Watercourses, Sewers and SUDS: Assessing the Flood Risks of Future Development in Much Wenlock.

An exploration and analysis by Howard Horsley

Introduction : *There are two photographs of the Much Wenlock High Street on the front of this document. One was taken in 1931 the other in 2007. They demonstrate that flooding is not a new phenomenon in Much Wenlock. This document attempts to clarify the reasons for flooding. It has been produced with the benefit of reference to a wide range of research undertaken by numerous individuals and organisations.*

The document tries to encompass all the information necessary for someone to grasp the origins and implications of the current flood risk in Much Wenlock. It also aims to highlight the potential effect of new development on flood risk. Careful reading by others familiar with the area has led to some helpful amendments. Any remaining inadvertent errors are mine. Hopefully, they will not invalidate the thrust of the narrative or limit a broad understanding of the issues that face the community.

Contents

Designation as a "Rapid Response Catchment"

In 2013 Much Wenlock was designated as a "Rapid Response Catchment" in the highest category in England. This was a result of computer modelling of all of the catchments in England. The data indicated that the Much Wenlock catchment was at risk of a Boscastle type of flood in which normal watercourses become overwhelmed by the rapidity of surface water runoff from the surrounding hill slopes. The designation ought to have alerted the council and the people of Much Wenlock to the serious danger of an event causing damaging and potentially life threatening flooding. This designation took many local residents by surprise and gave rise to a degree of scepticism. People in Much Wenlock had become accustomed to believe that improvements in the local infrastructure could be relied upon to reduce flood risk.

A failure by some to appreciate the extent of local flood risk arises from a failure to appreciate its environmental basis. The local landscape is of central importance. The town lies within an extensive bowl elevated above the river Severn, see below.

It is not immediately obvious to local residents that rainfall and snow melt within the bowl feeds a single watercourse which descends rapidly to the Severn. The nature of local geology can also lead to misunderstandings. Limestone lies beneath much of the area. Its soils tend to be thin, lacking in organic material and with a limited capacity to retain water. The limestone itself is permeable and usually capable of draining away most rainfall. This can encourage a false sense of security. In extreme weather not even limestone can absorb the rainfall and snow melt rapidly enough. Excessive surface runoff, for example after a cloudburst, thus carries the risk of violent flooding.

Well recognised watercourses within the town.

There are almost always watercourses flowing through Much Wenlock. The ancient Priory relied on this reliable source of water and the town grew up around it. These watercourses are now so well hidden that many residents remain ignorant of them.

For centuries houses in the upper part of the High Street stood beside a stream. This stream was fed by tributaries both above and below the High Street. This main stream still exists but has been covered for over 100 years. Its main source of water has always been land above Stretton Road. This watercourse is still visible at two points above the High Street. The highest of these points lies beside the footpath on the Stretton Road, just above the houses on Havelock Crescent. Lower down the course the stream can also be seen next to "The Pound" on Victoria Road as pictured below. Beyond that point the watercourse is entirely hidden below roads and buildings.

At the Gaskell Corner the main watercourse is joined by several hidden drainage channels including those from the Bourton and Bridgnorth Roads. This main stream flows down the upper part of the High Street. It then changes direction to run below the surface in Back Lane and beneath homes into the Bull Ring. It then emerges beyond the town, below the site of the Wenlock Priory. The stream was and still is joined by other tributaries within the town below Back Lane. One can be seen beside Scoltocks Yard where water from Windmill Hill joins water running from the Sytche. Water emerges from a culvert beneath the railway embankment, runs along the rear of the properties in Sheinton Street where it has in the past flooded and disabled an electricity sub-station. There are also underground watercourses elsewhere. The stream beside Scoltocks yard is illustrated in the following photograph.

Major flooding has been caused by excess water accumulating in the upper High Street on a number of occasions over the past 100 years (see front cover). There have also been major floods which have not affected the High Street. Prior to WWI there was a major flood caused entirely by an excess of water flowing down the ditch from the Sytche. This flood followed an intense cloudburst over an area north of the A458 and New Town Farm. In 1909 the Borough Council then approved the building of a substantial channel taking water from the Sytche under the Ironbridge/Farley road. This channel is now concealed but joins the main watercourse above the Priory. Below the Priory the enlarged stream descends towards Down's Mill, where a mill pond stored water to drive the mill.

Semi-permanent watercourses and flooding beyond the town limits.

When floodwater passes downstream beyond the Priory additional watercourses amplify any flooding in the lower catchment. This lower section falls steeply and the dangers resulting from flooding greatly increase. Two additional watercourses lie to the west of the Broseley Road and are both seasonal in their upper reaches. The first is identifiable in winter and spring, flowing down a valley below the Marsh Cottages.

It is shown in the foreground of this photograph with one of the ponds in the parkland above it. This stream joins the main water course above Downs Mill. The second stream rises in the area to the west of the road between Newhouse Farm and Wyke. Its main tributary lies south of Wyke Farm. In the winter months it may also be fed by a substantial volume of water appearing in the valley below and west of Arlescott Farm, as shown in the next photograph.

Underground Water Movement.

