

## **Torbay Council Draft Local Flood Risk Management Strategy**

### **Summary Report**

#### **Torbay Council's Role in Managing Local Flooding**

Under the Flood and Water Management Act 2010, Torbay Council now has new powers and responsibilities for coordinating local flood risk management. We are now a Lead Local Flood Authority (LLFA) and have a responsibility to work with local partners to better manage local flooding.

One of the key requirements to our new responsibilities is the requirement to develop, maintain, apply and monitor a strategy for local flood risk management in Torbay.

It is not economically, technically, socially or environmentally feasible to wholly prevent flooding. However, we can reduce and mitigate the impacts of flooding through good planning, management and effective investment. Our draft Local Flood Risk Management Strategy (LFRMS) sets out how we will meet our responsibilities.

#### **What Stage is the Strategy at?**

The development of the draft Strategy has been overseen by the Torbay Council Flood Steering Group which includes representatives from Torbay Council (both officers and members), the Environment Agency and South West Water. The Strategy is currently in draft form. Before it is finalised it is important that everyone has a chance to comment. Please make sure that your comments are returned by 19<sup>th</sup> December 2014.

The documents that make up the Strategy are as follows:

|  |  |
|--|--|
| Summary Document   | This document. This provides an overview of the Strategy, including the background, the findings of the flood risk assessment and the proposed actions.  |
| The Draft Local Flood Risk Management Strategy Report  | This is the main report. It includes an assessment of local flood risk. This explains the key flood risks in Torbay, the measures that have already been taken to minimise these risks and the measures and actions that will need to be taken in order to minimise these risks further. |
| Local Strategy Action Plan   | The action plan will be used to inform the medium term plan for flood defence funding. It allows flood risk management actions to be prioritised and for investment plans to be focussed and coordinated. The first action plan will be produced in 2015.                                |
| The Summary Document and the Draft Local Flood Risk Management Strategy Report are available on <a href="http://www.torbay.gov.uk">www.torbay.gov.uk</a> |  |

## **Links with Previous Work**

Although this is the first Local Flood Risk Management Strategy that has been prepared for Torbay, the Council has prepared a number of Torbay wide appraisals of flooding over the recent years. This Strategy builds on all of this information.

| <b>Document</b>  | <b>Description</b>   |
|--|--|
| Torbay Council Level 1 Strategic Flood Risk Assessment – October 2008  | The Level 1 Strategic Flood Risk Assessment provides guidance to planning officers, developers and other interested people about areas within Torbay where flood risk is an issue. This document helps to determine the impact of proposed strategic development options on flood risk.  |
| Torbay Council Level 2 Strategic Flood Risk Assessment – December 2010 | The Level 2 Strategic Flood Risk Assessment provides more detailed information on areas at medium or high flood risk and considers the nature of the flood hazard taking account of the presence of flood risk management measures such as flood defences. This allows a sequential approach to site allocation to be adopted within a flood zone. |
| Torbay Council Preliminary Flood Risk Assessment Report – June 2011    | A Preliminary Flood Risk Assessment was undertaken to assist Torbay Council meet their duties to manage flood risk and deliver the requirements of the Flood Risk Regulations 2009.  |
| Local Flood Risk Management Strategy                                   | This Strategy which is currently in draft form for consultation.   |

Following the consultation process the LFRMS will be reviewed and finalised. It will then be discussed by Council Members who will be asked to 'adopt' the document so that it becomes Council policy. Going forward there will be an annual review of actions plans, plus periodic reviews of the Strategy as a whole.

## **What is Local Flooding?**

Torbay Council's responsibility and the focus of the Strategy is the management of local flooding. By this we mean flooding from surface water, groundwater and ordinary watercourses. The table below provides more detail about each type of flooding.

