

APPENDIX 7.1
STAKEHOLDER WORKSHOP REVIEW

1 Introduction

1.1 Aims of the Day

“So far, the Integrated Water Management Study (IWMS) has identified 32 water management options for Ashford. The final challenge of the study is to bring those together to create a preferred strategy for the next 25-30 years. The aim of this workshop is bring together a wide range of experience and expertise to recommend 2-3 strategies for Black & Veatch to consider further.”

1.2 Outcome of the day

It was a successful day, however the emphasis of discussion was more on individual options rather than overall strategies. However, it was clear that the approach to turning treated wastewater into a resource is central to an integrated strategy. There are two main strategies to pursue:

- **Effluent Re-use:** this got the strong backing from many participants. It has the advantage of using effluent to address the water resource problem. Overall, it was felt that the effluent would need to go into the environment before re-abstraction, however this needs to be separate from the River Stour to ensure the water quality and temperature benefits to the river.
- **Re-introduction of effluent into the environment:** there was a general recognition that the current method of discharging treated effluent and drainage water into the Stour is unsatisfactory. The use of SUDS, created wetlands, effluent cooling and Non-Mains Water demands have a role to play in getting the quality of water to acceptable levels for re-introduction into the Stour. The challenge will be to ensure that measures are sufficiently reliable and robust.

In addition to these two main strategy options there are a number of interesting elements:

- There was no opposition to giving ‘discharge to sea’ no further detailed consideration. It was agreed that the loss of water resource outweighed any potential benefits;
- Desalination should not be written off. It may be that desalination plays a more important role in the regional water resource planning rather than as an Ashford-specific option. However, it may be a useful to keep it in reserve if future work goes against more highly rated options.
- Storage of winter water by excavating offline storage areas in the flood plain was proposed as a relatively low-cost option, but questions remain as to what benefits such a scheme could provide over a the creation of new wetland habitat.
- The Ecological Water options were generally supported and being relatively cheap were thought to be worthy of promotion. However, the role of Green Roof technology was questioned. It was thought only applicable to larger public buildings and then benefits, particularly in dry summers were not clear.
- Robustness was pushed a main theme: are the measures reliable, adaptable to climate change and Ashford’s development.

1.3 Structure

- 09.30 Arrival & Refreshments
- 10.00 Welcome – Chair (Dr Binny Buckley)
- 10.05 Study summary, aims of the day (S Furey)
- 10.15 ‘What does Integrated Water Management mean for Ashford and the Stour?’
– 5 minute presentations by participants
- 12:15 Lunch
- 13:20 Introduction to the afternoon group sessions – (S Furey)
- 13:30 Session 1
- 14:15 Session 2
- 15:00 Session 3
- 15:55 Summing up (S Furey)
- 16:00 Closing Remarks (Dr Binny Buckley)

Each afternoon session is 45 minutes long and should end with 5 minutes of each group summing up the main points raised. The groups will move between the 3 tables.

2 Morning Session

2.1 Format

Each of the participants was given the opportunity to stand up in front of the group and present their concerns, opinions and recommendations for integrated water management in Ashford and the upper Stour catchment. This was a valuable way for the stakeholders to express their views to their peers.

2.2 Points Raised

2.2.1 Steve Boxall/Dan Epstein (Ashford's Future)

Infrastructure Manager/ Sustainability Champion. In the absence of Simon Bandy (Ashford Borough Council), Steve and Dan summarised the work that is ongoing for the Local Development Framework.

- The Greater Ashford Development Framework (GADF) report will be published end of Jan 2005
- The draft Local Development Framework will be published by the end of the year with a final adoption in 2007.
- The final IWM strategy must go beyond ‘Real World’ thinking to the ‘Real Real World’ where climate change means that we need to be radical to be sustainable.

