

River Tame Flood Risk Management Strategy

Environmental Report
May 2009

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Glossary of Terms and Abbreviations

Baseline	Starting point. In environmental assessment it is a description of existing conditions.
Biodiversity	Biological diversity, the number and abundance of species present.
Biodiversity Action Plan (BAP)	A plan to achieve targets for enhancing the diversity of biological life, the abundance of species and their habitats. There are national and local BAPs (LBAP) including a draft one for the Humber.
CAMS	Catchment Abstraction Management Plan
Catchment	Surface water catchment is the total area that drains into a river, while a groundwater catchment is the total area that supplies the groundwater part of the river flow.
CFMP	Catchment Flood Management Plan
Cumulative effect	Cumulative effects can be defined as incremental effects of an action when added to other past, present, and reasonably foreseeable future actions. These effects can result from individually minor but collectively significant actions taking place over a period of time.
Defra	Department for Environment, Food and Rural Affairs - Government Department established in 2001 with responsibilities including flood defence and wildlife conservation.
EC Directive	Legislation issued by the European Union that is binding on Member States in terms of the result to be achieved, but leaves choice as to methods.
Environmental assessment	A tool for integrating environmental considerations into decision-making by ensuring that significant environmental effects of the decision are taken into account. In the SEA Directive, an environmental assessment means 'the preparation of an environmental report, the carrying out of consultations, the taking into account of the environmental report and the results of the consultations in decision making and the provision of information on the decision', in accordance with the Directive's requirements.
Environmental Impact Assessment (EIA)	The specified process for undertaking the environmental appraisal when a proposed scheme is covered by the Environmental Impact Assessment (Land Drainage Improvement Works) Regulations 1999 or other Regulations implementing EC Directive 85/337, and the amending EC Directive 97/11.
Environmental appraisal	The process whereby the environmental effects of a proposal are identified, measured and assessed to determine their significance.
Environmental Report	Document required by the SEA Directive as part of an environmental assessment, which identifies, describes and evaluates the likely significant effects on the environment of implementing a Plan or Programme.
Flood and Coastal Defence Project Appraisal Guidance (FCDPAG)	Series of guidance documents produced by Defra which are designed to provide advice on best practice for the appraisal of flood and coastal defence projects. Documents cover: overview (PAG1); strategic planning and appraisal (PAG2); economic appraisal (PAG3); approaches to risk (PAG4); and environmental appraisal (PAG5).

FRM	Flood Risk Management
FRMS	Flood Risk Management Strategy
Geomorphology	The physical processes which have caused the topography and shape of the river and its floodplain.
GQA	General Quality Assessment
Indicative floodplain	Broad extent of area at risk of possible flooding.
JSP	Joint Structure Plan
LDF	Local Development Framework
LDD(s)	Local Development Documents
Mitigation	Measures to avoid, reduce or offset significant adverse effects.
Monitoring	A continuing assessment of conditions at and surrounding the action. This determines if effects occur as predicted or if operations remain within acceptable limits, and if mitigation measures are as effective as predicted.
Objective	A statement of what is intended, specifying the desired direction of change in trends.
Planning Policy Guidance (PPG)	Government policies which underpin the planning system to enable the provision of homes and buildings, investment and jobs in a way which is consistent with the principles of sustainable development.
PPS	Planning Policy Statement
PSR	Preliminary Strategic Review
RBMP	River Basin Management Plan
RPG	Regional Planning Guidance
RSS	Regional Spatial Strategy
NEAS	National Environmental Assessment Service
NCPMS	National Capital Project Management Service
Salmonid	A fish or species of the salmon and trout family.
Scheduled Monument	Building or other archaeological or historic feature of national importance protected under UK Ancient Monuments and Archaeological Areas legislation.
Scoping	The process of deciding the scope and level of detail of an SEA, including the environmental effects and alternatives which need to be considered, the assessment methods to be used, and the structure and contents of the Environmental Report.
Screening	The process of deciding whether a strategy or plan requires SEA.
SFRA	Strategic Flood Risk Assessment
Site of Special Scientific Interest (SSSI)	Site notified under the National Parks and Access to the Countryside Act, 1949 and subsequently under the Wildlife and Countryside Act, 1981. Land which is of special interest for its flora, fauna, geological or physiographic features may be notified as a SSSI. These sites are statutory designations.
SPD	Supplementary Planning Documents
Standard of Protection (SoP)	The flood event return period above which significant damage and possible failure of the flood defences could occur.

Strategic Environmental Assessment (SEA) Assessment under Directive 2001/41/EC.

Water Framework Directive EC Water Framework Directive 2000/60/EC sets out a system for the integrated and sustainable management of river basins so that Good Ecological Status (Good Ecological Potential for Heavily Modified Waterbodies and Artificially Modified Waterbodies) for all waterbodies is achieved by 2015. The Directive lays down a six-yearly cycle of river basin planning.

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APPENDIX A: Relevant Plans and Policies

Table 21: Review of plans, strategies and legislation

Plan, Strategy, Initiative or Legislation	Description / Purpose	Plan / Strategy / Initiative influence over Tame Strategy	Tame Strategy response to Plan / Strategy / Initiative
Environment Agency / Defra			
Making Space for Water: Strategy for Flood and Coastal Erosion Risk Management in England	In 2004 Defra published a consultation document, 'Making Space for Water' as part of development of a new Government Strategy for Flood and Coastal Erosion Risk in England. The Government's First Response to this document sets out the direction of travel on key issues, in order to work towards delivering the Strategy.	<p>The overall aim of Making Space for Water is: 'To manage the risks from flooding and coastal erosion by employing an integrated portfolio of approaches so as:</p> <ul style="list-style-type: none"> • to reduce the threat to people and their property; and • to deliver the greatest environmental, social and economic benefit, consistent with the Government's sustainable development principles.' <p>Amongst other things it is aimed at ensuring: a holistic approach to flood risk management, and more flood risk management solutions working with natural processes through, for example, appropriate use of realignment to widen river corridors, and of multi-functional wetlands that provide wildlife and recreational resource.</p> 	The Tame Strategy contributes to the aims of Making Space for Water, through consideration of environmental, social and economic benefits in development of the Strategy and selection of the options.
Defra Outcome Measures	The UK Government has recently developed a set of Outcome Measures for flood and	The Outcome Measures of relevance to the Tame Strategy are:	1. As part of the Strategy we have used economic considerations, as well