Geology determines whether and where each of the local watercourses runs. The streams beneath the High Street and in the Sytche are fed from the water table along the dip slope of the Wenlock Edge. The streams themselves run across impermeable shale. South of the town is an area with no permanent or even semi-permanent watercourses. This area is bounded by the summit of the ridge marked by a footpath to Wenlock Walton on the north east. It stretches south as far as Merrywell Lane and falls on the west from a ridge rising towards Perkley. In this extensive zone the geology is less consistent and less well understood than to the west of the town.

In normal weather most rainfall here sinks into the ground. There are no permanent watercourses on the surface or beneath roads. None the less, during particularly heavy rainfall, or rapid melting of heavy snow, significant and damaging floodwater may arise. This does not derive from streams but from a sudden and temporary but very active spring line. Water simply gushes continuously and rapidly out of the ground until the water table falls. The appearance of the springs is as sudden as their disappearance. Water accumulates at the lowest point and gives rise to local floods.

The lowest point within this zone outside the built up area is now at the junction between the Walton Hills development and the Hunters Gate development, see left. Here a large temporary lake has arisen on several occasions since the beginning of the twenty first century. A more thorough examination of the historical evidence might have prevented approval of housing development in this location. There were at least two clear historical indicators that flooding was likely to arise in this area. The first related to the Town Race Course which once stretched across much of this zone.

WENLOCK RACES,

1834.

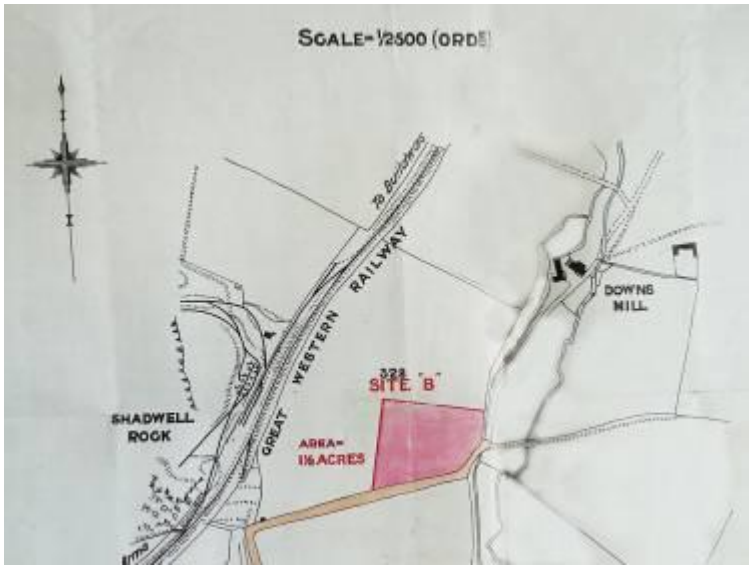
THE HON. G. C. W. FORESTER, M. P. STEWARD.

ON TUESDAY, JULY 29,

The Race Course included a water jump which was located close to the present junction between the two developments. That water jump was fed by a spring and when necessary topped up by a pump, marked on contemporary maps. The second piece of evidence was the presence of a pond where Forester Avenue leaves the Broseley Road. This pond was filled in and, in the 1950s, a Catholic Church was built on the site. The Church has since been demolished and the site used for housing. A large Willow Tree remains, reminding us that it once stood beside a pond !

The system of sewers and the sewage treatment plant.

Earlier mention was made of the channel provided in 1909 from the Sytche underneath the Ironbridge road. However, 1909 was also a crucial year for another reason. It was only then that the first comprehensive sewage disposal scheme was approved. Essentially this scheme still serves the town in the 21st Century, with a sewage treatment plant which occupies the same location, see below.



There are worrying implications. In some places a single pipe still carries both sewage and surface water. Many sewer pipes have never been replaced and their capacity has not been increased. Without increased drainage capacity underground any prolonged rainfall or sudden downpour can result in flooding at street level. In some cases this inevitably results in

floodwater which is contaminated with sewage.

Since WWII there has been a great expansion of the built up area of Much Wenlock. Each new home remains reliant on the fundamentally unchanged sewage system. The volume of water consumed by each household and disposed of through the sewage system has also increased immeasurably. As a result, on numerous occasions, the through-flow capacity of the sewage treatment works has been exceeded.

The sewage works outfall has too often involved the release of contaminated water. Such potentially unlawful incidents expose Severn Trent to possible fines. Since 2017 two million pounds has been spent to comply with a legal requirement to greatly reduce the discharge of phosphates by 2019. The capacity of the facility is largely unaffected. Despite assumptions to the contrary, the work did not apparently enable an increased capacity required by the building of many more homes.

Surface water drainage.

Surface water drainage within the town is a term used to describe all the largely uncontaminated water from roads, footpaths, buildings and other hard surfaces which requires disposal and need not be subject to sewage treatment. The disposal of surface water has been a challenge for communities for hundreds, if not thousands of years. Within the last hundred years the amount of surface water requiring disposal has increased hugely. Roads have been given impermeable surfaces, homes have increased in size, they have been provided with garages and drives for parking.

Increasingly urgent attention has been given to means of safely disposing of the huge volumes of surface water generated by modern lifestyles. This has resulted in recommendations for SUDS or Sustainable Urban Drainage Systems to be used on all new developments. These systems are not designed to prevent flooding. They are a means of disposing of surface water slowly and safely under normal conditions. The central aim is to significantly reduce the volume of water needing sewage treatment. The photograph above shows workmen inspecting part of a SUDS system.

