<u>East Cornwall Catchment Flood Management Plan – Revised Action Plan</u>

Policy Unit - Fowey and Seaton Valleys

Policy 4 - Areas of low, moderate or high flood risk where we are already managing the flood risk effectively but where we

may need to take further actions to keep pace with climate change

Year Added/ Amended	Action	Objective	Monitoring indicator	Success criteria	Organisations responsible (lead first)	Timescale	Priority
2009	 2.1 Sustain existing standard of protection of current river defences at Polperro. To avoid impacts to the Polruan to Polperro SAC the following mitigation must be implemented: No culverts to be introduced to watercourses which support shore dock populations. Action must be modelled to ensure maintenance of the variety of hydrological and drainage patterns on site. Also, ensure actions consider possible changes in water quality. 	To reduce flood risk to residential, commercial and industrial property. To prevent loss of life To reduce flood risk to vulnerable/ deprived communities and community assets and to protect and improve recreation facilities where possible.	Number of residential, commercial and industrial properties at risk of flooding. Number of people at risk of flooding Number of assets at risk of flooding. SFVI	No increase in flood risk at Polperro	Environment Agency	Ongoing	High
2009	2.2 Use programmes to raise and maintain awareness of flood risk and self-help measures.	To prevent injuries and loss of life from flooding	Number of people at risk of flooding.	An increase in sign up to Flood Warning Direct.	Environment Agency	Ongoing	High
2009	2.3 Support the unitary authority in the preparation of its Strategic Flood Risk Assessments and associated Local Development Framework Documents	To reduce flood risk to residential, commercial and industrial property To reduce flood risk to community assets and to protect and improve recreation facilities where possible.	Number of residential, commercial and industrial properties at risk of flooding Policies included to secure flood resistance and resilience measures within areas at risk of	SFRA completed for each Development Plan Document Flood risk management policy included in relevant	Cornwall Council Environment Agency	Ongoing	High

Year Added/ Amended	Action	Objective	Monitoring indicator	Success criteria	Organisations responsible (lead first)	Timescale	Priority
			flooding Number of permissions granted for redevelopment in areas at risk of flooding that include flood resistant and resilience measures Development allocations directed to areas at lowest risk of flooding Number of assets at risk of flooding.	Development plan Documents Allocations directed to areas at lowest flood risk			
2009	2.5 Further investigate the links between land management practices, runoff and flood risk. Consider options for influencing land management practice to reduce flood risk, including encouraging landowners to join Environmental Stewardship programmes where this is likely to have an impact.	To protect the quality of land (particularly Grade 2) and encourage changes in land use management to reduce runoff. To reduce flood risk to residential, commercial and industrial property. To reduce flood risk to critical infrastructure. To reduce flood risk to vulnerable/ deprived communities and community assets and to protect and improve recreation facilities where possible. To ensure no deterioration of SACs and SSSIs, and help achieve favourable conditions on designated sites and BAP habitats and species, and to create conditions which encourage increased biodiversity. To protect water quality, and prevent the pollution of watercourses and groundwater as a result of flooding of urban and agricultural land, mines and landfill sites.	Area of land being farmed under Environmental Stewardship schemes. Number of residential, commercial and industrial properties at risk of flooding Recorded infrastructure at risk of flooding e.g. railway and roads. Number of assets at risk of flooding. SFVI Area of SACs, SSSIs and BAPs at risk of flooding. Number of potential pollution sources at risk of flooding. E.g. mines, WWTW.	Reduction in runoff from agricultural land.	Environment Agency Rural Services Unit Catchment Sensitive Officers Natural England National Farmers Union	2014	High

Year Added/ Amended	Action	Objective	Monitoring indicator	Success criteria	Organisations responsible (lead first)	Timescale	Priority
2009	2.6 Improve A38 drainage in Glynn Valley, east of Bodmin	To reduce flood risk to critical infrastructure.	Recorded infrastructure at risk of flooding	Reduced flooding on A38 near Bodmin Parkway	Highways Agency	2014	Medium
2009	2.7 Review flood risk at Tremar	To reduce flood risk to residential, commercial and industrial property.	Number of residential, commercial and industrial properties at risk of flooding.	Reduced flood risk at Tremar	Environment Agency	2020	Medium
2009	2.8 Targeted channel maintenance at known risk locations	To reduce flood risk to residential, commercial and industrial property. To protect and work with natural river processes and to restore watercourses to their natural state.	Number of residential, commercial and industrial properties at risk of flooding. Number of reaches returned to natural state RHM score.	No increase in properties at risk	Environment Agency	Ongoing	High
2009	2.9 Improve flood warning lead time on River Pol	To prevent injuries and loss of life from flooding	Number of people at risk of flooding.	Improved flood warning lead time	Environment Agency	2050	High
2011	2.10 Research impact of mine workings on flood risk. In particular the impact on drainage and the transfer of water between catchments.	To reduce flood risk to residential, commercial and industrial property.	Number of residential, commercial and industrial properties at risk of flooding.	Improved flood flow predictions	Cornwall Council Environment Agency	2020	Low
2009	2.11 Progress with the outcomes of the Rapid Response Catchment Study when available. This is likely to apply to Polperro in particular.	To prevent injuries and loss of life from flooding	Number of people at risk of flooding	Reduction in injuries and loss of life from flooding	Environment Agency	2009	High

