary Shelter</p> <p>refer to: Local Authority Emergency Response Plan Annex 3</p>	<ul style="list-style-type: none"> Yarmouth Institute, St James Street, Yarmouth PO41 0NU Yarmouth Youth Club, Station Road, Yarmouth PO41 0QT Yarmouth Methodist Church, St James Street, Yarmouth PO41 0NU Kings Head Pub, Quay Street, Yarmouth PO41 0PB St James Church, James Street, Yarmouth PO41 0NP Norton Grange Holiday Resort, A3054 PO41 0SD The West Bay Club (previously The Savoy Holiday Village), Halletts Shute, Yarmouth PO41 0RJ Newbridge Community Centre, Main Road, Newbridge, Yarmouth PO41 0TR

The locations listed within Infrastructure at Risk and Other at Risk are only as accurate as at the time of publication and do not aim to be exhaustive or identify all possible risks entities.

Section 7 – Flood Response Resources

7.1 Sandbag Policy

It is the responsibility of property owners to take reasonable measures to protect their property and land from flooding, providing that these measures do not cause harm to others. The Local Authority does not routinely provide sandbags to the public. Members of the public requiring sandbags to protect their property from the risk of flooding are advised to consult the local telephone directory to locate local builder's merchants where sandbags and sand can be purchased.

If a significant flooding emergency is expected across the Island or over a large area, then the Local Authority may review its policy on the supply of sandbags, possibly deciding that sandbags can be made available at no cost to those whose property is at risk.

7.2 Flood Defence Equipment

There is 40 metres of steel flood defence barrier equipment owned by the Environment Agency and stored on the Isle of Wight, for deployment as necessary.

Additionally, Environment Agency contractors, Island-wide, have x2 JCB excavators, x4 tipper trucks, hand-tools and manpower in readiness for deployment.

Storm Boards are installed by the Isle of Wight Local Authority Maintenance Team, typically prior to the first spring tide in October, or before if necessary and are situated at:

- Various locations in Ryde, including Vectis Slipway Storm Gate
- Various locations in Freshwater, including Promenade Boat Park Access
- Various locations in East Cowes

Additionally, Storm Gates are located at a number of areas, including:

- Springvale Road
- The Duver

7.3 Flood Rescue

Assumes the use of only designated Flood Rescue Teams (whether from the Fire and Rescue Service or the Voluntary Sector) that are on the forthcoming Flood Rescue National Asset Register and meet the relevant team typing standard (not self-presenting operators whose standard of training and equipment will be unknown)

This National Asset Register will contain the details of all flood rescue responder teams that have met the required national standards for the relevant team type, which include: water rescue boat team (Type B) and water rescue technician team (Type C).

For further information, please refer to the Isle of Wight Fire & Rescue Service Display Special Procedures (DSP) for Water Rescue. Also, refer to Annex 1- Roles, Responsibilities and Actions, Section 4 Island Resilience Forum Tactical Co-ordinating Group

7.4 Water Rescue

Facilities for water rescue are not commonly in existence at this time. Primary water rescue rests with the RNLI, Maritime and Coastguard Agency search and rescue helicopters and the Fire and Rescue Service water rescue facility, using their own inland waters inflatable craft resources.

Offers from voluntary organisations or individuals must be treated with caution and consideration, due to the liabilities involved. Those that are willing, but do not have the necessary qualification, expertise or training may become a risk to themselves and / or others. A full risk assessment of their activities should be undertaken or presented before their service has been approved and validated and a decision is made to deploy their assistance.

There are ongoing discussions between the Fire and Rescue Service and the voluntary organisation Maritime Volunteer Service (MVS) Solent Unit with the view to develop a memorandum of understanding for the deployment of their equipment (flat bottom, shallow draft boats).

7.5 Flood Water Pumping Services

During a flooding emergency, the Fire and Rescue Service may not be available to pump out flood water from private property. Efforts will be focused on protecting risk to life and risk to key vulnerable infrastructure.

Resource permitting, it may be possible to deploy an officer to assess the extent of flood damage, who will then be in a position to offer advice.

Priority will be given to members of the public who are most vulnerable.