One type of SUDs slows down runoff in “Soakaway Cells”. They are not enclosed and consist of a mixture of natural and man made materials, creating a structure of limited capacity, thus allowing space for water to soak gradually into the ground. Their aim is to ensure that all surface water which does not require sewage treatment percolates into ground water. Some SUDS features use an enclosed attenuation tank. This fills up with excess water and later releases it slowly into a public surface water disposal system. In both of these SUDS patterns excess water passes into the sewage system through a control mechanism called a “Hydrobrake”.

All significant new developments in Much Wenlock since the beginning of the 21st Century have had to include some provision of SUDS. Such systems only function effectively if they remain undisturbed. This can only realistically be achieved where SUDS are located on land under the ownership or control of a publicly accountable authority. Where they are located within a private property it is very problematic to prevent damage to the system. The effectiveness of SUDS can be affected, for example, by planting trees whose roots fill all the spaces in the soakaway or by adding new build on top of the land and compacting the cell. Moreover, even where fully functioning SUDS are in place, a new build still adds to the risk of flooding in extreme weather. This is not widely understood, even within the construction industry, and such a lack of understanding can produce unjustified complacency.

Action to reduce local flood risk in the 1990s.

Several initiatives have been taken in the past thirty years to try to eliminate local flooding or at least minimise the risk of repeated flooding. In the 1990s steps were taken to investigate the condition of the covered watercourse running through the town, widely known as the culvert. This followed a number of flooding incidents within a few years, affecting the High Street and Back Lane. Using video techniques it was discovered that the culvert was in a poor state of repair. In particular, it became clear that there were obstructions while parts of the foundations and the walls had badly deteriorated and were in danger of collapse. Substantial work took place to remove obstructions and to smooth out and reinforce the foundations and walls. No steps were taken to increase the overall cross section of the culvert. This may seem negligent in retrospect but it should be remembered that in the 1990s climate change was little mentioned and those raising the issues were often marginalised.

The Much Wenlock Flood of 2007

In 2007 Much Wenlock was subject to flooding more serious and widespread than any in living memory. The A458 had to be closed as shown in the photograph to the left where a rescue boat has been called in by the Fire Brigade. The flood caused serious damage to homes in different parts of the town. It was unusual in several respects for it arose in the summer although there was no associated storm or cloudburst. Its causes have been thoroughly investigated but no definitive single explanation seemed likely. Several factors were undoubtedly at work. These included primarily a lengthy preceding period of continuous rainfall which had caused the land to be saturated. There was by this time, therefore, a widespread

acknowledgement that the flooding might be partly attributable to climate change, though other factors were likely to have contributed.

Several decades of house building within the town limits had increased the area of hard surfaces and the volume of both sewage and surface water to be managed. This seemed, to residents, to have been significant in giving rise to the flooding. It was plain that the capacity of the culvert beneath the town had been exceeded with excess water flooding onto Victoria Road at the Pound, see above. A large lake appeared at the Gaskell Corner, below, where flood water merged from different directions.

The excess water in the upper High Street, see front cover, flooded into Back Lane, down Queen Street, above, into the Bull Ring. Elsewhere the capacity of the sewers and the sewage treatment plant had been temporarily exceeded. Equally visible evidence showed that the capacity of recently completed SUDS on new developments had also been temporarily exceeded. Two entirely new developments, begun since 2000, seemed to have had a significant impact on the extent of the flooding.

Both of these developments stood, at least in part, on elevated land. It was disappointing, therefore, that initially the relevant authorities seemed reluctant to consider their impact. The fact that those same authorities, Severn Trent Water, the Environment Agency and Bridgnorth District Council had each approved the developments, despite local objections, may have influenced their attitudes.

By 2007 the Hunters Gate development had already been completed. Local objectors to this development had accurately predicted that its completion would contribute to an increase in local flooding problems. Their objections had been over-ruled and assurances had been given that the construction of SUDS on site would avoid any adverse effect on the widely acknowledged local flood problem. Whether the developers and planners actually believed in the validity of these assurances at the time can never be established. What is now clear is that SUDS can become ineffective, particularly in conditions where groundwater levels continue to rise or the sewers become so full that the hydrobrake from a SUDS system cannot function. Several homes were badly flooded on Hunters Gate during the 2007 floods. Neighbouring homes only narrowly escaped being flooded and, see above, numerous gardens and garages were flooded. The residents expected that those who approved the development and those who built it would take early action and provide the funds to resolve the flooding problem. They waited, in vain, for action on that basis.

The main road in Hunters Gate was also awash with floodwater, see left. Some of the floodwater came in the back doors of homes and out of the front doors. The lids of inspection chambers were also pushed up in the road by the pressure of the excess water. The volume of floodwater emanating from Hunters Gate into the sewers in Barrow Street almost certainly contributed to flooding closer to the centre of the town.

