

### Climate Change Ad –hoc Panel minutes - 09.09.09

Present: Gordon MacKerron, Gil Mitchell, Tony Janio, Vicky Wakefield-Jarrett, Chris West, Chris Wick, Barry Luck

Also present: Thurstan Crockett, Karen Amsden

#### 1. Procedural business

No substitutes

No declarations of interest

No party whip

#### 2. Witnesses

Gordon MacKerron introduced the first public meeting of this panel by saying that 12 panels had been conducted by local authorities on climate change. However they had focussed primarily on mitigation, so it felt novel to be focussing on adaptation.

**Chris West, Director, UK Climate Impacts Programme:** said he understood that the focus on the panel was adaptation, but there were serious interactions between adaptation and mitigation. He believed that climate change should be 'taken as fact', but the size and variation of the change was not known.

He believed that just because there was uncertainty about the issue, there was no reason to put off action. That we faced change and possible uncertainty.

The UK Climate Projections 09 tool was able to project, but not predict, climate changes for this country based on different scenarios.

[http://www.ukcip.org.uk/index.php?option=com\\_content&task=view&id=163&Itemid=287](http://www.ukcip.org.uk/index.php?option=com_content&task=view&id=163&Itemid=287)

It was less prescriptive than projections. We should not prepare to adapt to just one future, but a range of futures – as it was not possible at present to tell which one would happen.

He believed that we should not get bogged down in climate change science, but just ask scientists when the information they have discovered can be used.

Local authorities all had the notion of looking after the well-being of the community, but there was a big range in where they thought the lines of responsibility should be drawn and how far into the future they should look to e.g. to protect their residents' great grand children?

There were three aspects to the responsibilities of local authorities, he said:

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- Provider of services
- Big corporate organisation
- Leader of the community

Brighton and Hove (B&H) had an adaptation plan but any such plan needed to be based on an assessment of the risks relating to both the present and the future.

The plan should be informed by what the council wanted to achieve. He believed that the focus must be on how the council addressed current risk. It was important when consulting stakeholders, to consult people with real influence both inside and outside of the council. It was also crucial to look at the interactions between the council and key partners, such as the Environment Agency and Southern Water.

The goal of UKCIP was that the UK be well adapted to climate change. This task would never be finished, so the most realistic outcome would be a UK **adapting well** to climate change. Therefore this meant it was vital to carry out risk assessment and find out current climate vulnerability.

The Local Climate Impact Profile was a tool that was trialled in Oxfordshire. He believed that this had not been done by BHCC and thinks that it should. Here is a link to a guide to using this tool:

[http://www.ukcip.org.uk/images/stories/Pub\\_pdfs/lclip.pdf](http://www.ukcip.org.uk/images/stories/Pub_pdfs/lclip.pdf)

Using this tool could involve:

- Looking up the archives of newspaper reports on major weather events
- Going to service providers and asking them what impact each major weather event had on them e.g. what were the costs and impacts of a storm last November?
- Asking the service whether a similar weather event would involve a large % of their deployment of reserves
- Starting to identify vulnerabilities
- Starting to identify thresholds when things are important e.g. if a storm once every 10 years turns into one every 2 years
- Interrogating the UKCP 09 Projections to see the probability of these thresholds being passed in the years ahead
- Plotting these against the impacts in order to assess risk
- Beginning to prioritise actions

Examples of the work done to date are available at this link

[http://www.ukcip.org.uk/images/stories/Tools\\_pdfs/LCLIPsummary.pdf](http://www.ukcip.org.uk/images/stories/Tools_pdfs/LCLIPsummary.pdf)

### **Has BHCC got a good adaptation plan?**

According to Mr West, BHCC appeared to meet some of the criteria, however he did have the following queries:

- Is it a once and for all plan, or is it responsive to future events?
- Has a champion/owner been identified?
- Is there a process for reviewing the plan and looking why it was created?
- What are the measures of success? Outcomes can be different, so there should be some process measures
- Did it offer assurance to either the public, managers and central government that this is a good adaptation plan?
- Was there a link with stakeholders? They were mentioned in the BHCC plan, but there did not seem to be a link with the knock on effects for stakeholders.
- Some sections appeared to be missing. It was weighted to the natural environment and included business, tourism, health and crime – but the built-environment was not well treated.
- It was marked as being a draft plan from '06, but had it been updated?
- It was all about sustainability, but it needed to link with economic and social impacts.