2.2.2 Graham Warren (Campaign to Protect Rural England)

Former Environment Agency Water Resource Manager for Kent Area. He raised a number of concerns and options related to water resources:

- The Water Framework Directive may require Mid Kent Water to relinquish a large proportion of their groundwater sources. Hence there is great uncertainty in future availability of water resources;
- Water Efficiency – recognised as important but very little progress seems to have been made in making new build homes water efficient;
- Broad Oak reservoir failed to be commissioned at the last attempt because of failure to meet environmental targets. Since then, the targets have got tougher.
- Inter-regional transfers of water are important – we should get water from Thames and beyond.
- Effluent re-use needs greater consideration that it has enjoyed thus far in the IWM study;
- Winter storage ponds on the East Stour floodplain would provide multiple benefits.

2.2.3 Lee Dance (Mid Kent Water)

Water Resource Manager for Mid Kent Water Ltd. Responding to Mr Warren:

- Broad Oak is just one option that is being considered as is nothing more than that at this stage;
- Mid Kent is working with the EA and Ofwat on feasibility investigations of large schemes, which may include headwater storage;
- Wastewater re-use is supported but in the last round water resource planning, the economics did not stack up as well as other options and needs further investigation;
- Water efficiency is important but there needs to be consistency across the South East.

2.2.4 Nigel Hepworth (Environment Agency)

Principal Water Resource Planner.

- The effects of the Water Framework Directive are currently unknown;
- Demand management will continue to develop through household metering, leakage control and greater efficiency;
- The IWMS will have the opportunity to influence the re-evaluation and screening of options in the next periodic review for 2010-2015 and the next review of the regional water resources plan;
- The current funding situation means that Ofwat's decisions on economics are important

2.2.5 David Walton (Folkestone & Dover Water)

General Manager.

- Folkestone & Dover's main interest is in that they take water from both Mid Kent and Southern;

- Ashford could impact on Folkestone & Dover and *vice versa*;
- He reminded the group that the water companies work in a regulated environment;
- There is currently no clarity on whether the Water Framework Directive will lead to large reductions in groundwater abstraction. We will have a better idea when planning for the next periodic review.

2.2.6 Dr Alan Holmes (Water Voice)

- Who pays for the water infrastructure for the extra development in Ashford? It should not be water customers;
- Expressed concern at the Margate-Broadstairs scheme, in the Lower Stour, that will throw away clean water;

2.2.7 John Spence (Southern Water)

Wastewater & Environmental Strategy Manager

- Effluent re-use takes many forms but in the UK, attempts have been met by public opposition;
- In the Margate scheme, the constraint was the discharge consent, however, T-pieces have been put in the pipeline so that the treated effluent can be redirected elsewhere, e.g. for re-use, in the future.
- It is worth reviewing the aspirations of the IWMS, as set out in the study brief, that the Steering Group agreed to. The brief talks about assessing the capacity for the growth of Ashford, an examination of the economics and investment required. The emphasis should be on environmental science rather than engineering;
- What Southern want from the study, and the EA, is where to discharge and to what standard; the relevant planning consents in time to meet demand from the development; and an appropriate funding mechanism;
- Solutions need to be robust;
- They need comply with the Urban Wastewater Treatment Directive, the Water Framework Directive;
- Performance should be tried and tested;
- Investment needs to be available for the medium and long term;
- The technology needs to be modular so that it can expand in line with the growth of the demand.
- Southern are starting to deliver the first phase infrastructure for the Ashford growth. AMP4 funded plans include upgrade of main sewers and an increase in Bybrook capacity by 2008.
- The strategic requirements for the following period (2010-2015) have been flagged and are currently based on an expansion to Bybrook.

2.2.8 Paul Bolas (Salmon & Trout Association)

Independent consultant, former chemist at Mid Kent Water.

- The River Stour downstream of Ashford is a high value salmonid river. It is in a critical state because of effluent input and is very sensitive.

Focusing on a single parameter: temperature

- Winter: Oxygen uptake is fast, because it dissolves in the river water well and there is low demand;
- In summer: oxygen is lost from the water at night and is produced by plants during the day. Therefore, there is a strong diurnal variation. In late summer, when temperatures are high, oxygen levels are low and there is a high risk of fish stress and mortality. The critical time is at dawn, when levels are lowest;
- Increased temperature from warm effluent and climate change increases the risk of a fish kill. The dissolved oxygen only has to fall below the critical level once to kill.

