

Catchment Flood Management Plans: WFD Compliance East Cornwall

1.0 Context

Flood Risk Management activities are, like any other activities, subject to European Directives and transposing UK legislation. 'Flood protection' is recognised in the Water Framework Directive (WFD) as one of the activities that may mean that the default target of Good Ecological Status (GES) may not be achieved.

The water body may be designated a 'Heavily Modified Water Body' (HMWB) and so the aim is instead to achieve Good Ecological Potential. The legacy of human intervention can often be great so that the necessary actions to achieve GES would be technically unfeasible or disproportionately costly to deliver. In that case, less stringent objectives may be set. In addition where more stringent objectives already apply, for example in 'Protected Areas' under other legislation such as Habitats and Birds Directives, these will need to be met.

FRM proposals will in future be subject to tests for WFD compliance to demonstrate that our activities meet with the requirements of the Directive. At present there are many ongoing areas of WFD work that will set the standards by which the condition of the water environment will be measured, identify the status of water bodies, and identify action needed to improve or prevent deterioration of water bodies in good ecological status. In addition economic tests and appraisal mechanisms are being examined and developed in light of the WFD.

This section provides an initial assessment of the WFD compliance of Catchment Flood Management Plans. This is based on the high level assessments undertaken to support the plan appraisal, and our present understanding of, and therefore capability to satisfy, the tests of the WFD which relate primarily to Article 4 of the directive. When the Project Appraisal Guidance (PAG) for flood and coastal erosion risk management projects is revised, it will take account of the WFD and other changes in legislation, along with changes in government policy. However, in advance of more detailed assessment and appraisal of subsequent plans and projects emanating from the CFMP, this compliance check is provided in order to demonstrate good practice and support the case for adoption of the CFMP.

The CFMP will be regularly reviewed, and further plans and individual schemes will be developed using latest available guidance, so ensuring flexibility is maintained in implementing compliance options in future.

2.0 Water Framework Directive and Catchment Flood Management Plans

One of the aims of the CFMPs is to help deliver the objectives of the WFD. However, we began preparing the CFMPs in 2004, when preparation to implement the WFD was in its infancy. As our CFMPs have been progressed

our understanding of the requirements of the WFD, and the role of River Basin Management Plans, has evolved. We are planning to release our draft RBMPs for consultation in December 2008: at the same time our preparation of CFMPs will be drawing to a close. The completed RBMPs, with the agreed objectives for each water body will be published in December 2009.

Our CFMPs set long-term policies for sustainable flood risk management, but these plans started framing their catchment objectives a number of years ago, and prior to the WFD environmental standards being fully developed. We recognise the need for our review of the CFMPs to take more account of the WFD objectives, drawing from our suite of published RBMPs. Nonetheless, our CFMPs have been developed mindful of the need to work with nature, as far as possible, and contribute to environmental improvement. Moreover, as we progress the implementation of our CFMPs, we can draw from the water body objectives established within the RBMPs, during our subsequent more detailed assessments and appraisals, in order to ensure our delivery contributes to achieving the overall aims of the WFD.

Figure 1 shows this CFMP in relation to the River Basin Districts described under the Water Framework Directive.

3.0 Water Framework Directive Compliance check

In advance of any specific guidance being issued by the Environment Agency, an assessment of the likely tests for compliance that will need to be met in future has been made. The assessment of compliance with these tests is made acknowledging that this is in advance of water body objectives being defined, the draft RBMPs being written and any agreement on the approach to be taken to controlling new modifications.

Furthermore, the consideration of further plans and actions emanating from the CFMP may involve specific local issues that have not been covered in the CFMP and so will need their own assessments during the detailed design stage. At that time they will be subject to any existing guidance on WFD compliance. The subsequent stages of CFMP implementation, and the CFMP review process will allow flexibility for this.