### **Questions to Chris West**

Gordon MacKerron (GMK): Thank you for a very concise and useful presentation. I took the point of needing to have something to measure against. However this was difficult due to ambiguity in areas such as crime and the built environment. Therefore, how do we measure such factors and steer people in the direction of travel?

*Chris West: The Impact Profile would be a useful tool as lots of records have not been kept by local authorities. It would form part of the corporate memory process. When challenged, most services would be able to remember. He also believed that the Risk Management or OSC people would be the best people to carry out this exercise rather than sustainability.*

GMK: There was a severe flooding a couple of years ago and could see that it would be useful to revisit such an event.

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Vicky Wakefield-Jarrett (VWJ): Was very interested in the impact on adult social care and the care of the elderly. How would climate change impact upon these groups and what had other local authorities done to address this issue?

*C West: When the temperature rose in summer, then older people are the most vulnerable - particularly if other factors such as English not being their first language. Fifty years ago care was given to older people by their neighbours, now this care has been professionalised. Help is needed from community groups e.g. church groups, to identify and help people in need. In Oxford they planned an exercise to visit all the older people in their home to see how they were coping with the temperature, however half the social service officers were at home that day looking after children because schools had closed due to the heat. Therefore, a comprehensive model was needed for responding to heat waves.*

*C Wick: such considerations can be built into the construction of older peoples' homes. For example by adding more insulation/ventilation.*

Tony Janio (TJ): Sat on the flood defence committee and heard a very useful UKCIP presentation. This included the 69cm projected figure of rising sea levels, along with the expected hotter summers. He was concerned that the way this information was presented (e.g. Sun headlines) left people feeling there was nothing really to worry about. He believed that it was necessary to link our plans to projects such as Shoreham Harbour, and how should we link our work to that of other local authorities?

*C West: There was a need to include the following:*

- *Fitting adaptation and mitigation. About 10 years ago he was asked why he was talking about both adaptation and mitigation, even if it is possible to stop future climate change, change has already happened – so need to do both things at the same time. But agree it is not an easy idea to sell.*
- *Area boundaries. Learning from the 2007 Pitt report that authorities must work together to deal with issues such as floods.*
- *Shoreline mitigation. This is a more difficult area to work on as you can be passing on the problem to another area. Like the issue that if you defend Oxford, you can transfer the problems for the river to another area.*

TJ: It is necessary to frame the report to emphasise the point that we need both mitigation and adaptation.

*C West: It is also necessary to mitigate for the rest of the world. We can afford to both this and adapt for what is going to happen. There are a lot of countries that cannot afford to do this.*

Gill Mitchell (GM): It was necessary to have a good understanding of B&H. It was a densely packed city and needed to learn from the approach it took with the waste reduction policy to address how the population will react to issues. For example, the anger of neighbours to someone who uses a water sprinkler in a time of water

shortage. It would be useful to identify how local people are likely to react. They should promote the role of 'amateur oversight'. The public should ask 'is an action sensible for the future climate?' They should be putting pressure on the councillors.

GMK: It was necessary to sell adaptation as we were not well adapted to current climate and remind people of the effects e.g. the recent heavy snow.

The local authority indicator NI188 is not a quantitative measure, but a process indicator. What are the benefits and drawbacks?

*C West: A few years ago when this indicator was optional, the majority said that they would not measure this issue. Now it is statutory and NI188 has to be done. The stages go from identifying to quantifying and prioritising to planning to monitoring. All LAs should be able to do the risk assessment. The first 2 stages do not take a lot of work, 'just doing the day job better'.*

*In total it should take around 3 years to get a long way through the process. With one year for 2 stages and a year for next 2 stages.*

**Chris Wick, Environment Agency** is based in Pevensey. Chris is operational manager of 5 teams dealing with pollution and enforcement and had a personal passion about climate change. He is also on the city's Local Strategic Partnership and City Sustainability Partnership.