Careful examination of the original planning consent for Hunters Gate is valuable. That consent had included a significant zone of trees to be planted along the southern boundary of the development. This had been consistent with the report and recommendations of Mr W E Hewitt, the Planning Inspector who had examined the previous Local Plan in 1994. Unfortunately, this zone of trees had later been removed from the planned development by a supplementary planning application approved quietly without any significant local input. The tree zone had instead been used as an area to build additional homes, increasing the profitability of the development. It seems possible, some believe likely, that this greatly increased the risk of flooding.

A second large development was in the course of completion at the time of the 2007 flood. This development of an area close to the centre of the town, now known as Falcons Court, had been controversial. The area had been designated for amenity use rather than for housing. The Civic Society, for example, had suggested that an enlarged medical centre should be built on the site. Planning permission for the development of the site for housing and parking was granted only weeks before a report was due to be published on its future. This followed the examination of the 2005 Bridgnorth Plan by Mr G Cundale of the Planning Inspectorate.

The Falcons Court development site stood mainly several feet above the adjacent High Street. It had previously been heavily covered in vegetation including a number of large mature trees, see photograph left. These trees and surrounding shrubs soaked up rainwater. No artificial drainage had

been necessary. Conditions for development had specified that the largest of the trees on the site should remain and be protected. Whether by accident or design, each of the mature trees scheduled for retention, see below, was deeply undermined by bulldozer action during site clearance.

When the Civic Society alerted the Planning Authority to the breach of conditions the developer submitted a supplementary application seeking permission to remove the trees. This application was granted subject to a number of mature trees being planted on the site when the development was completed. No such trees were ever planted and vegetation in the area remains minimal. The result of this situation was that an entirely new area of hard surfaces required artificial drainage adjacent to and above the High Street.

On Falcons Court the SUDS was apparently based largely upon one very large enclosed attenuation tank, see below, constructed beneath the Public Car Park. At the time of the 2007 flood the development was incomplete. Large areas of hard surface were in place including the roofs of most of the residences. The attenuation tank had already been constructed, as had the ground-works feeding into it. Whether its outflow was already controlled by a tested hydro-brake has never been clarified.

That outflow may have been of great importance in the 2007 flood as it falls several feet into the High Street and had been joined to the culvert where it abruptly changes direction into Back Lane. The flooding in the High Street took place immediately above that critical junction. Bridgnorth Council had approved the connection from Falcons Court into the culvert at the junction. However, controversy arose, after the event, about whether that permission was legally sound. Under pressure, the Environment Agency finally accepted, in a letter dated the 28th December 2011, that they had no record of "flood consent being issued for connection of the Falcons Court Development to the Shilte Brook culvert" as legally required on a main watercourse.

Flooding in 2007 extended well beyond the boundaries of the town. Indeed, the worst of the flooding, more intense and more dangerous than in the town, was in the lower part of the watercourse. Downs Mill was badly affected but beyond there the land falls much more steeply. Close to Farley Halt, the volume of water carved a wide new course and the bed of the old railway, which had remained intact since closure in the 1960s, was ripped up by the violence of the flood - see above left.

Further downstream there is a zone of very rapid descent through Farley. Here the destructive force of the floodwater was very alarming. Trees were ripped up, gardens destroyed and the banks of the stream undermined to the extent that some bridges giving access to homes were threatened with destruction – see photographs below. Clearance of the debris brought down by the flood was a considerable challenge.

The floods of 2007 affected the entire catchment, though to varying degrees. One result was to bring the community together to seek action to avoid any similar flood.

Community action: Town Referendum

On the 18th December 2007 a referendum on the flooding issue was held in Much Wenlock under the provisions of the Local Government Act of 1972. The result was decisively in favour of halting all significant development in the town until "the problems of flooding and drainage have been satisfactorily addressed." The Town Council accepted and endorsed the results of the public referendum. On the 9th January 2008 the Town Clerk then wrote to the Planning Authority and to the Environment Agency to notify them of the results of the referendum and of the wish of the Town Council that the decision of the people of Much Wenlock be respected.

The Much Wenlock Flood Attenuation Ponds

The floods of 2007 and the referendum that followed were a wake up call to those authorities with responsibilities and resources greater than those of the Town Council. Several investigations took place into the causes of the flooding to identify how the situation might be improved. Remedial action on the scale required was slow to be funded and even slower to turn into action. Meanwhile, local initiatives focused on those steps which could be taken locally to improve the situation. Drains were cleared more regularly and advice was given to householders on how to make their homes more flood resilient. These local measures, though helpful, did not meet the scale of the continued flood risk. There was a general agreement that the highest priority was to try to reduce flood risk along the entire length of the main watercourse.

Neither the Town Council nor the Shropshire Council could command sufficient funds for a major project. Eventually, the Environment Agency presented the facts more widely through consultation first within the "Lower Severn Corridor Flood Forum" and later across the West Midlands region. The evidence was so compelling that in 2012 agreement was reached on funding a major flood attenuation scheme to limit the volume of water entering the main watercourse. Two large attenuation ponds were approved with funds designated for Local Authorities across the West Midlands.

