FOUL SEWERAGE INFRASTRUCTURE AVAILABILITY -v- NEW HOUSING DELIVERY

A FUNDAMENTALLY IMPORTANT QUESTION

"Are Local Planning Authorities (LPAs) giving proper consideration to the advice & recommendations presented by the Water and Sewerage Sector in the context of capacity within existing public foul/combined sewers, together with the need for any subsequent network reinforcement?"

Executive Summary

In several parts of England and Wales the house building industry is facing one of its biggest challenges to housing delivery as a result of the way a number(1) of Water and Sewerage Companies (WaSCs) are using the planning system to circumvent their primary and mandatory duties under existing Sewerage Legislation. Moreover, the Industry Regulator, (OFWAT) has limited ability to intervene in an issue that has significant and quite adverse repercussions for housing delivery. In many respects OFWAT has no legal jurisdiction in the statutory planning system. It can only act on this issue through its powers under the Water Industry Act 1991 (WIA) and the 'Act' remains silent when it comes to related planning matters. In reality, it is an issue that has only emerged within the last 5 years, rather than at the onset of a privatised Water & Sewerage Sector in 1989. It is also noteworthy that during this latter 5 year period there has been no relevant and/or influencing change in sewerage legislation with the Water Act 2014 introducing no changes to the WaSCs statutory obligations under S94 of the WIA 1991. There have however been a series of other changes with relevance to this issue including:

- Changes to the statutory planning system, e.g. the NPPF and related planning practice guidance.

- Turbulence in terms of the pace and nature of housing growth with the preparation of local plans identifying a 5 year housing supply and in committed locations still not fully implemented across all Local Planning Authorities. However, in response the Government has taken steps to ensure that all Local Plans are in place by early 2017. This will give the forward visibility that WaSCs have said they require. Similarly an environment that will assist in providing greater investment certainty.

- Radical and unpredictable changes in the fiscal dynamic specific to new housing provision.

The issue in question concerns the reliance Local Planning Authorities (LPAs) are placing on the advice from WaSCs when seeking information on the capacity of existing foul, combined and sometimes, surface water sewerage systems. In particular, the impact that the foul sewage discharge from a new development will have on a WaSC's public sewer network. The fear of possible flooding more often than not results in the LPA accepting, (verbatim) the advice and recommendations offered by the WaSC. Moreover, such advice is often accompanied by an insistence that any subsequent planning consent contains a (restrictive) planning condition, or that the Developer enters into s106 planning agreement, the terms of which often limit and/or delay development pending approval and/or implementation, of an agreed drainage strategy.

(1) Based on evidence gathered by the HBF 50% of all WaSCs are using the planning system in this way.

Furthermore, it is becoming increasingly commonplace for WaSCs to insist on some form of network reinforcement and/or improvement to the existing public sewerage system as a key strand of any such strategy. More often than not these improvements are at the Developer's considerable, unbudgeted expense and are rarely crystallised until after a site has been acquired. When such improvements are imposed as a 'Grampian' style planning condition, or any sewerage related planning condition, the unintended consequence is either a delay in making a start on a site or more importantly, a delay and/or restriction in the completion/occupation of new homes. Based on HBF member experiences (and evidence disclosed to date), this is reality rather than a perception.

Matters are further compounded by the fact that the developer becomes totally dependent on the WaSC's ability to provide the relevant (and supposedly robust) information to justify any network reinforcement that is deemed necessary, similarly the timing thereof. Indeed, timing and the ability to deliver is of fundamental importance as there are no statutorily enforceable time limits, conducive to efficient housing delivery that can be imposed upon a WaSC to provide any element of network reinforcement in a specific timescale. Some WaSCs would argue that S98 of the Water Industry Act 1991 provides this certainty but there are provisions within the legislation that allow the WaSC to delay matters indefinitely and, without penalty. In addition, the magnitude of these works can be considerable both in terms of cost to the developer and the disturbance caused to the local community. In all cases they are capital works which are derived from engineered solutions.

This paper questions (on several counts) the validity of the claims made by WaSCs as to the lack of foul sewer infrastructure capacity. Similarly, the LPA's test of the veracity of the WaSC's demands for engineering-based public sewer network reinforcement that are now more commonplace at the planning application stage. As much as the WaSCs may see themselves as custodians of the existing sewerage network some doubt must be expressed over the commercial opportunity they have sought to exercise knowing that in using the planning system, they are outside the scrutiny of the Regulator, OFWAT. Although this may seem a harsh conclusion to come to there is little, if indeed any evidence to counter such a claim.

