Wiltshire Council
Where everybody matters

AGENDA

Meeting: Environment Select Committee

Place: Committee Rooms A - B, Monkton Park, Chippenham

Date: Tuesday 10 May 2011

Time: **10.30 am**

Please direct any enquiries on this Agenda to Sharon Smith, of Democratic and Members' Services, County Hall, Trowbridge, direct line (01225) 718378 or email sharonl.smith@wiltshire.gov.uk

Press enquiries to Communications on direct lines (01225)713114/713115.

This Agenda and all the documents referred to within it are available on the Council's website at www.wiltshire.gov.uk

Membership:

Cllr Chuck Berry
Cllr Rosemary Brown
Cllr Nigel Carter (Vice Chairman)
Cllr Peter Colmer
Cllr Peter Doyle
Cllr Jose Green
Cllr Mollie Groom (Chairman)
Cllr Alan Hill
Cllr Chris Humphries
Cllr Tom James MBE
Cllr Ian McLennan
Cllr Stephen Oldrieve
Cllr Leo Randall

Substitutes:

Cllr Jane Burton
Cllr Trevor Carbin
Cllr Chris Caswill
Cllr Nick Fogg
Cllr Russell Hawker
Cllr Charles Howard
Cllr George Jeans
Cllr Julian Johnson
Cllr Howard Marshall
Cllr Jeffrey Ody
Cllr Anthony Trotman

PART I

Items to be considered while the meeting is opened to the public

1. **Apologies and Substitutions**

2. **Minutes of the Previous Meeting** *(Pages 1 - 6)*

   To confirm and sign the minutes of the Environment Select Committee meeting held on 2 March 2011.

3. **Declarations of Interests**

   To receive any declarations of personal or prejudicial interests or dispensations granted by the Standards Committee.

4. **Chairman's Announcements**

5. **Public Participation and Councillors Questions**

   The Council welcomes contributions from members of the public.

   Statements

   If you would like to make a statement at this meeting on any item on this agenda, please register to do so at least 10 minutes prior to the meeting. Up to 3 speakers are permitted to speak for up to 3 minutes each on any agenda item. Please contact the officer named above for any further clarification.

   Questions

   To receive any questions from members of the public or members of the Council received in accordance with the constitution. Those wishing to ask questions are required to give notice of any such questions in writing to the officer named above (acting on behalf of the Director of Resources) no later than **5pm** on **Tuesday 3 May 2011**. Please contact the officer named on the first page of this agenda for further advice. Questions may be asked without notice if the Chairman decides that the matter is urgent.

   Details of any questions received will be circulated to Committee members prior to the meeting and made available at the meeting and on the Council's website.

6. **Housing PFI Update** *(Pages 7 - 10)*

   The Committee has had a long standing interest in the progression of the Housing PFI project, receiving reports in November 2009, May 2010 and an oral update from the Project Manager in July 2010. In the last update members learnt that Cabinet had approved the agreement and it was hoped that following scrutiny from central government the project would commence to provide 350 new social rented homes over 2 phases.

An update on the status of the PFI Project is now provided and the Committee is asked to consider its content and raise any comments or queries with the Cabinet Member for Economic Development, Planning and Housing.

7. **Preliminary Flood Risk Assessment** *(Pages 11 - 48)*

The Committee considered a report on Flood Risk Management in September 2009, where the proposed Flood Management Strategy was outlined together with the progress made against the Pitt report recommendations.

The Committee is now asked to consider the work of the Flood Working Groups and the progress made against Flood Risk Management in Wiltshire. Members are also asked to approve the draft Preliminary Flood Risk Assessment, which the Environment Agency has recommended should be considered by scrutiny before formal approval.

8. **Carbon Management Plan** *(Pages 49 - 118)*

The Committee at its previous meeting held in March 2011 received an update on the Carbon Reduction Commitment Energy Efficiency Scheme. During the subsequent debate members invited the Head of the Energy Change and Opportunity (formerly Climate Change) Team to return to the next meeting of the Committee to present the latest version of the Council's Carbon Management Plan, which is the principal means of reducing the Council's Carbon Reduction Commitment liabilities.

A report setting out the Council's Carbon Management Plan 2010-2014, as the first of four action plans under the Council's recently adopted Energy, Change and Opportunity (ECO) Strategy is now attached for consideration.

9. **Scrutiny of Procurement and Commissioning**

The Organisation and Resources Select Committee at its meeting held in November 2010 considered a report on the challenges faced by the Council in driving a more focused and professional approach into the Council's procurement and commissioning activities and outlined options on how best to scrutinise this area of work in the future.

Following on from the decision taken by the Select Committee, the Liaison Board considered a report which provided details of the proposed approach to future scrutiny of procurement and commissioning.

Restructuring has since taken place since the preparation of the report within the Resources directorate in response to budget restrictions and this has reduced the amount of dedicated resource available to Scrutiny.

With this in mind the Liaison Board resolved that future scrutiny of procurement and commissioning would be dealt with by way of one dedicated Procurement and Commissioning Task Group which would report directly to the Organisation and Resources Select Committee, replacing the Major Contract Task Groups. The focus of work would move away from individual contract reviews to focus on the overall procurement and commissioning programme, as detailed in

the Business Plan. Task Group membership will consist of one representative from each of the four select committees in addition to Cllr Tony Deane and Cllr Nigel Carter, who have led on a number of scrutiny activities into procurement and commissioning.

To ensure consistency and to retain the knowledge gained by the individual Major Contract Task Groups, it is anticipated that each Select Committee will appoint a member who sat on their respective Major Contracts Task Group.

Recommendation:

To agree to the disbandment of the Environment Select Committee's Major Contracts Task Group;

To approve the new Task Group arrangements for scrutinising procurement and commissioning; and

To nominate a member to join the new 'Procurement and Commissioning Scrutiny Task Group'.

10. **Project Board Update**

This item is included within the agenda to allow the Committee to receive updates from scrutiny representatives on Project Boards where updates are available. At the last meeting of the Committee members requested the scrutiny officer to find out what progress had been made towards delivery of the Gypsy and Travellers Strategy. This was in response to Cllr Green, scrutiny representative on the Board, who highlighting that there appeared to have not been a project meeting for a number of months. In response reassurance has been given from the project leads that a meeting will take place at the end of May with the reason for the delay down to the former project manager leaving the organisation at the start of the year.