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	<p>coastal erosion risk management, in order to provide greater clarity on what policies and funding for flood and coastal erosion risk management are intended to achieve.</p> <p>Specific targets have not yet been set, though it is anticipated that the Outcome Measures will be used to set targets progressively starting with the capital programme in 2008/09.</p> <p>These will allow Defra to deliver its flood and coastal defence aims and objectives, as set out in the 'Making Space for Water' Strategy.</p>	<p>1: Overall benefits: This will show the benefits of flood risk management in monetary terms. Where possible, aspects of the natural and historic environment and social benefits will be included.</p> <p>2: Households at risk: The number of households at risk from flooding or from coastal erosion will be shown by this measure.</p> <p>3: Deprived households at risk: This measure will enable the level of flood and coastal erosion risk reduction to the most deprived communities to be targeted.</p> <p>4: Nationally important wildlife sites: This measure will record, the delivery of flood, management remedies which contribute to the government target to have 95% of SSSIs in favourable condition by 2010.</p> <p>5: UK Biodiversity Action Plan habitats: Flood and coastal erosion risk should improve the natural environment as well as reducing the risks to people and property. This measure will record the overall increase in Biodiversity Action Plan habitat achieved through flood and coastal erosion risk management</p>	<p>as technical and environmental factors to determine appropriate flood risk management options.</p> <p>2, 3. We have assessed the number of households at risk from flooding, including those in deprived areas. The Strategy will seek to reduce flood risk to areas at risk.</p> <p>These have been considered through the SEA objective, "To avoid and, where possible, enhance possible effects on human health and population".</p> <p>4, 5. We have looked for opportunities to create new BAP habitat and protect existing BAP habitat as well as seeking opportunities to contribute to the protection and enhancement of SSSIs.</p> <p>These have been considered through the SEA objective, "To protect and, where possible, enhance biodiversity".</p>

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		activities.	
The Environment Agency's Corporate Strategy – Creating a Better Place	The Environment Agency's Corporate Strategy, Creating a Better Place, sets out how we will work towards our vision: a better place for people and wildlife. A local contribution document has been produced for each EA region, showing how that region will contribute to achieving the aims of the strategy.	<p>The West Midlands local contribution sets the four priorities for the environment in the region and within these four priority areas sets a number of specific areas of work. Those of relevance to the Tame Strategy are:</p> <ol style="list-style-type: none"> 1. Regenerating urban communities <ul style="list-style-type: none"> • Restoring urban rivers; 2. Responding to climate change <ul style="list-style-type: none"> • Adapting to the growing risk of floods and droughts; • Considering the impacts of climate change in all our work. 3. Restoring river habitats: <ul style="list-style-type: none"> • Making the most of our flood risk investments to restore river habitats. 	<p>The Tame Strategy has looked for opportunities to assist with delivering the aims of the West Midlands local contributions.</p> <p>In assessing the strategic options, we have looked for opportunities to restore urban rivers and river habitats in more rural areas. The impact of climate change is integral to the development of the Strategy. The modelling work has taken into account the likely increases in river flows due to climate change and so the options appraisal process considers the areas that will be at risk of flooding in the future.</p>
River Trent Catchment Flood Management Plan (CFMP)	The River Trent CFMP is a long term planning document for sustainable flood risk management on a catchment scale. The document looks at flood risk across the catchment and develops policies for the management of flood risk now and in the	Within the Trent CFMP, policies for flood risk management are developed for individual policy units within the catchment. Two CFMP policy units cover the area being considered in the River Tame Strategy.	The Tame Strategy has been developed in line with these overarching policies for flood risk management in each unit.

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	<p>future (on a 50 – 100 year timescale).</p> <p>The CFMP is the first-tier in the strategic flood risk management process. The CFMP sets the overall policy framework for the catchment, and then more detailed assessments are carried out at the level of a Strategy, or specific scheme.</p> <p>The policies developed in the CFMP should therefore guide the more detailed work carried out at this Strategy level.</p>	<p>Policy Unit 10 – Birmingham and the Black Country – covers the upper part of the Tame catchment, and the city of Birmingham. The preferred long term policy for the management of flood risk in this unit is to: “Take further action to reduce flood risk (now and/or in the future).”</p> <p>Policy Unit 6 – Mid Staffs and Lower Tame – covers the area from the River Blythe and the lower Tame to its confluence with the Trent. The preferred policy for this unit is to: “Take action to increase the frequency of flooding to deliver benefits locally or elsewhere, which may constitute an overall flood risk reduction (for example for habitat inundation).” The first action in the Action Plan for this policy unit states: “Complete strategy for the River Tame, focusing on opportunities to remove defences in rural areas and reduce flood risk in Tamworth (accepting that this will probably require some local increase in defences).”</p>	
Defra’s Strategic Planning and Appraisal Guidance Series	These documents provide guidance for the strategic flood risk management process. The guidance aims to improve decision making for investment in sustainable river and coastal flood alleviation and coastal	The guidance documents detail how the Strategy should be developed, and how technical, environmental and economic considerations should be taken into account during option development and	The Tame Strategy has been developed in line with this guidance.

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	protection through improved appreciation of issues within a strategic framework.	selection.	
National			
Water Framework Directive (2000/60/EC)	<p>The WFD requires that River Basin Management Plans (RBMP) for each River Basin District are produced by December 2009 and are reviewed every six years thereafter. The river basin planning process involves setting environmental objectives for all groundwaters and surface waters within the river basin district and devising programmes of measures to meet those objectives. The programme of measures will be summarised in the RBMP.</p>	<p>The Tame Strategy area falls within the Humber River Basin District. Draft WFD objectives for the River Tame have been developed and were published in December 2008. The river within our study area has been divided into five reaches and objectives produced for each reach. They are summarised in table 4 (p 35). Default objectives for all surface waters include:</p> <ul style="list-style-type: none"> • to prevent deterioration; and • to restore waters to good environmental condition by 2015. <p>In some cases surface waters may be designated as “Heavily Modified Water Bodies” or “Artificial Waterbodies” in which case less stringent objectives can be set e.g.</p> <ul style="list-style-type: none"> • to restore waters to good environmental potential by 2015. 	<p>The Tame Strategy will aim to contribute to the achievement of WFD objectives for this river by looking for opportunities to address the issues that have been identified as Significant Water Management Issues e.g. by:</p> <p>a) contributing where possible, to creating a more natural river channel; and</p> <p>b) looking for opportunities to reduce urban and transport diffuse pollution.</p> <p>The SEA sub-objectives, “Contribute to maintaining or improving water quality standards where feasible. Support achievement of GES/GEP under the Water Framework Directive,” and “Protect geomorphological features for the river and floodplain and, where possible, provide opportunities for enhancement” ensures these issues have been taken into account.</p>

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		<p>The WFD requires identification of Significant Water management Issues (SWMI) which are issues likely to lead to failure of objectives if not addressed. We have recently published our views on the SWMI for the Humber RBD. Those of particular relevance to the Tame Strategy include:</p> <ul style="list-style-type: none"> • Physical modification (e.g. canalisation of rivers); and • Urban and transport diffuse pollution (e.g. highway runoff). 	
Wildlife & Countryside Act 1981 (WCA) & Countryside & Rights of Way Act 2000 (CROW)	The WCA provides statutory protection for significant number of species of flora and fauna and also provides for designation of SSSI. The means of protection of SSSI has been strengthened by CROW Act.	The Tame Strategy has the potential to impact upon SSSIs.	The SEA sub-objective, “To avoid damage to designated wildlife sites” ensures the requirements of this legislation have been considered during Strategy development.
Natural Environment and Rural Communities Act 2006 (NERC).	This legislation came into force in 2006. Under the legislation, public authorities have a duty to conserve biodiversity. Conserving biodiversity includes, in relation to a living organism or type of habitat, restoring or enhancing a population or habitat.	In development of the Tame Strategy, there is therefore a duty to conserve, restore or enhance habitats and species.	The SEA objective, “To protect and, where possible, enhance biodiversity” ensures opportunities for protection and enhancement of biodiversity have been considered during Strategy development.
UK Biodiversity Action Plans (BAPs)	The UK BAP comprises species, habitats and local biodiversity action plans. The Tame	The Tame Strategy has the potential to contribute to delivery of targets set in the three local BAPs. These are considered	The SEA sub-objective, “To meet UKBAP and local BAP objectives” ensures the aims of the UK BAP

