

An Account of the Flood Protection Consultation Event Held by Arup and Sheffield City Council on Thursday 29th September, in Oughtibridge, Sheffield

There were two security men on the door this time and about four more inside the room, all dressed in suits. There was a desk at the entrance to the room, just inside. On the desk were hard copies of the consultation feedback form. I got one. A1 size display boards were spread out around the room, perched on desks and lent up against the walls of the room. I commented that they looked familiar. I asked whether they were the same boards that were at the consultation event in Hillsborough. The lady manning the desk (long grey hair and glasses) informed that the boards were the same used at the Hillsborough event and that the presentation was the exact same presentation that they have used, and will be using, at all scheduled flood consultation events. I asked if there was anything in addition to what had been presented previously. The response was: “*nothing more and no less*”.

I was sent to talk to Adam - a young (mid thirties?) engineer with long, brownish hair and a southern accent. He is from Arup – the firm working to draught the schemes. I spent about an hour chatting to him. He said he has been in Sheffield for five years.

I told him that current proposals would most likely necessitate the felling of all trees along the riverbank in Coronation Park, Oughtibridge (> 15 mature trees, including ten black pines and five copper beeches). He agreed and stated that **all trees along the riverbank in Coronation Park would need to be felled**, should the proposed scheme be selected to go ahead. I suggested that with some thought and careful engineering it would be possible to retain at least some of the trees, if not all. I asked if Arup had considered, or would be prepared to consider, such possibilities for the site. He said no, because it would be too expensive to do.

I asked whether or not Arup had recommended or attempted to retain existing trees on a site where they had proposed such flood defences (banking) previously, elsewhere in the UK or in other countries, overseas. The answer was “no”. I asked why. I was told that it would be too costly to retain existing mature trees within such flood defences. Adam said that the large, mature trees along the riverbank in Coronation Park were not like ancient woodland and were not of the same value. The implication was that the trees in the park were of lesser/no value – monetary or otherwise. I stated that **the trees are large, mature, highly visible, as old as the park, and that they are likely to be worth about £30,000 each, before you even start to**

account for the range of valuable ecosystem service benefits they afford to the environment & communities each year. I pointed out that the park was very popular, frequently used, that the trees were in a prominent position. I said that their loss would have a strong, significant, negative impact on the park and that many, if not most, locals would be strongly opposed to all trees on the riverbank being felled. I asked how frequently severe flooding was predicted to occur and what evidence had been considered when making the prediction. Adam said **severe flooding is expected to occur roughly every 100 years**. He said that was based on meteorological data for rainfall, going back as far as the 19th century, and on data collected over the last few decades (I think he said 80yrs) for rivers. Shortly after this, he contradicted himself by saying that Arup predict that severe flooding, such as occurred in 2007, to occur as frequently as twice every five years. I informed Adam that no such flooding had occurred for at least eighty years prior to 2007 and that I have not met anybody that can remember such flooding prior to 2007. I pointed out that flooding like that has not occurred in the period since 2007. Adam said they had records of such flooding occurring in 1991. I told Adam that I remembered that year well and that it was a scorcher. I pointed out that I do not recall flooding in that year. Adam suggested that the flooding had occurred on the Southern side of Sheffield. I pointed out the ridiculousness of using data that only spanned a relatively short period of time (<200 years) to make predictions and stated that, in my opinion, **using such limited data to predict what was likely to occur within the next five to one hundred years would give a skewed, invalid result of little significance, if any**. Adam agreed that I could be right. He said that since that data is all Arup have to make their predictions that is what they would be working with. **Adam said that any loss of trees would be mitigated for by planting.**

I suggested that the embankment could be built further in to the park, away from the trees, but taller. He said it would not be a viable option, as building taller would mean increasing the width of the banking, and that doing that would take so much from the storage area that such an option would not be viable. I forgot to suggest that **alternative construction specifications could enable a taller bank to be built with less of a footprint than would be required by an earthen bank.**

I also pointed out that the construction of flood defence banks proposed elsewhere along the river would not have such a strong level of negative impact as it would in Coronation Park. He said the park would hold relatively little water compared to the other proposed sites. Adam said that the proposals for Coronation Park may not even be part of the final scheme, as there would not be enough money to go ahead with all schemes proposed for the city and some schemes would be far more effective than others. He said that **other proposed schemes would be much more effective than the one proposed for Coronation Park** and that **in deciding which schemes make it through to final selection to be submitted for approval, much would depend on public opposition or support.**

I asked about the proposal for the football pitch opposite Coronation Park, over the river. I said that, following the flood in 2007, a new sports pavilion had been built and locals were concerned that if the site is used to store floodwater the building would be ruined. Adam said that would be taken in to account during the bid for funding and that any alterations that needed to be made to ensure that the building is not damaged by floodwater would be made. I asked whether or not they would be prepared to provide a new building, if necessary, possibly raised above ground. He said that if that was necessary then funding for the scheme would pay for it.