Finally, the Government is committed to placing even greater reliance on the redevelopment of brownfield land and/or sites that have had a former use. Even with these sites HBF members are being confronted with demands for network capacity assessments and off-site network reinforcement despite previous and/or existing connections to the public sewerage system being evident.

Following this executive summary are two important papers. The first provides a more detailed explanation in terms of the seriousness of the issue confronting developers. The second disclosure crystallises an abstract of the evidence obtained by the HBF, which in turn, exposes the considerable variability in WaSC sewer network capacity assessment parameters. This schedule has also been extended to provide a much clearer indication of the significant costs that are being imposed upon developers – these costs have the very real propensity to undermine project viability but conversely, OFWAT has advised that contingency funding is available to all WaSCs to deal with their S94 obligations.

HBF London
4th October 2015

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1. The Issue

Over the last five years issues surrounding capacity in existing public foul and/or combined sewers, owned and maintained by Water and Sewerage Companies (WaSCs), has become a major issue for developers. In certain parts of England and Wales it is a key feature when planning applications for residential development are submitted to Local Planning Authorities (LPAs) for approval, irrespective of whether or not the site in question has had a previous use, i.e. Brownfield land. The Barratt Homes versus Welsh Water Supreme Court Decision of December 2009, together with the NPPF's presumption in favour of sustainable development has resulted in many WaSCs alleging that their existing sewerage networks will have insufficient or no capacity to accommodate the foul sewerage discharge from a new development. With such important information often remaining undisclosed at the crucial land acquisition stage the subsequent unintended consequence can be comprised project viability and new housing delivery seriously delayed.

Although WaSC's are not statutory consultees when it comes to outline or full planning applications, their advice is normally sought by the LPA in the context of 'available capacity' in the existing sewerage network. (It is becoming commonplace for WaSCs to pre-empt such requests). In a growing number of instances WaSC alleged capacity restrictions, in particular within existing public foul sewers, are often accompanied by demands for network reinforcement (at the developer's cost) in order to accommodate the foul sewage discharge from a new development. However, in relying on robust evidence disclosed to the HBF by its Members the validity of the claims made by WaSCs specific to this issue has raised a number of fundamentally important questions:-

1.1 *Is the WaSC's advice to LPAs legally justified? (This is particularly relevant given the Supreme Court decision of December 2009 – this re-affirmed the statutory obligation placed on all WaSCs to effectually drain their area and to provide and maintain sewerage infrastructure to meet the needs of future development - see s94 WIA 1991. Similarly, the absolute right to connect to the public sewerage system by virtue of s106 of the same 'Act').*

1.2 *Is any advice provided wholly/sufficiently transparent, proportional and reasonable given that WaSCs are private, monopoly commercial organisations [(2)]?*

(2) A recent decision by the EU Upper Tribunal (February 2015) has confirmed that WaSCs have special powers and therefore fall within the scope of public authorities covered by a 2003 EU Directive - as such they have a duty to disclose robust evidence/information.

1.3 *Is any advice and/or recommendation presented by a WaSC supported with adequate and robust evidence?*

Unfortunately, the collective experience of HBF members shows that from a planning perspective LPAs rarely, if ever, consider these three fundamental questions. More importantly, either through a lack of experience, understanding of a WaSC's role(s) or slavish adherence to the WaSC's demands, do they seek to challenge whatever evidence may be provided. This is particularly so when considering the imposition of drainage-related planning conditions, similarly the content of S106 Planning Agreements specific to the drainage strategy for the development in question. If they ever did, then in most instances the answer to all three questions would be **NO**. That said as custodians of the existing sewerage network, surely WaSC's must be seen (by all partner/stakeholder interests) to be fair, reasonable and proportionate in evaluating such matters whilst taking cognisance of their statutory obligations? For 50% of WaSC's in England and Wales this is not the case.

2. **The Primary Question**

Perhaps the far bigger question is why has the WaSCs use of the planning system suddenly become so widespread throughout England and Wales? Not unsurprisingly the 2009 Supreme Court Decision identified that this was the first time in 150 years of established public health legislation that an issue relating to the right to connect to the public sewerage system had been referred to an English Court. A comment within the judgement narrative and specific to Welsh Water is particularly noteworthy:-

> "*Welsh Water's attitude throughout has been that Barratt Homes should pay for this to be done or requisition Welsh Water under Section 98 of the 1991 Act*"