| Type of Flooding  | Description   |
|---|---|
| Surface Water Flooding  | This occurs when rainfall cannot sink into the ground, overwhelms the local drains and flows across the ground. It is often (but not exclusively) associated with high intensity rainfall and occurs very quickly during or after the rainfall event. Surface water flooding is often quite localised and is much more difficult to predict than river or coastal flooding. This means there is often limited advanced notice of this type of flash flooding.           |
| Fluvial Flooding (from ordinary watercourses)   | This type of flooding occurs when an ordinary watercourse cannot hold the volume of water which drains into it from the surrounding land (known as a catchment). There is a network of streams, ditches and watercourses across Torbay that mainly discharge to coastal waters. In periods of heavy and/or prolonged rainfall some of these become inundated, which can result in flooding. This flooding can be exacerbated if the rainfall coincides with high tides. |
| Groundwater Flooding  | Water held beneath the surface of the ground is known as groundwater. This can cause flooding when the water levels rise above the surface. Levels of groundwater tend to respond to rainfall more slowly than water levels in watercourses or on the surface. This slow response of groundwater levels also means that when groundwater flooding occurs it tends to last longer than other forms of flooding, often for several weeks or months.                       |
| Managing the flood risk from all these types of flooding is the responsibility of Torbay Council in its role as Lead Local Flood Authority. |   |

These types of local flooding are becoming increasingly common, through more intense localised rainfall events. The most severe flooding is often caused when different types combine.

Developing the Strategy requires engagement with the Environment Agency and South West Water. The strategy identifies a partnership approach for dealing with all sources of river and sewer flooding.

## **Recent Flooding in Torbay**

In July 2007, Torbay experienced severe fluvial and surface water flooding in common with large parts of England. In heavy rainfall events the existing drainage network has capacity problems. This has resulted in parts of the sewerage network causing localised flooding over recent years due to hydraulic overload. Torbay Council, South West Water and the Environment Agency have worked together in partnership over recent years to deliver schemes to reduce the risk of flooding in some of these areas.

## **Who is Responsible?**

A wide range of organisations have a responsibility for managing local flooding. As flooding is normally caused by more than one source, the Risk Management Authorities need to work together to solve the problem and provide a long term solution.

| <b>Responsibilities for Managing Flood Risk in Torbay</b> |   |
|---|---|
| Torbay Council  | Torbay Council are the Lead Local Flood Authority and are responsible for taking the lead in managing flood risk from local sources and also where there is an interaction between these sources and Main Rivers or coastal flooding. Torbay Council also has other related roles in emergency planning and highway drainage. In our role as Local Planning Authority we are also responsible for ensuring that new developments put in place adequate measures to mitigate flood risk. |
| The Environment Agency                                    | The Environment Agency is responsible for managing flood risk from the Main Rivers and the Sea. It also has a key role in providing flood warnings to the public, supporting emergency responders when flooding occurs, protecting and improving the environment and promoting sustainable development.   |
| South West Water  | Torbay's local water and sewerage company, South West Water, is responsible for flooding from sewers. This often occurs at the same time as other types of flooding (particularly surface water flooding) and can be a result of blocked sewers or the sewer network becoming overwhelmed.  |
| Local Resilience Forum                                    | This is a multi-agency forum that coordinates work on risk assessment, contingency planning, training and exercises to enhance our preparedness for emergencies.  |
| Regional Flood and Coastal Committees                     | Primarily responsible for ensuring there are coherent plans to identify, communicate and manage the flood risk from all sources of flooding. RFCC's also have a key role in allocating government grants for flood and coastal erosion risk management to efficient, targeted and risk based projects.  |
| Brixham Town Council and Community Partnerships           | The Brixham Town Council and the Community Partnerships throughout Torbay have a key role to play in encouraging and supporting local groups to prepare for flooding, providing information to their community and preparing local community flood plans.   |
| Land and Home Owners                                      | People who own land through which a watercourse or Main River passes or adjoins (also known as riparian owners) have responsibility to make sure that the flow of water is not obstructed and maintaining existing flood defences.  |
| Developers  | Developers are responsible for properly considering flood risk so that they do not put occupants of new developments at risk or make things worse for existing neighbours.  |
| Residents   | Everyone has a role to play in reporting flooding problems and ensuring that they are themselves prepared for flooding, should it occur.  |

## **The Local Flood Risk Management Strategy Outcomes**

The aim of this Strategy is to help manage flood risk in a way that will benefit people, property and the environment. The following outcomes have been developed to support this aim. These outcomes will be used to guide the development and implementation of the Strategy.