These ponds were constructed, see left, beyond the built up area of the town on the impermeable Lower Ludlow Shale below the dip slope of the Wenlock Edge. One stands alongside the Stretton Road, the other along the stream in the Sytche. They are designed to remain empty in normal conditions and begin to fill only when water levels rise dramatically along the watercourses. As levels fall the water successfully held back is slowly released. These attenuation ponds were completed in 2017, see over, to great acclaim. They have subsequently been shown to be effective in reducing the impact of flooding, though not eliminating it, during subsequent storm events. The Environment Agency has, however, made it plain that these ponds are not designed to remedy the most extreme conditions. In such circumstances surface water may descend slopes so rapidly and in such volume that watercourse attenuation fails, risking a Boscastle type of event.

Flood attenuation adjacent to Hunters Gate

The Much Wenlock flood attenuation scheme also set aside over £120,000 to address flooding south of the town, adjacent to Hunters Gate. Fewer homes are affected here but local environmental conditions are challenging. SciMap data indicates that surface water connectivity focuses on this site. However, constructing an attenuation pond would be very problematic. The lack of any permanent or even semi-permanent watercourse frustrates any simple solution for holding back water in a pond.

Flooding in this area has become more frequent since 2007. During storm Dennis in 2020, for example, several homes had to be evacuated. The residents feel aggrieved that no priority has been given to resolving their problems. Most flooding arises here directly or indirectly from ground-water. There is, thus, a serious danger that an attenuation pond, unless made impermeable, probably at great expense, would fill with flood water and then force groundwater to erupt elsewhere. There is some evidence that flooding in homes, see above, in the lower part of Hunters Gate has, in the past, partly derived from water rising through hung floors.

The Future: Flood risk on and from the preferred site.

The history of development in the Hunters Gate area poses significant limitations. Steeply rising land both west and east was built upon several decades ago. To the east lie the Walton Hills bungalows while to the west lies Oakfield Park, where once again bungalows predominate. These housing developments took place before modern SUDS became obligatory. It is not clear whether, or to what extent these developments contribute to the excessive flow of groundwater onto the lower lying land adjacent to Hunters Gate. It is this land that in 2018 Shropshire Council designated as the preferred site for a new housing development (see Appendix 1). The claim is that the developers will fund and build long awaited flood controls. Floods in 2019, 2020 and 2021 seem not to have brought about major changes in the plans.

The site designated for development (MUW012VAR**)** is covered in poppies in the photograph above. It has not been subject to the obligatory "sequential test" on flood risk despite being flooded extensively on several occasions in recent years. Walton Hills stands in the foreground and Oakfield Park is central in the distance with the new Callaughton Ash development, back left. Together with the geology these developments limit the possibility of constructing attenuation ponds above all the housing, beyond the existing development boundary of the town. The challenge of flood attenuation in this zone is, therefore, of a very different order from the relatively simple solution employed across water courses on Stretton Road and the Sytche.

None of the several proposals for reducing flood risk here has been implemented. The sum initially set aside for attenuation has not been used. Residents strongly feel that the flooding problem in the area should be solved in advance of any extension of the development boundary. It is against this background that plans, by Shropshire Council, to outsource flood attenuation to a developer need to be evaluated. It seems most unlikely that such an apparently intractable problem could be safely resolved as an add-on element in a scheme to build 120 new houses. The developer of Hunters Gate failed to accept responsibility for the flooding of 2007 and this has led to a lack of faith in assurances from either developers of planning authorities.

The importance of ensuring a long term viable solution lies not only in resolving the problems of local flooding. This document shows that the catchment needs to be considered as a whole. Flooding in one area of the catchment, if not addressed, can very seriously impact other parts of the town and areas beyond, such as Farley.

Limits on sewage disposal.

Sewage disposal capacity in Much Wenlock is limited by the design of its only sewage works and by the nature of the sewers. As mentioned earlier, many of the sewers in the town are of considerable age. They were designed to serve many fewer homes than they now serve. The Walton Hills and Hunters Gate developments, for example, were simply connected to the existing sewer. This sewer runs the length of Barrow Street where there is no significant change in height. On several occasions since the completion of the Hunters Development this main sewer has become blocked. The most recent was in April 2021 as illustrated in the photograph below.

The lack of capacity within the Barrow Street sewers has long been understood by Shropshire Council. As long ago as February 2013 permission was refused for a development of two houses close to Hunters Gate on Barrow Street (Application Ref 13/00512/FUL). Among the reasons given for refusal of permission by Shropshire Council was the fact that "There is no further capacity in the existing sewers in Barrow Street which add to surface water flooding within Much Wenlock." Despite this, it now seems that a further 120 houses may be added to this sewer system.

Evaluating flood risks relating to preferred site MUW012VAR.

Any attempt to evaluate the effect on flood risk of the development of the preferred (MUW012VAR) site demands an understanding of this report and its implications. The lack of detailed plans for flood alleviation made available for scrutiny makes evaluation even more difficult. The designation of this location as the preferred site for development seems to ignore key policy priorities including requirements in the National Planning Policy Framework paragraphs 161/2. These paragraphs demand that a sequential test be applied in deciding on the relative risk of flooding of different sites within a location. The decision to bring this site within the town's development boundary and approve house building seems also to conflict with principles in the Flood and Water Management Act 2010 and with the 2012 recommendations in the Final Report of the Pitt Review. In this situation the arguments for rejecting the proposal seem to be overwhelming.

