

## Defra

### Schedule 3 of the Flood and Water Management Act

#### Response from the Inter Institutional Flood Group

Membership of IIFG:

- Chartered Institution of Water and Environmental Management
- Institution of Civil Engineers
- Landscape Institute
- Royal Institute of British Architects
- Royal Institute of Chartered Surveyors
- Royal Town Planning Institute
- Royal United Services Institute

#### Response to consultation questions

Q1. Do you agree that the proposed revision to planning policy would deliver sustainable drainage which will be maintained? If not, why?

No, we do not agree that the change will deliver sustainable drainage that will be maintained.

Sustainable drainage as envisaged by Sir Michael Pitt, is not addressed by these proposed changes.

The change does not deal with adoption which is essential. In many instances around the country, those organisations who could adopt (local authority, water company or highways) do not wish to do so. Purely dealing with maintenance does not address this problem.

Despite the reference to the Water Act 2014, Water Companies will generally not accept (and say they are unable to accept) surface water from 'soft' SuDS as they say it is deemed to be 'land drainage' and therefore they will not/cannot accept it. If they cannot accept it, they cannot adopt it, and will not maintain it.

Making an action 'allowable' does not require the organisation to do it, and without a legal requirement, it is unlikely that SuDS would be universally adopted.

Developers wish for certainty in knowing that a development will be adopted, and the likely costs involved.

The current national standards are extremely poor, and have been reduced solely to compliance on quantity. This will not deliver sustainable drainage as it is defined.

Standard 12 allows water to be discharged that is poor quality if the receiving watercourse is already poor quality. A well designed SuDS system can cleanse water to a good standard, and should be required to fulfil our obligations under the Water Framework Directive in relation to addressing the problem of diffuse pollution, which is inherent in the Catchment based approach.

The Standards do not address those aspects of sustainable drainage that should provide for potential improvements to biodiversity and amenity, and consequent improvements in air and water quality, public health and wellbeing, at the same or lesser cost than engineered systems. The proposal therefore cannot deliver the multi-functional benefits of sustainable drainage.

By incorporating the National Standards into planning guidance, they will not become statutory, and therefore their authority will be significantly reduced from the level required, and enforced only by the policing of planning conditions, and the willingness of the developer.

There is a strong risk that developers will have the ability to argue 'unviable cost' for almost any scheme should they so wish, as the scheme will be seen as negotiable or 'discretionary'.

The proposals do not provide the Lead Local Flood Authority (LLFA) with the duty to approve new SuDS schemes which seems contrary to their responsibilities to manage local flood risk under the F&WMA, Flood Risk Regulations and the National Flood Coastal Risk Management Strategy.

The proposals also assume that local planning documents and the Strategic Flood Risk Assessment (SFRA) properly reflect local surface water management risks and opportunities. In many circumstances these documents do not take into consideration surface water issues or SuDS which will impact on the development and planning process. This will lead to difficulties in obtaining the necessary evidence until these documents are updated.

**Q2. How should the Local Planning Authority obtain expert advice on sustainable drainage systems and their maintenance? What are the costs/benefits of different approaches?**

It is unclear at what stage in the planning process sufficient detailed information would be provided to enable the appropriateness of a development's SuDS proposals to be assessed regardless of who assesses it.

A flood risk assessment, with (if provided) a vague SuDS Strategy (as is currently invariably the case) is insufficient information to allow a proper assessment to be made of a development proposals ability to accommodate surface water adequately.

Unless a SuDS system is integrated within a site masterplan from the beginning, it is likely to be much more costly to endeavour to include it at the detailed planning stage. This is the root cause of many of the assertions that SuDS take up valuable developable land, but is

invariably a product of poor initial design and site planning that did not embrace dealing with water appropriately.

Expensive modelling is not necessarily required for an outline application, as simple calculations can provide a high degree of certainty around the necessary surface water attenuation requirements sufficient to allow an adequate strategy to be developed.