He supported C West's recommendation that BHCC carry out a LCIP. He presented two briefing notes, the first highlighting the areas of climate change that are the greatest significance to the EA, such as flood and coastal erosion.

There was always the temptation to give a median figure in projections e.g. for rainfall, but what has the most impact is the severe events like serious flooding or very high temperatures. He believed that one should anticipate sea level rises of about 15mm a year. But other scenarios could substantially increase such projections e.g. the melting of glaciers.

The effects of severe weather events could be wide ranging. One local example could be the cliff fall next to the A259 near Asda. There could be potential damage to this cliff face from storms and we might not be too many severe storms away from the closure of the A259.

Thurstan Crockett (TC): The economic and financial implications had to be considered at a public enquiry regarding the cliff face a few years back.

GM: Told the meeting that she had been involved in many difficult related issues such as the coastal realignment at Cuckmere.

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*C Wick: Is the Environment Agency's lead for Cuckmere, so was in the thick of it. One should expect increased surface water flooding and knows that the system has been overwhelmed. The South East is a water stressed region with above average water use. The average water use in B&H is 169 litres, which was above the 150 litres national average. The Environment Agency is carrying out research on whether climate change will increase the likelihood of severe drought events like the drought of 2005/6. B&H has high quality drinking water, but it is all allocated. It was not believed that there was any more large scale water resource that could be made available. The area was also vulnerable to saline intrusion if the bore hole got very low. The Environment Agency (EA) believed that we must reduce the per capita use of water. Some of the options to increase water supply involve huge energy use e.g. de-salination, which conflicts with climate change mitigation. Therefore one needed to reduce water use, which would also increase drought resilience. The EA was not best placed to comment on wildlife, but the evidence of changes are all around us. The committee might consider inviting Natural England or the Wildlife Trust to discuss this aspect.*

*In the table in the briefing paper, I may have missed aspects of BHCC progress and so Panel please add to the progress column.*

*There is a national Climate Change board and supporting teams nationally in the EA. There was a need to link up the good national work with the good local and regional work. They are creating a new regional steering group to make sure that all regional work is being joined up.*

*A lot of mitigation work was being done by the EA, see Pie Chart in Note 2. By 2012 the EA will regulate almost 50% of green house gas emissions, so have a big part to play. Locally they were investing a lot of resources to look at land fills, as methane is more harmful than CO<sub>2</sub>.*

*It is a massive challenge to reduce emissions by 80% by 2020, when you think that the majority of households in B&H were using fossil fuels for heating. There needs to be fundamental changes in how we live and operate. This can only be achieved if fundamental changes are made e.g. insulating all homes. Therefore adaptation and mitigation needed to be taken together.*

*He is pressing for an assessment to be made for what a community would look like in 2020 e.g. would we be using electric cars to get to work, would we all heat our homes with solar panels. This would be used as an advocacy tool. There may be many different options on how this future would look.*

*NB a version from Greenpeace, that Thurstan Crockett has sent Chris, is here:*

<http://www.greenpeace.org.uk/files/efficiency/index.html>

*He believed there was a big link back to environmental industries and telling this sector that it was certain that there would be a market for their goods.*

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TC: explained that the panel on environmental industries had touched on forward procurement - telling organisations what was needed in the future and then looking to buy such projects from them.

*C. Wick: This showing people what the future would be like was part of the process of 'turning red to green'.*

VWJ. Are you planning for more storms and more intense storms? What will be the impact on drainage as well as surface water? Will we have to use grey water? We will need to make infrastructure changes to meet increased levels of storms

*C Wick: It was hard to predict, but it was useful to look at the Pitt report of 2007 regarding the floods. Historically, the EA have concentrated on river flooding and have no statutory duty to consider rainfall in urban areas. But the 2007 floods have led to Local Authorities taking a lead on surface water flooding. DEFRA have given BHCC a grant to look at this. They are one of 77 Las (32 of them are in London).*

*Barry Luck (BL) was able to confirm that it was for BHCC to create a plan.*

GMK: This could influence and help our work on this panel.