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	catchment is covered by three local BAPs.	further below (under Regional plans).	have been considered during Strategy development.
Managing Floodplains to Reduce Flood Risk and Enhance Biodiversity (English Nature [now Natural England])	This non-statutory 'position statement' aims to deliver flood protection for people and property, as well as restoring the lost wildlife of our rivers and floodplains. It is planned to achieve this through greater use of the natural water-retention capacities in the upper catchment and floodplain.	The Tame Strategy has the potential to contribute to delivery of these aims.	The Strategy will look for opportunities to restore the natural floodplain. The SEA objective, "Protect geomorphological features for the river and floodplain and, where possible, provide opportunities for enhancement" ensures these aims have been considered during Strategy development.
Regional			
West Midlands Regional Spatial Strategy (WMRSS)	<p>The Regional Spatial Strategy provides a framework for local authority development plans and local transport plans.</p> <p>The RSS is particularly relevant to the development of the Tame Strategy, as it sets out the long term policies for future development within the region. During development of the Strategy, it is important to know any areas where future growth will be focussed in order that the future impact of flooding on these areas can be considered.</p> <p>One of the key issues identified for the region has been the continued movement of population and investment away from the Major Urban Areas (MUAs). There is</p>	<p>Urban renaissance is a key strand of the RSS. Policy UR1 seeks to implement urban renaissance in four major urban areas (MUAs). Two of these fall within the Tame catchment: Birmingham/ Solihull; and the Black Country. Policy UR2 considers areas outside of the four MUAs. It lists a number of local regeneration areas, where development and regeneration should be focussed. Tamworth, in the Tame catchment is one of these.</p> <p>Environmental improvement is a key component of the spatial strategy. POLICY QE1 states that local authorities and other agencies in their plans should</p>	<p>The Tame Strategy has taken into account the importance of the MUAs and urban areas outside of the MUAs (e.g. Tamworth) in which long term regional development and regeneration will be focussed. The River Trent CFMP has already considered the importance of these areas in setting the over-arching long term flood risk management policies for these areas (see above). The Tame Strategy has been developed in accordance with these catchment scale policies.</p> <p>The Tame Strategy has also been developed taking into account the</p>

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	<p>therefore the need to create balanced and stable communities across the Region. The RSS sets out where and how these communities will be created.</p> <p>The RSS also sets out policies in relation to the quality of the environment. These too, are of relevance to the development of the Tame Strategy, as the Strategy can contribute to maintaining and improving the region's environment.</p>	<p>protect and where possible enhance environmental assets, e.g. specific wildlife habitats, historic landscape features, built heritage and river environments.</p> <p>POLICY QE4 says that development plan policies should create and enhance urban greenspace networks by ensuring adequate protection is given to key features such as... river valleys, and open spaces.</p> <p>Policy QE5 states that development plans and other strategies should identify, protect, conserve and enhance the Region's diverse historic environment. Of particular historic significance to the West Midlands are: strategic river corridors including the Trent – and its tributary, the Tame.</p> <p>POLICY QE6: states that Local authorities and other agencies, in their plans, policies and proposals should conserve, enhance and, where necessary, restore the quality, diversity and distinctiveness of landscape character throughout the region's urban and rural areas.</p> <p>POLICY QE7 states plans should</p>	<p>relevant quality of the environment policies within the RSS.</p> <p>The Strategy recognises the importance of the Tame and Blythe river corridor as one of the large scale biodiversity enhancement areas, and has looked to identify opportunities for enhancement of biodiversity in this area. The SEA objective, “To protect and, where possible, enhance biodiversity” and the associated sub-objectives, have ensured the biodiversity priorities as set out in the RSS were considered during assessment of the options.</p> <p>The SEA objective, “To protect and enhance cultural heritage features” ensures built heritage and historical assets were considered.</p> <p>The SEA objective, “To protect and enhance landscape character/visual amenity” ensures landscape character was considered.</p> <p>The Strategy has also sought to identify opportunities for creating or enhancing greenspace networks.</p>

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		<p>encourage the maintenance and enhancement of the Region's wider biodiversity resources. In doing this priority should be given to: protection and enhancement of specific species and habitats of international, national and sub-regional importance; those that receive statutory protection; and the biodiversity enhancement areas. The biodiversity enhancement areas include the Rivers Tame and Blythe Floodplains.</p> <p>POLICY QE9 states that plans of the Environment Agency and other agencies should be coordinated, where necessary across local authority and Regional boundaries, to protect and enhance wetland species and habitats, particularly those subject to local biodiversity partnerships; and maintain and enhance river and inland waterway corridors as key strategic resources, particularly helping to secure the wider regional aims of regeneration, tourism and the conservation of the natural, built and historic environment.</p>	
West Midlands Transport Strategy (part of the RSS)	The West Midlands Transport Strategy is incorporated into the RSS.	Modernising the transport infrastructure of the West Midlands is one of the major challenges identified for the region. Policies include improving access within and across the region. This will be	The inclusion of the SEA sub-objective, "To protect infrastructure" has ensured impacts on key transport infrastructure have been

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		<p>achieved by development of sustainable public transport within the MUAs; and improving national road and rail networks to ensure strategic links to external markets are maintained.</p> <p>The Tame Strategy has the potential to contribute to protecting existing strategic transport infrastructure.</p>	<p>considered during the development of the Strategy.</p>
Draft WMRSS Phase 1 revision – the Black Country	This draft revision to the RSS forms part of a wider process of revising the RSS, and focuses on the Black Country. Part of this area falls within the Tame catchment.	<p>As a major urban area, renewal and regeneration of the Black Country is critical to delivery of the RSS. Regeneration policies in the Black Country will prioritise development in four strategic centres and growth corridors between these, including, within the Tame catchment, West Bromwich and Walsall and the area between these.</p> <p>Development in these areas should be considered as part of the Tame Strategy.</p>	The Tame Strategy has taken into account the importance of these areas of the Black Country in which long term regional development and regeneration will be focussed.
Black Country Study	This document is a supporting document to the Draft WMRSS Phase 1 revision. In addition to the spatial strategy, the Study proposes a strategy for the transformation of the environment: Black Country as Urban Park. This is considered separately below.	The spatial strategy policies proposed in this study have been incorporated into the draft WMRSS Phase 1 revision and have been considered above.	See line above.
Black Country Urban Park	The Black Country Urban Park strategy has been developed from the Black Country	The strategy has identified three aspects to guide future development. Of	The Tame Strategy has considered the aims of this strategy by seeking