### **Ten Outcomes for Torbay Council:**

1. To improve the understanding of local flood (surface water, groundwater and ordinary watercourse) and coastal risks.
2. Increasing individual and community awareness and preparedness for flood and coastal erosion events and the impacts of climate change of flood risk.
3. To collaborate with Flood Risk Management Authorities, stakeholders and the public to reduce flood and coastal risks and share data and resources to the greatest benefit.
4. To reduce the impact and consequences for individuals, communities, businesses and the environment from flooding and coastal erosion.
5. To ensure that planning decisions are properly informed by flooding issues and the impact future planning may have on flood risk management and long term developments.
6. Improve and/or maintain the capacity of existing drainage systems by targeted maintenance.
7. Take a sustainable approach to flood risk management balancing economic, environmental and social benefits.
8. Increase approaches that utilise the natural environment.
9. Ensure the development of skills required to implement effective and innovative flood risk management measures.
10. Identify projects and programmes which are affordable, maximising capital funding from internal and external sources.

## **Understanding the Potential Local Flood Risk**

An important part of the Strategy has been to undertake a risk assessment. This has helped to identify the areas likely to be most at risk from local flooding now and in the future. Torbay Council will use this information in order that we can target investment where it will provide the greatest benefit.

### **Previous Flooding**

Torbay Council holds records of where flooding is known to have occurred previously. Some of this data comes from flood reports (where a householder reports a flooding incident to the Council) and some is from surveys undertaken with highways, the Environment Agency and South West Water together with Devon & Somerset Fire and Rescue where local knowledge has been used to comment on areas that have suffered from flooding.

Whilst this information is often useful, we know that flooding is often not reported, therefore it is unlikely that this data gives an accurate impression of the flooding problems. In addition this data does not provide enough information to understand the probability of the flooding. We have therefore used the Torbay Council and Environment Agency modelling data about the probability of flooding. It should be noted that this data will identify some areas that are at risk from flooding but have not as yet been flooded.

### **Surface Water Flooding**

Surface water flooding or run-off is caused by water flowing overland following periods of intense rainfall, leading to flows or ponding of water. Surface water flooding can happen anywhere with very little warning and can disappear with a similar speed. Areas which have been historically subject to this type of flooding are likely to experience a higher probability of repeat flood events in the future due to the effects of climate change on future rainfall.

Significant work has been undertaken by Torbay Council to identify the risk and probability of surface water flooding as part of the works undertaken in producing the Preliminary Flood Risk Assessment in June 2011.

#### **Number of People at Risk from Surface Water Flooding**

| <b>Town</b> | <b>Number of People at Risk of Flooding</b> | <b>Sub-Catchment</b>   | <b>Number of People at Risk of Flooding</b> |
|-------------|---|--|---|
| Brixham     | 1,675                                       |  |   |
| Galmpton    | 150   |  |   |
| Paignton    | 4,168                                       | Cleennon Valley<br>Victoria Stream<br>Occombe Valley<br>Other areas including Collaton St Mary and Yalberton Watercourse | 473<br>1,404<br>2,008<br>283                |
| Torquay     | 3,908                                       | Torre Abbey<br>River Fleet<br>Edginswell<br>Babbacombe   | 1,137<br>1,952<br>367<br>452                |

## **Fluvial Flooding**

Fluvial flooding occurs when a river or ordinary watercourse reaches its capacity or suffers blockages and overtops its banks. This type of flooding can be influenced by a number of factors, but usually occurs following prolonged and heavy rainfall within the river/watercourse catchment area.

## **Groundwater Flooding**

Groundwater is the term used to describe water that is stored underground in aquifers. The aquifers are fed through the process of precipitation which percolates through the ground and includes all water that is not lost to surface water run-off and evapo-transpiration. Groundwater forms the foundation of the base flows within rivers and ordinary watercourses which are topped up with surface water run-off. Groundwater flooding occurs when the water held underground rises above these levels.

In Torbay flooding attributed directly to groundwater is difficult to apportion as groundwater flooding usually occurs in combination with pluvial and fluvial flooding. As groundwater flooding occurs in low lying areas, basements of residential housing and commercial buildings are usually impacted by this type of flooding.