GM: There is a tension between drainage and water run off. There was a need to make legislation re: highway law more flexible - to deal with issues such as the increasing loss of front gardens as they are having tarmac put over them or concreted over for car parking.

*C. Wick: Sustainable drainage was becoming increasingly important.*

*B Luck: A front garden has to be permeable if over a certain area, or will need planning permission.*

TC: Run off to the sea – the issue arises if designed to run off faster to sea, which can compromise the objective of good bathing water quality. This has led to us losing our blue flag status. This showed the conflicts that can arise between environmental issues.

UKCP Projections- When thinking about our 25kmsq – would the EA's advocacy tool describing the region in 2020 be sufficient for adaptation planning?

*C Wick: The tool would not be detailed enough for this. BHCC would need to do their own work. Agreed to supply more information on what the EA was intending to do nationally & locally to help avoid duplication.*

*C West: One could use a weather generator device, which is available. However you should not do this until you know what the problems are. This is a powerful too, but it is wise to be cautious with it. Therefore, you should use the local profile first and then look at the generator tool.*

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*C Wick: offered to look at the work of other authorities e.g. East Sussex to make sure there is no overlap – as TC does not have teams of people beavering away at this. The local papers can also be used to identify e.g. disputes over sprinklers.*

GM: Should we as a panel decide, due to limited resources, to remove certain areas from the planning process e.g. shoreline?

TC: There was a discussion about this at the scoping meeting and it was decided not to rule out anything until we have found out from the services how well covered they are e.g. in relation to surface water flooding and coastal projections.

VWJ: The Council is a big landowner so we also need to know what we are asking tenant farmers to do.

*BL: Farming issues, their practices and management can have a huge impact e.g. on run-off.*

TJ: In relation to adaptation and flooding. One of our plans which was submitted to the EA asked for level 5 for more money to carry out flood prevention work. However we were down graded to level 3 which meant no action or money. Should we look at what we can do with our current resources? Or should our recommendations cover money we need e.g. from EA and/or DEFRA etc?

*C. Wick: We will take advice and get back to you. There needs to be an understanding of the risks and then this will inform actions e.g. if there was a large risk then need to go on a crusade about.*

TJ: It would be foolish to say that as a panel we think what the situation will be and what action we should take. One cannot say a particular climate will be there, but set out a range of climate change options for:

- 2020
- 2030
- 2040

There should be low, middle and top graphs of outcomes and options for each. E.g. new projection methods give this scenario an 80% likelihood.

The best example is the Thames Estuary 2100 projections. BHCC need to do the same thing on a smaller scale. Most adaptation responses were in the unknown and should keep them ready on a piece of paper until they are needed. Robust, but not perfect, projections.

TC: How, and who, should the recommendations be directed to. i.e. not limiting them to BHCC, but also to partners – including the EA.

GMK: There were so many potential changes that for example one could set up an adaptation sub-committee. One should not be afraid of being radical.

### **Barry Luck: Sewerage Strategy Manager, Southern Water**

had spent 35 years in the industry, the majority at Southern Water. The majority of his observations would be confined to sewerage and waste water flooding. He was responsible for dealing with the regulator OFWAT, EA and working with local authorities re: surface water planning, and assisted in Water Industries Research for Water UK. He was also communicating closely with DEFRA re: surface water management.

Southern Water (SW) accepted that climate change was taking place. For the water industry there was no real good news, as all changes would make the matter worse. As a consequence, this could lead to law and order issues. He suggested that the Panel also needed to talk to someone who was an expert on water issues in Southern Water.

He believed that drier summers and wetter winters would lead to issues such as increased garden watering at time when trying to reduce water consumption. SW worked in 5 year funding cycles. Their Final Business Plan was submitted in August 2008 and they are now awaiting Ofwat's Final Determination, due late November. . They would be applying for 100% water meter penetration for domestic use. He believed that there are opportunities to reduce water usage (less waste etc) and that usage around 100-120 litres/h/d is possible just by being more careful about water usage. In relation to drainage and flood there have severe storms over the last 10 years, including:

- Glasgow
- Hull
- Midlands
- Boscastle

There may be greater awareness of the storms, but there are also higher numbers of catastrophic events. According to projections summers were becoming drier, and the consequence is likely to be more flooding. but there was more intense rain. This would lead to problems with run off and ground water flooding. Winters are likely to be wetter, which may also lead to increased flooding.

