

Foreword

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This is the first Vale of Glamorgan Strategy for Local Flood Risk Management and it is a key step in ensuring that the risk of flooding in the Vale of Glamorgan is dealt with as whole, joining up the work done by the Council, Government Bodies and Water Companies with that of communities and individual householders. During recent years, areas of the United Kingdom having been subjected to devastating flood events. Communities within the Vale of Glamorgan, such as Boverton, Llantwit Major, Llanmaes and the Coldbrook Catchment in Barry have also experienced the severe impacts and consequences of flooding. It is widely accepted that floods such as these are likely to become more frequent as the effects of climate change develop. The consequences of an increase in flooding will be a greater risk to life, the economy and the environment of the Vale.

The Strategy considers how various activities can assist in managing flood risk, including better planning policy to ensure new development does not increase flood risk for its neighbours, the efficient management of surrounding landscape to reduce flooding at source and to ensure that emergency responses are targeted where flood risk is greatest. However the activities identified in this Strategy can only contribute to the management of flood risk. It would not be realistic, even if we were not experiencing a period of austerity, to protect all property and infrastructure from flood risk. Instead efforts need to be made by all involved, organisations and householders alike, to reduce flood risk in practical ways not only by reducing the probability of flooding but also its impact, making sure that properties can cope in the event of a serious flood.

It is recognised that, in the past, the different organisations involved in risk management have not always worked together effectively enough in tackling the difficult problems that flood risk often creates. It is vital that organisations work better not just with each other but crucially with the public. This is why the strategy details the roles and responsibilities of all major stakeholders, including households and community groups, so that there is better clarity and understanding about when different stakeholders should be involved.

This Strategy focuses on 'local flood risk', defined as flooding caused by surface runoff, groundwater and ordinary watercourses (streams, ditches etc). This type of flooding was the cause of most of the damage of the local floods of 1998, 2000 and 2007 and need to be taken as seriously as flooding from main rivers or the coast. However it is not the source of flooding but the effects that matter to those affected and we are keen to make sure that all forms are managed together and tackled according to level of risk rather than by what caused it or who shouts loudest. The Strategy therefore sets out how we will work collaboratively with other key stakeholders to input into the management of all sources of flood risk and ensure that investment decisions are made according to levels of risk.

Assessing levels of risk from flooding is a difficult task. With greater development and increasingly uncertain weather patterns, houses that have never been flooded in living memory may be at risk. We recognise householders may have concerns about using modelling software to determine areas of flood risk or are likely to be at risk of flooding in the future, but they are crucial to ensuring that limited resources are used most effectively to reduce the impact and probability of properties being flooded, and to target resources to areas at the highest risk.

The Local Flood Risk Management Strategy is our statement of intent for dealing with flood risk within the Vale of Glamorgan and ensuring that our communities, infrastructure and the wider environment are more resilient to the impacts of flooding and climate change. I hope it will help you become better informed of everyone's responsibilities, how to find out your flood risk and what we can do to help you become safer.

INTRODUCTION

The Flood and Water Management Act 2010 places a responsibility upon Local Authorities, as Lead Local Flood Authorities, to develop, maintain, apply and monitor a strategy for local flood risk management (a 'Local Strategy'). This Local Strategy forms the framework within which communities have a greater say in local risk management decisions.

The Vale of Glamorgan County Borough Council (The Vale) has produced a strategy that details the objectives and measures that have been developed to outline, at a high level, how the Authority intends to manage flood risk within the life of this particular strategy and sets out to adopt a holistic approach to flood risk management.

Under this legislation, the Vale of Glamorgan County Borough Council, as Lead Local Flood Authority (LLFA), has a duty to produce the strategy in partnership with other risk management authorities.

The content of the Local Strategy has been developed in line with the vision and priority outcomes of the Vale of Glamorgan Community Strategy. The Local Strategy is also aligned with the National Strategy for Flood and Coastal Erosion Risk Management in Wales. It provides the key local information to facilitate common understanding of local flood risk, who is involved, what their responsibilities are, objectives and practical measures to deliver the objectives over time. The purpose of the Strategy is to assess local flood risks, encourage partnership working, influence local planning policy, direct available resources to those most at risk and enable the Vale of Glamorgan Council to fairly and transparently manage flood risk within the community.