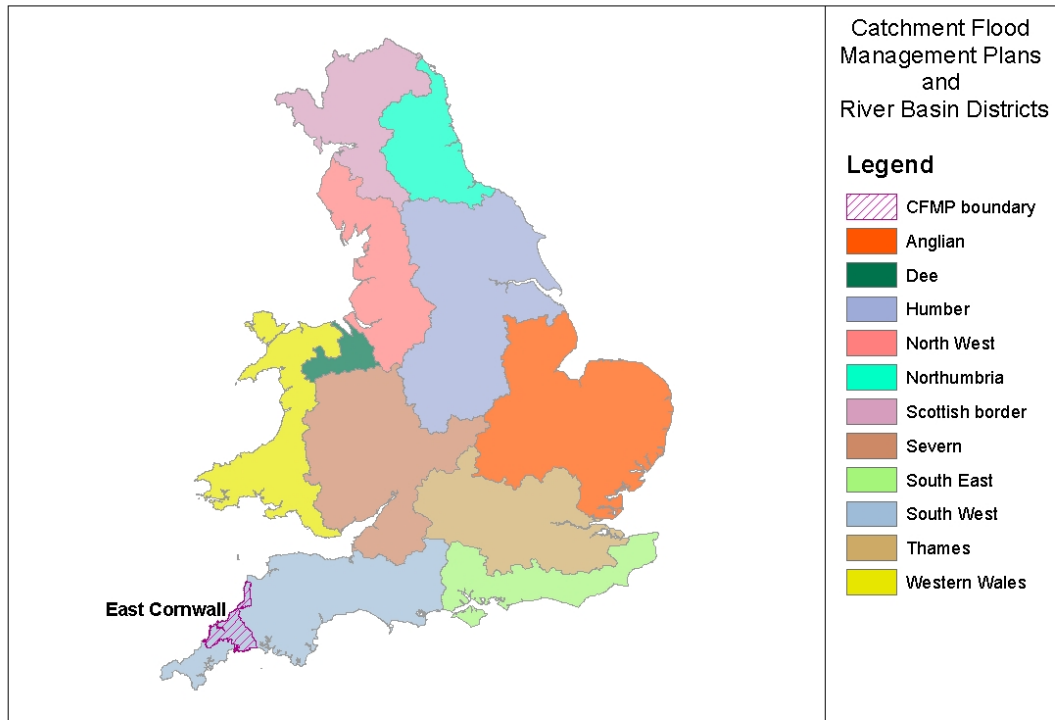
The tables contained in section 5.0 detail, for each relevant part of the WFD in order, the nature of the issue with regards the CFMP and our view on the evidence provided and way ahead for ensuring compliance.

4.0 Conclusions

The examination of the current state of understanding of the WFD and the nature of the CFMP suggests that the plan is compliant with the requirements of the Directive. It does raise some issues which will require examination at future stages of scheme development and appraisal, which should be addressed by good practice in detailed appraisal. Appraisal guidance will evolve to take into account specific requirements of the WFD as these are

understood and standards and objectives are established. The CFMP provides a sufficiently flexible approach to ensure that this is achieved.

Figure 1. East Cornwall CFMP in relation to the River Basin Districts



5.0 Compliance assessment

Article	Explanation	Evidence
4.1.a(i)	This article requires implementation of necessary measures to prevent deterioration of status of all surface water bodies	The CFMP presents policies for the long-term management of flood risk and operates at the highest level within our planning hierarchy. Prior to works being undertaken to implement the CFMP, further assessment and appraisal will consider the implication on achieving GES or GEP and on preventing deterioration. The actions within the CFMP need to be considered against national priorities and available funding before commitment is given to resource those actions.
4.1.a(ii)	This article requires protection, enhancement and restoration of all surface water bodies other artificial and heavily modified water bodies with the aim of achieving good ecological status	
4.1.a(iii)	This article requires protection and enhancement of artificial and heavily modified water bodies with aim of achieving good ecological potential (GEP) and good surface water status.	Presence of flood defences, or other flood risk management activities, may result in continued or increased deterioration in ecological status, or the modification of water bodies. Conversely, flood risk management activities may result in the protection, enhancement and restoration of the ecological status of water bodies through, for example, enabling greater floodplain connectivity, reducing detrimental erosion and sedimentation, and reducing polluted run-off from land. This will need to be reviewed when the RBMPs are published and the CFMP actions are progressed. The impact of individual schemes on achieving good ecological status will need to be reviewed on a case-by-case basis.
4.1a(iv)	This article requires the implementation of measures to reduce pollution from priority substances and ceasing or phasing out emissions, discharges and losses of priority hazardous substances. FRM works should not compromise delivery of these.	Presence of flood defences may exacerbate erosion resulting from increases in flow and sea level rise as a result of climate change, and if eroded sediments contain any priority or hazardous substances, implementing the CFMP could affect the ability to meet the standards for these substances. This will need to be reviewed when the RBMPs are published and the CFMP actions are progressed. The impact of individual schemes on erosion, and the possible consequences, will need to be reviewed on a case-by-case basis. The costs of moving

		<p>defences in order to reduce erosion would be very significant; this would have wider consequences and its effectiveness could be challenged.</p> <p>The CFMP could deliver improvements in our ability to meet the standards for priority or priority hazardous substances through creation of areas which act as sinks for pollutants. Any impact on the standard of protection provided to the floodplain has potential to adversely affect quantities of these substances (through flooding of potentially contaminated land and industrial plant) and this will need to be reviewed when the RBMPs are published.</p>
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Article	Explanation	Evidence
4.1.b(i)	This article requires the implementation of measures to prevent or limit inputs of pollutants to groundwater, and to prevent the deterioration of status of groundwater bodies. FRM works should not compromise delivery of these.	The CFMP will not generally have a direct effect on groundwater or the input of pollutants to groundwater. It may have an indirect effect, however, where defence standards are reduced or defences are realigned so that land that was protected is open to regular or increased inundation. These impacts will routinely be assessed on a case-by-case basis.