Policy Unit - Camel Valley

Policy 4 - Areas of low, moderate or high flood risk where we are already managing the flood risk effectively but where we

may need to take further actions to keep pace with climate change

Year Added/ Amended	Action	Objective	Monitoring indicator	Success criteria	Organisations responsible (lead first)	Timescale	Priority
	4.1 Sustain the current scale of flood risk management in Camelford, Lanivet, and Bodmin. Opportunities include wetland creation at Slaughterbridge, and removing existing structures in watercourses Any flood risk management measures must implement the following mitigation to avoid negative impacts to the River Camel SAC:	To prevent injuries and loss of life from flooding	Number of people at risk of flooding	Risk to life does not increase.	Environment Agency	Ongoing	High
2009	 Any storage options must not result in degraded water quality. At least 90 per cent of the naturalised daily mean flow should remain in the river throughout the year. Fish passage should not be impeded. Consider changes in flow regime to ensure no detrimental change to woodland area and structure. 						
2009	4.2 Use programmes to raise and maintain awareness of flood risk and self-help measures.	To prevent injuries and loss of life from flooding	Number of people at risk of flooding.	An increase in sign up to Flood Warning Direct.	Environment Agency	Ongoing	High

Year Added/ Amended	Action	Objective	Monitoring indicator	Success criteria	Organisations responsible (lead first)	Timescale	Priority
2009	4.3 Support the unitary authority in the preparation of its Strategic Flood Risk Assessments and associated Local Development Framework Documents Ensure PPS25 implemented for development and in particular at Bodmin.	To reduce flood risk to residential, commercial and industrial property To reduce flood risk to community assets and to protect and improve recreation facilities where possible.	Number of residential, commercial and industrial properties at risk of flooding Policy to secure resilience and resistance measures for development in areas at risk of flooding Number of applications permitted for change of use in areas at risk of flooding from residential to less vulnerable or water compatible uses. Number of assets at risk of flooding. Number of applications permitted within areas at risk of flooding for change of use to water compatible recreational uses	Complete an appropriately detailed SFRA, including a Surface Water Management Plan for Bodmin Allocations directed to areas at lowest flood risk	Cornwall Council Environment Agency	Ongoing	High
2009	4.4 Further investigate the links between land management practices, runoff and flood risk. Consider options for influencing land management practice to reduce flood risk, including encouraging landowners to join Environmental Stewardship programmes where this is likely to have an impact. Any studies would need to consider land management requirements of the River Camel SAC.	To protect the quality of land (particularly Grade 2) and encourage changes in land use management to reduce runoff. To reduce flood risk to residential, commercial and industrial property. To reduce flood risk to critical infrastructure. To reduce flood risk to vulnerable/ deprived communities and community assets and to protect and improve recreation facilities where possible. To ensure no deterioration of SACs and SSSIs, and help achieve favourable conditions on designated sites and BAP	Area of land being farmed under Environmental Stewardship schemes. Number of residential, commercial and industrial properties at risk of flooding Recorded infrastructure at risk of flooding e.g. hospitals, STW, WWTW and roads. Number of assets at risk of flooding. SFVI Area of SACs, SSSIs and BAPs at	Reduction in runoff from agricultural land.	Environment Agency Rural Services Unit Catchment Sensitive Officers Natural England National Farmers Union	2014	High