2.2.9 Peter Bracher (Stour Fisheries Association)

A retired brewer who has fished the Stour for many years.

- Observations of the Stour over the last 10-15 years show signs of deterioration: lower flows; more silt and mud, which has altered the plant life; fewer river flies.;The character of the river has changed, it seems more flashy;
- The Chalk stream character must be embraced and enhanced by the planners;
- There needs to be more Chalk water to give greater dilution;
- There needs to be more clean flow and more dissolved oxygen;
- The quality of discharged effluent needs to be improved;
- There needs to be more effort on water efficiency;
- Although the IWMS is welcomed, there is concern about the time that it is taking to debate and plan water infrastructure and a strategy. Sustainability and the environment appears to be out of step with the building that is going on at the moment;

2.2.10 Richard Moyse (Kent Wildlife Trust)

Senior Conservation Officer

- The ODPM sustainability policy calls for environmental enhancement;
- Concerning robustness: some technical fixes are questionable. There is a need to work with the naturalness of systems, but there is a problem of there being many unknowns about these systems and a lack of data;
- We need to minimise interference with the river by abstractions and import/cross catchment transfer of water;
- The naturalness of the floodplain should be kept.
- He liked the designs of wide river corridors proposed by Studio Engleback, as part of the GADF work;
- Wetlands and SUDS should be used to wherever possible;

- Maintaining the Chalk characteristics of the Stour will be very hard. The only solution is to reduce abstraction from the Chalk aquifer. This is likely to cause a big conflict between the needs of the environment and the needs of society;
- If development is not compatible with government policies on sustainability then questions should be asked at the very top about how the human vs. environment conflict should be resolved.

2.2.11 Jon Shelton (Kentish Stour Countryside Project)

Director

- Ashford has a good network of green corridors containing Biodiversity Action Plan (BAP) species, such as water voles and white-clawed crayfish; Green corridors in Ashford need to be kept and enhanced to maintain and encourage these species;
- The countryside project works with local farmers and assists them with their stewardship schemes.

2.2.12 Peter Dowling (Stour Internal Drainage Board)

Drainage Engineer

- The IDB has concerns about the proposed targets for run-off rates and the potential impacts downstream. It should be aimed to get urban run-off down to as close to the natural run-off as possible, including re-development sites. There is currently an opportunity to rectify past mistakes by returning previously developed sites to the natural rates when considered for re-development. Accurate run-off rates need to be calculated for each development area, rather than the current average that is used for the whole of Ashford;
- Drainage schemes must be designed taking full account of climate change predictions, particularly when calculating storage capacity;
- There are concerns about how SUDS will be maintained;
- There are also some concerns on water quality issues, in particular the impact on the marsh systems in the Lower Stour, which contain many designated conservation sites

2.2.13 Ted Craker (Ashford Borough Council)

Drainage Engineer

- Flood risk to the existing development must not increase. Development in the floodplain must not make levels increase;
- Concerned about a water management strategy that is reliant on high maintenance schemes, such as SUDS. Who will manage them?
- Robust, reliable solutions are needed;
- Runoff rates for drainage need to be investigated and agreed.

2.2.14 Alan Turner (Kent County Council)

Principal Regeneration and Projects Officer

- The IWMS needs to indicate the environmental constraints on development. If the impacts cannot be avoided then it calls into question the capacity of the area for growth;
- Many problems in the past have resulted from the fragmented management of the hydrological cycle, a lack of information and a reductionist approach to problem solving;
- KCC is signed up to growth in the county, but only within constraints of the county's environment;
- KCC is working on including water efficiency in the design guidance for the whole of Kent;
- The IWMS needs to consider all the infrastructure requirements in an integrated, systematic approach. We don't want to inadvertently make the situation worse. It also needs to put aside constraints to consider more creative options and then consider the changes required of the current structure/system;

3 Afternoon Session

The participants were split into three groups that completed three discussion sessions to discuss how options could be combined into an integrated strategy based on three different approaches:

- **Technical** – what is the most technically robust solution for delivering quality;
- **Economic** – what is the most cost-effective solution for addressing the identified problems;
- **Acceptability** – what public and political views and perceptions will need to be changed for a IWM strategy to succeed;