## **Sewer or Highway Flooding**

Sewer or highway flooding is caused when flows or volumes of surface water exceed the capacity of the drainage infrastructure or where a blockage occurs. This type of flooding generally occurs following periods of intense rainfall leading to the drainage system being overwhelmed. Highway flooding can be exacerbated in the autumn when drainage gullies become blocked with leaves and other detritus.

## **Coastal Flooding**

Flooding from the sea occurs when water levels or waves overtop the crest of the coastal defences, or when defences are breached or collapse. The probability of a breach is dependant on four main factors, which are: weather conditions (generating large waves), wind direction (on-shore), high tides (particularly during spring tidal events) and the structural condition of the coastal defence. When these conditions combine the risk of flooding can be greatly enhanced as the predicted tide level can be raised by several metres. This phenomenon is known as storm surge and the most well known incidence within Torbay occurred in August 2004 where a combination of gale force winds, a high spring tide and rough seas caused many of Torbay's flood defences to be overtopped.

There is a risk of tidally influenced flooding along the entire coastline of Torbay especially in the main urban areas of Torquay, Paignton and Brixham.

## **Shared Responsibilities for Flooding**

There is a greater need for everyone to work together to address flooding issues and this Local Flood Risk Management Strategy for Torbay sets out how Torbay Council and its partner authorities intend to work together to manage flood risk from all sources. The table below identifies some of the various responsibilities in relation to flooding:

| <b>Who</b>                                      | <b>Responsibilities</b>   |
|---|---|
| Torbay Council                                  | Will need to continue to build its evidence base to help better understand flooding. We will also need to continue to work with partners, maintain assets and undertake work on watercourses. We will also develop a funding strategy for flooding and ensure planning policies address flood risk. |
| South West Water and the Environment Agency     | Will need to continue to work with Torbay Council on this Strategy and work in partnership to tackle sewer and Main River flooding respectively.  |
| Brixham Town Council and Community Partnerships | Community groups and flood groups need to prepare their own flood plans and consider whether they can help by inspecting flood management infrastructure in their area.   |
| Developers                                      | Need to ensure that they use sustainable drainage and design sites to make best use of natural drainage.  |
| Landowners                                      | Need to ensure that water is able to flow through their land without obstruction and regularly maintain and clear watercourses for which they are legally responsible.  |
| Individuals                                     | Should sign up for flood warnings and take their own steps to make their properties more resilient to flooding.   |

In addition it will be important to ensure that the threat from flooding is reduced through robust planning policies, good land management practices and regular maintenance of water bodies and water management structures.

## Measures and Actions

The table below shows the general measures Torbay Council have/will put in place to achieve the Strategy outcomes. Some of these measures are already being delivered, others are new commitments. The main Local Flood Risk Management Strategy document provides further details.

| <b>Outcomes</b> |   | <b>Key Actions to Achieve the Outcomes (full details available in main document)</b>   |
|-----------------|---|--|
| 1               | To improve the understanding of local flood (surface water, groundwater and ordinary watercourse) and coastal risks.  | Record all flooding incidents and where appropriate carry out investigations.<br>Identify and assess the condition of existing drainage assets to prioritise capital investment.<br>Create flood risk and hazard maps for areas at risk of significant flooding.   |
| 2               | Increasing individual and community awareness and preparedness for flood and coastal erosion events and the impacts of climate change on flood risk.                        | Raise public awareness of the impacts of climate change on flooding and coastal defences.<br>Make the public aware of available flood prevention and mitigation measures to protect their property and assets.<br>Target areas of historical flooding to increase awareness of emergency procedures in the event of a flood. |
| 3               | To collaborate with Flood Risk Management Authorities, stakeholders and the public to reduce flood and coastal risks, and share data and resources to the greatest benefit. | Identify responsibilities of riparian owners of managing their structures, through public engagement.<br>Undertake stakeholder engagement to identify responsibilities of flood risk partners.<br>Introduce internal and external debrief meetings following a flood.  |
| 4               | To reduce the impact and consequences for individuals, communities, business and the environment from flooding and coastal erosion.   | Identify areas at greatest risk of flooding and develop a capital cost investment programme to alleviate flooding.<br>Educate public on options for protecting their own properties through flood prevention option and resistance/resilience measures.  |
| 5               | To ensure that planning decisions are properly informed by flooding issues and the impact future planning may have on flood risk management and long term developments.     | Develop a process to create clear advice and direction to developers on flood risk management and drainage including incorporation of SuDS into new developments.<br>Establish a SuDS approval body.<br>Keep the planning department informed and up to date with flood areas in Torbay                                      |
| 6               | Improve and or maintain the capacity of existing drainage systems by targeted maintenance.  | Identify and assess the condition of existing drainage assets within Torbay, to prioritise capital investment.<br>Develop a risk based reactive and cyclical maintenance regime together with a programme for improving existing infrastructure.   |
| 7               | Take a sustainable approach to flood risk management balancing economic,  | Ensure the environmental consequences of implementing the LFRMS are considered against technical, economic and social benefits.  |