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	Study, as a strategy for the transformation of the environment.	<p>relevance to the Tame Strategy is the concept of corridors for sustainable movement around the Black Country using environmental assets, including canals, walkways and cycle routes.</p> <p>The Tame Strategy has the potential to contribute towards the aims of this strategy.</p>	opportunities for the use of river corridors as sustainable transport corridors and the protection of existing routes e.g. footpaths within the river corridor.
West Midlands Green Infrastructure Prospectus	<p>The West Midlands Green Infrastructure Prospectus was launched early in 2007. It sets out a 20 year vision for a greener, healthier West Midlands. The Regional Spatial Strategy recognises that: "Access to high quality greenspace can contribute greatly to the Region's urban renaissance..." Regional and sub-regional strategies, are also increasingly recognising the importance green infrastructure.</p> <p>The Green Infrastructure Prospectus has been developed to encourage adoption of green infrastructure to be considered in plan development.</p>	<p>Green Infrastructure is the network of green spaces and natural elements that intersperse and connect our cities, towns and villages. It is the open spaces, waterways...green corridors, wildlife habitats...and open countryside. Green Infrastructure provides multiple benefits for the economy, the environment and people... providing functions and environmental services ... such as employment, recreation, physical health and mental well being, social interaction, contact with nature, drainage and flood management, climate change adaptation and pollution control...</p> <p>The Tame Strategy has the potential to promote creation or maintenance of Green Infrastructure within the river corridor.</p>	The Strategy has looked for opportunities where the river corridor can be utilised as part of a network of Green Infrastructure.
West Midlands	The West Midlands Economic Strategy	The objectives of relevance to the Tame	The existing and future importance of

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Economic Strategy	provides a vision and strategy for development of the region's economy. It sets out strategic objectives under the headings of Business, People and Place.	<p>Strategy include:</p> <ul style="list-style-type: none"> Increasing Birmingham's competitiveness; and Maximising cultural and natural assets. <p>Birmingham and its surrounding urban area is a key driver of the West Midlands economy and needs to continue to be promoted.</p>	Birmingham and its surrounding urban areas has been considered during development of the Tame Strategy. In addition, the need to protect and maximise the cultural heritage and natural assets has been considered through the SEA objective, "To protect and enhance cultural heritage features" .
Staffordshire BAP, Birmingham & Black Country BAP and the Warwickshire, Coventry & Solihull BAP	The Tame catchment is covered by three local Biodiversity Action Plans. These local BAPs form part of the UK BAP, which also comprises species and habitats action plans.	<p>The key habitats identified in the local BAPs that could be influenced by the Tame Strategy include wetland habitats, urban habitats and farmland, grassland and heathland habitats. Key species that could be affected by the strategy include: water vole and otter.</p> <p>Specific targets with the BAPs of relevance to the Tame catchment include:</p> <p>Promote the strategy for the creation of large reedbeds in the Trent and Tame Valleys;</p> <p>Seek to restore river courses and create further 'natural' river features in key areas; and:</p>	The Tame strategy has sought to contribute towards local BAP targets through the identification of opportunities for habitat creation or enhancement. The SEA objective, "To protect, and where possible enhance biodiversity" has ensured this has been considered.

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		To resist culverting of watercourses and seek to open up culverts where possible.	
West Midlands Regional Biodiversity Strategy	This Strategy aims to focus attention on the most important priorities for biodiversity in the West Midlands region.	<p>Key challenges identified include maintaining and improving the condition of habitats, species and ecosystems and re-connecting and integrating action for biodiversity with other environmental, social and economic activity.</p> <p>The Tame Strategy provides an opportunity to seek to integrate action to improve biodiversity into the flood risk management process.</p>	The Tame Strategy has sought to identify opportunities for improving the condition of habitats, species and ecosystems throughout its development. The SEA objective, “To protect, and where possible enhance biodiversity” has ensured this has been considered.
Regional Landscapes for Living Initiative	The West Midlands Biodiversity Partnership recognises the need to deliver results at a landscape scale.	<p>This Initiative sets out a 50 year vision for biodiversity for the West Midlands focussing on the development of a landscape scale approach to restoring and enhancing biodiversity. The river corridor of the Tame is one such landscape scale area where biodiversity improvements can be delivered.</p> <p>The Tame Strategy provides an opportunity to seek to integrate action to improve biodiversity into the flood risk management process.</p>	The Tame Strategy has sought to identify opportunities for improving the condition of habitats, species and ecosystems on a landscape scale (e.g. along the River Tame corridor) throughout its development. The SEA objective, “To protect, and where possible enhance biodiversity” has ensured this has been considered.
West Midlands Climate Change Action Plan	This Action Plan sets out the actions that regional organisations should undertake over the next three years to move towards a	Six regional climate change priorities have been identified. Of relevance to the Tame Strategy is the Planning and	The Tame Strategy has sought to contribute to this priority, through identifying opportunities to develop

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	<p>position where all regional policy addresses the causes and impacts of climate change as a central objective.</p>	<p>Environment priority:</p> <p>Plan for low carbon, well-adapted sustainable communities with high quality green infrastructure and thriving biodiversity, with low-carbon new development, improved existing stock, and sustainable transport and waste planning to deliver substantially reduced emissions and resilience to likely climate change impacts.</p>	<p>green infrastructure and improve biodiversity.</p>
<p>SMURF- Sustainable Management of Urban Rivers and Floodplains</p>	<p>The SMURF project was based on the River Tame. As part of the study, a Supplementary Planning Document was produced. This was adopted by Birmingham City Council in June 2007.</p> <p>The purpose of the document is:</p> <ul style="list-style-type: none"> To provide guidance for developments located within river corridors and brook courses in Birmingham. To provide policies that will encourage land-use planning to be better linked with water management, access and the visual amenity of river corridors. To manage development on bank-side locations in a sustainable way for both the community and river ecology. 	<p>The policies within this document will be of key importance in the development of the Tame Strategy. Relevant policies which can influence or be influenced by the Tame Strategy include:</p> <p>Policy 5: A natural character should be maintained, or where appropriate, restored to the river channel.</p> <p>Policy 6: Open or closed culverts should only be used where no alternative exists.</p> <p>Policy 7: Where development lies adjacent to the river corridors or their tributaries every opportunity will be sought to benefit the river by reinstating a natural, sinuous river channel.</p> <p>Policy 8: The floodplain will be</p>	<p>The Tame Strategy will be an important mechanism by which some of these policies can be implemented. In development of the Strategy, opportunities have been sought to achieve the aims of the policies. The SEA objectives (see below) will ensure that these policies were taken into account during assessment of the Strategy options:</p> <p>“Protect geomorphological features for the river and floodplain and, where possible, provide opportunities for enhancement”;</p> <p>“To protect and, where possible, enhance biodiversity”;</p>

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	<ul style="list-style-type: none"> To be consistent with the objectives of the Water Framework Directive (WFD). 	<p>maintained and restored.</p> <p>Policy 10: The nature conservation and landscape value of the river corridor will be safeguarded, enhanced and restored.</p> <p>Policy 11: All development proposed within or adjoining river corridors and their tributaries must ensure that archaeological remains, historic buildings and historic landscapes are preserved and protected.</p> <p>Policy 12: All development proposed adjacent to the river corridors and their tributaries shall be designed to take account of its proximity to the river.</p> <p>Policy 13: Access to the riverside at appropriate locations will be improved for all persons.</p> <p>Policy 15: Educational and recreational value of river corridors and their tributaries will be improved.</p>	<p>“To protect and enhance cultural heritage features” ; and</p> <p>“To avoid and, where possible, enhance possible effects on human health and population”.</p>
Local			
Birmingham Climate Change Action Plan	A Consultation Document on the Birmingham Climate Change Strategy and Action Plan was published in February 2007. However no information on the final strategy could be	As the draft strategy focuses on Birmingham, and not the wider Tame catchment the policies included are likely to be too detailed for the purposes of the Tame Strategy. The Tame Strategy will	Not considered further.