I asked about the proposal for Winn Gardens. I suggested that with a combination of high embankments and deep excavation a great amount of water could be stored there. I pointed out that it would still be possible to landscape it to provide a vast grassy area. He dismissed the idea as too costly and said that water would overflow and flood the housing estate. I suggested that **flooding could be avoided by careful engineering and control and release of water through canals/pipes/sluice gates.** Adam didn't respond and looked perplexed. I asked if he had considered the use of large **underground cisterns**, such as used in a number of other countries. He dismissed the idea by saying Sheffield already has large underground storage areas in parks such as Hillsborough, Endcliffe & Millhouses. However, he then added that those storage areas accommodate surface water runoff and sewerage – not flood water from rivers. Adam said that a low defence was planned for Winn Gardens that would only reduce the river level by 14cm. I thought that sounded a lot. He said it wasn't. My thoughts were that **if that large area is perceived to make so little difference, smaller areas must be almost not worth bothering with.**

One of the display boards in the room informed that "SUDS" options were being considered as part of the city-wide flood defences programme. I complained that there was nothing on display to explain what SUDS meant (it means Sustainable Urban Drainage System) and nor was there any information about what SUDS options were being considered. Adam stated SUDS options were not part of what ARUP had been asked to consider. He said ARUP have nothing to do with those and that he could not comment on which options, if any, had been or were being considered. **I said that if SUDS options were not being considered, then it should not state on one of the display boards that they are being considered.** At this point, I told Adam that trees should be a key component of any SUDS project and that 73.8% of Sheffield's highway tree population is mature trees. I explained **that trees intercept rainfall, take up water, reduce surface water run-off and slow the flow, helping reduce pressure on the drainage network** (just one of a range of eco-system services afforded by trees to communities and the environment).

The flood protection website states:

“Ways to reduce flood risk

***The options for flood protection that we have considered** fall into three main categories. These are described below. **Wherever possible** we have tried to include options that have potential to provide wider benefits such as supporting economic growth, providing recreational opportunities, **protecting Sheffield's heritage** or improving the environment for wildlife. (to find out more click on related topic below)”*

Source: <http://www.floodprotectionsheffield.com/pages/ways-to-reduce-flood-risk>

If you click on “**Slowing the flow**” (the first of the three main categories), that takes you to a webpage (<http://www.floodprotectionsheffield.com/pages/slowing-the-flow>) that states:

“Urban Water Management

*Use of techniques to control rainwater in built-up areas, such as **sustainable drainage systems (SuDS)**, which **manage storm water** in the landscape and **minimise flows** to underground sewers and rivers”*

I informed Adam that **Sheffield City Council now have a history of starting major projects, such as the £2.2bn, city-wide Streets Ahead highway maintenance project, without any overarching strategy to guide and inform policy and decisions.** I told him that, without a strategy, Sheffield City Council had begun the *Streets Ahead* project and neglected to put in place necessary steps to ensure an adequately planned, systematic and integrated approach. I explained that this had permitted Amey - the contractor for the *Streets Ahead* PFI project - to fell up to half the population of highway trees. I added that **the absence of an adequately planned, systematic, integrated approach has resulted in much unnecessary, avoidable damage to, and destruction of, mature highway trees.**

I told Adam that, largely as a result of non-compliance with good practice, because there is no strategy (adequate or otherwise), potentially, Amey could fell all mature highway trees: 25,877 trees. I said that **both Sheffield City Council and Amey have neglected to account for the impact that the loss of so many mature highway trees will have on the drainage system.** I reminded Adam that **trees – particularly mature trees with large crowns are of greatest benefit in reducing pressure on the drainage system.** Adam's response was shocking. He reluctantly agreed that trees were a beneficial component of any SUDS project, but strongly emphasised that their positive contribution was so small as to be barely worth accounting for, as other options are more effective. I informed that, nevertheless, **trees make a positive, VALUABLE contribution to SUDS.** I pointed out that **the same trees also provide a range of other valuable eco-system services that benefit the environment and communities and that Sheffield City Council and Amey had neglected to account for them or the impacts of their loss.** I stated that **the value of the multiple benefits afforded by trees should be accounted for** when developing proposals for projects and schemes. I pointed out that there are international, European, national and local authority policy commitments to manage natural resources **SUSTAINABLY**.