He recommended reading The Pitt Review (see [http://archive.cabinetoffice.gov.uk/pittreview/thepittreview/final\\_report.html](http://archive.cabinetoffice.gov.uk/pittreview/thepittreview/final_report.html)) which produced 92 recommendations. This has fed into Floods and Water Management Bill which was due to be presented by the Government shortly.

<http://www.defra.gov.uk/environment/water/flooding/flow/index.htm>

He asked if BHCC had commented on this Bill.

TJ: There was a rumour that this Bill would die.

*BL: That would be a disaster. However there were sections, such as reservoir safety, that could be pulled out to ease its passage. He believed the Bill represented a better clarification of responsibilities and greater local authority (LA) responsibilities. The EA would be responsible for reservoir and river flooding, the LA responsible for ground water flooding and water courses, with all responsible for surface water and pluvial flooding. Therefore this would increase the responsibilities of BHCC.*

*SW's responsibilities started as public health responsibilities e.g. draining water away from roofs and foul water. They had no responsibility for agricultural drainage.*

*The minor drainage system was the underground pipe system and could deal with the 1 in 30 or 40 years event. There was also the major drainage system, for when the underground drainage system was overwhelmed. The drainage system for B&H was very old and new sewerage systems should be able to deal with the 1 in 30 year event.*

*In the event of potentially catastrophic flooding, e.g. in 2007, the local authority would now have to take responsibility. Water customers could not build systems to deal with catastrophic event. Therefore there was the need to change the above ground systems to increase resistance to flooding (e.g. boards against doors) and increase resilience (e.g. no carpets downstairs and placing electrical sockets higher up) – these measures were also appropriate for areas near rivers.*

*He believed that the new Bill was a good tool. He also believed that the All Party Parliamentary Group (APPG) which deals with flooding would press any change of government to go ahead with the proposals.*

*There had been integrated urban drainage studies. All partners needed to get together and understand floods, who was responsible for them and who dealt with them. They have considered whether you can make water authorities work with LAs. One of the pilots was carried out in Lewes - for details of the pilots see:*

*<http://www.defra.gov.uk/environ/fcd/policy/strategy/ha2.htm>*

*The intention had been to use this work to create a good practice manual. But there was now Surface Water Management Guidance on the DEFRA website.*

*<http://www.defra.gov.uk/environ/fcd/policy/surfacewaterdrainage.htm>*

*Defra have provided £16M for surface water management, all going direct to local authorities. Of this, £10M is for preparing plans, £5M for 'easy wins' (physical work to alleviate flooding) and a further £1M for training and resource building. Southern Water will be funded (through Ofwat's Final Determination of our Business Plan) to support the production of the plans. When planning you needed to address the following considerations:*

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- *How can you reduce risk? E.g. are there malconnections with the highway?*
- *Can you introduce relatively small wins? E.g. Dropped kerbs can often direct flooding into properties or gardens, so the issue is about how very small changes to above-ground drainage systems can unintentionally affect, or cause, flooding*
- *How can you divert water? E.g. from Preston Park into a temporary pond if needed.*
- *How can partners work together?*
- *What are the contingency plans? Because it will flood.*
- *How do you look after the vulnerable?*

*The funding that has been awarded for Brighton is to enable them to go from spatial planning to contingency planning and identifying partners.*

*He believed that the increasing risks to B&H were as follows:*

- *Tidal flooding (this was not SW's responsibility) but what would a rise in the sea level of 6m do to Brighton?*
- *Ground water flooding (e.g. the autumn 2000 flooding in Patcham). There were for example some agricultural practices that could assist*
- *The sewerage system in B&H is quite resilient but cannot absorb much above the 1 in 50 year event*
- *In 2000 the big storm water tunnel between King Alfred and Black Rock was pretty full throughout the area. A big single event could have led to very substantial flooding.*
- *Urban creep e.g. the Carden Avenue area. There were malconnections on chalk. Where was the surface water coming from? This could have been caused by building up over front gardens.*
- *Protecting natural flood routes. Water would flow in odd places, so do not build there.*

*SW was keen to engage in the Surface Water Planning Process.*

*TC: In relation to water resources, what sort of % reduction will universal water metering produce?*

*BL: In the Isle of Wight test the reduction was between 10-12%*

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TC: There had been criticism in the press about the inequalities impact of metering. What plans did SW have in place to deal with the impact of metering on large, low income families?