Plan, Strategy, Initiative or Legislation	Description / Purpose	Plan / Strategy / Initiative influence over Tame Strategy	Tame Strategy response to Plan / Strategy / Initiative
	found.	consider regional climate change priorities as set out in the West Midlands Regional Climate Change Action Plan.	
Black Country Joint Core Strategy	The four Black Country Local Authorities have produced a Black Country Core Strategy. This is a 'spatial planning document' that sets out the vision, objectives and strategy for future development in the Black Country to 2026.	This strategy is still under development and so has not been specifically considered during the development of the Tame Strategy.	Not considered.
Central Rivers Initiative	<p>The Central Rivers Initiative focuses on a 13 mile stretch of the rivers Trent and Tame, between Tamworth and Burton upon Trent.</p> <p>The aims of the project are to secure a multi-functional end use for former sand & gravel extraction sites in the Tame and Trent River Valleys, downstream of Middleton Lakes at the Warwickshire border.</p> <p>A Strategy for the area was developed in 1999 and is currently being updated.</p>	<p>Nine key aims of the original Strategy have been defined. Those of relevance to the Tame Strategy are:</p> <ol style="list-style-type: none"> 1. Regenerate the river corridor and improve its quality, in accordance with the Staffordshire Landscape guidelines and the National Forest Strategy; and 6. Increase the level of habitat provision (e.g. wetlands, reedbeds and appropriate woodlands) and specifically to meet the habitats and species action plan targets as included in the Staffordshire Biodiversity Action Plan. 	The Tame Strategy has sought opportunities to contribute to the aims of the Central Rivers Initiative, through looking for opportunities for habitat creation and restoration and regeneration of the natural river corridor.
Project Kingfisher (Kingfisher Country Park)	This project is associated with an 11km stretch of the River Cole, a tributary of the Tame. It is a joint project sponsored by local councils, Natural England, local wildlife trusts and the Environment Agency. The overall	The Tame Strategy may consider options that involve management of the tributary flows to reduce flood risk on the Tame. There is therefore a potential impact on the river Cole and the Kingfisher Country	No options which affect this area of the River Cole were feasible.

Plan, Strategy, Initiative or Legislation	Description / Purpose	Plan / Strategy / Initiative influence over Tame Strategy	Tame Strategy response to Plan / Strategy / Initiative
	aim is to manage the valley of the River Cole in a way that improves it both for people and wildlife. In July 2004 Project Kingfisher was formally declared Kingfisher Country Park.	Park.	
River Blythe Memorandum of Understanding	This is an agreement between EA and BW to protect the River Blythe SSSI and associated wetland by controlling water flows in and out of Earlswood Lakes.	As this site is in the upper part of the Blythe catchment, it is unlikely that the options considered during the development of the Tame Strategy will impact upon this site.	The options considered during the development of the Tame Strategy will not impact upon this site.
Birmingham City Council UDP	The UDPs form part of the statutory development plans and contain policies and proposals that guide development and the use of land in each authority area. These are developed in line with the regional policies as set out in the RSS.	The Tame Strategy can be influenced where development is proposed in the vicinity of the watercourse.	Specific areas have been considered during SEA development.
Sandwell Metropolitan Borough Council Plan		A number of the plans (see below) although within the Tame catchment, do not consider areas in the immediate vicinity of the Tame. It is unlikely that they will influence the Tame Strategy.	
Walsall Metropolitan Borough Council UDP			
Tamworth Borough Council Local Plan		Once the predicted flood outlines are available during later stages of the Strategy, these plans which consider areas in the immediate vicinity of the river will be assessed further.	
Lichfield District Council Local Plan			
North Warwickshire Borough Council Local Plan			
Solihull Metropolitan Borough Council UDP	Does not cover area adjacent to River Tame	Does not cover area adjacent to River Tame	Will not be considered further

Plan, Strategy, Initiative or Legislation	Description / Purpose	Plan / Strategy / Initiative influence over Tame Strategy	Tame Strategy response to Plan / Strategy / Initiative
Iverhampton City Council UDP			
Dudley Metropolitan Borough Council UDP			
Staffordshire County Council Local Plan			



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APPENDIX B: Consultation

Table 22: List of Consultees

Organisation	Consulted in 2004	Consulted in 2008	Attended workshop
Advantage West Midlands	Y	Y	Y
Alrewas & Fradley with Streethay Parish Council	Y	Y	
Association of British Insurers	Y	Y	
Birmingham and Black Country Wildlife Trust	Y	Y	
Birmingham City Council (various departments)	Y	Y	Y
Birmingham Central Library	Y	Y	
Black Country Consortium	Y	Y	
British Waterways	Y	Y	Y
Brian Jenkins MP	Y	Y	
BWB Consulting Ltd		Y	
Castle Bromwich Parish Council	Y	Y	
Coleshill Parish Council	Y	Y	
Commission for Architecture and the Built Environment	Y	Y	
Curdworth Parish Council	Y	Y	
CPRE	Y	Y	
DEFRA	Y	Y	
Dudley Metropolitan Borough Council (various departments)	Y	Y	
Drayton Bassett Parish Council	Y	Y	
Elford Parish Council	Y	Y	
English Heritage		Y	
Fazeley Town Council	Y	Y	
Lichfield District Council	Y	Y	
Mid-Trent Angling Consultative		Y	Y
Natural England	Y	Y	
National Farmers Union	Y	Y	Y
Network Rail	Y	Y	
Network Rail Midlands Region	Y	Y	Y
Railtrack	Y	Y	
Rea Valley Residents Environment and Flood Action Group	Y	Y	
RSPB	Y	Y	Y
Sandwell Information Services	Y	Y	
Sandwell Council	Y	Y	Y
Severn Trent Water Ltd	Y	Y	Y
Solihull Metropolitan Borough Council	Y	Y	
South Staffordshire Water		Y	
Staffordshire County Council	Y	Y	
Staffordshire Wildlife Trust	Y	Y	
Tamworth Library	Y	Y	
Tamworth Borough Council	Y	Y	
Walsall Community Library	Y	Y	
Wolverhampton City Council	Y	Y	
North Warwickshire Borough Council	Y	Y	
Whittington & Fisherwick Parish Council	Y	Y	
Warwickshire Wildlife Trust	Y	Y	Y
Walsall Metropolitan Borough Council	Y	Y	Y
The Wildlife Trust for Birmingham & The Black Country	Y	Y	