1 WHAT IS FLOODING?

The Flood and Water Management Act 2010 devolves the management of local flood risk to The Vale. Local Flood Risk is defined as flooding from surface water, groundwater and ordinary watercourses, such as small rivers, streams and ditches. A full description of these sources of flooding is provided in the table below:

Table 1.0 – Flood Source and Mechanism

Flood Source and Mechanism	Responsibility				
	Vale of Glamorgan Council	Natural Resources Wales	Dwr Cymru / Welsh Water	Vale of Glamorgan Highways	South Wales Trunk Road Agency
<u>Surface Water</u> - Runoff as a result of high intensity rainfall when water is ponding or flowing over the ground surface before it enters the underground drainage network or a watercourse	●				
<u>Ordinary Watercourse</u> - Flooding which occurs as a result of the capacity of the ordinary watercourse being exceeded resulting in out of bank flow (water coming back out of rivers and streams).	●				
<u>Groundwater</u> - Occurs when the water level within the groundwater aquifer rises to the surface	●				
<u>Main Rivers</u> - Occurs when a designated 'Main River' cannot cope with the volume water draining into it from the surrounding land and it spills onto the surrounding area.		●			
<u>Coastal</u> - Occurs when a high astronomical tide and / or storm (tidal surge) exceeds the level of coastal land or coastal flood defences. Inland flooding can also be caused by 'tide locking' of rivers or estuaries		●			

Flood Source and Mechanism	Responsibility				
	Vale of Glamorgan Council	Natural Resources Wales	Dwr Cymru / Welsh Water	Vale of Glamorgan Highways	South Wales Trunk Road Agency
<u>Reservoirs</u> – Occurs when a reservoir / canal embankment or control fails and releases a large volume of retained water into the downstream area.		●			
<u>Sewer</u> - Flooding which occurs when the capacity of the underground drainage system is exceeded, resulting in flooding inside and outside of buildings.			●		
<u>Burst pipes or water mains</u> – Occurs when water supply or drainage infrastructure fails			●		
<u>Highways Flooding</u> – A combination of sewer and surface water flooding located on a highway				●	
<u>Highways Flooding (M4 / A4232)</u> - A combination of sewer and surface water flooding located on a main highway					●

The Vale is now taking the lead on the management of flooding from local sources with help from other risk management authorities. The strategy deals solely with the management of local flood risk.

The Strategy was completed and approved by Welsh Government in April 2014.

The responsibility for the management of flooding from main rivers and seas remains with Natural Resources Wales. For further information on the flooding from main rivers and seas, please visit www.naturalresourceswales.gov.uk

2 WHAT IS A LOCAL FLOOD RISK MANAGEMENT STRATEGY?

The Flood and Water Management Act 2010 (FWMA) places a responsibility upon Local Authorities, as Lead Local Flood Authorities (LLFAs), to develop, maintain, apply and monitor a strategy for local flood risk management (a 'Local Strategy').

The Local Strategy forms the framework within which communities have a greater say in local risk management decisions. In combination with the National Strategy, the Local Strategies encourage more effective risk management by enabling people, communities, business and the public sector to work together. It will do this by acting as the evidence base for the decisions and actions required for managing flood risk.

3 STRUCTURE OF THE LOCAL STRATEGY

The Local Flood Risk Management Strategy is comprised of several documents that support the main strategy document. The table below summarises structure of the Local Strategy and the key questions that are answered by each section.

Table 1-2: Structure of the Local Strategy

Section No.	Title	Key Questions
1	Introduction	What is a Local Flood Risk Management Strategy? Where can I find specific information within this document? What are the legislative drivers for this Strategy? What other document are related to the Strategy?

2	Local Flood Risk	What is 'local flood risk'? What flooding has happened in the past? What flooding could happen in the future? How do all the sources of flooding interact? Where are the highest risk areas? Who is most at risk? How are non-local sources of flood risk managed?
3	Roles and Responsibilities	Who is responsible for managing flood risk? What are the responsibilities of each of these organisations? Who do I contact about flooding?
4	Objectives and Measures	What are the National Objectives for management of flood risk? What are the Local Objectives for management of flood risk? What measures will be used to deliver the Local Objectives? Who will be responsible for implementing the measures? How will the measures be funded?
5	Funding and Implementation	Who will fund the measures? How will the measures be implemented?
6	Environmental Assessment	How will this Strategy impact the environment? How will the environmental impacts be managed? What will the environmental benefits be?
7	Review and Update	How often will the Strategy be reviewed? Who is responsible for update of the Strategy? How can I contribute to the Strategy? What happens after the consultation process?
8	References	Details of reference documents used to create the Local Strategy
Appendices	Various	Supporting documents for the Local Strategy – including a glossary of terms and consultation response forms.