11. **Business Plan** *(Pages 119 - 124)*

The Overview and Scrutiny Liaison Board at its meeting held on 10 February 2011 considered the draft Business Plan in order to determine how best to scrutinise the Plan relevant to each Committee prior to consideration by Council on 22 February where it was formally adopted.

The scrutiny officer in consultation with the chairman and vice-chairman has now been through the Business Plan and themes relevant to the Environment Services Select Committee identified.

The Committee is now asked to consider the report attached which includes details of the identified themes.

12. **Forward Work Programme** *(Pages 125 - 128)*

A copy of the draft Forward Work Programme is attached for consideration.

13. **Urgent Items**

Any other items of business which the Chairman agrees to consider as a matter of urgency.

14. **Date of next Meeting**

5 July 2011.

PART II

Items during whose consideration it is recommended that the public should be excluded because of the likelihood that exempt information would be disclosed

NONE

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ENVIRONMENT SELECT COMMITTEE

DRAFT MINUTES OF THE ENVIRONMENT SELECT COMMITTEE MEETING HELD ON 2 MARCH 2011 AT COMMITTEE ROOM III, COUNTY HALL, TROWBRIDGE.

Present:

Cllr Chuck Berry, Cllr Nigel Carter, Cllr Peter Colmer, Cllr Peter Doyle, Cllr Jose Green, Cllr Mollie Groom (Chairman), Cllr Alan Hill, Cllr Chris Humphries, Cllr George Jeans (Substitute), Cllr Howard Marshall (Substitute), Cllr Ian McLennan and Cllr Leo Randall

Also Present:

Cllr Linda Conley and Cllr Jeff Osborn

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132. **Apologies and Substitutions**

Apologies for absence were received from Cllr Tom James and Cllr Stephen Oldrieve. Cllr George Jeans and Cllr Howard Marshall substituted respectively.

133. **Minutes of the Previous Meeting**

The minutes of the previous meeting were approved and signed as a correct record.

134. **Declarations of Interests**

There were no declarations of interest.

135. **Chairman's Announcements**

A report on scrutiny of the Business Plan adopted at Full Council would be presented at the next Committee meeting in May. This document would be key to assist the Committee in the shaping of its future work programme.

Members would note that the two key items on the agenda included reference to their position within the Business Plan.

136. **Public Participation**

There was no public participation.

137. **Waste Collection and Recycling Service**

Following the Committee's longstanding interest in the transformation of the waste service, the Chairman requested that an update be provided on the current position with regards to service provision following approval by Full Council on 22 February 2011.

The Service Director Waste Management Services and Head of Waste Management Transformation were in attendance to answer questions arising from the debate.

The Chairman requested that members focus on the timetable for the service changes and associated risks and challenges.

Discussion commenced with members raising concern over the capacity required by residents across the County to host the additional waste collection bins for plastic and cardboard. It was expected the sizing of the additional recycling bins required would be approximately 240 litres for the majority of households (although this had yet to be confirmed).

Confirmation was provided by the Service Director that where residents were unable to accommodate the additional bins (such as flats/apartments) the individual needs of those residents could be further discussed with the Council to consider alternative options. A policy to address this issue was to be submitted to the Cabinet member for consideration.

The Council currently offered an assisted collection service for eligible residents which would remain as part of the revised service provision.

Members also discussed green waste collection where, in the South of the County, a collection fee was currently in place. Although it was understood the revised service would no longer attract a fee for the collection of green waste members felt that, following budgetary cuts announced following the Comprehensive Spending Review, this could have perhaps remained a revenue stream for the Council.

The Service Director confirmed that the collection of green waste generated approximately 12,000 tonnes per year. As the Council was now expected to pay a set fee per tonne of landfill waste generated the service would provide savings in this area as well as reducing the methane emissions that green waste produced which were 20 times more damaging to the environment than carbon emissions.

Food waste collection was also raised as an area for potential consideration although clarification was provided that, due to cost, this would not be considered at the present time. The authority was however monitoring other

authorities who provided this service to ascertain the potential long term benefits.

The current contract for the collection of non-landfill waste ran until 2016 when there would be a further opportunity to review the service provided.

The Service Director confirmed that an order had been placed to meet the additional fleet requirements following approval by Full Council on 22 February 2011 and that the contract in place for the supply of the fleet included that, should there be a delay in delivery, the manufacturer was required to cover the cost of providing temporary vehicles until delivery of the additional vehicles had taken place.

Further discussion commenced in relation to carbon reduction commitments. Currently the Council was not required to pay any carbon tax on vehicles although this was likely to change over the next few years when further monitoring measures were expected.

The Committee noted the need for strong communication and monitoring of the service and that the Management Review undertaken to achieve budgetary savings had impacted on the communication workstream which included the information system. It was hoped that the information system (to include asset management and accessible across the county) would be active by October 2011. However contingency plans had been put in place to ensure storage of the necessary information was held until activation of the system if required.

Resolved:

1) To thank officers for the report.

2) To request that the Cabinet Member kept green waste charging under review.

3) To receive a further update on the Waste Collection and Recycling Service in July 2011.

138. **Local Transport Plan**

The Committee resolved at its previous meeting to conduct a rapid scrutiny exercise on the Local Transport Plan. This took place on 25 January 2011 and a copy of its findings was attached with the agenda, together with the Executive response.

The lead member of the group exercise introduced the report, thanked his fellow members to their assistance in the exercise and confirmed that the group had considered the public transport, road transport and freight strategies with all ensuing recommendations made by the group incorporated into the Plan by the Cabinet member.

Concern was raised over the length of time the scrutiny members had in order to review the Plan which had resulted in a need for the Committee to conduct a rapid scrutiny exercise. It was hoped that the development of the Business Plan endorsed by Full Council on 22 February which provided details of the authorities direction over the next four years would address this issue and allow the Committee to better plan its work programmes.

Further comments included that a mechanism should be in place to ensure that local aspirations were able to be fed into strategic documents produced by the Council and that Councillor involvement at an early stage was needed.