I told Adam that, as a result of the *Streets Ahead* Amey PFI project, **Sheffield City Council and Amey had lost much trust, support and credibility.** I explained that **was largely because they had provided statements, made promises and given assurances that had later proven to be false, misleading or lies.** I reminded Adam that **one display board clearly stated that SUDS options would be part of the flood prevention programme, as does the flood protection website.** I said that it was reasonable that, **as reasonably skilled members of their respective professions, ARUP – including him – should ensure that SUDS options are an integral part of the flood prevention programme, or at least make adequate, appropriate recommendations that they are,** in fulfilment of the duty of care imposed upon all professionals.

Adam informed that the *Three Brooks Scheme* (covering an area on the southern side of the city that includes the Manor, Manor Park, Darnall, Arbourthorne and Norfolk Park) **is the only one of the six proposed schemes in the flood protection programme that will incorporate SUDS options.** I asked why SUDS options were not integral to all schemes. Adam did not know, nor did he know what SUDS options had been or were being considered for the Three Brooks Scheme. Adam informed that **Arup expect to publish their final recommendations in a report.** I asked whether or not the report would be accessible to the public or if it would be "*commercially sensitive*". I explained that Amey had used commercial sensitivity to withhold information, avoid accountability and cover for their erroneous acts and omissions which, in my opinion, have been and continue to be reckless and negligent. **Adam informed that the Arup report will be presented to the Government, the Environment Agency (James Mead) and Sheffield City Council sometime next year (2017),** but he had no idea when.

Adam said that the Arup report would be used to make the bid for the £83m funding and that **SUDS options would be included in the report**. I asked if the report would be made accessible online, via the flood protection website or the Sheffield City Council website. Adam did not answer, but responded by repeating his previous comment.

To get some idea of how soon the Arup report would be ready, I asked if Arup had done similar flood protection schemes elsewhere in the UK. **Adam said they had completed similar for Hull and Leeds. He said that each of those was larger than Sheffield's scheme, with Leeds being the biggest of the two.** I asked how long it usually takes to produce a report from the date when first commissioned. Adam informed that it takes between a year and a year and a half to produce a report. **I asked how long it had taken to do the report for Leeds. The response was "one year"**. I told Adam that when I had attended a previous flood consultation event (at Sheffield Wednesday Football Club [SWFC], on 25th August, 2016) and spoken to a senior Arup representative (a fat, southern man, in his fifties, with short, black hair), he had informed that Arup had been working with SCC for one year, computer modelling. **On the basis that Leeds was a much bigger programme and their report only took a year to complete, I suggested that we could reasonably expect to see a completed report before the end of the year.** Adam did not know what to say. **Adam just repeated that he had no idea when the report would be ready.**

I complained that, to date, there has not been any detail made available to the public that would enable the public to make informed, valid, worthwhile comment. I complained that, in particular, it had not been explained how the proposed defences might look, how they would be constructed (specifications), their dimensions, precise location and what the likely environmental impact would be. I pointed out that in the case of Coronation Park, it was not clear from the display boards, or the website, that all trees in the park along the riverbank would need to be felled. I pointed out that none of the personnel present, including him, had offered this information. I complained that asking people to fix a sticker to a piece of paper indicating whether or not they agreed with the vague proposals displayed on the boards in the room was not an appropriate way to assess public opinion, especially given the absence of detail on which to base an informed opinion. Adam agreed. He said that the sticker sheets with columns marked "*agree*", "*strongly agree*", "*disagree*", etc. (at the foot of each A1 display board) were not part of the consultation and were not being used as such. I mentioned Article 7 of the Århus Convention:

*"Each Party shall make appropriate practical and/or other provisions for the public to participate **during** the preparation of plans and programmes relating to the environment, within a **transparent and fair framework**, having **provided** the necessary information to the public."*

I added that Sheffield City Council have an existing policy commitment, agreed at the meeting of full Council on 3rd February, 2016:

“At the conclusion of the debate it was moved by Councillor Terry Fox, seconded by Councillor Julie Dore, that this Council:-

[...]

