

North Devon Catchment Flood Management Plan – Revised Action Plan

Policy Unit 2 – Tav & Torridge Estuary

Policy 6 - Areas of low to moderate flood risk where we will take action with others to store water or manage run-off in locations that provide overall flood risk reduction or environmental benefits

Year Added	Action	Objective	Monitoring indicator	Success criteria	Organisations responsible	Timescale	Priority
2009	Develop System Asset Management Plans based on a review of the current maintenance activities. This includes the application of modelling techniques in areas of particular interest to investigate the impact of potential changes in maintenance.	Potentially all objectives	Development of system asset management plans. Identification of areas where the maintenance should be continued. Identification of areas where the maintenance can be reduced. Specification of potential biodiversity benefits.	Maintenance continues in the areas identified. Reduction in maintenance costs. Increase in biodiversity.	Environment Agency – Asset Management Team	Ongoing	High
2009	Investigate the managed realignment of the coast along the Tav - Torridge Estuary. Analyses existing modelling results and carry out new more targeted modelling (2d) and GIS work to identify the potential locations and to investigate the impact of the realignment on flood risk and the environment.	Potentially all objectives	Development of methodology. Identified locations for realignment. Identified potential areas of salt marsh land. Identified reduction in tidal peak levels. Realigned embankments.	Reduction in maintenance costs. Increase in salt marsh areas. Less frequent tidal flooding in areas upstream of the realigned banks. Increase in the number of migratory and over-wintering birds.	Environment Agency North Devon District Council Torridge District Council Biosphere Partnership Tav - Torridge Estuary Partnership Natural England NFU/ CLA	2008 - 2015	High
2009	Ensure spatial planning and development does not increase flood risk.	Soc 1 Eco 1 - 3	Number of planning applications accepted for inappropriate developments in the floodplain.	Compliance with PPS25. No inappropriate planning applications approved in the floodplain. No development approved by local authority against EA advice.	Environment Agency North Devon District Council	Ongoing	High

Year Added	Action	Objective	Monitoring indicator	Success criteria	Organisations responsible	Timescale	Priority
2009	Take action to reduce the impact of flooding through improved flood forecasting and advising. Engage the local partners and the community in increasing flood awareness. Make use of new technology as it becomes available.	Soc 1 Eco 1 Eco 2	Development of improved flood warning system. Number of flood wardens. Number of properties covered by flood warning services. Lead time.	Reduced flood warning lead time. Properties covered by warning service. Reduction in damages due to flooding.	Environment Agency	2015	High
2009	Investigate ways in which people can be moved out of flood risk areas over the lifetime of the CFMP. This applies particularly as housing deteriorates over the longer term.	Soc 1 Eco 1 Eco 2	Development of strategy. Number of people at risk. Number of properties at risk. Damages.	Inclusion in Local Development Frameworks and our Strategy Plan. Reduction of number of properties and people in flood risk areas. Reduction of damages.	Environment Agency, Including link back to National Policy Team District Councils Defra and Secretary of State	2050	Medium
2011	Combined tidal and fluvial, wave action and tidelocking risks need to be assessed at Taw/Torridge, Appledore and Instow.	Soc 1 Eco 1	Study completed	Improved understanding of risks	Environment Agency North Devon District Council Torridge District Council	2011-2015	High

Policy Unit 11 – Barnstaple

Policy 5 - Areas of moderate to high flood risk where we can generally take further action to reduce flood risk

Year Added	Action	Objective	Monitoring indicator	Success criteria	Organisations responsible	Timescale	Priority
2009	<p>Investigate further the impact of combined fluvial and tidal flooding in particular tidal locking.</p> <p>The investigations should cover the requirements for further work to the existing defences and the requirements for new schemes to reduce flood risk.</p> <p>This should be mainly based on the findings of the 2d modelling of the estuary currently being carried out¹.</p> <p>The improvements to the existing defences and the construction of new defences should be complemented by environmental enhancements wherever possible (see below).</p> <p>Implement Schemes, if appropriate</p>	<p>Soc 1</p> <p>Eco 1</p> <p>Eco 2</p>	<p>Carry out 2d modelling study.</p> <p>Revision of flood risk assessment if necessary.</p> <p>Use results and findings from case studies.</p> <p>Environment Impact Assessment.</p> <p>Development of System Asset Management Plan.</p> <p>Number of properties and people at risk.</p> <p>Damages</p>	<p>Improved understanding of tidal – fluvial flood mechanism.</p> <p>Improve understanding of the complex interaction of a variety of measures identified in the policy units of North Devon</p> <p>Flood risk revised.</p> <p>Revised asset management plan in place.</p> <p>Schemes implemented, if appropriate</p> <p>Impact on environment minimised.</p> <p>Reduction in the number of properties and people at risk.</p> <p>Reduction in damages.</p>	<p>Environment Agency</p> <p>North Devon District Council</p>	<p>2015</p> <p>¹ Study to be completed 2009.</p>	High
2009	<p>Reduce risk in the long term through spatial and development planning. Ensure that all new developments are fitted with Sustainable Drainage Systems and work with partners to retrospectively fit Sustainable Drainage Systems in problem areas.</p>	<p>Soc 1</p> <p>Eco 1 - 3</p>	<p>Consultations to identify key areas and appropriate methods of retro-fitting.</p> <p>Feasibility study.</p> <p>Record of surface water flooding.</p> <p>Damages related to surface water flooding.</p> <p>Number of planning applications accepted for inappropriate developments in the floodplain.</p>	<p>Key areas identified.</p> <p>Schemes identified.</p> <p>Schemes implemented.</p> <p>Reduced surface water flooding incidents.</p> <p>Reduced damages.</p> <p>No incidents related to surface water flooding in newly developed areas</p> <p>No inappropriate planning</p>	<p>Environment Agency.</p> <p>Devon County Council</p> <p>South West Water</p> <p>North Devon District Council</p>	<p>Ongoing except 2020 for retro work.</p>	Medium to High