Further clarity was also requested on the impact that any reduction on concessionary fares would have on operations where it had been indicated that this would result in a reduction on the number of services run, and further information on the competition that existed on commercial routes.

Resolved:

To note the Rapid Scrutiny Exercise report and response from Cabinet to the recommendations made.

139. **Carbon Reduction Commitment Energy Efficiency Scheme**

The Committee had a longstanding interest in the work undertaken by the authority to improve energy efficiency around Wiltshire with the Committee receiving an update on the Council's Carbon Reduction Commitment in July 2010.

Following stories arising from the media in January 2011 relating to the council now expected to pay a £600k levy, a report providing an outline of the carbon reduction commitment energy efficiency scheme and what this would mean for Wiltshire Council was requested.

The Head of Climate Change was welcomed to the meeting to present the report where clarification was provided that, since consideration of the Council's carbon reduction commitment (CRC) in July, the proposed carbon trading scheme had since been removed following central governments Comprehensive Spending Review and replaced with a levy based tax on carbon emissions per tonne. This equated to a £600k levy which would now be paid retrospectively.

Central government was also expected to replace the national indicator set with a single data set and the Council was currently consulting in relation to the form this would take. Further details were expected to be available from July 2011.

Although the work being undertaken to reduce carbon emissions in relation to assets was noted, the Committee felt that further work could be undertaken to

ensure that employees were also fully briefed and on board with the need to reduce carbon emissions across the authority.

The Head of Climate Chance confirmed that much work had been undertaken on behaviour change which had not been included within the report and that a lot of work had been undertaken on the Carbon Management Plan which could be presented to the Committee at a future meeting.

At present the Council had agreed to take responsibility for the cost of school carbon emissions for the first year, noting that school buildings in Wiltshire currently equated to approx 40% of the annual CRC carbon emissions. This would include responsibility for those schools opting out of authority control (i.e. academies) although the issue of emissions from academies was to be addressed.

Further comments included that a breakdown of the annual spend and how it was distributed would have been useful information to allow the Committee to better scrutinise the scheme. The Committee also requested that details of the potential savings, in terms of electricity and carbon emissions, turning off street lights had and, accordingly, asked that Mouchel be requested to clarity the cost per light.

The first league table, which would show how well organisations were cutting their carbon emissions, was to be published in October 2011 and would include data for the last 3 years. As the Council did not hold some historic energy data (due to Unitary status) and had been hindered by the roll out of smart metres, its position in the first year's league table was likely to be low.

Resolved:

1) To thank the Head of Climate Change for the report.

2) To receive an update on the Carbon Management Plan at the Committee's next meeting in May 2011.

3) To request that Mouchel provides the cabinet member with the individual costs of lighting.

140. **Budget Monitoring**

The Chairman reminded the Committee that, as previously agreed, reports would be submitted for the Committee's consideration by exception.

Resolved:

To note that budget monitoring reports would be provided to the Committee by exception.

141. **Housing Commission Board**

The key points arising from the recent Housing Commission Board meeting and as included with the agenda were presented by the Scrutiny representative.

Clarification was provided that, since the inclusion of the update, a further meeting had taken place which had been attended by both the Chief Executive and Deputy Leader where grants to encourage the provision of insulation was discussed.

At the Board meeting the Chairman of the Housing Commission Board indicated that the government had now set the agreement buy out rate at £119m. In order to make the 30 year business plan sound they were expected to offer favourable rates to take them on. Central government were also expected to announce details of loans for photovoltaic sales.

A quality audit on where the Council currently stood and what needed to be done in the future would be undertaken in the Spring.

Resolved:

To thank the Scrutiny Representative for the update provided.

142. **Forward Work Programme**

The Committee noted the forward work programme provided.

Following discussion it was agreed that Gypsy and Traveller provision would be added to the plan for consideration at the Committee's next meeting in May.

143. **Date of next Meeting**

The date of the next Environment Select Committee meeting would be 10 May 2011.

144. **Urgent Items**

There were no urgent items for consideration.

(Duration of meeting: 10.30 am - 12.25 pm)

The Officer who has produced these minutes is Sharon Smith, of Democratic Services, direct line (01225) 718378, e-mail sharonl.smith@wiltshire.gov.uk

Press enquiries to Communications, direct line (01225) 713114/713115

Wiltshire Council

Environment Select Committee

10 May 2011

Housing PFI Update

Executive summary

Commercial agreement has been reached between the council and Silbury Housing Ltd in respect of the housing PFI 'deal'. However, these negotiations will need to be re-opened following receipt of the government's 'derogations' response. The project is currently delayed due to additional governmental approval processes. Despite public sector spending cuts, there is still a reasonable prospect of the project reaching a satisfactory conclusion, although not until later in the year.

Proposal

That the committee considers the attached report and raises any comments or queries with the Portfolio Holder for Housing.

Reason for proposal

As invited by the Chairman of the Environment Select Committee.

Author:

Contact details: Chris Trowell, PFI Project Manager – 01225 718053 or chris.trowell@wiltshire.gov.uk

Housing PFI Update

Purpose of report

1. To update the committee on the progress of the housing PFI project.

Background

2. Previous updates have been provided to this committee in November 2009 and May 2010.

Main considerations for the committee

3. The government's Spending Review made sponsoring departments accountable for the revenue implications of PFI projects. In response to this and the general reduction in departmental expenditure limits, DCLG withdrew financial support from 13 'pipeline' housing PFI projects and instigated a value for money review of the remaining programme.

4. The project continues to be delayed. Unlike at previous stages in the procurement, these delays are outside of the council and the bidder's control.

5. Committee may recall that the council has been negotiating the PFI contract with Silbury Housing Ltd (SHL), a special purpose vehicle owned by Devizes-based Sarsen Housing Association. The project is to provide approximately 350 new social rented homes, of which 242 will be in the first phase.

6. SHL has been the de-facto preferred bidder since June 2010, when cabinet resolved to enter into the PFI contract. It was hoped, at the time, that the contract would be signed in July 2010. However, commercial discussions continued into the autumn and, at that point, the project became embroiled in the Spending Review.