Table 23: Consultee Comments

Name, Organisation and Date of Consultation	Consultation Response
Advantage West Midlands August 2007	Highlighted that the report does not reference economic strategies such as the west midlands economic strategy
Birmingham City Council August 2007	In the baseline there is no mention of protected species e.g. water voles In the options appraisal he would like to see the options of runoff attenuation including Sustainable Urban Drainage Systems and use of green roofs.
Commission for Architecture and the Built Environment August 2007	Provided list of relevant publications/examples: Cabe Space Publication, Living With Water and A Natural Estate
Middle Trent Angling Consultative June 2008	Notes the diffuse pollution from agriculture was not included in the table of Significant Water Management Issues (SWMI). Report also refers to the physical modification of the channel and canalisation but it does not mention the weirs which are significant factor in fish migration. He noted that open cast mining is being undertaken adjacent to the R.Sense which is tributary of the Anker, which is tributary of Tame. He noted that the report talked of alien species and identified Zander have been found in the R. mice.
Natural England April 2006	Little scope for work at Sutton Park. Robert Duff and Anton Irving to comment on River Blythe and Whitacre Heath. Alvecote Pools SSSI on the River Anker has been omitted. The strategy is an opportunity to contribute to BAP targets and Accessible Natural Greenspace Targets. The section from Hams Hall to the Trent supports nationally important numbers of wintering waterfowl and the Strategy is an opportunity to build on this by creating habitats - reedbeds, lowland, wet grassland etc.
RSPB August 2007	Provided alternative text re Sandwell Valley and Middleton Lakes
RSPB November 2005	Any increase/decrease of spring/summer flood waters at Middleton Hall could affect breeding waders. Restoration of workings at Middleton Hall presents an opportunity to replace lost habitats with reedbeds and shallow lagoons. Middleton Hall supports regionally significant breeding wader populations. Middle Tame gravel pits around Tamworth supports regionally and nationally important populations of wintering wildfowl. The creation of a new fish refuge at Middleton Hall is already well advanced.
Solihull Metropolitan Borough Council November 2005	The Council has adopted a Strategic Framework for North Solihull as Supplementary Planning Guidance. Regional Planning Guidance has also been adopted as the Regional Spatial Strategy for the West Midlands (Sept 2004) and includes policy QE7 giving priority to biodiversity enhancement areas including the

Name, Organisation and Date of Consultation	Consultation Response
Staffordshire Wildlife Trust July 2008	Tame/Blythe corridor. Drew attention to biodiversity audit report on the River Tame and Trent carried out in 2006-07 commissioned by EA for Central Rivers Initiative and Green Arc Partnership. Pages 113-131 give recommendations for key sites on Rivers Tame and Anker including Broad Meadow in Tamworth, Warwickshire Moor (part of) on the Lower Anker, Tameside Nature Reserve and Middleton Lakes. SWT considers that these sites could all have a potential role in managing flood risk in the Tame Catchment.
The Wildlife Trust for Birmingham & The Black Country August 2007	Provided additional plans and policies that should be incorporated in the SEA

Table 24: Summary of external workshop notes

Item no.	Notes
1.	<p>Aims of Day</p> <ol style="list-style-type: none"> 1. To provide information on the work that the Environment Agency had undertake on the River Tame Flood Risk Management Strategy; 2. To provide feedback on the comments received following the Scoping Update Document; and 3. To give stakeholders and opportunity to input into the Strategy options and comment on the progress.
2.	<p>Presentation on the context and purpose of the Strategy.</p> <p>Presentation on current flood risk on the River Tame.</p>
3.	<p>A question and answer session was held following the presentations. The following matters were raised:-</p>
i.	<p>Q: Is the flood outline available on the Environment Agency website?</p> <p>A: The best available information available is on the website. This is a new flood outline and when it has been confirmed it will be put on the website.</p>
ii.	<p>Q: Part of the summer 2007 flooding was from canal water. Have the canals been included in the model?</p> <p>A: The canal network has been included in the model at a strategic level (a level of detail appropriate for Environment Agency Flood Risk Management and Mapping studies). Whilst the canal is represented in the floodplain, individual canal cross sections or locks / side weirs are not included. If schemes are taken forward from the River Tame Strategy that are adjacent to canals, then the canal network may be represented in the hydraulic model at a greater level of detail.</p>
iii.	<p>Q: Is surface water included in the model?</p> <p>A: There is a Local Authority project to map and identify surface water. This project is separate from the Tame Strategy however, we are keen to gain an understanding surface water flooding. We need to capture the key risk areas and ensure that the proposed Strategy will not compound the surface water issues. The Pitt Review includes recommendations for surface water management plans and an integrated approach. We will also be making use of all of the Strategic Flood Risk Assessments that have been produced by Local Planning Authorities.</p>
iv.	<p>Q: How is climate change dealt with in the model?</p> <p>A: The guidance provided by the Department for Environment and Rural Affairs (DEFRA) has been applied to the model. This involves increasing the flow rate used in the model by a certain amount. For a 100 year strategy this is a 20% increase in flows. The Tame Strategy will cover the next 100 years and so this is the method that will be used. We are adopting a phased approach by looking at the next 25 years, the next 50 years and the next 100 years. This allows the decisions we make now to be influenced by how climate change may affect future flood risk. For example, if we propose to construct a flood wall we will build the foundations to allow the wall to be increased in height to allow for climate change increases.</p> <p>Comment: It was noted that climate change may also be responsible for increasing the chance of summer flooding.</p>

v.	<p>Q: What was the size of last years flooding?</p> <p>A: Halcrow has estimated that the June 2007 event has been approximated to be a flood with a 3% chance of occurring in any given year (1 in 30 year return period) in the Bescot area, and approximately a 5% chance of occurring (1 in 20 year) in the Water Orton Area. The EA have estimated that the July 2007 event was a flood with a 3% chance of occurring in any given year (1 in 30 year return period) in the Upper Tame area.</p> <p>Further details of this (and for other locations) may be available upon request.</p>
vi.	<p>Q: If defences are raised upstream will this push more water downstream?</p> <p>A: Yes, this is the reason for the Strategy. We cannot prevent flooding we can only manage it. However, by considering a larger geographical area we can consider the interrelated effects of our approach to flood risk management and ensure an integrated solution. It may be that in some localised areas flooding is increased if this offers strategic benefits elsewhere. However, it is too early to say at this stage whether this will be the preferred option.</p> <p>The process for the options appraisal will be to look at the high level options for the whole of the Strategy area and then the preferred option for smaller areas, (referred to as flood cells). The flood cells will be defined by analysing the flood plain and identifying whether flood water could flow into or out of the cell. The topography and fixed structures that prevent water from flowing between locations define the boundary of the cells. To assess the available options we will look at how each cell fills with water. When we add our preferred flood risk management option we will look at the effects downstream.</p>
vii.	<p>Q: Where will flood water be stored? Will storage on the tributaries be considered?</p> <p>A The Rea, the Cole and the Blythe each represent about one third of the flow and are equally important. Potential storage will be assessed on each of these tributaries as well as the main River Tame Channel. It is the timing of the storage that is important. If storage areas filled very earlier in a flood event they would not be effective for the peak flow because they would already be full.</p>
viii.	<p>Q: Will seasonality be included in the Strategy? The impact of flooding on wildlife will vary depending on the time of the year. In particular, flooding during Spring (March – June) would wash away nesting birds but would have less impact after July each year. (However, natural flooding is important to maintaining wetland habitats).</p> <p>A: This can be taken into consideration in the environmental assessment.</p>
ix.	<p>Q: Was the difference between summer and winter floods being assessed? The River reacts very differently depending on the season. How is this addressed in the modelling?</p> <p>A: During the model construction a range of Storm Durations have been assessed. This includes shorter intense storms (more typical in summer months) and longer less intense storms (associated with winter months) – plus a range in between for other periods of the year. The worst case results are taken from this storm duration analysis.</p> <p>Confidence in the model has been achieved by calibrating well against actual previous flood events. The model has then been used to run extreme events and identify where the most vulnerable areas are. Seasonality as a specific variable was not considered but the modelling work did account for different flow rates and different storm durations and in this way replicates the differences that are experienced with different seasons.</p>
v.	<p>Q: How does the modelling accounted for input flows from automated sluices into the Rea and over-flow structures?</p> <p>A: When the Strategy is completed and the recommendations available the Agency will begin looking at the local level and more detailed information such as this would be needed at that stage.</p>