4 LEGISLATIVE CONTEXT

There are two principle legislations that have influenced the management of flood risk

FLOOD AND WATER MANAGEMENT ACT (2010)

The Flood and Water Management Act (2010) places new responsibility on Local Authorities to manage and lead on local flooding issues. The Act requires Local Authorities to deliver new duties and responsibilities with regard to managing flood risk.

This Local Strategy is one of the new requirements of the Flood and Water Management Act. The FWMA reinforces the need to manage flooding holistically and in a sustainable manner. This has grown from the key principles within Making Space for Water (Defra, 2005) and was further reinforced by the summer 2007 floods and the Pitt Review (Cabinet Office, 2008). It implements several key recommendations of Sir Michael Pitt's Review of the Summer 2007 floods.

FLOOD RISK REGULATIONS (2009)

The Flood Risk Regulations (FRR) (2009) are the transposition of the European Union Floods Directive into English and Welsh law. The Regulations require three main types of assessment / plan to be produced:

- a) **Preliminary Flood Risk Assessments** (PFRA) to be completed by all LLFAs and the EA by the 22 December 2011. Flood Risk Areas, at potentially significant risk of flooding, were also identified.

Maps and management plans will be developed on the basis of these flood risk areas.

- b) **Flood Hazard Maps and Flood Risk Maps.** NRW and LLFA are required to produce Hazard and Risk Maps for all sources of flooding by 22 December 2013.
- c) **Flood Risk Management Plans.** NRW and LLFA are required to produce Flood Risk Management Plans for 'Flood Risk Areas' by 22 December 2015.

It should be noted that only (a) above is compulsory for all LLFAs. The Vale has produced a PFRA and is not within a Flood Risk Area. Therefore, the Council is only required to complete (a) and then review the document every six years.

The Vale was initially included within the Cardiff Indicative Flood Risk Area in the Wenvoe and Culverhouse areas. The boundary for the Cardiff Indicative Flood Risk area was revised during the PFRA process to run along the Local Authority boundary line and no longer encroaches on the Vale of Glamorgan.

It is important to note that the strategy is a high level document and does not state or detail any specific projects. It does state strategic actions along with principles to aid decision making for future flood risk management initiatives.

5 Local Flood Risk

There are several potential sources of flooding within The Vale. These interact with each other and can create complex flooding mechanisms in certain areas. This can make it difficult (or impossible) to determine overall sole responsibility for flooding in a specific area and it is often concluded that flooding is caused by multiple sources. While the Local Strategy is focussed on reducing the consequences of the 'local' sources of flooding, it also facilitates partnership working to manage risk with other organisations where multiple sources of flooding have occurred historically or are predicted to occur in the future.

Main River flooding accounts for the majority of all recorded flood events in the Vale of Glamorgan. Surface water flooding is difficult to quantify as many incidents are masked by the impact of Main River flooding or go unreported. However, based on anecdotal evidence and improved recording of recent incidents surface water flooding is believed to occur fairly frequently within the Vale of Glamorgan.

Localised groundwater flooding is reported to have occurred in Ewenny Village, St Brides Major, East Monkton, Rhose and Barry.

Localised floods have and will continue to occur in many areas of the Vale under severe weather conditions and climate change is likely to make them more frequent and more severe. The aim of this Local Strategy is to reduce the risks where possible and have emergency plans in place to deal with exceptional severe events.

A Preliminary Flood Risk Assessment (PFRA) was prepared in 2011 by The Vale to meet its duties to manage local flood risk under the Flood Risk Regulations 2009. As part of the PFRA, analysis was carried out to identify key areas in the Vale of Glamorgan where the potential risk of surface water flooding is expected to be greatest. The analysis was completed on a council wide basis and identified Dinas Powys, Llantwit Major and Cowbridge as at significant future risk from surface water flooding.