Value for money and cost savings

7. This has left 13 projects in procurement, including Wiltshire's. We were advised in November that value for money (VfM) assessments were being carried out and that decisions about individual projects would be made in December. In the event, the VfM review has proved more difficult than expected and feedback was not provided until March.

8. Two areas of Wiltshire's costs (maintenance and operational insurance) were assessed as being too high; all others were either good or very good. This is testament to previous negotiations to drive down costs and maximise VfM. Other projects (particularly regeneration based initiatives) will have had far more negative feedback on their costs.

9. Following further negotiations with SHL and based on a better understanding of how the VfM benchmarks were calculated, the two areas of concern have been addressed. However, it is clear that authorities are being invited to offer up additional savings and it would be helpful if, as a result of this, we were willing to accept less PFI credit (subsidy).

10. There is very little left to cut from the specification without affecting the quality of the homes and services provided to tenants. However, some potential savings have been identified on a commercial basis and a process is underway to agree these internally and with SHL. This will require formal sign-off by the Housing and Local Government Minister before the project can proceed further.

Project Agreement and derogations response

11. Commercial agreement on the PFI contract (Project Agreement) was reached in September between the council and SHL, and a schedule of 'derogations' (proposed changes to the Treasury/DCLG's standard forms of contract) was submitted for consideration by government, at the time.

12. Derogations feedback should normally take six to eight weeks to provide, but our response has only just been received. In this, the government has raised a number of issues and we will be working with SHL and the Homes and Communities Agency (HCA) to address the various points. This will require the previously agreed commercial position to be re-opened with the bidder.

Final business case

13. The final business case (FBC) is partly written, but the two most important sections – on VfM/affordability and contractual issues – cannot be completed until the above work streams have concluded.

14. Whereas DCLG previously had authority to sign off business cases for their sponsored projects, since April, the Treasury has applied a new approval tier for 'major projects'. This will add approximately an extra month to the programme.

Programme and financial close date

15. Commercial agreement on the project was reached with SHL during the autumn and, had it not been for governmental delays, it would have been possible to 'close' (sign) the project by the end of March, at the latest.

16. With the additional approval processes now in place and following discussions with HCA, it is apparent that financial close is unlikely to take place before autumn 2011. This creates pressures, for both the council and SHL, in terms of managing set up costs and stakeholder support.

Environmental impact of the proposal

17. The PFI homes will meet Level 3 of the Code for Sustainable Homes, which is currently the minimum requirement for social housing. Given the focus on cost savings, other projects are being encouraged to scale back their proposals from higher code levels.

Equality and diversity impact of the proposal

18. All of the homes will be built to Lifetime Home standards, meaning that they are suitable (and adaptable) for a wide range of occupiers, taking into account mobility needs etc.

19. Allocations to the general needs accommodation will be made through Homes 4 Wiltshire and the relevant policy has addressed equality issues.

Risk assessment

20. The housing PFI project is included on the corporate risk register, where the current risk rating is 'high'. The target rating of 'medium' is unlikely to be achieved until the FBC has been approved by government. The FBC will include a full risk assessment.

Financial implications

21. Please refer to the above sub-section in respect of value for money and cost savings.

22. Our predicted set up costs though to financial close are £2.4m. Provision has been made, within the 2011/12 budget, for the Council's revenue contribution to commence, assuming that the first units are completed within this financial year.

Legal implications

23. Please refer to the above sub-section in respect of the Project Agreement and derogations response.

24. There are no significant ethical governance issues affecting this report.

Options considered

25. None applicable.

Conclusion

26. Commercial agreement has been reached between the council and SHL in respect of the housing PFI 'deal'. However, these negotiations will need to be re-opened following receipt of the government's derogations response. The project is currently delayed due to additional governmental approval processes. Despite public sector spending cuts, there is still a reasonable prospect of the project reaching a satisfactory conclusion, although not until later in the year.

Background papers

None.

Appendices

None.

Wiltshire Council

Environment Select Committee

10 May 2011

Preliminary Flood Risk Assessment and Flood Risk Management

Executive Summary

The Council has established robust processes to monitor and manage flood risk in Wiltshire.

There is a requirement under the Flood Risk Regulations 2009 for the Council to prepare a Preliminary Flood Risk Assessment for Wiltshire. The draft document is included as **Appendix 1**.

Proposals

That the Committee:-

(i) Notes the progress made in improving flood risk management in Wiltshire, and the effective work of the Operational Flood Working Groups chaired by Councillors Seed and Hewitt.

(ii) Approves the draft Preliminary Flood Risk Assessment included as **Appendix 1** of the report.

Reason for Proposal

An assessment of flood risk has been undertaken using information on historic flooding and modelling work undertaken by the Environment Agency. The assessment confirms that there are no Flood Risk Areas in Wiltshire as defined by the regulations.

MARK BODEN
Corporate Director
Department of Neighbourhood and Planning

Wiltshire Council

Environment Select Committee

10 May 2011

Preliminary Flood Risk Assessment and Flood Risk Management

Purpose of Report

1. To inform the Committee of the current position with regard to flood risk management in Wiltshire and to consider the draft Preliminary Flood Risk Assessment (PFRA) for Wiltshire.

Background

2. Following the floods in Tewkesbury in 2007 the Government commissioned Sir Michael Pitt to undertake a review of flood risk management. The Pitt Review made a series of recommendations to improve resilience to such events, and the Flood and Water Management Act 2010 has taken forward many of the proposals to provide better and more comprehensive management of flood risk for people, homes and businesses.

3. The Flood and Water Management Act 2010 created a new role of Lead Local Flood Authority (LLFA) to co-ordinate flood risk management in their areas. In the case of two tier authorities this would be the County Council, or in the case of single tier authorities such as Wiltshire it will be the Unitary Council, who will be responsible for forming partnerships with other authorities and bodies.

4. The Environment Agency (EA) remains the body responsible for flood risk management nationally and for managing risks from main rivers, the sea and large raised reservoirs.

5. The regulations in connection with the Flood and Water Management Act 2010 are being enacted in stages. The LLFAs are responsible for managing local flood risk in particular from ordinary watercourses, surface runoff and groundwater. The LLFAs have a responsibility to prepare PFRAs for their areas by 22nd June 2011 in order to identify potential 'significant' flooding risk as defined by the legislation.