Year Added/ Amended	Action	Objective	Monitoring indicator	Success criteria	Organisations responsible (lead first)	Timescale	Priority
		habitats and species, and to create conditions which encourage increased biodiversity.	risk of flooding.				
2009	4.5 Undertake study to increase warning times on the Rivers Camel and Allen and the Bodmin Town Leat.	To prevent injuries and loss of life from flooding	Number of people at risk of flooding	Improved warning times on Rivers Camel and Allen and Bodmin Town Leat.	Environment Agency	2014	Medium
2009	4.6 Targeted channel maintenance and review of structure capacity at known risk locations, to reduce incidents of blockage	To reduce flood risk to residential, commercial and industrial property. To protect and work with natural river processes and to restore watercourses to their natural state.	Number of residential, commercial and industrial properties at risk of flooding. Number of reaches returned to natural state RHM score.	No increase in properties at risk	Environment Agency	Ongoing	High
2011	4.7 Research to improve understanding of impact of mine workings on flood risk. In particular the impact on drainage and the transfer of water between catchments, particularly within the River Camel SAC.	To reduce flood risk to residential, commercial and industrial property. To protect and work with natural river processes and to restore watercourses to their natural state.	Number of residential, commercial and industrial properties at risk of flooding. Number of reaches returned to natural state RHM score.	No increase in properties at risk	Cornwall Council Environment Agency	2020	Low
2009	4.8 Investigate feasibility to relocate Bodmin Fire Station.	To reduce flood risk to critical infrastructure.	Recorded infrastructure at risk of flooding e.g. Bodmin Fire Station.	Risk to life does not increase.	Cornwall Council	2050	High
2009	4.9 Progress with the outcomes of the Rapid Response Catchment Study when available. This is likely to apply to Camelford in particular.	To prevent injuries and loss of life from flooding	Number of people at risk of flooding	Reduction in injuries and loss of life from flooding	Environment Agency	2009	High

Year Added/ Amended	Action	Objective	Monitoring indicator	Success criteria	Organisations responsible (lead first)	Timescale	Priority
2011	4.10 Undertake a Surface Water Management Plan for Bodmin. Include proposals for implementation.	To reduce flood risk to residential, commercial and industrial property. To reduce flood risk to critical infrastructure. To reduce flood risk to vulnerable/ deprived communities and community assets and to protect and improve recreation facilities where possible.	Number of residential, commercial and industrial properties at risk of flooding. Recorded infrastructure at risk of flooding e.g. Fire Station and elec sub sta. Number of assets at risk of flooding. SFVI	Reduced flood risk from surface water in Wadebridge	Cornwall Council Environment Agency South West Water	2014	High

Policy Unit – Camel Tidal

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

Year Added/ Amended	Action	Objective	Monitoring indicator	Success criteria	Organisations responsible (lead first)	Timescale	Priority
2009	5.1 Use programmes to raise and maintain awareness of flood risk and self-help measures.	To prevent injuries and loss of life from flooding	Number of people at risk of flooding.	An increase in sign up to Flood Warning Direct.	Environment Agency	Ongoing	High
2009	5.2 Support the unitary authority in the preparation of its Strategic Flood Risk Assessments and associated Local Development Framework Documents. Ensure PPS25 implemented for development and in particular at Wadebridge.	To reduce flood risk to residential, commercial and industrial property To reduce flood risk to community assets and to protect and improve recreation facilities where possible.	Number of residential, commercial and industrial properties at risk of flooding Policy to secure resilience and resistance measures for development in areas at risk of flooding Number of applications permitted for change of use in areas at risk of flooding from residential to less vulnerable or water compatible uses. SFRA identifies rapid	Complete an appropriately detailed SFRA for each development plan document Policies included to address climate change adaptation in relation to flood risks Allocations directed to areas at lowest	Cornwall Council Environment Agency	Ongoing	High

Year Added/ Amended	Action	Objective	Monitoring indicator	Success criteria	Organisations responsible (lead first)	Timescale	Priority
			inundation zone behind defences in Wadebridge Number of assets at risk of flooding. Number of applications permitted within areas at risk of flooding for change of use to water compatible recreational uses Policy to secure and protect green infrastructure along river corridors	flood risk			
2009	5.3 Sustain existing standard of protection of defences on Rivers Allen and Camel at Sladesbridge	To reduce flood risk to residential, commercial and industrial property. To prevent injuries and loss of life from flooding To reduce flood risk to critical infrastructure. To reduce flood risk to vulnerable/ deprived communities and community assets and to protect and improve recreation facilities where possible.	Number of residential, commercial and industrial properties at risk of flooding. Number of people at risk of flooding Recorded infrastructure at risk of flooding e.g. A389. Number of assets at risk of flooding. SFVI	No increase in properties at risk	Environment Agency	Ongoing	High
2009	5.4 Create community-based warnings for areas at risk of tidal flooding.	To prevent injuries and loss of life from flooding	Number of people at risk of flooding.	Operational warning service	Environment Agency	2010	High
2011	5.5 Undertake a Surface Water Management Plan for Wadebridge and Padstow. Include proposals for implementation.	To reduce flood risk to residential, commercial and industrial property. To reduce flood risk to critical infrastructure. To reduce flood risk to vulnerable/ deprived communities and community	Number of residential, commercial and industrial properties at risk of flooding. Recorded infrastructure at risk of flooding e.g. Fire Station and electricity sub station.	Reduced flood risk from surface water in Wadebridge	Cornwall Council Environment Agency South West Water	2014	High