4.	<p>Presentation on the Strategic Environmental Assessment (SEA) that was being undertaken on the River Tame Flood Risk Management Strategy.</p> <p>A question and answer session was held following the presentation. The following matters were raised:</p>
i.	<p>Q: What is the programme for delivery of the Strategy?</p> <p>A: The draft Strategy and the supporting SEA will be available around Christmas 2008.</p>
ii.	<p>Q: How is the River Basin Management Plan being included in the Strategy? There needs to be a flow of information in both directions between these two pieces of work.</p> <p>A: There is a hierarchy of plans starting with the River Basin Management Plans then Catchment Flood Management Plans and then Flood Risk Management Strategies such as Tame Strategy. The Strategy would then recommend individual projects. The plans should lead on from one another but they were being produced simultaneously and therefore coordination between all the work currently being undertaken is needed.</p>
iii.	<p>Q: When and how will the cost benefit analysis (CBA) be done?</p> <p>A: The CBA will be for the whole catchment but it is only one part of the approach balancing all the technical, environmental and economic factors. The CBA will be progressed in two stages. Firstly, the whole Strategy area and then for each flood cell. It will be an iterative process to look at the most beneficial solution for all areas. The measures being considered are very wide including improving flood warning, local resilience measures to potentially managed realignment.</p>
iv.	<p>Q: Would compulsory purchase of properties be considered?</p> <p>A: We would prefer to work in partnership and work constructively with others. However, there are examples of compulsory purchase elsewhere in the country. We would negotiate with such parties to try to avoid the need for compulsory purchase.</p>
v.	<p>Comment: It was noted that the Scoping Update document did not include the Nature Conservation Strategies. It was also suggested that John Sadler at Birmingham University be contacted regarding his work on River Corridor Connectivity.</p>
vi.	<p>Comments: Over the lunch period a number of further comments were noted:-</p> <ul style="list-style-type: none"> • Zander, (an alien species) has been found in the Tame; • The Black Country Core Strategy was not included in the review of plans and policies in the Scoping Update Document and should have been; • The Black Country Plan had been incorporated into the Core Strategy and could be removed from the list of relevant plans in the Scoping Update Document; • Angling below the confluence of the Blythe is an important recreational use of the River; • The weirs around Tamworth could be improved for fish e.g. removal of weirs or creation of fish passes or rock chutes.
5	<p>Feedback Session.</p> <p><u>SESSION 1: OPTIONS</u></p> <p>The first session was aimed at identifying strategic flood risk management options. The attendees were split into groups and asked to write down any options for how we could manage flood water.</p> <p>Each group fed back to the workshop. The comments were put on post-it notes and are repeated below (where individuals identified their comment it is noted in the right hand column):-</p>

	<p>Group 1</p> <ul style="list-style-type: none"> • Provision for infrastructure should be considered. • The Strategy should not impact on the urban renaissance of the Black Country. • Development take into account flood defences where ever possible. • Create open space in new developments to act as natural drainage. • Link into Sustainable Urban Drainage Systems (SUDS). • De-culvert rivers where possible.
	<p>Group 2:</p> <ul style="list-style-type: none"> • Tame Valley Wetland Strategy by Warwickshire Wildlife Trust. • Opening up river corridor, use river as economic asset: <ul style="list-style-type: none"> - Water features in housing and business adds to property value. - Amenity value. - Social benefits and environmental benefits. - Benefits to staff of greenspace at work. • Ensure any flood storage areas are understood as seasonally useful:- <ul style="list-style-type: none"> - don't flood meadows in spring when waders have chicks. - do flood in late summer and winter. - plans need several storage options to allow seasonal flexibility. • Reconnect river to floodplain. • Create wet woodland etc habitat to hold back and storage of water. • Dam and create reservoirs. • Look at models with all defences removed to re-assess storage options. • Opening up rivers through urban areas. • Re-meander especially through current greenspaces and urban parks. • De-culvert. • Greenspace management (e.g. mowing to short grass) – change this to regime which can hold back water, e.g. wet woodland, scrapes and wet, long grassland to slow water flow. • Model amount of water coming into river from urban areas – fluvial floods – to see if many entering river. • High cost of SUDS schemes but if prevent engineering downstream could be cost efficient. • Need national (regional) drainage records – asset map to bring all data together from various landowners e.g. Birmingham City Council, Network Rail, Landowners. Drainage and its condition and location needs to be understood. • Bold removal of infrastructure and housing (when it needs replacing) away from floodplain. No further development in floodplain. • Managed retreat.
	<ul style="list-style-type: none"> • Remember: A floodplain is a river that is sometimes dry – not land that is sometimes wet. • A floodplain is part of a river – change flood warnings so people just have to get used to getting flooded. Hopefully they will move away and not want to invest infrastructure in floodplain. • Re-meander tributaries with large scale flood storage habitat creation to design and manipulate less damaging hydrograph. • Resilience to flooding in any new development – e.g. basement parking, porous road surfaces, green pages. • Storage/attenuation behind railway embankment. Need to protect embankment from wave action and drawdown actions of water. • Use of natural protection, coir, reed beds to protect embankment or greened versions of traditional hard engineering. • Commercial sensitivity needs to be overcome to get all drainage, performance, condition of asset data together. • Ensure Strategy assists in delivery of urban regeneration in Birmingham Council and Birmingham “community realignment” may result in considerable economic and social impacts emphasised by high density areas.