The following tables summarise the main points from the discussions. They are organised around the individual options, in most cases:

WS1 – Follow the Regional Water Resources Strategy	WW1 – All wastewater to Bybrook, Discharge to the Stour	EW1 - Redirect Mid Kent abstractions for river augmentation	FD2 - Sustainable Drainage Systems
WS2 - Reduce groundwater abstraction and use Broad Oak	WW2 - All wastewater to Bybrook, effluent to agriculture or remote wetland	EW2 - Supply treated effluent as a Non-Mains Water source	FD3 - Channels around the Civic Centre
WS3i - Reduce groundwater abstraction and re-use Bybrook effluent	WW3 - All wastewater to Bybrook, discharge to sea	EW3 - Cool WWTW effluent in a lake	FD4 - Upstream Off-line Storage
WS3ii - Reduce groundwater abstraction and use stored winter water	WW4 - Extend Bybrook + up to 4 natural technology works, discharge to Stour	EW4 - Cool WWTW effluent by injection into alluvium	FD5 - Raise upstream dams
WS4i - Transfer in extra water from within Kent/Southern Region	WW5 - Extend Bybrook + natural technology works, effluent to agriculture or remote wetland	EW5 - Wetland Creation close to treatment works	FD6 - Raised Defences
WS4ii - Transfer in extra water from outside Southern Region	WW6 - Extend Bybrook + up to 4 natural technology works, discharge to sea	EW6 - Agri-land Management	FD7 - River Conveyance Improvements
	WW7 - Extend Bybrook + new conventional works, discharge to Stour	EW7 - Green Roofs	FD8 - Combination of Flood Risk Options

	WW8 - Extend Bybrook + new works, effluent to agriculture or remote wetland	EW8 - Greywater diversion
	WW9 - Extend Bybrook + new works, discharge to sea	EW9 - Increase river flows from Flood Alleviation Scheme
		EW10 - In-stream modifications to enhance river velocities

3.1 Technical

Issues and preferred options/strategy components:

Session 1	Session 2	Session 3
WS3i - Accepted that “direct” reuse was not done in UK and would probably be unacceptable on public perception grounds.	Water efficiency: what is achievable and how is it achievable and enforceable? 9% improvements from Building Regs suggested.	WS1 - There was some confusion about the role of regional strategy in relation to the IWM study.
WS3i -But what about “indirect” reuse e.g. Hanningfield, only about 50 metres downstream of discharge? But if indirect reuse it would have to be put back into Stour with inherent temperature problems. Treated “reused” water could be used to reduce GW abstractions and/or reduce yield required from future strategy (Broad Oak or whatever was proved best solution). It would require land for new water treatment works alongside/close to Stour downstream of Bybrook. Abstractions subject to Stour baseline study.	Conjunctive use of abstraction points should be used – use abstractions away from the rivers at critical periods. A suggestion was put forward for an investigation into adding boreholes for the Chilham and Godmersham GW sources further away from Stour. At present pumping has immediate effect on river level – especially in summer. If new boreholes sunk in chalk something like 3km away from Stour then these could be used in summer to reduce immediate effect on Stour and the original boreholes and existing compensation boreholes could be used for water supply and recharging the new boreholes respectively. The Study would have to consider yields, effect on flows from springs and feasibility of recharge. Could reduce reliance locally on a Broad Oak or alternative.	WS3i - Reuse should be employed where possible.
EW3/4 - Solution may be cooling river water and/or effluent, specifically a heat pump which could then re-circulate heat to treatment process (eg digesters). Cooling effluent considered better. If cooling effluent it would probably be better to centre treatment at Bybrook.	EW3/4/5 - Of the sub-options presented only injection into the alluvium was thought to have any cooling benefit.	WS3ii - Winter storage would have to be offline and could conflict with flood prevention measures. Also reliant on weather patterns.
EW5 - It was thought that reed beds could increase effluent temperature in summer.	EW7 - Green roofs: are they a good idea? Green roofs reduce runoff in summer - is this a resource lost to evaporation? Green roofs themselves may	Desalination? Where would it come from? Point made that desalination doesn't have to be just sea water but better if diluted with effluent to reduce