There is a wide difference between local authorities in their ability to address dealing with drainage, and to date this ability at the District and Borough level has not been considered, as the F&WMA is focussed on delivery via the County and Unitary authorities. Even where expertise is available in-house it would need to be extended, and consultation with the EA would not be sufficient in assessing detailed models for surface water schemes.

If such work is contracted out by local authorities, the cost to those organisations is likely to be high. Expert advice, however provided will need to be charged back to the developer, and the ability to do so confirmed in legislation.

The previous proposals that put the responsibility with the County or Unitary authority, whilst still requiring funding, at least gave responsibility where such expertise is likely to already be in-house, even if not to an adequate level of staffing.

Authorities may consider banding together to provide a centralised service – this has already happened in relation to the production of SuDS guidance by the S7 group of authorities on the south coast and elsewhere.

Many LLFAs (with the support of government funding) have begun to increase their capacity and knowledge on SuDS in readiness for their role as a SuDS Approval Body (SAB). This has been confirmed through surveys undertaken by Defra and the LGA. Since the implementation of FWMA in 2010 many LLFAs have recruited specific staff, purchased software and undertaken training to fulfil their anticipated new role. It would therefore make sense for LPAs to obtain information and advice from the LLFA, particularly as they have an overall responsibility for manage local flood risk. Many schemes will also involve interactions with highway drainage which could also be managed via the LLFA.

The role of the LLFA, and the (shadow) SAB role that has been developed in many authorities has not been mentioned. They would seem an obvious candidate to provide advice and guidance.

**Q3. What are the impacts of different approaches for Local Planning Authorities to secure expert advice within the timescales set for determining planning applications?**

Understanding the SuDS aspect of a development is a technical requirement, which the planning department is unlikely to be able to fulfil on its own.

However, there is a need for SuDS to be a key aspect of pre-application discussions if it is to be properly integrated within development proposals.

Early discussion and integration would enable proposals to come forward to planning in an appropriate manner as part of a planning application, and would help speed up the response time.

Q4. Do you agree that minor size developments be exempt from the proposed revision to the planning policy and guidance? Do you think thresholds should be higher?

No, minor size developments should not be exempt.

All new building potentially contributes to flood risk whether built as part of a development or singly, so the size of a development is irrelevant in this respect. Smaller developments collectively will have the same impact as larger ones.

The thresholds should not be higher, and should be reduced back to 'more than one house', as per the original principle - that one building can contribute to the flood risk of another adjacent/downstream.

Setting a threshold of 9 or higher will just encourage developers to choose to develop at one below the level set to avoid compliance. This could potentially increase flood risk significantly.

Q5. What other maintenance options could be viable? Do you have examples of their use?

Sir Michael Pitt was clear in recommending adoption either by Local Authorities or water companies and we would support this advice. In Scotland, adoption of SuDS by Scottish Water is confirmed although they have restricted the type of SuDS they will adopt, however, the principle of adoption by water companies in a more comprehensive manner would seem essential.

This standpoint is confirmed in the Pitt Review at paragraph 6.59 "The Review believes that either local authorities or the sewerage undertakers would be best placed to adopt SUDS. We are of the opinion that establishing specialist SUDS drainage companies would exacerbate the existing problem of too many organisations being involved in flood risk management, creating a fragmented approach" We concur with that view, although we also consider that Highway Authorities should be required to adopt Suds within highway land.

Where land ownerships are crossed by a SuDS scheme, the necessary coordination and agreement for its implementation and adoption must be mandatory, and anomalies regarding water from soft SuDS being considered by some as 'land drainage' resolved.

If maintenance is provided by commercial management companies, there is a risk that the initial funding through commuted sums may be quickly used, and that such companies then cease to trade. This would leave the ongoing maintenance uncertain.

Householder management companies will require expert advice if they are to be successful in the longer term, which is likely to make maintenance more expensive.

As drainage is a primary infrastructure it is essential that its long term maintenance is certain. Therefore its maintenance options must be durable, affordable, and sustainable with the potential to raise funds for necessary capital maintenance.

The original proposals for Schedule 3 of the F&WMA suggested that SABs would undertake on-going maintenance, which would provide the necessary funding and accountability.