6. The value that Scrutiny can bring to the process is appreciated by the EA, and it was suggested that LLFAs should make arrangements for the PFRA to be considered by an appropriate Scrutiny Committee prior to submission.

7. A report on Flood Risk Management was originally submitted to this Committee on 11 September 2009 when the proposed Flood Management Strategy for Wiltshire Council was outlined and the progress being made with regard to implementing the Pitt Review recommendations was described. A further report was made in March 2010 to update Members about developments.

8. Since then considerable progress has been made in addressing flood risk in Wiltshire, and in carrying out the Council's duties in connection with the Flood Risk Management Regulations 2009. A key part of the legislation is the requirement to prepare a PFRA.

Main Considerations for the Council

Operational Flood Working Groups

9. Two Operational Flood Working Groups (OFWGs) have been set up to co-ordinate the Council's flood risk management. The Groups are chaired by Councillor Jonathon Seed in the north and Councillor Mike Hewitt in the south, and the areas of coverage align with the catchment areas of the main river systems in the county, and reflect the Local EA offices. These meetings are the Council's principal means of managing flood risk.

10. The meetings are attended by Council officers responsible for land drainage, emergency planning and spatial planning as appropriate. The meetings are generally held every two months, and are regularly attended by officers from the EA, and by others as necessary including water companies, Highways Agency, and Network Rail. Representatives of Town and Parish Councils can attend by invitation to discuss particular concerns.

11. The OFWGs have been very successful at co-ordinating drainage works with the EA and others, and in liaising with the Parish and Town Councils who have formed their own working parties to deal with local issues. The Local Groups are encouraged to liaise with local landowners regarding work required by others.

12. The work of the OFWGs has been identified as being good practise nationally, and they have been referred to at recent capacity building workshops arranged by DEFRA for Local Councils taking on the LLFA role.

Drainage and Flood Alleviation Works

13. The Council has provided funding of £500,000 annually to enable the implementation of flood alleviation and drainage improvement schemes. The projects are prioritised and co-ordinated through the OFWGs, with a number of schemes being undertaken in conjunction with the EA and others. Where possible joint funding is promoted as a means of progressing schemes.

14. The ability to undertake substantial construction works to address drainage and flooding problems has placed this Council in a good position compared to some two-tier authorities, where obtaining funding and agreeing on priorities can be difficult.

15. The list of drainage schemes undertaken each year by the Council is included in the Community Area Highway Information which is produced for each Area Board and is made available on the Council's website each April.

Flood Risk Awareness

16. Two Flood Risk Awareness events have been arranged in order to inform local communities about flood risk and offer advice about improving resilience. The first was held in Chippenham in April 2010, and following the success of that event a second was held in Salisbury in October 2010. Speakers attending included the EA, National Flood Forum, Met Office, Wiltshire Fire and Rescue, Local Flood Groups and the Council's Emergency Planning Team.

17. The events were well attended and provided information on how communities can help protect themselves and their properties. The role of local Flood Wardens was described and communities at risk are encouraged to develop their own flood plans.

18. The Council's Parish Newsletter, which is published in electronic and paper form, is circulated to all Town and Parish Councils and can be viewed on the Council's website. This has proved to be a good means of communicating with the Local Councils and providing information of Flood Warden training opportunities. The newsletter was used to advertise the Flood Awareness events and report local success stories and the work of the OFWG.

19. The Council provides gel-sacs at cost price to the Town and Parish Councils in response to requests from those who wished to hold their own supplies. The gel-sacs are similar to sandbags, but are filled with a gel that expands when wet, and when dry they are virtually flat. This means they are simple to store and far easier to distribute in an emergency. They inflate when immersed in water, allowing a protective flood barrier to be built quickly to protect doorways and airbricks. When the flood has abated they can often be reused.

20. The Council's Area Boards have been used to help collect information on previous flooding events. Displays have been put on at the Area Board meetings to raise awareness of flood risk and to show the simple measures such as the gel-sacs which can be used to help protect properties.

Flood Wardens

21. The Environment Agency Wessex Region established a network of flood wardens in the south of the county in 2003. This was a local EA initiative and wardens are not in place throughout the country. Following discussion at the OFWGs an offer has been made to Parish and Town Councils who wished to participate in the scheme.

22. Two Flood Warden training days have already been held in conjunction with the EA, and a number of Parish Councils have expressed interest. Additional training will be provided shortly. The Flood Wardens are the point of contact for the parishes for flooding matters and are trained by the EA on how to form a Local Flood Working Group and prepare flood plans.

Collection of Information on Flooding

23. The Area Boards have assisted in collecting information on historic flooding from Town and Parish Councils. This local knowledge has been invaluable in identifying areas subject to flooding and understanding the likely causes of the flooding.

24. A majority of the Local Councils have responded positively to this request for assistance, and the quality of the information collected has been very good. It has already informed the work of the OFWGs in considering priorities.

25. The Council's Area Highway Offices and other departments have provided help in identifying sites of frequent flooding and potential problems with drainage systems. Programmes of highway drainage surveys and repairs have been undertaken by the Council for a number of years, and the Council has previously been recognised by the Department of Transport for its positive approach to drainage asset management.

26. Recent mapping published by the EA on surface water flooding risk has increased the information available, and it will be augmented by Surface Water Management Plans (SWMPs) being developed initially for key areas likely to be subject to future development pressures.

27. The information held by the Council on watercourses, drainage systems and related infra-structure in the county is far from complete, but the records held by Wiltshire are substantially better than many authorities, and are being improved continuously.

Flood Plans

28. A significant amount of work has been undertaken recently to ensure Wiltshire Council is ready to respond to flooding. The Local Resilience Flood (LRF) Plan was prepared by the Council's Emergency Planning Unit and involved consultation with partner agencies. It is likely that further refinement of the multi-agency plan will take place shortly through the LRF Executive Group.

29. A Flood Plan for Wiltshire Council has recently been prepared to replace and update the previous Plan prepared by Wiltshire County Council in conjunction with the four District Councils. The new Plan incorporates guidance on roles and responsibilities for services within the Council, and establishes protocols for assistance and advice to the public.