In other words, from the Welsh Water perspective at that time, all works required to accommodate the new foul sewerage discharge should be wholly funded by the developer. This commercially biased mind-set fails to take into account of the general duties imposed on all WaSC's, namely to provide network reinforcement through developer contributed sewerage infrastructure charges (currently around £350/dwelling), albeit this is not the only source of funding. Whilst these contributions are non-statutory they have become an obligatory part of the commercial dealings between WaSCs and house builders – they apply to every additional new home that is connected to the network(s) for the first time. Over a 10 year period the cumulative value of sewerage infrastructure charges paid over to WaSC's by house builders/developers has been estimated to be in the region £0.5 Billion. Since privatisation of the Water & Sewerage Sector in 1989 a conservatively estimated, cumulative contribution in the order of £1.2 Billion. (There is no audit as to where and how WaSCs have invested such significant funding despite the purpose of these funds being investment in sewerage infrastructure to contribute to meeting general increases in demand arising from new connections).

Unfortunately many house builders/developers find themselves in the insidious and contradictory position where WaSCs claims of there being no capacity in the existing foul sewer network are never subjected to any kind of scrutiny. In most cases any foul/combined sewer network modelling comes to the conclusion that there is no, or limited capacity available. However, on those occasions when it has been possible to audit some of the assessment criteria that has been reluctantly disclosed by WaSCs this has been found to lack consistency and be fundamentally flawed on many counts – see section 4.

3. **Infrastructure Charges – A Contribution to New Sewage Infrastructure or Merely a Tax?**

The concept of water and sewerage infrastructure charges was introduced by virtue of the Water Act 1989 – legislation specific to the privatisation of the Water & Sewerage Sector. As the Regulator (OFWAT) has confirmed WaSCs are legally entitled to raise this charge but there is no mandatory requirement for them to do so. That they do is more of a convenience for WaSCs.

The raison d'être for water and sewerage infrastructure charges (current cumulative cost around £700/dwelling) was effectively a contribution to meet the future infrastructure needs of a plan-led planning system – this was confirmed in at least two subsequent directive notifications from the Regulator. That said and more notably during the past 5 years, WaSC demands for house builders to pay for sewer network reinforcement, in addition to infrastructure charges has increased significantly. This has led to accusations by the development community that it is in effect paying twice for the same thing, especially when a site has an established residential use in adopted/emerging local plans. That LPAs have a mandatory requirement to identify a 5 year land supply for residential development appears to be conveniently ignored by most WaSCs.

However, more recent correspondence from OFWAT, which has been shared with the HBF, has contained one of the most concerning revelations specific to the matter of infrastructure charges, namely, OFWAT's regulatory accounting requirements do not require WaSCs to provide details concerning where when and how each charge they recover has been invested. In essence there is no audit of how a developer contribution of c£2.50 billion, accumulated since 1990, has been invested in new infrastructure. In the absence of such it is hardly surprising that accusations of paying twice for the same thing are becoming quite commonplace. That these developer/house builder contributions to future sewerage infrastructure needs have already been made (and continue to be made) should be a material consideration for any LPA when determining a planning application for residential development, in particular when dealing with a site that is either allocated or which has any form of planning consent.

4. **Flawed or Inappropriate Foul Sewer Assessment Criteria**

4.1 Over estimation of the foul sewage discharge per dwelling

Current Building Regulations have set a mandatory limit of 125 litres/person/day for potable water usage and 110 litres/person/day in defined water-stressed areas. This is a legislative requirement that many WaSCs have sought to ignore – similarly that only 95% of the water provided subsequently discharges to sewer. Moreover, the HBF holds evidence clearly demonstrating certain WaSCs are factoring water usage rates of up to 220 litres/person/day into their network analysis. By default this creates significant additional headroom (spare capacity) in the event that any off-site sewerage infrastructure improvement works are imposed upon developers through the planning process. (In contrast, current Defra figures for water usage (c2008) show average water consumption at 150 litres/person/day). Moreover, capacity betterment is further enhanced by WaSCs introducing additional factors of safety/multiplies of resilience by applying a significant increase in dry weather flow (DWF) per dwelling, i.e. from 3 to 6 times DWF.

4.2 The inclusion of a further allowance to deal with perceived surface water misconnection(s) from new development introduces a further factor of safety.

(Note: The coming into force of the Flood and Water Management Act 2010 effectively handed greater control to WASCs in terms of working with Building Control Bodies (LABC) to significantly reduce the impact of cross connections. United Utilities have an effective protocol in place involving most if not all LABCs in the area of operation).