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Session 1	Session 2	Session 3
	need irrigation during dry summers, otherwise they can die back and become ineffective or an eyesore. What is driver for green roofs etc? There needs to be an ABC policy and made them a condition of planning permission. But if this is challenged in appeal, which is upheld, then policy is dead	salinity = less power intensive.
FD2 - Question mark over reliability of SUDS. Need to be maintained therefore should be responsibility of LA not developer. While 100% SUDS is target in practice a lower figure is likely to be achieved.	EW8 - Existing greywater systems are generally all small scale and require traditional backup to treatment systems. Is it better to centralise treatment?	WW4/5 - Further investigation of 'natural' wastewater technology needed. Natural treatment – high risk, high land take, needs good management, odour in town?, temperature sensitive, possible pilot at Bybrook, developers in Kent looking to develop wetlands – possible co-operation.
FD8 - Combined flood risk measures – but perhaps not all, because some, like channel improvements, may make worsen habitat quality.	WW4/5 - What is 'natural' treatment and will it still need a conventional back-up, like BedZed? Traditional treatment is more controllable/ robust.	FD2 - Concerns expressed on adopted natural rate of runoff/ground conditions and its effect on flooding. Affects factor of safety in calculations. It was thought that the SUDS target in reports should be reworded to reinforce the idea that 100% is the inspirational target but the figure taken in flood calculations is realistic figure to include factor of safety.

3.2 Economic

Mike Pugh distributed copies of a spreadsheet that provided weighted normalised scores for each of the 32 shortlisted system-based strategies and described its derivation, highlighting the crude assumptions used to derive the scores

Session 1	Session 2	Session 3
Funding sources could include: Section 106 agreements, water bills and a 'Sustainable Infrastructure Levy'	The group challenged the economic scores, suggesting that WS1/WS2 should be the most economic since they represent the regional strategy ('Broad Oak' being considered as a generic name for a long-term future resource(s))	The group proposed an amendment to the definition of WS3i : Reduce groundwater abstraction and maximise re-use of Bybrook effluent The revised strategy would put more potable water into the system than would be needed just to replace the loss of Chart Leacon abstractions, and would result in a slightly lower unit cost of production from this source, due to some economy of scale.
Ecological Water (EW) options are relatively cheap and so should be adopted unless there are acceptability or technical reasons.	WS1 should be cheaper than WS2 , since the greater Peak Daily Output will defer the need for any post-Broad Oak resource. However, the currently unknown implications of the Water Framework Directive with	WS3ii - Winter water storage could be done cheaply by digging holes upstream of the Aldington hydrobrake. One member of the group indicated a preference for WS3ii (use of stored winter water). A

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Session 1	Session 2	Session 3
	respect to groundwater abstractions may over-rule this choice.	number of problems and concerns related to this strategy were aired.
	Queried the CAPEX score (3) of WW4 (Bybrook + natural system WWTW) relative to WW1 score (4), since sewerage costs would be considerably less (though land costs would be incurred in WW4)	WW4 - There is an issue about the reliability of innovative technology. Land needs to be kept available to allow systems to get a track record.
	WW4 - The lack of information means that its costing scores can't be relied upon;	WW4 - The group expressed some concern about uncertainties relating to the use of natural processes for WWTW (performance, reliability, cost, land take) and felt that the inclusion of such in any strategy should be delayed until a reasonable track record had been built up. Otherwise Southern Water may be reluctant to take responsibility for such a process.
	Also queried low OPEX score for WW1 (2), since O&M costs would simply be pro-rata the flow.	WW7 (Bybrook + second works) + EW7 (Wetland close to works) could be good if the right quality can be achieved;
	Funding could come from an infrastructure tax	Preferences for the choice of WW options in any integrated strategy were:
	Ofwat is charged with limiting water price increases and this may constrain funding and development.	WW7 plus EW5 (a conventional southern works discharging to an integral wetlands area immediately downstream);
	It was felt that CAPEX for all strategies having new works sites should be revised upwards (scores reduced), so the group reserved judgement on the preferred WW strategy.	WW1 plus WS3i (Follow the regional strategy, but replacing (most) groundwater abstractions in the Ashford supply zone by treated water abstracted from the Stour immediately downstream of Bybrook.
	Water company representatives in the group felt that Ofwat might cap approval for large investments in infrastructure. As consultees to new development applications, they would therefore have to object, thereby constraining Ashford's growth.	