*BL: thought that it was the government's responsibility to deal with the social impacts of metering. He also suggested inviting Meryck Gough from SW to talk about this issue in greater detail.*

VWJ: If 16,000 new homes were to be built in the area, would water consumption not become a concern?

*BL told the Panel that this issue was covered in SW's plans but again suggested that questions relating to this issue should be addressed to Meryck Gough.*

GM: There was a huge sewer and mains replacement programme for B&H. Were you replacing like with like?

*BL: It was all water supply work, but any sewerage works would be like for like. SW had identified where there were old/leaking pipes and were replacing them with plastic pipes.*

TC: 35 miles were being replaced.

*BL: One could measure the impact of this replacement programme. We have split the Brighton water distribution system into small 'District Metered Areas each of which has one or two meters measuring flow into the area, so flows can be accurately measured in each of these areas, and hence leakage can be quickly identified and located. We endeavour to locate and repairs leaks as soon as possible, with 2-3 days as a target. Therefore SW had a good picture of leakage.*

TJ: The Panel now seemed to be well informed about flooding, but do we need to know more about other areas such as heat?

*C West: believed that it was not enough to just look at flooding and draught, but needed to consider the human end, infrastructure and health issues. This was an area that needed more work. He believed that one should start by looking at the council functions and identify which areas are under greater stress and look at those. Do not begin by looking at climate change areas e.g. flooding.*

*C Wick: felt that the implications of climate change were everywhere e.g. tourism and commerce (for example if the heat forced workers to have siestas).*

GM: asked the witnesses whether we need to talk to people about the infrastructure, sustainable planning and the built environment?

GMK: believed that if the issue was not already covered, then needed to look at infrastructure.

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TC: said that because so many things came under Environment e.g. emergency planning, shoreline management, spatial planning, public safety, the Head of Scrutiny felt it best to ask the Director of Environment for information about adaptation planning, with supporting information and staff present e.g. the Head of Public Safety.

*C West: suggested that the panel subscribed to the monthly newsletter from UKCIP (see link below for how to subscribe*

[http://www.ukcip.org.uk/index.php?option=com\\_content&task=view&id=373&Itemid=9](http://www.ukcip.org.uk/index.php?option=com_content&task=view&id=373&Itemid=9)

*He also suggested looking at their tool known as Brain (Base for Research, Adaptation, Impacts and News) see link here*

[http://www.ukcip.org.uk/index.php?option=com\\_content&task=view&id=226&Itemid=324](http://www.ukcip.org.uk/index.php?option=com_content&task=view&id=226&Itemid=324)

*He also recommended that Panel members explore the UKCIP website*

<http://www.ukcip.org.uk/index.php>

*And look at LCLIP*

[http://www.ukcip.org.uk/index.php?option=com\\_content&task=view&id=278&Itemid=377](http://www.ukcip.org.uk/index.php?option=com_content&task=view&id=278&Itemid=377)

GMK: drew the discussion to a close with the following summary:

- Adaptation is not just for the Environment directorate - it has to become part of corporate and routine thinking and planning
- The need for engagement with partners
- The need to be aware of extreme events. The 1 in 30 year event could become the 1 in 10. The greatest political issue is reluctance to invest in things that may not happen.
- Planning and adaptation run in parallel and need some reconciliation

He expressed his gratitude to all witnesses.

Barry Luck and Chris West then offered to provide future support and information to the Panel.

### 3. Dates of next meeting

Next Meeting – at 6.30pm a briefing session for the panel. Then public panel meeting to commence at **7pm on 20<sup>th</sup> October**, at Hove Town Hall, Committee Room 1.

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Meeting 3- in November to be confirmed.