

Subject:	Proceedings of Workshop 1		
Date & Time:	16th June 2009, 1400-1615	Meeting No:	1
Meeting Place:	Bath Guildhall	Minutes By:	Colin Turnbull, Atkins
Present:	Representing:		

Item	ACTION
<p>1. From 1445 to 1600 attendees discussed the FRMS options and considered four overarching questions. The discussions were organised around four tables each of 6-8 attendees and one or two facilitators from the Project Board including staff from Atkins, BANES and the Environment Agency.</p> <p>Table 1 – Christi Brasher (Atkins) and John Southwell (EA) facilitated.</p> <p>Present were:</p> <p>Karen Renshaw, BANES Ecologist (KR) Richard Walker, Planning Policy, BANES (RW) Pam Walton, South Gloucestershire LDF (PW) Christi Brasher, Atkins (CB) Richard Look, Emergency Planning, BANES (RL) Will Steel, Public Right of Way, BANES (WS) Jim Collings, Engineering, BANES (SUDS etc) (JC) John Southwell, EA Dev FR (JS)</p> <p><u>General comments:</u></p> <ul style="list-style-type: none"> • <u>It was confirmed that all development sites will go through the sequential test.</u> • <u>Funding considerations – possible West of England Partnership.</u> • Storage discussions -> upstream explanation. Downstream compensatory storage smaller than upstream storage. This included an explanation of the hydrology and the volume required for flood storage to reduce water levels versus the amount required for compensation. • Haulage of excavated soil could be transferred by the river, with exception to upstream of Pultney weir. <p><u>1. Further Options to Consider & 2. Opportunities for Improving Options</u></p> <ul style="list-style-type: none"> • JC- voids under sites for compensation idea • Upstream storage (u/s of Bath A4 bypass) will be controlled by a weir. The railway level may be constraint to upstream storage due to higher water levels. • Pumping station idea to uphill dam/reservoir for reducing peak flows. • Void creation scheme • Weir at Twerton (possible horse shoe type like at Pultney); 	

NOTE TO RECIPIENTS:

These meeting notes record Atkins understanding of the meeting and intended actions arising therefrom. Your agreement that the notes form a true record of the discussion will be assumed unless adverse comments are received in writing within five days of receipt.

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<p>however likely to have implications on ecology</p> <ul style="list-style-type: none"> • Bathampton / Claverton side tunnel idea/storage off-line – also mining opportunities for Bath stone • Backwaters into developments in Bath • Open space storage in/below green spaces, e.g. Cricket ground. Implications on car park though. As Bath is a World Heritage city there are restrictions to using flood warning signs around the city, therefore flooding to a car park at the cricket grounds would be difficult to pursue as would not be able to provide adequate warnings to car owners to evacuate. Also cannot give guarantees about safety to vehicles/people. • Norton Radstock- no strategic option- site bias for mitigation probably way forward- only 4 sites clash with FZone maps • Strategic solution at NRS gives more long-term development benefit • Storage enhancement at Keynsham Hams to protect Hicks Gate. • Newton St Loe compensation storage – opportunities to link to new marina. The Duchy of Cornwall owns the land. 	
<p>Table 2 – Kate Jenner (KJ) & Martin Matthias (MM) facilitated.</p>	
<p>Present were:</p> <p>Mark Hinkley, BANES (MH)</p> <p>Vanessa Staker, English Heritage (VS)</p> <p>Deborah Stokes, Environment Agency (DS)</p> <p>Alan Aldous, IWA (AA)</p> <p>Andrew Culley, Mendip DC (AC)</p>	
<p>Points Raise by item heading:</p> <ol style="list-style-type: none"> 1. Further Options <ul style="list-style-type: none"> • AA stated tidal influence extended as far upstream as Saltford • MH challenged removal of afforestation from list of options; • This opportunity could be linked to biomass production; • Floating Houses (pontoons, as adopted in Benelux countries). 2. Opportunities for Improving Options <ul style="list-style-type: none"> • PPS25 suggests not protecting certain types of property (such as shops in Undercroft). 3. Any Cross-boundary Issues <ul style="list-style-type: none"> • VS drew attention to the fact that some bridges and river control structures may be designated Historic Environment assets and that alterations could not be made to those without consent; • VS raised concerns regarding visual impact of developments and FRM control measures might have; • VS advised that Keynsham Abbey site may produce archaeological remains – Refer to BANES Historical Environment officer, Richard Sermon; • MH advised whole watershed approach has to adopted to ensure a sustainable approach. 	

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<p>4. Concerns over Viability & Delivery</p> <ul style="list-style-type: none"> AA believed proposed site for compensatory storage may not yield sufficient volume as it already lies in the flood plain; AA advised that river conveyed a large quantity of silt and siltation of any potential flood storage areas may be a risk to the long term maintenance requirements, particularly in terms of cost (similarly if we slow flows more silt will be dropped in channel); MH advised that Kensington Meadows is a LAA Stretch Target Green Flag site but wetland management could support biodiversity gain; AC asked about impact on development cost for affordable housing. <p>Table 3 – Roger Savage (Atkins) and Kaoru Jacques (BANES) facilitated.</p> <p>1. Further Options</p> <ul style="list-style-type: none"> Could the strategy recommend a Marina downstream of Bath A water tank under the Rec was considered but it is too expensive. Consideration should be given to offline storage using development voids. <p>2. Opportunities for Improving Options</p> <ul style="list-style-type: none"> Consideration should be given to structuring and assessing mitigation measures at three levels, strategic level (districtwide), cell level and individual site level especially in terms of viability and 'cost v. benefits'. However measures proposed at the cell level should not increase the risks down stream. According to previous studies and knowledge, on-site storage is very limited within the city centre. It may require some compensatory storage down stream. – Further detailed data (data analysis) and modelling work will help to define whether this compensatory storage is needed. High quality amenity space should be created at upstream storage and the amenity benefits should be communicated clearly through the Strategy. River amenity and leisure value and advantages should be maximised. eg. raise water level by using sluice gate down stream or lower the bank to bring water closer for people and increase visual links. Consideration of water taxi. The strategy should acknowledge Baths status as a WHS <p>3. Any Cross-boundary Issues</p> <ul style="list-style-type: none"> (none) <p>4. Concerns over Viability & Delivery</p> <ul style="list-style-type: none"> For Bath, it is difficult to comment at this stage without knowing the exact capacity of water storage proposed as option 1 and 7 and how much on-site storage is needed to top up as option 4. Options 1 and 7 are most preferred depending on further work and need political buy-in. Better use of brownfield land in the heart of the city. 	