30. In March 2011 the Wiltshire Flood Plan was tested in Exercise Watermark. This was a national desk-top exercise to respond to a serious flooding event nationally, and Wiltshire took the opportunity to test its own plans and procedures at the same time. The plan was effective and the lessons learnt from the exercise will be incorporated in an updated document in due course.

31. The Council's initial response to flood events will be provided by the Council's Highway Works Contractor Ringway, who also provides the out of hours response to incidents on the highway network. In order to take on the flood response role Ringway organised a series of Flood Forums with relevant Council Officers to ensure that there is a clear understanding of the processes to be followed by all likely to be involved.

32. The Ringway Team and the Council's Support Teams likely to be involved in any future flooding event will be the same as those who have operated the snow and winter response successfully in recent years. The teams are used to working together and have a good track record of dealing effectively with difficult and changing circumstances.

33. Operational Response Plans are being developed for those towns and villages considered to be most at risk from flooding. The plans will identify the likely areas susceptible to flooding, facilities, roads and infrastructure which may be at risk. They will help inform the Duty Engineers initial response to any incident.

34. The preparations are in place to ensure that the Council has an effective response to flooding events.

Property Protection

35. Property owners are responsible for protecting their own property. Where property is at risk of flooding owners are encouraged to take steps to ensure the protection of their property and to speed the recovery following flooding. Information is available on the EA website regarding suitable measures that can be used by individuals to reduce the risk to their property.

36. The Council encourages communities and individuals to make plans to enable them to cope with potential flood events. This is achieved through the OFWGs, Flood Awareness events and by the appointment of Flood Wardens.

37. When the opportunity arises the Council bids for funding for individual household protection measures, but it is accepted that urban areas elsewhere in the country are likely to take priority as there are far more properties are at risk in those places.

38. It should be noted that during severe flooding it is unlikely that the Council will be able to respond to requests for assistance to protect properties. The priority will be to keep transport links open, support the emergency services and protect critical infra-structure.

Preliminary Flood Risk Assessment

39. The Flood Risk Regulations 2009 implement the requirements of the European Floods Directive, which aim to provide a consistent approach to managing flood risk across Europe. It establishes four stages of activity within a six year flood risk management cycle.

40. The first stage of the cycle is for the LLFAs to carry out a PFRA and prepare a Preliminary Assessment Report and identify flood risk areas. This information has to be submitted to the EA by 22 June 2011, who will review, collate, publish and report the results to the European Commission.

41. The subsequent stages are to prepare flood hazard and flood risk maps by 22 June 2013, and to prepare Flood Risk Management Plans by 22 June 2015. The cycle will then start again in 2016, so it is important to ensure that information on flooding is collected by the Council, and is maintained and kept up to date for future use. In the next cycle it will be mandatory to collect information for floods that occur after 22 December 2011.

42. It should be noted that there is a specific definition of 'significant' in the context of the PFRA requirements. The EA have carried out initial assessment work based on the number of properties in each 1km square with an estimated 1 in 200 risk of flooding in any given year. The adjoining grid squares were analysed to identify those clusters where more than 20,000 people were considered to be at risk. In the south-west the only area qualifying as having a Flood Risk Area as defined by the guidance is Bristol.

43. No definition of locally significant harmful consequences of flooding is provided in the guidance and it is left to the LLFAs to set their own definitions. The South West Flood Risk Managers Group has agreed that a flood should be considered locally significant if it causes internal flooding to five or more residential properties, or floods two or more business premises, or one or more items of critical infrastructure, or causes a transport link to be totally impassable for a significant period.

44. The draft PFRA for Wiltshire is included as **Appendix 1** of this report. The review of historic flood information currently available, and the surface water flooding information provided by the EA, have been reviewed, and it is confirmed that there are no Flood Risk Areas in Wiltshire as defined by the guidance.

45. There are areas in Wiltshire where locally significant flooding has occurred, and there are areas at risk of future flooding. These have been recorded and the records will be updated and the information amended as additional flood modelling and survey information becomes available. The draft PFRA document will be updated with the latest information on historic floods and the results of the DEFRA modelling before submission.

46. The PFRA will be submitted to the EA, subject to any alterations required as a result of the review process and any additional information collected before submission.

Future Changes in Legislation

47. The Flood and Water Management Act 2010 includes provision of the development of sustainable drainage systems (SuDS) and their future management. This element of the legislation has not yet been finalised, but will establish a SuDS Approving Body (SAB) to approve drainage systems in developments. The SAB in Wiltshire will be this Council and the necessary arrangements will need to be put in place to discharge this duty.

48. The drainage systems covered by the legislation will include structures and features developed to manage surface water and prevent localised flooding. They should encourage natural groundwater recharge, and filter the water to prevent pollution entering the watercourse or aquifer.

49. It is likely that the legislation will strengthen existing planning controls, but the funding and details of the arrangements are not yet clear. However, in view of the Pitt Review the principle is to be welcomed.

50. The recently enacted provisions of the Act include the power for LLFAs to request information from a person in connection with flood risk, and the duty to carry out investigations in connection with flooding. There is also the responsibility to establish and maintain a register of structures or features which are likely to have a significant effect on flood risk. Further guidance is awaited regarding the definitions and application of these requirements.

Environmental Impact of the Proposal

51. Flooding can have serious environmental consequences. Managing flood risk effectively can reduce the potential environmental damage. Schemes to reduce flood risk will need to take into account the potential environmental impacts, and seek to achieve environmental improvements where possible.

Equalities Impact of the proposal

52. None identified.

Risk Assessment

53. Flooding represents a potentially serious risk to public safety, and it is important that appropriate steps are taken to reduce risks and respond effectively to incidents. The preparation of the PFRA and the collection of data on existing and potential flooding will help the Council to reduce the risk.

Financial Implications

54. It is anticipated that complying with the recommendations of the Pitt Review and the Flooding and Water Management Act 2010 could incur significant costs, and this will have to be monitored as further details of the legislation and duties emerge.

Legal Implications

55. The Council already has duties as local land drainage authority, and in connection with the drainage aspects of planning and highways. The role of LLFA has specific duties that are required of the Council, including the preparation of the PFRA.