Year Added/ Amended	Action	Objective	Monitoring indicator	Success criteria	Organisations responsible (lead first)	Timescale	Priority
		assets and to protect and improve recreation facilities where possible.	Number of assets at risk of flooding. SFVI				
2009	5.6 Review standard of protection and condition of defences at Polmorla and Wadebridge. Undertake work to reduce risk if justified.	To reduce flood risk to residential, commercial and industrial property. To reduce flood risk to critical infrastructure such as roads and railways. To reduce flood risk to vulnerable/ deprived communities and community assets and to protect and improve recreation facilities where possible. To protect and work with natural river processes and to restore watercourses to their natural state. To prevent injuries and loss of life from flooding.	Number of residential, commercial and industrial properties at risk of flooding. Recorded infrastructure at risk of flooding e.g. Wadebridge WWTW Number of assets at risk of flooding. SFVI Number of reaches returned to natural state RHM score. Recorded injuries from flooding.	Reduced risk at Wadebridge and Polmorla.	Environment Agency	2019	Low
2009	5.7 Progress with the outcomes of the Rapid Response Catchment Study when available. This is likely to apply to Polmorla in particular.	To prevent injuries and loss of life from flooding	Number of people at risk of flooding	Reduction in injuries and loss of life from flooding	Environment Agency	2009	High
2009	5.8 Further investigate the links between land management practices, runoff and flood risk. Consider options for influencing land management practice to reduce flood risk, including encouraging landowners to join Environmental Stewardship programmes where this is likely to have an impact.	To protect the quality of land (particularly Grade 2) and encourage changes in land use management to reduce runoff. To reduce flood risk to residential, commercial and industrial property. To reduce flood risk to critical infrastructure. To reduce flood risk to vulnerable/ deprived communities and community assets and to protect and improve recreation facilities where possible.	Area of land being farmed under Environmental Stewardship schemes. Number of residential, commercial and industrial properties at risk of flooding Recorded infrastructure at risk of flooding e.g. roads. Number of assets at risk of flooding. SFVI	Reduction in runoff from agricultural land.	Environment Agency Rural Services Unit Catchment Sensitive Officers Natural England National Farmers Union	2014	High

Year Added/ Amended	Action	Objective	Monitoring indicator	Success criteria	Organisations responsible (lead first)	Timescale	Priority
		To ensure no deterioration of SACs and SSSIs, and help achieve favourable conditions on designated sites and BAP habitats and species, and to create conditions which encourage increased biodiversity.	Area of SACs, SSSIs and BAPs at risk of flooding.				

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 East Cornwall 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
management au As well as this, a	troduction of the Flood Risk Regulations (2009) and the Flood and V thorities has changed. framework for implementation has been developed which has alte es) within the South West has been undertaken to ensure CFMPs ac	red our approach to annual m	onitoring. As such, a whole scale	
Changes to this	action plan include:-			
 Amend 	ment to four actions			
• Inclusio	on of a schedule of change			
Fowey and	Research impact of mine workings on flood risk. In particular the	Lead organisations should	Set Lead Organisation as	September
Seaton Valleys	impact on drainage and the transfer of water between catchments.	be LLFA – Cornwall Council	Cornwall Council	2011

Policy Location	Action	Comment	Change	Date of change
Camel Valley	Research to improve understanding of impact of mine workings on flood risk. In particular the impact on drainage and the transfer of water between catchments, particularly within the River Camel SAC.	Lead organisations should be LLFA – Cornwall Council	Set Lead Organisation as Cornwall Council	September 2011
Camel Valley	Undertake a Surface Water Management Plan for Bodmin. Include proposals for implementation.	Lead organisations should be LLFA – Cornwall Council	Set Lead Organisation as Cornwall Council	September 2011
Camel Tidal	Undertake Surface Water Management Plans for Wadebridge and Padstow. Include proposals for implementation.	Lead organisations should be LLFA – Cornwall Council	Set Lead Organisation as Cornwall Council	September 2011