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<ul style="list-style-type: none"> Options 1 and 7 require clear political buy-in and strong support considering the development history in these areas. eg. P&R, Batheaston Bypass... A comprehensive approach is crucial for implementation of any options to avoid 'cherry picking' development. The Strategy must be clearly reflected and integrated through the planning policy framework so that individual planning applications can be considered in a comprehensive manner. For Midsomer Norton it was agreed that on site solution seems to be the better option. For Radstock it was felt that water storage in RK9 site might contribute existing structural problem of the Comb End culvert. 	
<p>Table 4 – Colin Turnbull (Atkins) and Linda Cattermole (EA) facilitated.</p> <p>Present were:</p> <p>Peter Weston, Wessex Water (PW)</p> <p>Charles Newall, BANES Property</p> <p>Nigel Hale, South Gloucester Council (NH)</p> <p>Melvin Wood, Environment Agency (Flood Risk Management) (MW)</p> <p>Deborah Stokes, Environment Agency (Strategic Environmental Assessment) (DS)</p> <p>Geoff Webber, BANES Planning & Conservation Officer (GW)</p>	
<p>Points Raise by item heading:</p> <p>1. Further Options</p> <ul style="list-style-type: none"> DS asked if strong architectural solutions were considered as part of IBD and discussion with GW on limitations in heritage context; MW suggested we begin by considering radical ideas such as a 'blue corridor' to remove constrictions to the river, given the long term views around climate change. A two-stage river channel would be one approach. GW considered that upstream afforestation remains a viable option and is not mutually exclusive to others. <p>2. Opportunities for Improving Options</p> <ul style="list-style-type: none"> MW & PW explained that existing weirs control water levels in part to protect foundations, reducing levels could cause subsidence etc and implications should be considered. Tie bars installed in 1970s. PW explained that there are many CSOs laterally and longitudinal along the River Avon including at Kensington Meadows and could be a constraint but also an opportunity for a coordinated scheme. A CSO bypass was built at a cost of c. £30m on the north side but there is scope for something similar on the south side. DS noted that permutations/combinations of the options could be key. CW noted that riverside sites should not be sterilised in terms of development opportunities. 	

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<p>3. Any Cross-boundary Issues</p> <ul style="list-style-type: none"> PW explained that surface run-off is a problem and should be included in scope of commission. PW explained that his organisation have been consulted on by the applicants for proposals for several hundred homes SW of Keynsham which would increase run-off. NH noted that the commission does not consider any FRMS that may be done by Bristol (upstream) nor the betterment that would accrue to downstream areas e.g. Swineford and asked if a more strategic approach could be taken in conjunction with these districts. <p>4. Concerns over Viability & Delivery</p> <ul style="list-style-type: none"> CT noted that Code for Sustainable Homes points system may not consider contributions to off-site SuDS/FRMS which GW suggested would be an unfortunate / inappropriate penalisation of a strategic approach. Discussion by all as to the run-off from the urban extensions. CT explained that we were proposing an assumption that they would deal with run-off (Greenfield rate). GW suggested that this might deny opportunities to link (through CIL) development of these extensions with provision of strategic FRMS since there is a strong regeneration/heritage rationale to providing the FRMS. DS suggested ways of making attractive to developer e.g. provision of recreational open space for their residents which doubles as flood storage. 	
<p>Questions/comments raised following the presentation and breakout sessions</p> <p><u>Wessex Water:</u> Suggest the FRMS study should give consider surface water and sewerage especially if recommending flood walls as they cannot block the flow of surface water runoff.</p> <p><u>Are any sites in the Flood Zone 3b?</u> It was confirmed that none of the development sites sits in the functional floodplain (FZ3b)</p> <p><u>Have 'greener' solutions been considered?</u> Yes, we are considering SUDS for individual development sites, and also changes to land management and land use upstream in the catchment. However the latter were not promoted to the high level appraisal.</p> <p><u>Have detailed calculations been undertaken at this stage as a 1 million cubic metre reservoir (proposed by Chris Baines in a previous study) would fill up in about 30 minutes at the current flow rates?</u> It was confirmed that detailed modelling would be undertaken as part of the detailed appraisal.</p> <p><u>Would developers receive fewer CSH/BREEAM 'points' if an offsite FRM/SUDS solution were used rather than their own on-site solution?</u> CT will check this with reference to the technical guidance but also Atkins' consultants specialising in these assessments.</p>	

BREEAM/CSH assessors within Atkins have confirmed that FRM/SUDS solutions do not garner points if they are within/serving a development in a flood risk area.

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