Howard Horsley December 2021

Appendix 1 : Consultation

It was with astonishment that many people in Much Wenlock learned, late in 2018, of plans proposed by Shropshire Council to build more houses on a site adjacent to Hunters Gate. This proposal was a major departure from the principles of the approved Neighbourhood Plan. Prior community consultation was required by this major change but none had taken place. Incredulity arose from the knowledge that the site had already been liable to flooding and had recently contributed to the flooding of adjacent properties. To many, the idea that it should be the preferred site for a development of 80 new homes seemed absurd. The fact that the results of an earlier town referendum had been ignored was also regarded as unacceptable.

On the 3rd January 2019 a meeting took place in response to local concern. Organised by the Shropshire Councillor representing Much Wenlock, who shared the public concerns, it aimed to explore the proposal. It was very well attended and a representative of the Shropshire strategic planning team was present. Overwhelming opposition to the proposal was expressed at the meeting by residents from every part of the town. Dissatisfaction was also expressed at the apparent support offered for the proposal by the then Much Wenlock Town Council. This apparent support flew in the face of the policies in the Neighbourhood Plan and the result of the local referendum.

Members of the public pointed out that proposals to develop this particular site had been rejected in two separate reports from the Planning Inspectorate. The disadvantages of a site so far from the town centre had been well documented. The impact through additional car journeys and demand for parking had been noted. It was also clear that development on such a scale in this location was entirely contrary to the wishes of the people of Much Wenlock as expressed in the Much Wenlock Neighbourhood Plan. That Neighbourhood Plan had been approved and endorsed by the Town Council and by Shropshire Council. It also remained valid.

Objectors to the original Hunters Gate development had been ignored when warning of increased flood risk. The scenario whereby a public spirited developer would now generously build more houses to alleviate flooding seemed far-fetched, especially so as all attempts by independent bodies to find a solution had failed. Investigation revealed that the Town Council had been persuaded by the developer and by Shropshire Council that building new homes would now finance flood alleviation. The fact that any new development would release funds to the Town Council through the Community Infrastructure Levy (CIL) was felt to have helped decision making.

Local ill-feeling about the proposal led to numerous protests and objections which became hard to ignore. The Civic Society was among the first local organisations to challenge the arguments made in support of the proposals. Later a new organisation was created within the community with a specific focus upon opposing the Shropshire Local Plan proposals for Much Wenlock. This group known as the “Much Wenlock Neighbourhood Plan Refresh Group” aimed to ensure that the wishes of the people were respected. Their work extended to community consultation events and began to focus on objections to the idea of needing to designate a preferred site and upon the need, if required, to update or “Refresh” the Much Wenlock Neighbourhood Plan.

Public concern arose that the flood alleviation claims for the development had not been justified by any detailed proposals. Moreover, the failure of the developer and

the Planning Authority to remedy previous flooding problems, anticipated by local objectors, was well established. Public anxiety increased as new flood events continued to affect the site in 2019, 2020 and 2021. The developer and their consultants, apparently prompted by the locally collated evidence and by local opposition, revised their own assessment of the costs of flood alleviation.

Instead of presenting detailed proposals, for critical examination, the developer merely presented new plans. Their reassessment somehow led to the conclusion that rather than the 80 new homes initially proposed 120 homes would be needed on an enlarged development site to pay for the revised costs of flood alleviation. These proposals have met with strong local opposition. They lack credibility not least as they rely on evidence adduced entirely by consultants paid by the developer. There is, moreover, no guarantee that the costs might not be recalculated at a later date and require 200 or 250 new homes to meet flood alleviation costs as work progresses. Despite concerns being raised on these issues, neither the then Much Wenlock Town Council nor the Shropshire Council withdrew their support.

During 2021, however, local democracy intervened in the form of an election for a new Much Wenlock Town Council. Candidates were elected who represented the views of local residents in opposing the designation of any specific preferred site for development. The Town Council then unanimously called for the draft Shropshire Local Plan to be withdrawn or amended in respect of the proposals for a preferred site for new housing Much Wenlock. The call for amendment was ignored and the plan in its un-amended form was presented for examination by the Planning Inspectorate.

Summary:

The weight of evidence against any justification for developing the preferred site, MUW012VAR, seems overwhelming. There was a failure to carry out the public consultation required by the proposed significant deviation from the Neighbourhood Plan. The site itself lies outside the approved development boundary, it floods quite extensively and regularly. Its accumulation of flood water also contributes to flooding elsewhere. The environmental conditions leading to a high flood risk are complex and have not lent themselves to any simple means of risk reduction.

The failure hitherto to implement long standing proposals to reduce flood risk is indicative of the complexity of the problem. The designation for development of such a preferred site lacks all credibility without detailed proposals being made available for public scrutiny on how flooding would be reduced. Equally lacking is evidence of how sewage disposal is to be secured without adding further to the high flood risk.

Building an additional 120 homes in any location where flooding is not already seen to be under control goes against national guidance (NPPF 161&2) and is much more likely to significantly increase flood risk than to play any useful role in reducing it. The designation of the area as a “Rapid Response Catchment” in the highest category perhaps gives the clearest possible level of warning of the folly of this proposal.