|    |   |   |
|----|---|---|
|    | environmental and social benefits.  | Consider the use of attenuation through wetlands to increase the length of flow durations, store flood water and provide amenity and ecological benefits.   |
| 8  | Increase approaches that utilise the natural environment.   | Adopt natural flood management techniques including SuDS.<br>Where possible incorporate multiple benefits such as water quality, biodiversity and amenity benefits.<br>Continue to implement Torbay Council non culverting statement. |
| 9  | Ensure the development of skills required to implement effective and innovate flood risk management measures.         | Provide appropriate staffing levels and develop staff expertise to deliver the requirements of the Flood and Water Management Act 2010.<br>Collaborate and provide support, training and network of staff across SW England.          |
| 10 | Identify projects and programmes which are affordable, maximising capital funding from internal and external sources. | Identify potential funding which may include communities and local businesses.<br>Investigate opportunities for match funding and grants.   |

### **Actions You Can Take**

There are lots of steps that you can take to make sure that you are aware of flood risks and are well prepared in the event of a flood. These include:

Sign up for flood warnings – Floodline is a free service that provides automated flood warnings by telephone, mobile, email, SMS text message or fax, whichever you prefer. You can sign up online at [www.environment-agency.gov.uk](http://www.environment-agency.gov.uk) or by calling Floodline on 0845 9881188.

Make a flood plan – Completing a community flood plan will help community members and groups plan how they can work together to respond quickly when flooding happens. A flood plan will help you decide what practical actions to take before and during a flood, which will help reduce the damage flooding could cause. You can download packs to help you write a flood plan from [www.environment-agency.gov.uk](http://www.environment-agency.gov.uk).

Prepare for flooding – Both the Environment Agency website and the Association of British Insurers website contains useful information about how you can prepare your home for a flood, what to do before a flood and what to do during a flood. The links to the relevant sections of these websites are contained within the Councils website, <http://www.torbay.gov.uk/index/yourbay/environment/floodriskman/floodingadvice.htm>

Report flooding – If you need to report a flood or blocked drain on a road or footpath, or flood which is related to a stream or ordinary watercourse you can report a problem using the following email address: [highways@torbay.gov.uk](mailto:highways@torbay.gov.uk) or phone 01803 550405.

If you suspect that a flood might be related to the public sewer system then please contact South West Water. They have a 24 hour telephone number which is 0344 346 2020. Further details are provided on their website [www.southwestwater.co.uk](http://www.southwestwater.co.uk).

## **Have Your Say**

Before you make your comments on the draft Local Flood Risk Management Strategy you might like to read the main Strategy report. This is available via our website on:

[www.torbay.gov.uk/index/yourbay/environment/floodriskman/floodpublishedreports.htm](http://www.torbay.gov.uk/index/yourbay/environment/floodriskman/floodpublishedreports.htm)

Comments should be returned via the following email address: [highways@torbay.gov.uk](mailto:highways@torbay.gov.uk) or by post to the following address:

Torbay Council

Engineering Section

Town Hall

Castle Circus

Torquay

TQ1 3DR

The closing date for comments is 19<sup>th</sup> December 2014.

## **What Happens Next?**

Once the consultation period has ended we will consider everyone's comments and finalise the Strategy. The Strategy will then be formally adopted by the Council.

## **Consultation Questions**

1. Do you think the Outcomes capture all the important issues?
2. Do you agree with the way we have assessed flood risk?
3. By assessing flood risk in this manner have we identified the most at risk areas?
4. What could your community do to better prepare and manage local flood risk?
5. Any other comments?