4.3 When evidence has been disclosed by WaSCs the prevailing condition of many existing foul sewerage systems has identified the presence of significant levels of ground water infiltration. More often than not this can be attributed to a failure to undertake planned inspection and maintenance of the sewerage network but conversely the 'duty to maintain' is a mandatory requirement for the WaSC by virtue of their obligations set out in section 94 of the Water Industry Act 1991.

4.4 Existing foul sewage systems are modelled to account for surface water connections from highways and properties etc. – these should be excluded on the principle of capacity requirement being assessed against the specific discharge form the development in question.

4.5 The inclusion of a further factor of safety to account for projected development beyond the one under consideration – a twenty year plus forward forecast is not uncommon. (Effectually future-proofing the WaSCs foul sewer assets, at the developer's expense).

4.6 Existing foul only sewerage systems modelled for certain rainfall events, typically, a 1 in 30 year return period/rainfall event. The rationale for this is the degree of surface water ingress is such that foul sewers are effectively operating as surface water sewers due to a lack of capex intervention by WaSCs.

4.7 The identification and resolution (at the developer's expense) of major system failures/problems, for example sewers with back-fall or downstream sewers of a smaller diameter. These are matters that should be resolved at the WaSC's expense as an integral part of their AMP submission.

4.8 In response to suggestions that the foul sewerage network is responsive to rainfall with flood risk from extreme events over and above modelling of a 1 in 30 year rainfall event – further allowances are often included to deal with excessive infiltration.

From an operational/engineering perspective any surface water discharge into a 'foul only' sewage network has a significant and detrimental effect on sewer functionality and therefore its capacity. For a rainfall event as stated in point (4.6) above the impact is considerable, i.e. in the order of 140 times greater than the foul sewage discharge from properties occupying a comparable development area. Moreover, if this inflow is added to any form of constant ground water infiltration, the existing foul sewer network will be at risk of flooding. Normally, this would necessitate intervention action by the WaSC and at its own cost but it is clearly evident that WaSCs are using the planning system to leverage payment for such intervention from the developer.

5. **Further Critical but Highly Relevant Questions**

Is it acceptable for WaSCs to circumvent their statutory duty **to effectually manage/reduce surface/ground water in public foul sewers** by introducing onerous capacity assessment criteria that should not apply, in particular when a developer is exercising the absolute right to connect to the public sewerage system?

In many respects a WaSC's statutory responsibility, together with representative and proportionate engineering assessment criteria should always be seen to prevail. Anything other than this will have an adverse effect on project viability and ultimately the delivery of new homes. With foul sewer discharges from new development having comparatively minimal impact (in terms of volume), when compared to the effect that surface/ground water has on network capacity, then surely the solution is quite simple, namely, that excessive surface/ground water infiltration should be removed from the network by the WaSC in recognition of its statutory duty. In many instances this is likely to provide the necessary headroom/capacity to serve the foul drainage discharge needs of the intended development. Sadly, WaSCs do not adopt such an approach and would rather seek to get the developer to fund their preferred engineered solution for network repair/reinforcement. As HBF members have experienced all too often, this results in large and disproportionate capital investment cost(s) being imposed upon the developer, usually as an erroneous planning condition.

With many LPAs being placed in a difficult position of having to ask WaSCs for advice specific to foul sewage network capacity there are further questions that need to be asked:-

- Is the advice that is being given to LPA's by WaSCs being adequately and robustly assessed/scrutinised?

- If the WaSC considers that a network analysis is required what is a reasonable timescale for this to be undertaken? More recent evidence obtained by the HBF has identified a period of close to a year before the WaSC in question expects to provide any answers. This inevitably affects the delivery of new housing as it is not possible to crystallise the design principles of a project. Moreover, the time taken thereafter to deal with the requirements of other statutory bodies means that it is not inconceivable for the intended development to be delayed for up to two years. Furthermore, if the developer owns the site, the interest and holding costs for such a period could subsequently compromise project viability with the development running the risk of not proceeding.

- Are WaSC's seeing the NPPF and the 2009 Supreme Court Decision as a means of leveraging monies out of developers for network reinforcement works that they should be funding themselves?

- Is it acceptable for drainage-related Planning Conditions to be imposed without the ability to refer matters to the Industry Regulator, OFWAT? Is the Developer expected to apply the test of validity and/or challenge any such conditions at a planning inquiry? If so then this will have delay consequences for housing delivery.

- If planning conditions specific to drainage are to be imposed, including Grampian conditions, do they meet the required test of being appropriate and/or valid, as defined in the NPPF? As a cautionary note, if WaSC's retain the right to undertake any network improvement work they are under no statutory obligation to undertake this work within a specific timescale. In consequence, the developer effectively relinquishes control over the ability to discharge the planning condition(s). This in turn could render any such planning condition invalid and therefore open to challenge through the planning appeal process.