Options Considered

56. The Council has established processes to manage flood risk in Wiltshire. These include the two Operational Flood Working Groups (OFWGs) which co-ordinate the work of the Council with the EA and other organisations, and help to prioritise local drainage improvement and flood alleviation schemes.

57. The Council has a substantial budget of £500,000 for drainage works in 2011/12, which is managed through the OFWGs. The process has already been operating successfully for two years and is considered to be effective. The OFWGs have successfully delivered a number of drainage schemes which have been outstanding for years, and the opportunity is being taken for joint working and funding with others, including the EA and landowners, where possible.

58. Two Flood Awareness events have been held for Town and Parish Councils in Wiltshire. Local communities at risk of flooding are being encouraged to appoint flood wardens and prepare their own flood plans, with training provided in conjunction with the EA. To assist local communities the Council is making gel-sacs available at cost to the local Town and Parish Councils.

59. The Flood Plan for Wiltshire has been reviewed and updated, and individual Operational Response Plans are being prepared for the towns most at risk. The Council's Highways Maintenance Contractor will provide the initial response in the event of flooding, and resources and procedures are in place to facilitate this.

60. A PFRA has been undertaken as required by the Flood Risk Regulations 2009 and it is confirmed that no Flood Risk Areas as defined by the legislation have been identified in Wiltshire.

Conclusions

61. An assessment of flood risk has been undertaken using information on historic flooding and modelling work undertaken by the EA. Although it is acknowledged that historic records are not complete, it is considered that there is sufficient information available to meet the requirements of the legislation, and a PFRA has been prepared for Wiltshire.

62. The Council has robust procedures in place to monitor and manage flood risk in Wiltshire. The OFWGs are recognised as being an example of good practice for managing flood risk and working with local communities, and there is a substantial programme of drainage works being developed for 2011/12 through the OFWGs.

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The following unpublished documents have been relied on in the preparation of this Report:

None.

Appendices

Appendix 1 - Draft Preliminary Flood Risk Assessment

APPENDIX 1

Wiltshire Council

Department of Neighbourhood and Planning

Flood Risk Regulations 2009

Preliminary Flood Risk Assessment for Wiltshire Council

DRAFT DOCUMENT

Wiltshire Council
Bythesea Road
Trowbridge
Wiltshire BA14 8JN

May 2011

Executive Summary

This report has been prepared by Wiltshire Council as part its requirements under the Flood Risk Regulations (2009) and to enable the council to meet its duties in managing local flood risk.

Wiltshire Council is defined as the Lead Local Flood Authority (LLFA) under the Regulations, and is a large unitary authority covering the county of Wiltshire.

The Preliminary Flood Risk Assessment (PFRA) provides a high level view of flood risk from local sources which include groundwater, surface water, ordinary watercourses and canals. As the LLFA the council are required to submit their PRFA to the Environment Agency for review by 22nd June 2011. The methodology for producing this report has been based on the Environment Agency's Final Guidance and Defra's Guidance on selecting Flood Risk Areas published in December 2010.

The national methodology used by the Environment Agency has been set out by Defra to identify Flood Risk Areas (FRA's) across England. There are ten indicative FRA's identified nationally, but none of these are located within the Wiltshire Council administrative area.

The regulations require two subsequent key stages within an identified FRA, which are to prepare flood risk hazard maps and flood risk maps, and then to prepare flood risk management plans.

Wiltshire has no significant flood risk areas as defined in accordance with the regulations and published guidance, and therefore the subsequent stages will not be required.

In order to develop the understanding of flood risk within Wiltshire, flood risk data, and historic records of flooding were collected from local and national data including the Environment Agency, stakeholder partners, and other risk management authorities.

This information will help the council develop proposals to reduce flood risk and improve the resilience of local communities.

Table of Contents

Preliminary Flood Risk Assessment for Wiltshire Council

Introduction

Scope

Wiltshire council has carried out and an initial screening exercise of historic records and future flood risk within the county to determine the locations at serious risk of flooding. The analysis included consideration of localised flooding from surface water, ordinary watercourses, canals, groundwater and other sources, such as lakes and reservoirs. Flood risk from main rivers, the sea or large raised reservoirs are the responsibility of the Environment Agency and is not considered in this report.

Information on historic floods is limited both in scope and detail. The information available has been used in the assessment to identify flooding which is locally significant.

Wiltshire Council requested information from all local town and parish councils in order to understand the flood risk within the county. This information has been used to create a database of flood risk events, which will be updated regularly and used to assess flood risk to communities.

Wiltshire Council works closely with the town and parish councils, the Environment Agency, water companies and other utilities and agencies to understand the risks and implication of flooding. There have been two Operational Flood Working Groups (OFWG) established in the county to manage local flood risk.

This Preliminary Flood Risk Assessment (PFRA) has been prepared to provide a high level view of flood risk from local sources which includes groundwater, surface water, ordinary watercourses and canals. The methodology for producing this report has been based on the Environment Agency's PFRA Final Guidance and Defra's Guidance on Selecting Flood Risk Areas published in December 2010.

Aims & objectives

This report has been prepared by Wiltshire Council as part its requirements under the Flood Risk Regulations (2009) to enable them to meet their duties in managing local flood risk.

The PRFA is a high level exercise to identify areas where the risk of groundwater and surface water flooding is significant and requires further investigation.

The objective of Wiltshire's PFRA is to assess local flood risk across the study area, which is defined as being the administrative boundary of Wiltshire, and to consider historical and possible future consequences of flooding.

Key objectives

The key objectives are:

- Assessment of past floods. This involves consideration of past floods which have had harmful consequences for human health, economic activity or the environment.

- Assessment of future floods. Consideration of the possible harmful effects of potential future flooding, taking into account topography, geology, watercourses, floodplains, population and economic centres.

- Identification of 'Flood Risk Areas'. The identification of 'Flood Risk Areas' where there is considered to be those areas most significantly at risk of flooding nationally, taking into account the 'indicative flood risk areas' prepared by the Environment Agency.

- Preliminary Assessment Report. The preparation of a report containing the above information which will be sent to the Environment Agency for review and publication.

Study area

Wiltshire is a predominantly rural county in the south west of England, which is landlocked with no coast. It covers an area of 3,485 square kilometres, and is the 14th largest county in England. The population is 613,024 based on the 2001 census, with an average density of 178 inhabitants per sq kilometre.