Appendix 2 : Transparency and Public Accountability

The integrity of the planning system relies upon transparency. Those proposing development are obliged to communicate openly with officers of the Planning Department. All such communication, including evidence relevant to the proposal, should then be made available for public scrutiny. The requirement to ensure transparency falls equally upon the Developer and the Planning Department not only in the case of a specific planning application but also in any proposal to amend a development boundary as a precursor to planning applications being lodged.

Deliberations during the Pitt Inquiry highlighted the challenge of establishing public accountability in flood risk management, given the range of bodies involved. As a result Lead Local Flood Authorities (LFFAs) were established. In this area the LFFA is Shropshire Council. It is required to follow guidance developed through modelling by the Environment Agency on "local flood risks from ordinary watercourses, surface runoff and groundwater." Within Shropshire, Much Wenlock was the only area designated as a "Rapid Response Catchment" in the highest category in England.

The Government also stressed, as a result of the Pitt Review, that LFFAs, such as Shropshire Council, should "undertake a statutory consultee role providing technical advice on surface water drainage to local planning authorities." Thus, those officers with the Shropshire LLFA responsibility must advise officers of Shropshire Council Planning Department. That advice should be based on the LFFA recognising "the importance of preventing unnecessary building in areas of flood risk and that new development that does take place should be safe and not increase flood risk."

Cuts to Council budgets have resulted in drastic cuts in staffing and the out-sourcing of different aspects of the work of the Shropshire Council. Cuts have also encouraged councils to consider carefully income from the Community Infrastructure Levy (CIL). Whether an officer with LFFA responsibility for Shropshire Council still has independence from the Shropshire Planning Department is no longer obvious. The lack of any opportunity for members of the public or groups to communicate with an officer who has an LFFA responsibility distinct from a planning responsibility is disturbing. The result is increasingly opaque decision making which undermines confidence and severely compromises open government and public accountability.

The situation is further complicated by the role of private companies, including Severn Trent Water PLC, which adopts developments upon completion. They are responsible for water supply as well as sewage disposal and surface water drainage. They have shareholders who expect them to generate profits and distribute dividends. These dividends are generated through charges on property owners which also pay for the running costs and capital investments of the company. New development generates additional income and this compromises any judgements made by such companies on whether any particular new development should be supported.

Severn Trent did not object to proposals for the Hunters Gate development. Upon completion, the drainage system of the development was adopted by Severn Trent. Properties on Hunters Gate pay Severn Trent substantial sums annually for drainage but flooding continues to occur. Following floods Severn Trent commissioned reports but action on the basis of those reports has been limited in scope and effectiveness.

The proposal to include site MUW012VAR within the development boundary of Much Wenlock seems to have resulted in tensions between the potential developers, the Environment Agency, Shropshire Council as LLFA, Shropshire Council as Planning Authority and Severn Trent Water PLC. It is noteworthy that no single plan for alleviating flooding or reducing flood risk has been agreed between all interested parties and outlined to the public. Instead, the various parties have carried out several different investigations and come up with a range of potential solutions, none of which has been agreed between all parties, let alone fully implemented. A lack of transparency has become apparent on a whole variety of issues with excuses for lack of information being made, for example, on the grounds of "commercial sensitivity".

This complex situation poses significant challenges in determining decisions through the planning system on the basis of whether they would serve the public interest and comply with the National Planning Policy Framework (NPPF). In the case of the Shropshire Local Plan there has been an unwillingness or inability to respond to important questions raised by groups and by individual members of the public at the various stages of public consultation. Groups and individuals within the community in Much Wenlock have encountered in particular a lack of transparency and a failure by the strategic planning team to engage with them over flood risk. **Precedent suggests that at the Public Inquiry these are relevant and important matters in any judgement on the soundness and justification of the Local Plan.**

Flooding issues are not the only matters that have not been regarded as being adequately or transparently addressed. The range of these issues includes –

The incompatibility of the proposals with the approved Neighbourhood Plan
The local need for such a significant extension of the development boundary
The local need for an individual development as large as that envisaged
The contextual acceptability of such a large development
The loss of High Quality Grade 3a Agricultural Land

The absence of any evidence of application of the "sequential test" on flood risk
The lack of any credible plans for risk management of existing flooding
The risk of building new homes which will be subject to flooding
The risk of exacerbating flood risk to neighbouring properties
The risk of exacerbating flood risk across a designated "Rapid Response Catchment"

The lack of action to ensure that the existing sewers function consistently
The lack of any clarity about ensuring future sewer and sewage works capacity
The lack of any clarity about ensuring the adequacy of the town's water supply

The lack of any thorough evaluation of the development on local traffic
The lack of any thorough evaluation of the development on local parking

Appendix 3. Surface Water Connectivity

Appendix 4: Acknowledgements

The author acknowledges the hard work and dedication of those who produced the following sources of information. They have proved useful in drawing together the facts and enabling the construction of this contemporary account.

A Report of the Floods in Much Wenlock and Farley 25th June 2007 John Yeats

Strategic Flood Risk Assessment September 2007 Halcrow Group

Much Wenlock Flood Group Report March 2009 Flood Group Volunteers

Much Wenlock Flooding Investigation Engineering Services Telford & Wrekin

Much Wenlock Integrated Urban Drainage Management Plan 2010 Mouchel

Much Wenlock Rapid Response Briefing 2015 Environment Agency

Hunters Gate Assessment 2015 Richard Allitt Assoc for Severn Trent

Notes on presentation to MWTC on Rapid Response 2019 Environment Agency

Flooding and Sewage disposal in Much Wenlock : Some relevant quotations.