	<p>Group 3</p> <ul style="list-style-type: none"> Identify locations of historic environment features – archaeological remains, historic buildings, historic landscapes. ensure that design and implementation of works does not damage historic environment features and where possible enhances protection of them. Need legislation e.g. Development Control. Work with utilities/emergency planners, including:- <ul style="list-style-type: none"> Identify location Identify impacts Contingency planning
	<p>Group 4:</p> <ul style="list-style-type: none"> SPD – Green roofs & SUDS – zone of each major river. Restriction of paving over gardens. De-mountable improvement in flood risk post-development – future scenarios. Manage retreat from FZ3, where possible. Greater weighting to cost/benefit calculations for areas of deprivation susceptible to flooding (where people are unlikely to carry insurance). Predict scenarios over 100 years. Impact of various actions and modelling.
	<p>Group 5:</p> <ul style="list-style-type: none"> Possible use of Earlswood lakes for storage (feed from River Blythe). Link water to improve feed to Edgbaston Reservoir from Tame. Effective liaison with riparian landowners to achieve all major flood alleviation gaps along river corridor. Environmental schemes for Riparian owners. Mineral abstraction is not bad for water management. Use section 106 and county mineral plans. Maintenance of main waterways - dredging of Tame. Control for the Tame is difficult. Efforts should be directed to tributaries, Cole, Rea, Anker and Blythe.
	<p>Group 6:</p> <ul style="list-style-type: none"> Lower Tame – helping create a nationally important wildlife asset for the region. Start to consider replacing low value housing etc with storage areas. Making the water a feature (managed retreat). More habitat (wetland) around Sandwell Valley. Opportunity to create greater area of Middleton Lakes project. Building on existing conservation assets, creating linkages between them and expanding existing. Removal of derelict industrial buildings etc. to create open space for storage/recreation space/access to river front. Local Authorities could do more through consent system to reduce run-off. All new build houses should collect rainwater and use for grey water systems. Lower Tame, Lea Marston, Tamworth lowering land and creating storage, wildlife habitat and recreation (fishing) opportunities. Regeneration schemes could take greater care re-siting of infrastructure (e.g. substations).
<p>SESSION 2: OPPORTUNITIES AND CONSTRAINTS The second session was aimed at identifying opportunities and constraints within the Strategy. The same groups were used for this exercise. Each group fed back to the workshop. The comments that were put on post-it notes are repeated below:-</p>	
	<p>Group 1</p> <p>Constraints</p> <ul style="list-style-type: none"> Too much emphasis on “environmental issues” at expense of economic and social objectives. Strategy should consider impact on all three sustainability strands. Concern about not using Sustainability Appraisal process. Over emphasis on rural issues at expense of urban area when developing strategy. <p>Opportunities</p> <ul style="list-style-type: none"> Need to engage major landowners, stakeholders and businesses including infrastructure providers. <p>Opportunity for partnership working should be essential and built into the process. Ensure strategy takes into account Black Country core strategy, as this sets out a major agenda for change in the sub-region.</p>

	<p>Group 2: Constraints</p> <ul style="list-style-type: none"> • It is a complex problem does it need a complex solution? Will it have to potentially upset some people. • Costs – Who pays for what? Funding availability? • Contaminated land issues – downstream issues. • Surface run-off – contaminated – opportunities for balancing ponds /treatment? • Status quo maintained – not legislation driven, relying on “goodwill”. • Climate change - unpredictability. <p>Opportunities</p> <ul style="list-style-type: none"> • Incentives needed to ensure change occurs and best practice innovation used. Tame Valley wetland project tie in. • Regeneration zone attract funding for environmental improvement. • Action plan for Aston New Town Development Plan Document. • Potential from Network Rail when replacing/repairing structures to design in flood features. • Regional investment site next to M6 – regeneration of Aston area. • Community infrastructure levy – funding from developer for site re-development.
	<p>Group 3 Constraints</p> <ul style="list-style-type: none"> • Poorly designed and ill thought-out works – knee-jerk reactions. • Financial constraints preventing optimum solutions. • Incomplete or out-of-date datasets. • Damage to historic features by flooding. • Flood defence might overrule Water Framework Directive goal for good ecological status. <p>Opportunities</p> <ul style="list-style-type: none"> • Engage with at-risk communities to raise awareness of actions they can take to minimise the impact of flooding. • Implement Pitt Review actions as they impact within Strategy area.. • Improve Environment Agency reputation. • Various parties to work together and improve working relationships in future. • Increase public awareness of and access to historic environment features. • Improve protection of historic environment features. • Identify opportunities to achieve several objectives at the same time:- <ol style="list-style-type: none"> 1. Flood protection; 2. Protection of historic environment features (archaeological remains, historic buildings, historic landscapes); 3. Protection of ecological significance etc.
	<p>Group 4: Constraints</p> <ul style="list-style-type: none"> • Physical impact of flood risk on assets e.g. Sewage Treatment facilities at Minworth. • Surface water outfalls: put back-flooding in space. • Impacts on residences and businesses of flooding. <p>Opportunities</p> <ul style="list-style-type: none"> • Opportunities for biological/biodiversity enhancement / creation / ecological linkages and functionality. • Opportunities for land remediation in Upper Tame to allow for increased water quality along Tame.
	<p>Group 5: Constraints</p> <ul style="list-style-type: none"> • Too much emphasis on environmental issues vs. practicalities. • Financial constraints. • Political hot potato. • Government housing targets. Irresponsible planning constraints. <p>Opportunities</p> <ul style="list-style-type: none"> • British Waterways reservoirs e.g. “Edgbaston Reservoir” and “Earlswood Lakes” could potentially accept some flood water from existing feeders. • Work with species action plan e.g. EEB to help fish movement and flood defence work. • Eco-building. • Co-ordinated emergency planning and action.

	<p>Group 6 Constraints</p> <ul style="list-style-type: none"> • Businesses/private landowners, difficult to engage but hold land adjacent to river. • Further reductions in Environment Agency budgets and how Flood Defence affected. Would added benefits e.g. habitat creation be squeezed out if budgets reduced? • Creating wash lands that contribute to rapid flooding at the wrong time of year, e.g. key wildlife seasons, e.g. breeding. <p>Opportunities</p> <ul style="list-style-type: none"> • West Midlands Local Resilience Forum – useful conduit. Could present to at later date. Concern raised re. number of critical infrastructure points at M6/M5 Bescott interchange. • NB. Historic environment (including paeleattine) • Local Authorities and water usage groups have this as an opportunity to work more closely together for mutual benefit. • Possibility of partnership working/funding to create nationally important wetland/mixed use site in lower Tame area. • Funding from Lottery for scheme that would be accessible to a large urban population.
	<p>Other comments were received during the discussion on the feedback and the maps placed around the room. These included:-</p> <ol style="list-style-type: none"> 1. Elford & Fisherwick: most land owned by Birmingham City Council and leased as agricultural tenancies. Opportunities for flood relief linked into Environmental Stewardship. 2. Potential for major wildlife conservation gains in Lower Tame enhancing string of existing sites. 3. Potential storage at Earlswood Lakes (feed from River Blythe) 4. Major land remediation proposals for landfill at Castle Vale 5. Other contacts: Castle Vale Environmental Trust 6. Birmingham City Council Aston New Town DPD 7. Identified as Regional Investment Site in RSS. 8. Scope for redevelopment including river frontage 9. Birmingham and Black Country Wildlife Trust are managing Perry Hall Park as Nature Reserve. Want to discuss possible partnership working. 10. Potential for enhancement up and down river from Forge Mill Lake Local Nature Reserve (LNR) (as well as within LNR itself) 11. Ensure Strategy assists in delivering urban regeneration. ‘Community realignment’ proposals need careful analysis in terms of their potential social and economic impact. This is emphasised by areas of high density in the Black Country and Birmingham. Resources should be focused in these areas – not just housing but also key employment and critical infrastructure.
6.	PARTNERSHIP OPPORTUNITIES
	<p>Scoping and consultation work that had been undertaken had identified a number of partnership opportunities in particular, working with the RSPB at Sandwell Valley and Middleton Lakes and Network Rail in Birmingham City Centre. Further possibilities had been identified during the day including working with the Water Companies and British Waterways.</p> <p>The following additional potential partnership opportunities were raised:-</p> <ul style="list-style-type: none"> • Working with all environmental bodies on the Tame to generate a strategic approach to the benefits arising from the Strategy particularly regarding storage; • Regeneration projects on going in the city; and • Surface water planning