Funding has not effectively been tackled with the new proposals, but must do so if they are to be effective.

The proposals assume the maintenance is determined at the time of outline planning application, this is unlikely unless detailed information on the drainage is provided.

#### Q6. What evidence do you have of expected maintenance costs?

In expected cost of maintenance should also be considered in relation to the cost of alternatives such as flood defences, and the cost of dealing with the consequences of flooding if it is not dealt with adequately. Government's own figures set the cost of dealing with flooding at £1.1 billion annually at present.

The cost of maintaining SuDS depends on their nature and who is maintaining them.

If a SuDS is designed as part of a public open space (in a proper integrated fashion) utilising predominantly soft features, then the cost of maintaining the SuDS is unlikely to be significantly more than what would be the cost of maintaining the POS. There is likely to be slightly different maintenance tasks with a different frequency of operations, plus a requirement to check any inlets and outlets to engineered structures within the system regularly. The cost of the maintenance would therefore be the 'extra-over' between anticipated parks maintenance, and the cost with the SuDS. There will be some occasional maintenance, in that swales or wetlands may require to have sediment removed after 10-15 years, but research to date shows that well designed systems, only build sediment very slowly. However, it should also be noted, that the funding of park maintenance has been underfunded for a number of year, with many starting to suffer from an ongoing reduction in maintenance (see HLF report 'State of UK public parks', published June 2014).

The opposite is true in relation to costs if (say) the local highways authority adopts SuDS in highways and does not currently maintain any soft planting other than trees (and grass). Then the cost of undertaking such 'abnormal' maintenance may be relatively high, and is therefore likely to be contracted out.

Permeable paving requires little maintenance other than sweeping in line with normal road sweeping. There is no need to allow for gully clearance or cleaning of petrol interceptors, as neither are required. Research has shown that silting of the interstices in permeable paving accumulates very slowly, and occurs generally within the top 20mm of the block, but does not pass down into the sub-base (assuming it has been properly laid). Whilst a degree of siltation does occur, research has shown this to stabilise after a 4-5 year period, and does not affect its hydraulic performance. In the unlikely event that a permeable pavement becomes completely silted and its function is seriously impaired, then research has shown that this can

be adequately remediated by heavy road-sweeping several times to remove the sediments from the interstices. The cost of maintaining permeable paving is therefore likely to be slightly cheaper than conventional road construction with traditional gully systems.

Generally research into both whole life costs and costs for maintenance was undertaken by WSP on behalf of Defra in 2013 and their report is available.

**Q7. Do you expect the approach proposed to avoid increases in maintenance costs for households and developers? Would additional measures be justified to meet this aim or improve transparency of costs for households?**

If Water Companies adopted SuDS, whether for housing or commercial sites, they could charge for water disposal relative to the volumes disposed offsite. This has been used to good effect in America to encourage commercial companies to retrofit SuDS, whilst reducing large water rates bills.

Developers understand that they will be required to contribute towards maintenance through some method, as this has been in place for many years. Therefore, whatever system is adopted in relation to paying for maintenance, it must be clear and transparent, and its procedures and method of calculation known from the start. This allows developers to negotiate with land owners over land values; and once the houses are built, the developer or their estate agents can provide advice to potential house purchasers, who can make informed choices as part of their purchasing decision.

The use of commuted sums is well understood, and could be adapted to address a longer term maintenance requirement related to the SuDS aspect of a scheme, when considered as the 'extra-over' cost of maintaining POS, roads, parking areas, or wherever the SuDS are located.

Consideration should be given to the consequential cost for householders downstream of any development that does not adequately deal with its flood risk when they are flooded in the future. When 1 in 6 properties in England, totalling 5.2 million overall (government figures, June 2014), are currently at risk from some form of flooding, potentially increasing this figure must be unacceptable.

## **Summary**

The changes proposed will not deliver sustainable drainage as was proposed by Sir Michael Pitt, and will not provide a robust, clear and certain system that will deliver the improvements to flood risk for new development that are required.