*d) COMMITS TO BEING **OPEN AND TRANSPARENT WITH THE SHEFFIELD PUBLIC ENSURING ALL RELEVANT INFORMATION IS AVAILABLE IN THE PUBLIC DOMAIN.**”*

(THE MINUTES OF THE COUNCIL MEETING THAT TOOK PLACE ON 3rd FEBRUARY, 2016 – when the Nether Edge tree action group presented their 6,295 plus signature petition - can be accessed at the following link, under the sub-heading “*Minutes of Previous Council Meetings*”:

<http://sheffielddemocracy.moderngov.co.uk/ieListDocuments.aspx?CId=154&MIId=6022>

Questions about trees are on pages 6 & 7 of the PDF. A redacted version of the petition, followed by the Council’s response, can be found on pages 18 to 24.)

Adam said that Arup would not usually consult with the public at this stage in the process, but that Arup wanted to, so as not to appear that they were imposing schemes on communities without listening to public opinion. I told him that, at the Hillsborough consultation event (at SWFC), **Dr Godwin Ekebuisi** (SCC’s – flood prevention Programme Manager: within SCC’s Highway Maintenance Department) had informed me that they had yet to gain the £83m Government funding and that to get it one condition was that they must first show that they had consulted the public. I put it to Adam that the only reason that they were holding public “*consultation*” events now was because it was a condition of the process necessary to get funding. Adam didn’t comment.

I quoted from the information for Beeley Wood that is on the website (<http://floodprotectionssheffield.com/pages/beeley-wood-flood-storage-areas>):

*“**We would minimise impacts on Ancient Woodland habitats and trees... We would carefully assess the impact of temporary flood water storage on trees and habitats.**”*

I also quoted from the information for Oughtibridge that is on the flood protection website (<http://floodprotectionsheffield.com/pages/oughtibridge-flood-storage-areas>):

“There would be temporary impacts for park users during construction... but we would look to minimise these.

Some tree loss may be required, but we would minimise impacts and identify opportunities to offset these with wider tree planting and habitat creation where possible.”

I told Adam that in my opinion it is **misleading and deceitful for Arup and SCC to have wilfully neglected to be open and honest about the scale of proposed tree felling in Coronation Park when they knew that CURRENT PROPOSALS WOULD MEAN FELLING ALL TREES IN THE PARK ALONG THE RIVERBANK**. I said that, really, SCC & Arup should not make such comments about assessing and minimising impacts without first having some idea of how these things could or would be done. I asked what steps were in place to ensure that Arup & SCC would assess and minimise impacts on ancient woodland and trees. I suggested to Adam that Arup must have some idea, from their previous work elsewhere in the country, on similar flood defences schemes. **Adam said that Arup have their own hydrologists, ecologists, arboriculturists, mycologists and that they would do detailed assessments once it had been decided which schemes would go ahead and what construction would require.** He said that, **to date, only “scoping” assessments had been done – desktop assessments to compile site specific information and site visits to get a rough idea of what’s there.** I suggested that it would be better to sub-contract out the assessments to other consultancies because it could otherwise appear that assessments are biased and skewed, as Arup have a vested interest. Adam informed that all assessment work has been subcontracted to ECUS consultancy at Sheffield University. He said they have their own ecologists and arboriculturists:
<http://sheffield.cylex-uk.co.uk/company/environmental-consultancy---university-of-sheffield-17756746.html>

I mentioned the proposed **Beeley Wood flood defence embankment**, to be located just upstream of Middlewood Tavern, by the mill. I explained that, at the SWFC event, it had looked like many of the mature beech trees along the riverbank, which represent a highly valuable feature (green architecture), would need to be felled, and that the display boards had not made it clear exactly where the flood defences would be positioned. Rather than put my mind at ease by explaining that the proposed flood defence would cross the river downstream of those trees, Adam responded by saying that part of the woodland is not as old or valuable as the remainder, upslope. **I explained that those beech trees were amongst the largest and oldest in the whole woods and that they were part of the same woods. I explained that the woods is**

ancient woodland and that, as such, it is special, of national significance and represents a material consideration. I repeated what I had previously said about valuation and stated how popular the stretch was with cyclists and walkers, being part of a network of cycle routes. Adam had no idea of how Arup intend to “*carefully assess the impact of temporary flood water storage on trees and habitats*”. As Adam is an Arup engineer, I asked how long water would be likely to be retained behind the embankment in the event of a flood and how it would be released. I asked because prolonged periods of flooding would be likely to result in harm, disease and, eventual death for mature trees. **Adam said that water would be retained behind defences for two or three days - no longer and certainly NOT a week or more.** Adam would not answer my question about how water would be released from behind defences. It appeared that he did not know. He advised that I view the illustrations on the display boards, which he said were identical to those provided online. I have not seen any such illustrations online.