Year Added	Action	Objective	Monitoring indicator	Success criteria	Organisations responsible	Timescale	Priority
				applications approved in the floodplain. No development approved by local authority against EA advice.			
2009	Take action to reduce the impact of flooding through the improvement of our flood warning services in particular by making use of new technologies. Work closely with local partners and communities to increase flood awareness, improve incident management and emergency response but also self help.	Soc 1 Eco 1	Revision of existing flood warning services in the context of recent developments in technology. Identification of potential improvements. Lead time Numbers of properties covered by flood warning services Flood awareness Number of flood wardens. Information material	Improved flood warning services implemented. Lead time reduced Numbers of property covered by flood warning services increased. Lead time reduced. Increased number of flood wardens. Damages reduced. Information material made available to the population but also tourists.	Environment Agency Tourist Information	2015	High
2009	Investigate ways in which people can be moved out of the flood risk areas over the lifetime of the CFMP. This applies particularly as housing stock deteriorates over the longer term.	Soc 1 Eco 1 Eco 2	Development of strategy Number of people at risk Number of properties at risk Damages	Inclusion in Local Development Frameworks and our Strategy Plan. Reduction of number of properties and people in flood risk areas. Reduction of damages.	Environment Agency Including link back to National Policy Team Consultation with North Devon District Council Defra Secretary of State	2050	Medium
2009	Investigate opportunities to store and attenuate surface water flows particularly by using brownfield sites. This particularly applies to drainage from roads.	Potentially all objectives	Identification of areas where surface water can be stored. Identification of specific measures for each area. Investigate environmental impact Feasibility studies.	Potential areas identified and mapped. Specific projects developed. Consensus/agreement reached with organisations responsible and landowners. Reduced number of incidents.	Environment Agency	2015	Medium
2011	Combined tidal and fluvial, wave action and tidelocking risks need to be assessed at Barnstaple.	Soc 1 Eco 1	Study completed	Improved understanding of risks	Environment Agency North Devon District Council	2011-2015	High

Policy Unit 12 – Bideford

Policy 5 - Areas of moderate to high flood risk where we can generally take further action to reduce flood risk

Year Added	Action	Objective	Monitoring indicator	Success criteria	Organisations responsible	Timescale	Priority
2009	<p>Investigate further the impact of combined fluvial and tidal flooding in particular tidal locking.</p> <p>This should include the assessment of the impact of measures such as the re-alignment of embankments in the Taw - Torridge estuary and and increased flood storage and attenuation particularly in Rural North Devon.</p>	Eco 1 Eco 2 Soc 1	<p>Carry out modelling study.</p> <p>Revision of flood risk assessment if necessary.</p> <p>Use results and findings from case studies.</p>	<p>Improved understanding of tidal – fluvial flood mechanism.</p> <p>Improve understanding of the complex interaction of a variety of measures identified in the policy units of North Devon</p> <p>Flood risk revised.</p>	Environment Agency	2012	High
2009	<p>Investigate the requirements for further work to the existing defences to reduce the flood risk. The investigation should be based on the findings of the existing modelling/mapping studies.</p> <p>Investigate the requirements for new schemes to reduce flood risk.</p> <p>The improvements to the existing defences and the construction of new defences should be complemented by environmental enhancements wherever possible (see below).</p> <p>Implement Schemes.</p>	Soc 1 Eco 1 Eco 2	<p>Development of strategy plan for Barnstaple.</p> <p>Carry out feasibility studies for identified potential schemes.</p> <p>Environment Impact Assessment.</p> <p>Development of asset management plan.</p> <p>Number of properties and people at risk.</p> <p>Damages</p>	<p>Revised asset management plan in place.</p> <p>Schemes implemented</p> <p>Impact on environment minimised.</p> <p>Reduction in the number of properties and people at risk.</p> <p>Reduction in damages.</p>	<p>Environment Agency</p> <p>North Devon District Council</p> <p>Torridge District Council</p>	2015	High