Article	Explanation	Evidence
4.1(c) 4.2	Protected areas shall achieve compliance with the WFD objectives by 2015, unless otherwise specified in other legislation such as Habitats and Birds Directives. Where more than one set of objectives under different legislation applies to a water body, the most stringent applies.	For areas designated under Habitats and Birds Directives, the CFMP and has satisfied the tests of those through mitigation and subsequent further assessment as more detailed proposals emerge. The Habitats and Birds Directive requirements are likely to be more stringent than those objectives set for WFD. Any future works will be subject to more detailed assessment as discussed. At that point tests under article 4(4) may be relevant – where extended deadlines may need to be set for

		reasons of technical feasibility or disproportionate cost.
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Article	Explanation	Evidence
4.4	This article allows for an extension of deadlines to achieve objectives, subject to conditions (relating to technical feasibility, cost and natural conditions).	<p>If GEP is defined by the sum total of improvement likely to be gained by delivering mitigation measures, then the CFMP could help deliver those measures through habitat management and ongoing implementation of good practice in construction and maintenance activities.</p> <p>If GEP is defined by slight deviation from Maximum Ecological Potential (MEP), which is in turn seen as deviation from GES only in as much as the physical pressures dictate it, then the CFMP could provide the justification for not achieving GEP for reasons of disproportionate cost, and in many urban areas for reasons of technical feasibility.</p> <p>Any further works will be subject to more detailed assessment and appraisal, so that the implementation of this CFMP is sufficiently flexible to adapt to either of these scenarios.</p>

Article	Explanation	Evidence
4.5	This article allows for water bodies to be set less stringent environmental objectives where human activity requires it for reasons relating to technical feasibility and cost. There are conditions and a requirement to ensure that the benefits brought by the human activity can not be achieved by any other means that are not disproportionately costly. The reasons for requiring less stringent objectives needs to be included in the RBMP	The CFMP itself does not increase the risk as it is not leading to major increases in morphological pressure and neither is it compromising delivery of expected mitigation measures which may be used to define GEP. Any further works emanating from the CFMP will be subject to more detailed assessment and appraisal, at which time the technical feasibility and cost of those proposals will be considered, alongside the need to achieve the environmental objectives set in the RBMPs.

Article	Explanation	Evidence
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4.6	<p>Temporary deterioration in the status of water bodies shall not be a breach of requirements of the WFD if this is the result of natural causes or <i>force majeure</i> which are exceptional and could not reasonably have been foreseen, such as extreme floods and prolonged droughts, are permitted. Conditions include the need to take practical steps to prevent further damage, to state in the RBMP the criteria for defining these circumstances, to outline the measures to be taken in these events.</p>	<p>The effects of flooding on the environment (for example resulting from flooding of normally dry land or, in extreme events, industrial premises leading to contamination of water) will be minimised where possible by provision of warnings, and actions of our emergency response local teams. At present there is no definition of an extreme flood. This CFMP establishes the policy intent for long term management of flood risk which will see decreased risk in some areas and increases over time in others as we progressively prioritise resources and the need for and impact of our activities.</p> <p>Where we actively plan to increase regular flooding of land, such as at realignment and flood storage sites, we will assess the environmental impact of this at design stage – it is not felt this is relevant to article 4(6) as it will be reasonably foreseen.</p> <p>Emergency works may be seen as <i>force majeure</i> and the need for these should reduce over time as the CFMP progresses through subsequent stages of implementation – with the exception of any required after an extreme flood. Any emergency works are already undertaken with regard for their impact and these may be reassessed once the WFD objectives are agreed.</p>
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Article	Explanation	Evidence
4.7	<p>Failure to achieve GES/GEP is not a breach of the WFD if it is the result of new modifications to physical characteristics of the water body and the following conditions are met:</p> <ul style="list-style-type: none"> • All practical mitigation is undertaken • Reasons for modifications are set out in RBMPs • There is overriding public interest and/or 	<p>The CFMP present policies for the long-term management of flood risk and operates at the highest level within our planning hierarchy. Prior to works being undertaken to implement the CFMP, further assessment and appraisal will consider the implication on achieving GES/GEP. The actions within the CFMP need to be considered against national priorities and available funding before commitment is given to resource those actions. As a consequence, the CFMP actions, as such, will not be included within the RBMP as potential modification, but any agreed</p>

	<p>the benefits for human health or safety or for sustainable human development outweigh the benefits to the environment and society of achieving WFD objectives</p> <ul style="list-style-type: none"> • The beneficial objectives served by the modifications – in this case flood risk management – can not for reasons of technical feasibility or disproportionate cost be achieved in a more environmentally sensitive way. <p>Are the new modifications likely to result from this CFMP justified in these terms? Is adequate mitigation planned? Will the reasons for modifications be in RBMPs? Are there more environmentally sensitive approaches that could be justified?</p>	<p>programmes of actions will be included in the final RBMPs.</p> <p>At a local level it is possible that individual schemes could affect the physico-chemical and hydromorphological status of a water body. This will need to be assessed on a case-by-case basis as further details of schemes are developed and appraised. The appraisal techniques used will be sufficiently robust to ensure the human health and societal benefits in providing flood risk management are balanced with the impacts on the environment, and that alternative approaches are also considered. The CFMP is sufficiently flexible to adapt to future requirements.</p> <p>NB: flood risk management activity can lead to increased development of land and should that occur the developer may be expected to prove the case for sustainable human development if that could affect other water bodies.</p>
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