Adam said that Arup are still early in the process of developing proposals and that it was unlikely that all proposals would actually be deemed viable. He said cost is a major factor to consider, as is public opinion. He said the consultation feedback form that I had picked up on the way in to the room will be used to assess public support or opposition for each proposed scheme and that it can be completed online: <http://www.floodprotectionsheffield.com/pages/consultation> . He said that there would also be an option to attach documents for consideration. **He said that a scheme that met significant opposition would be unlikely to be regarded as viable.** He said that he does not believe that it is necessary to go ahead with all proposed schemes and that to do so would be too costly. He said that he expects that **only a few schemes will receive final approval and funding and that the 83m would not be sufficient to go ahead with all proposed schemes.**

Adam stated that the event was a consultation event but that he did not have the level of detail that I needed at this stage in the process. He said he was confident that Arup could make the business case for the six schemes (enabling land that would otherwise flood to be built on: 27,000 new homes & 40 new businesses). I pointed out that insurers cover the cost of flooding and that severe flood events were virtually unheard of, having only occurred once between Stocksbridge and Hillsborough in living memory, to the best of my knowledge.

Useful Information

Local Authorities (LA's) have a **duty to have regard to the conservation of biodiversity** in exercising their functions, under **Section 40 of the Natural Environment and Rural Communities Act (NERC) 2006** (Department for Environment, Food and Rural Affairs, 2007).

“Every public authority must, in exercising its functions, have regard, so far as is consistent with the proper exercise of those functions, to the purpose of conserving biodiversity”

The duty under NERC also applies to all statutory undertakers (including those responsible for highways), and **the same duty is placed on Government and Ministers, by section 74 of the Countryside and Rights of Way Act 2000**

(Department for Environment, Food and Rural Affairs, 2007, p. 6).

The Government has agreed to adopt and apply the precautionary principle in its agreement to **Agenda 21** at the Earth Summit meeting at Rio, in 1992, which states:

“Where there are threats of serious or irreversible damage, lack of full scientific certainty shall not be used as a reason for postponing cost-effective measures to prevent environmental degradation.” (Principle 15)

European Directive 2001/42/EC (legislation):

*“Having regard to the **Treaty establishing the European Community...***

*...(1) Article 174 of the Treaty provides that Community policy on the environment is to contribute to, inter alia, **the preservation, protection and improvement of the quality of the environment, the protection of human health and the prudent and rational utilisation of natural resources** and that it is to be **based on the Precautionary principle.***

*Article 6 of the Treaty provides that **environmental protection requirements are to be integrated into the definition of Community policies and activities, in particular with a view to promoting sustainable development.**”*

(European Parliament, Council of the European Union, 2001)

Guidance provided by the **Joint Nature Conservation Committee (JNCC)** - **“the public body that advises the UK Government and devolved administrations on UK-wide and international nature conservation”**:

“The Precautionary Principle is one of the key elements for policy decisions concerning environmental protection and management. It is applied in the circumstances where there are reasonable grounds for concern that an activity is, or could, cause harm but where there is uncertainty about the probability of the risk and the degree of harm.”

(Joint Nature Conservation Committee, 2007)

References

Department for Environment, Food and Rural Affairs, 2007. *Guidance for Local Authorities on Implementing the Biodiversity Duty*. London: Department for Environment, Food and Rural Affairs.

European Parliament, Council of the European Union, 2001. *Directive 2001/42/EC of The European Parliament and of the Council of 27 June 2001 on The Assessment of the Effects of Certain Plans and Programmes on The Environment*, Luxembourg: European Union.

Joint Nature Conservation Committee, 2007. *The Precautionary Principle and Approach*. [Online] Available at: <http://jncc.defra.gov.uk/default.aspx?page=2519> [Accessed 16 June 2015].