Year Added	Action	Objective	Monitoring indicator	Success criteria	Organisations responsible	Timescale	Priority
2009	Reduce risk in the long term through spatial and development planning. Ensure that all new developments are fitted with Sustainable Drainage Systems and work with partners to retrospectively fit Sustainable Drainage Systems in problem areas.	Soc 1 Eco 1 - 3	Consultations to identify key areas and appropriate methods of retrofitting. Feasibility study. Record of surface water flooding. Damages related to surface water flooding. Number of planning applications accepted for inappropriate developments in the floodplain.	Key areas identified. Schemes identified. Schemes implemented. Reduced surface water flooding incidents. Reduced damages. No incidents related to surface water flooding in newly developed areas No inappropriate planning applications approved in the floodplain. No development approved by local authority against EA advice.	Environment Agency. Devon County Council South West Water North Devon District Council	Ongoing except 2020 for retro work.	Medium to High
2009	Take action to reduce the impact of flooding through the improvement of our flood warning services in particular by making use of new technologies. Work closely with local partners and communities to increase flood awareness, improve incident management and emergency response but also self help.	Soc 1 Eco 1	Revision of existing flood warning services in the context of recent developments in technology. Identification of potential improvements. Lead time Numbers of properties covered by flood warning services Flood awareness Number of flood wardens. Information material	Improved flood warning services implemented. Lead time reduced Numbers of property covered by flood warning services increased. Increased number of flood wardens. Damages reduced. Information material made available to the population but also tourists.	Environment Agency Tourist Information	2015	High
2009	Investigate ways in which people can be moved out of the flood risk areas over the lifetime of the CFMP. This applies particularly as housing stock deteriorates over the longer term.	Soc 1 Eco 1 Eco 2	Development of strategy Number of people at risk Number of properties at risk Damages	Inclusion in Local Development Frameworks and our Strategy Plan. Reduction of number of properties and people in flood risk areas. Reduction of damages.	Environment Agency Including link back to National Policy Team Consultation with Torridge and North Devon District Councils Defra Secretary of State	2050	Low

Year Added	Action	Objective	Monitoring indicator	Success criteria	Organisations responsible	Timescale	Priority
2009	Investigate opportunities to store and attenuate surface water flows particularly by using brownfield sites. This particularly applies to drainage from roads.	Potentially all objectives	Identification of areas where surface water can be stored. Identification of specific measures for each area. Investigate environmental impact Feasibility studies.	Potential areas identified and mapped. Specific projects developed. Consensus/agreement reached with organisations responsible and landowners. Reduced number of incidents.	Environment Agency	2015	Medium
2011	Combined tidal and fluvial, wave action and tidelocking risks need to be assessed at Bideford.	Soc 1 Eco 1	Study completed	Improved understanding of risks	Environment Agency Torridge District Council North Devon District Council	2011-2015	High

Schedule of Change

CFMPs remain live documents. As such, our understanding of risk and the actions (measures) to manage these risks are liable to change. Since the publication of the North Devon CFMP in December 2009 a number of changes have taken place. Below is a summary of changes to the actions (measures) since its publication in 2009.

Policy Location	Action	Comment	Change	Date of change
<p>2011</p> <p>Following the introduction of the Flood Risk Regulations (2009) and the Flood and Water Management Act (2010) the roles and responsibilities of flood risk management authorities has changed.</p> <p>As well as this, a framework for implementation has been developed which has altered our approach to annual monitoring. As such, a whole scale review of actions (measures) within the South West has been undertaken to ensure CFMPs adequately reflect these important pieces of legislation.</p> <p>Changes to this action plan include:-</p> <ul style="list-style-type: none"> • Three additional actions • Inclusion of a schedule of change 				
Taw & Torridge Estuary	Combined tidal and fluvial, wave action and tidelocking risks need to be assessed at Taw/Torridge, Appledore and Instow.	From SMP gap analysis, combined tidal and fluvial, wave action and tidelocking risks need to be assessed at Taw/Torridge, Bideford, Barnstaple, Appledore and Instow.	New Action added	September 2011
Bideford	Combined tidal and fluvial, wave action and tidelocking risks need to be assessed at Bideford.		New Action added	September 2011
Barnstaple	Combined tidal and fluvial, wave action and tidelocking risks need to be assessed at Barnstaple.		New Action added	September 2011