6 Objectives and Measures

One of the statutory requirements of a LFRMS is that it is consistent with the National Strategy for Flood and Coastal Risk Management. The National Strategy has four overarching objectives and eleven sub-objectives – these are summarised in the table below

No.	Objectives	Sub-Objectives
1	Reducing the consequences for individuals, communities, businesses and the environment from flooding and coastal erosion	1. Provide Strategic Leadership and Direction at a National Level
		2. Provide Strategic Leadership and Direction at a local Level
		3. Develop policies for effective land use management and enhanced development control procedures where appropriate
		4. Establish regular maintenance schedules for flood and coastal erosion risk management assets
2	Raising awareness of and engaging people in the response to flood and coastal erosion risk	5. Ensure that by 2026 everyone who lives in a flood risk area understands the flood risk they are subject to, the consequences of this risk and how to live with that risk
		6. Enhance property and community level resilience
3	Providing an effective and sustained response	7. Ensure the preparation and testing of Emergency Plans
		8. Respond to events in a timely and appropriate manner

	to flood and coastal erosion events	9. Facilitate recovery from flooding within the shortest possible timescales
4	Prioritising investment in the most at risk communities	10. Develop a National Programme of investment for flood and coastal erosion risk management 11. Increase the use of alternative sources of funding for flood and coastal erosion risk management

The main objective of the National Strategy is to reduce the consequences of flooding for individuals, communities and the environment. Therefore, the local objectives are targeted to improve management practices and reduce flood risk consequences. The strategy identifies the measures that The Vale will adopt to achieve the local objectives. Measures are activities that will be undertaken to manage risk and achieve the stated objectives.

The table below details the local objectives that the Vale will use to support delivery of the above national objective along with comments identifying how they align with other statutory duties / responsibilities / objectives / current activities where applicable.

Table 4-2: Reducing the Consequences – Local Objectives

No.	Local Objectives	Measures	Timescale for Implementation			Key Partners	Potential Funding	Comment
			Short	Medium	Long			
1	Provide leadership and direction at a local level	Lead and maintain a 'Local Partnership for Flood Risk Management' to discuss local flood risk issues and share information.	X	X	X	The Vale / Flood Forum	Revenue (FWMA Responsibility)	The Vale of Glamorgan Flood Forum currently meets on an approximately quarterly basis. Consider whether remit of flood forum should be expanded to form the partnership group LLFA duty under the FWMA
		Establish collaborative working relationships with neighbouring LLFA officers to manage cross-boundary flood risks	X	X	X	The Vale / Flood Forum	Revenue (FWMA Responsibility)	Refer Section 2 (Local Flood Risk) to identify key areas of interaction LLFA duty under the FWMA
		To provide clear guidance on responsibility on management of all sources of flood risk and support stakeholders to carry out their responsibilities	X	X	X	The Vale	Revenue (FWMA Responsibility)	Refer Section 3 for summary of roles and responsibilities for local flood risk management. Suggest this is reviewed annually. LLFA duty under the FWMA
		Create and implement a Local Flood Risk Management Strategy	x	X	X	The Vale	Revenue (FWMA Responsibility)	This document. Suggest interim reviews on a yearly cycle and full review on a six yearly cycle to accord with national Strategy reviews. LLFA duty under the FWMA

No.	Local Objectives	Measures	Timescale for Implementation			Key Partners	Potential Funding	Comment
			Short	Medium	Long			
2	Develop local planning control policies to ensure sustainable flood and coastal erosion risk management measures are delivered by development	Monitor the impact of LDP policies through Annual Monitoring Reports (AMRs) and review policies where required based on the best available local flood risk information	X			The Vale	Revenue (FWMA Responsibility)	Refer to LDP Monitoring Criteria – Core Indicators, required by national policy, will measure the amount of development permitted in flood zones. Additionally, Local Indicators, which measure the annual number of developments permitted in flood risk areas, may also be included in the LDP.
		Provide clear guidance on local flood risk management requirements for developers by working with NRW and other relevant partners to develop a comprehensive understanding of all sources of flood risks.	X			The Vale	Revenue	Link with overall council officer capacity building in relation to management of flood risk
		Establish a SUDS Approval Body (SAB) to review development proposals, adopt SUDS from developers and ensure sustainable flood management practices are implemented	X			The Vale	Revenue (FWMA Responsibility)	LLFA duty under the FWMA
		Develop and implement a planning process for identifying and 'designating' significant structures or features that have a 'significant influence on local flood risk'	X			The Vale	Revenue (FWMA Responsibility)	LLFA duty under the FWMA