3.3 Acceptability

In order to structure the session, BL suggested that consideration was given to the acceptability of options 'available' for each water management system in turn: Water Supply, Wastewater, Ecological and Flooding

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Session 1	Session 2	Session 3
<p>WS3i (Reuse of Bybrook effluent) discussed despite not being an option available. Public perception will be key issue and will ultimately be determined by water quality. Acceptability likely to be greater if re-use is achieved via natural system. Low flows in River Stour are considered to be a problem therefore would reduced effluent inputs (likely under the reuse option) be acceptable?</p>	<p>WS3i – featured strongly in discussion again and considered to be acceptable providing effluent passes through some natural system. It would help minimise waste and possibly reduce temperature. It was felt that existing schemes at Thanet and Chelmsford would provide sufficient argument for winning public perception.</p>	<p>WS2 – question acceptability in terms of ‘value for money’ under a water shortfall scenario (likely with climate change). It would not be good to build Broadoak or equivalent just to compensate for ground waters</p>
<p>WS - Desalination – decreased costs will increase acceptability.</p>	<p>WW2 and WW5 discussed – it was considered that there is limited use for treated effluent in Agriculture, although golf courses may be an option.</p>	<p>WS3i - Reuse favoured and considered acceptable if “indirect re-use.” This option would need careful design and should be blended into water supply systems. It may become increasingly important and acceptable in light of climate change.</p>
<p>WW2 - Bybrook has space and therefore is less likely to involve conflict.</p>		<p>Questioned mechanism for selecting wastewater options as WW1 And WW7 may be more acceptable to public that WW2, WW4 & WW5. A single works in town would be more acceptable than 5 across the area – NB perception of treatment works ‘smell’.</p>
<p>WW3 & WW4 - Natural technology options may not be acceptable due to NIMBYism. However, it was agreed that new build houses would avoid the NIMBY problem as those people moving to a new estate / area would be aware of the treatment system. Not all on the group agreed to this. Many people move into houses close to existing WTWs and then subsequently complain that it smells.</p>	<p>Combination of WW4 and WW5 preferred. Wetlands acceptable for polishing.</p>	<p>Small wastewater treatment works tend to be less reliable.</p>
<p>WW4 and WW5 preferred because of discharge via wetlands / agriculture.</p>	<p>EW3, EW4 and EW5 all considered acceptable</p>	<p>WW4 - Cost of natural systems may be higher than conventional. Natural works still need screening filters etc... like conventional systems.</p>
<p>EW3 – Cooling effluent via lake was considered to be acceptable but it would need tertiary treatment before hand</p>	<p>EW7 – Green roofs on large public buildings only</p>	<p>EW3 – Not acceptable as it would warm the lake</p>
<p>EW4 – Cooling effluent via alluvium is publicly acceptable but will have issues on ground water</p>	<p>EW10 – May be construed as a ‘cheap fix’. River enhancement should be achieved by natural options (that alter the overall flows)</p>	<p>EW4 – acceptability not the issue as this is a very technical option and a specialist investigation would be necessary.</p>
<p>EW5 – Considered as being a</p>	<p>FD8 – Canalisation under FD7</p>	<p>EW7 – acceptable on large</p>

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Session 1	Session 2	Session 3
<i>no brainer</i> - very acceptable! But it must be created for its purpose – effluent wetlands will not be as high quality as those intended purely for biodiversity.	not considered to be acceptable – should consider possible bypass channel.	public buildings
EW7 – Green roofs likely to be acceptable on public buildings and car parks.		FD2 – Ownership, Management and Funding needs to be addressed.