On Drainage and Sewage Capacity in Much Wenlock

1. "Drainage and Sewerage Infrastructure.- it is known that the foul drainage capacity in Much Wenlock is severely restricted. Any development, additional to that currently allocated would, therefore, have to be phased in line with improvement works."

Page 8, Appendix 4, Housing Discussion Paper, BDC Local Plan Review. Sept 2000.

(Since that date over 100 additional dwellings have been built within Much Wenlock with no significant improvement works to increase the foul drainage capacity.)

Lack of capacity in the Barrow Street Sewer.

2. "There is no further capacity in the existing sewers in Barrow Street which add to surface water flooding within Much Wenlock."

Extract from a 15th February 2013 Shropshire Council Drainage recommendation for refusal of planning permission for a development of two houses on Barrow Street. (Application Ref 13/00512/FUL).

"Base Severn Trent Network Capacity

3. "We undertook additional model simulations……to test the performance of the Severn Trent Sewers……..Results indicate no capacity within the existing Severn Trent Water network……."

Extract from an email from Kyle Somerville at McCloy Consulting to Richard at Berrys, disclosed in 2021, and noting the lack of any spare capacity in the existing sewers to take additional flows from the preferred site in Much Wenlock

On drainage and flood risk in Much Wenlock

4. "The implementation of SUDS for new developments in this area is essential, though the Environment Agency has noted that should these fail in a storm situation, the residual risks can be significant especially on catchments of this nature."

Halcrow Group Report to Bridgnorth District Council in September 2007 following the floods in Much Wenlock of the 25th June 2007.

5. "We undertook a modelling exercise, using data supplied by Shropshire Council to estimate the impact of a significant flash flood upon the community."

*Environment Agency explanation for the designation of Much Wenlock as the **sole** Rapid Response Catchment designated in Shropshire. Autumn 2015.*

On drainage and flooding at Hunters Gate: Persimmon 2005

6. "The Environment Agency and Severn Trent Water required this development to have a stormwater retention scheme to restrict the rate of water going into the public sewers.

We proposed the 'tank' system and they approved it. They do not supervise installation, this is done by our own quality control."

Extract from a letter of the 6th July 2005 from Roger Hedges, Highways Engineer for Persimmon Homes, in answer to a query from Mr Horsley, prior to the floods two years later in June 2007, about the effectiveness of the Hunters Gate drainage system.

On drainage and flooding at Hunters Gate: NHBC

7. "I am sorry to hear that you are experiencing problems which relates to the soak away tanks located beneath your garden.

…..The problems you have described, at your property are only dealt with under the NHBC Buildmark Policy in the first two years…..

NHBC do not provide a surveying service and are unable to assess the likelihood of any failure of the system. "

Extracts from a letter dated 10th January 2007 from Mr AA Smith of the NHBC in answer to a letter from Mr Horsley, prior to the floods of the 25th June 2007, seeking guarantees about the effectiveness of the soak away tanks built on Hunters Gate.

On drainage and flooding at Hunters Gate: Persimmon 2007-8

8. "You are correct that our development was the subject of objections during the planning process and as a result following consultations with the EA, Severn Trent and the Local Authority, our planning permission was granted at appeal, with all appeal costs awarded to Persimmon.

Our drainage strategy was approved in full accordance with the statutory authorities applicable at that time."

Extract from a letter of 28th May 2008 from D Harman, Managing Director, Persimmon Homes West Midlands, declining to accept responsibility in answer to a collective letter from residents of Hunters Gate seeking redress and intervention to secure the area against future flooding, following the floods of the 25th June 2007.

9. "I have acknowledged and do have sympathy with the flooding with everyone…….

However, we do not need to commit to any further investigations, as the sustainable urban drainage solution (SUDS) requested by the Local Authority, has been designed, approved and installed in full accordance with our consultants, and third inspections during construction."

Extract from a letter of 25th July 2008 from D Harman, Managing Director, Persimmon Homes West Midlands, declining to assist further in investigating, in answer to a collective letter from residents of Hunters Gate seeking redress and intervention to secure the area against future flooding following the floods of 2007.

On drainage and flooding at Hunters Gate: Severn Trent

10. "In recognition of the flood risk to Hunters Gate, we've submitted a joint bid with Shropshire Council to Defra for a scheme to reduce flood risk. Funding is currently programmed in years 2016/17 and 2017/18. Therefore, the delays in obtaining the survey information haven't affected the start of this scheme."

Extract from a letter from Debbie Landon on behalf of Liv Garfield, Chief Executive of Severn Trent. This letter dated 2nd March 2015 was in response to a letter from Much Wenlock Civic Society seeking clarity in the results if an on-site survey and information about Severn Trent's plans for flood alleviation at Hunters Gate.

(No scheme for flood alleviation at Hunters Gate has been commenced.)

The sequential test

11. "All plans should apply a sequential, risk-based approach to the location of development – taking into account all sources of flood risk and the current and future impacts of climate change – so as to avoid, where possible, flood risk to people and property."

Paragraph 161 of the National Planning Policy Framework 2021