No.	Local Objectives	Measures	Timescale for Implementation			Key Partners	Potential Funding	Comment
			Short	Medium	Long			
		Establish clear links between local flood risk and significant environmental sites ^[1] to understand the impacts and opportunities presented by their interaction	X			The Vale / NRW	Revenue	The HRA, SEA and WFD assessments will highlight these links
		Finalise and implement a clear policy on culverting of watercourses that is aligned with the national NRW policy and promotes positive environmental impacts.	X			The Vale / NRW	Revenue	Refer Draft Culverting Policy Consistent with CFMP
		Ensure that local flood risk management policy created by the Council is consistent with other existing Council policy and does not conflict with the policy of other local Risk Management Authorities	X	X	X	The Vale	Revenue	Coordinate through ongoing Flood Forum meetings and collaborative work
3	Establish and maintain an 'Asset Register' as defined by the FWMA	Create and maintain an Asset Register using a suitable software platform	X	X	X	The Vale	Revenue (FWMA Responsibility)	LLFA duty under the FWMA
		Establish a local definition of 'significant influence on local flood risk'	X			The Vale	Revenue	
		Populate the Asset Register with structures and features that have a 'significant influence on flood risk'	X			The Vale	Revenue (FWMA Responsibility)	LLFA duty under the FWMA
		Regularly review and update the Asset Register		X	X	The Vale	Revenue (FWMA Responsibility)	LLFA duty under the FWMA

No.	Local Objectives	Measures	Timescale for Implementation			Key Partners	Potential Funding	Comment
			Short	Medium	Long			
		Establish and implement maintenance schedules for high risk assets on the register that are the responsibility of the Council. These measures will safeguard natural conservation and protect the receiving environment	X			The Vale	Revenue (FWMA Responsibility)	LLFA duty under the FWMA
		Encourage maintenance of third party assets to safeguard nationally and internationally designated sites from inappropriate development	X	X	X	The Vale / Flood Forum	Revenue / Community / Private	
		Encourage maintenance of privately owned assets and minimise unnecessary constrictions in watercourses	X	X	X	The Vale / Communities	Revenue / Community / Private	
4	Seek to reduce flood risks & consequences to identified high risk areas	Undertake detailed studies to identify the causes and consequences of flooding in these areas, both now and in the future	X	X	X	The Vale / NRW / Welsh Water / Affected Communities	Revenue / Local Levy / FDGiA	Refer Prioritisation of Areas in Section 2 (Local Flood Risk)
		Undertake a feasibility studies to investigate options for reducing flood risk in high risk areas confirmed by detailed studies	X	X	X	The Vale / NRW / Welsh Water / Affected Communities	Revenue / Local Levy / FDGiA	Consistent with CFMP actions
		Promote deculverting, particularly as land comes up for redevelopment, through implementation of the culverting policy and relevant UDP / LDP policies - These policies will ensure that biodiversity interests are protected in accordance with national regulations and guidance.	X	X	X	The Vale / NRW / Welsh Water	Revenue / Local Levy / FDGiA	Consistent with CFMP actions

7 Funding

It is important to identify what funding mechanisms are available to the Vale and its partners to pay for the measures that are proposed. It is likely that funding will need to be sought from a variety of sources in order to deliver projects as central government funding will be limited each year and may only provide a contribution towards the costs of planned schemes. Additional local funding may be required to facilitate projects going ahead.

8 Review, Update and Monitoring

The Local Strategy should be reviewed and updated every six years as a minimum. It is logical to align the review cycle with the requirements of the Flood Risk Regulations (2009) and the review of the National Strategy for Flood and Coastal Erosion Risk Management in Wales. The Regulations require another Preliminary Flood Risk Assessment (PFRA) to be completed in 2017 and similarly, the review of the National Strategy is also programmed for 2017. The review processes will highlight any new flood risk information and this can then be used to update the Local Strategy in late 2017. In addition, there may be circumstances which should trigger a review and/or an update of the Strategy in the interim.

As the Lead Local Flood Authority, The Vale is responsible for monitoring the implementation of this Local Strategy. This includes monitoring its own activities and those completed by other Risk Management Authorities.

Further Information

For further information on the Local Flood Risk Management Strategy, or other Flood Risk Management issues, please visit www.valeofglamorgan.gov.uk/flood or contact the Flood Risk Management Team at fcerm@valeofglamorgan.gov.uk