4 Lessons Learned

4.1 What worked well

4.1.1 Workshop planning

A detailed plan was produced for the day to ensure that all aspects of room booking, catering, room layout and materials were confirmed to ensure that day ran as smoothly as possible. The plan was sufficiently flexible to be adjusted on the day to suit the situation as it evolved.

4.1.2 Range of participants

The range of stakeholders who attended was very good and covered the broad spectrum of interests and responsibilities. The only major party missing was Ofwat, who were invited but gave apologies for not being able to attend. As the study moves to a conclusion, it will be essential to engage Ofwat in the process and ensure that they are supportive of the strategy. A strategy that relies on water company investment but does not have the support of the economic regulator cannot be implemented.

4.1.3 Participant Presentations

This worked extremely well. Polite and assertive chairmanship was used to keep presentations and discussions concise and to time. I picked out participants in an order where I knew their views would complement the previous speaker. This meant that discussion as a whole formed a circle:

- Planning (Steve Boxall/Dan Epstein)
- Water Resources/Supply (Graham Warren, Lee Dance, Nigel Hepworth, David Walton, Dr Alan Holmes)
- Wastewater/Water Quality (John Spence, Paul Bolas)
- Water Quality/Biodiversity management (Peter Bracher, Richard Moyse, Jon Shelton)
- Drainage management (Pete Dowling, Ted Craker)
- Planning and integration (Alan Turner)

It was a very intense two hours and it was important for the group to have a break afterwards, therefore I altered the agenda so that I presented the IWMS work after lunch, rather than before, to give participants time to relax and discuss the issues further among themselves.

4.1.4 Timing

The two-hour period in the morning was excellent, but intense and could not have gone on longer and still been productive. Consequently, the explanation of the afternoon session was moved to after lunch to allow the participants to relax and informally discuss the issues raised by the morning session.

The timing of the afternoon session worked reasonably well. Having three 45-50 minute discussions seemed to break things up sufficiently to prevent the discussions from stagnating.

The workshop finished on time, at 16:00 and given the intense debates during the day, it felt like the natural time for the day to end.

4.1.5 Small discussion groups

The advantage of having the smaller discussion groups was that it meant that some of the more vociferous participants were not able to dominate all of the discussions and conclusions.

4.2 What did not work so well

4.2.1 Preparation time

Although there had been some consideration of the workshop during the month leading up to the workshop, most of the prep work was not done until the week before. This was too late and led to some very long working days to get things ready and I was not able to brief BV and the Agency attendees as thoroughly as I would have liked.

4.2.2 Afternoon workshop sessions

The purpose of the afternoon sessions was try and the participants to consider the individual options within an integrated framework. The aim was identify potential benefits and conflicts of particular combinations of options to steer BV's development of a preferred integrated strategy.

The difficulty was having a structured discussion where everyone could quickly make sense of the detail and complexity of what we were asking. I prepared various posters and graphics to try to make the discussions more accessible. However, I should have given more time to briefing the BV staff and done a test run to make sure that the discussion structure worked. Despite this shortcomings, useful points were extracted that will be helpful to the ongoing work.

5 List Participants

Name	Organisation	Name	Organisation
Ted Craker	Ashford Borough Council	Dr Binny Buckley	Environment Agency
Steve Boxall	Ashford's Future	Sean Furey	
Dan Epstein (part)	Ashford's Future	Nick Williams	
Graham Warren	Campaign to Protect Rural England	Peter Taylor	
David Walton	Folkestone & Dover Water	Nigel Hepworth	
Alan Turner	Kent County Council	Robert Kenway	
Richard Moyse	Kent Wildlife Trust	Barrie Neaves (part)	Black & Veatch
Jon Shelton	Kentish Stour Countryside Project	Mike Pugh	
Lee Dance (part)	Mid Kent Water	Ben Lutyens	
Peter Dowling	River Stour Internal Drainage Board	Alan Chitty	
Paul Bolas	Salmon & Trout Association	Trevor Watson	
John Spence	Southern Water		
Peter Bracher	Stour Fisheries		
Alan Holmes	WaterVoice		

Apologies:

Simon Bandy, English Partnerships; Teresa Bennett, English Nature; George Day, Ofwat;
 Judith Feline, Environment Agency