Some WaSCs would argue that S98 of the Water Industry Act 1991 provides this certainty but there are provisions within the legislation that allow the WaSC to delay matters indefinitely and, without penalty.

Until these questions are effectively addressed the continued use of the planning system by a number of WaSCs will result in developers, for commercial expediency, continuing to acquiesce to WaSC demands and therefore reluctantly accept funding vast capital projects of network reinforcement. In the absence of a critical and robust evaluation of a WaSC's demands the consequences of ill-considered planning conditions, including Grampian conditions, will not conducive to the delivery of much needed new homes for the reasons explained earlier this note.

6. **Concluding Comments**

It is worth reflecting upon certain comments contained within the 2009 Supreme Court decision, in particular the suggestion that any foul sewer capacity limitations should be a material consideration, even to the point of conditioning planning consents accordingly. However, what the Supreme Court Judges did not appear to consider was the validity of the input parameters relied upon by WaSC's when undertaking any network analysis. Similarly, the extent of all WaSCs statutory maintenance responsibilities, including reducing surface water ingress, from whatever source, into public foul sewers. Moreover, it is clearly evident that a number of WaSCs are using excessive levels of surface water infiltration to justify significant and expensive public foul sewer network reinforcement and/or improvement. This is not a developer's responsibility.

To date the HBF and its members have been unable to ascertain what evidence WaSCs are actually submitting to LPAs to support allegations of foul sewer capacity restrictions. However, outside of the planning process developers are being presented with disproportionate and unrepresentative criteria with no mechanism to effectively and expediently challenge what is being relied upon by WaSCs in this context. By being allowed to go unchallenged, WaSCs are simply relying on the highest possible rates of infiltration into their system that they believe they can get away with. Moreover, there is no consistency in approach across England and Wales despite the availability of respected engineering guidance. (HBF has produced an evidence-based 'companion paper' confirming the many divergent and inconsistent approaches to foul sewer network analysis that are currently in play). This paper is included as an appendix.

If WaSC's were to rely on established and accepted engineering conventions any allowance for infiltration should not exceed 3% of the peak flow from a domestic dwelling. Contrast this with the 40% that is being applied by a number of WaSC's. Furthermore, established and WaSC agreed design conventions for new foul sewers serving residential developments, aka Sewers for Adoption 6th Edition, already contain an infiltration allowance of 10% by adopting 6 times dry weather flow as part of the established design criteria.

In 2009 the Supreme Court did not assess any aspects relating to quantum in the context of infiltration drainage, it merely accepted and failed to test the unqualified submissions made on behalf of the WaSC. Without such a test of reasonableness it was relatively easy for the judgement to suggest that public foul sewer capacity should be embraced as part of the planning process.

7. **A Possible Way Forward**

As stated in the opening narrative of this note it is the HBF's considered opinion that the time has come for a root and branch evaluation of the role and demands of WaSCs rather than just deal with matters in a wholly inequitable way by taking the simple way out through expensive and potentially invalid planning conditions. Facilitated by Defra there is perhaps considerable merit in the HBF, Water UK, Ofwat and DCLG getting together to prepare appropriate planning guidance for all LPAs and WaSCs based on a fair and equitable approach to foul sewerage infrastructure. Developers cannot be expected to fully bridge the failed investment gap since privatisation of the Water & Sewerage Sector in 1989. Or for that matter, part fund the statutory obligations placed upon all WaSCs.

However, through the vehicle of sewerage infrastructure charges it has made a significant contribution (an estimated £1.25 Billion since 1989) but there is no audit available to show how or where this significant contribution to infrastructure provision to meet the needs of a plan-led planning system has been invested. For developers to be forced to make up the deficit through inappropriate planning conditions/limitations that are susceptible to challenge will only undermine the common objective of providing much needed new housing.

The Market Reform proposals together with the New Charging Rules currently under consideration offer a once and for all opportunity to get things right based on a fair, equitable, transparent and proportional basis. There is a common objective to build sustainably but the achievement of this objective must be shared and based on proportionate and representative criteria. Similarly, an acknowledgement of the established statutory responsibility that is S94 of the WIA 1991 (untouched by the Water Act 2014) and the right to connect to the public sewerage system under S106.

The provision and access to sewerage infrastructure is key to meeting Government's housing objectives. The challenge is to find a representative and proportionate solution through collaborative working. The approach adopted by Northumbrian Water would be a good starting point.

HBF London
4th October 2015