There are 230,000 dwellings in the county which are mainly in the principal settlements of:

Community	Population	Community	Population
Amesbury	8,907	Bradford on Avon	9,326
Calne	13,606	Chippenham	28,065
Corsham	10,780	Cricklade	4,132
Devizes	11,296	Ludgershall	3,775
Malmesbury	4,631	Marlborough	8,009
Melksham	21,000	Mere	2,633
Salisbury	39,726	Tidworth	9.500
Tisbury	2,056	Trowbridge	28,163
Warminster	17,379	Westbury	11,1379
Wilton	3,873	Wootton Bassett	11,043

Wiltshire has been a unitary authority since 1st April 2009, when the former Wiltshire County Council and the four District Councils of West Wiltshire, North Wiltshire, Kennet and Salisbury were combined to form a new unitary authority.

The study area is in the south east and south west regions of the Environment Agency.

Geology within Wiltshire

There are two main geological areas that have an influence on flooding in Wiltshire, with each covering approximately half of the county. The northern area is predominately clay, and the southern area is mainly chalk. Each area has different characteristics and different flooding mechanisms can operate.

The clay in the northern half of the county results in potentially high runoff because of the impermeable clay surface, which can often be similar to those experienced in large paved areas. This can give rise to rapid property inundation and flooding in some circumstances.

The southern area is predominately on a chalk aquifer. The aquifers can act as underground reservoirs storing water. When these reservoirs reach capacity groundwater flooding can occur. Overland flow can also occur, filling watercourses and ditches, and property can be affected by water flooding upwards from below ground. When the aquifer's storage capacity is full further rainfall will become surface water runoff, often causing further flooding.

It should be noted that in Wiltshire there can often be combinations of surface water runoff, groundwater flooding and flooding from main rivers.

Other studies

Wiltshire Council's Strategic Flood Risk Assessment (SFRA) and the Environment Agency's Catchment Flood Management Plans (CFMPs) indicate that there are areas in Wiltshire which flood regularly but without significant risk to life or property. However, the SFRA and CFMPs identify flooding from rivers as being a risk in the urban areas of Bradford on Avon, Chippenham, Malmesbury, Marlborough, Melksham and Warminster.

River catchments within the study area

There are five main river systems within Wiltshire:

The **Salisbury Avon,** including the Nadder, Wylye, Till, Bourne, Ebble and Nine Mile River tributaries within Wiltshire. This catchment is 96km long and includes most of the south of the county (all of Salisbury and parts of the former West Wiltshire and Kennet District Council area). Much of this system has a typical chalk stream character, with winterbournes in the upper reaches. The Nadder and some of the upper reaches of the Avon are fed from clay catchments and can rise and fall quickly in response to rainfall. Communities within Wiltshire alongside the river include Upavon, Durrington, Amesbury and Salisbury all of which have been affected by flooding in the past to varying degrees.

The **Bristol Avon**, including the Biss, By, Semington and Brinkworth Brooks and River Marden in Wiltshire. This catchment is 2,308 km^2 and covers the north west of the county (parts of the former District Council areas of North Wiltshire, West Wiltshire and Kennet). It is a typical lowland clay river, sinuous and generally slow moving, flowing through pastoral countryside. Although fed by calcareous water from its tributaries, it flows through impervious clays, leading to silty but good quality water that rises quickly after rainfall. It has rich plant and animal communities and a nationally important coarse fishery. Communities within Wiltshire affected by flooding

from the Bristol Avon include Malmesbury, Chippenham, Melksham and Bradford on Avon.

The **Thames**, which includes the Upper River Kennet, and the Ray, Cole, Key, Churn, Bydemill Brook, Swill Brook and the Thames within Wiltshire. This catchment is 9,948 km^2 part of which covers the north-east part of the county (including Swindon Borough and parts of former Kennet and North Wiltshire District Council areas). The Kennet within Wiltshire has a typical chalk stream character. The remaining rivers are spring-fed from the Cotswold limestone and are lowland clay rivers influenced by calcareous clays. Although only a small part of the Thames flows through Wiltshire, Cricklade has been badly affected by flooding from this river in recent years.

The **River Dun** is a very small part of the upper catchment of the Test and lies in the south-east corner of the county. The river has a chalk stream character in Wiltshire. The major settlement affected by flooding from the Dun within Wiltshire is the market town of Marlborough.

Some of the headwaters of the **Dorset Stour**, the Shreen and Ashfield waters, also rise in the south-west of the county. Its source lies within the Stourhead Estate where it forms part of a series of artificial lakes and reservoirs before flowing south into Dorset.

Lead Local Flood Authority responsibility

Introduction

Wiltshire council is the LLFA for the county, and the preparation of a PFRA is one of several responsibilities of LLFA's under the new legislation. This section provides a brief overview of other responsibilities which the council is obliged to fulfil in its role as an LLFA.

In his Review of the summer 2007 flooding, Sir Michael Pitt stated that *"the role of local authorities should be enhanced so that they take on responsibility for leading the coordination of flood risk management in their areas*". This recommendation was taken forward into the Flood Risk Regulations and the Flood and Water Management Act and as the designated LLFA, Wiltshire council is therefore responsible for leading local flood risk management across the county.

The council has established recognised methods of working with local communities through the Area Boards, and with other stakeholders involved in flood risk management through the Operational Flood Working Groups (OFWG).

Coordination of flood risk management

Wiltshire as the LLFA has the responsibility to establish effective partnerships with key stakeholders, including the Environment Agency, Wessex, Thames and South West Water, Highways Agency, Network Rail and other stakeholders and risk management authorities.

In order to fulfil this responsibility Wiltshire Council has set up a Flood Risk Management Governance Structure, with the overall governance of flood risk management reviewed by the Overview and Scrutiny Environment Select Committee.

Wiltshire council's flood risk management group is chaired by a cabinet member, who works closely with the chairs of OFWG. The council's land drainage team has close links with county's emergency planning officers, and with the local LRF Flooding group.

The OFWG groups (North & South) are chaired by elected members and attended by officers from the council and others. The area of Wiltshire covered by each group is based on the river catchments and broadly aligns with the Environment Agency areas.

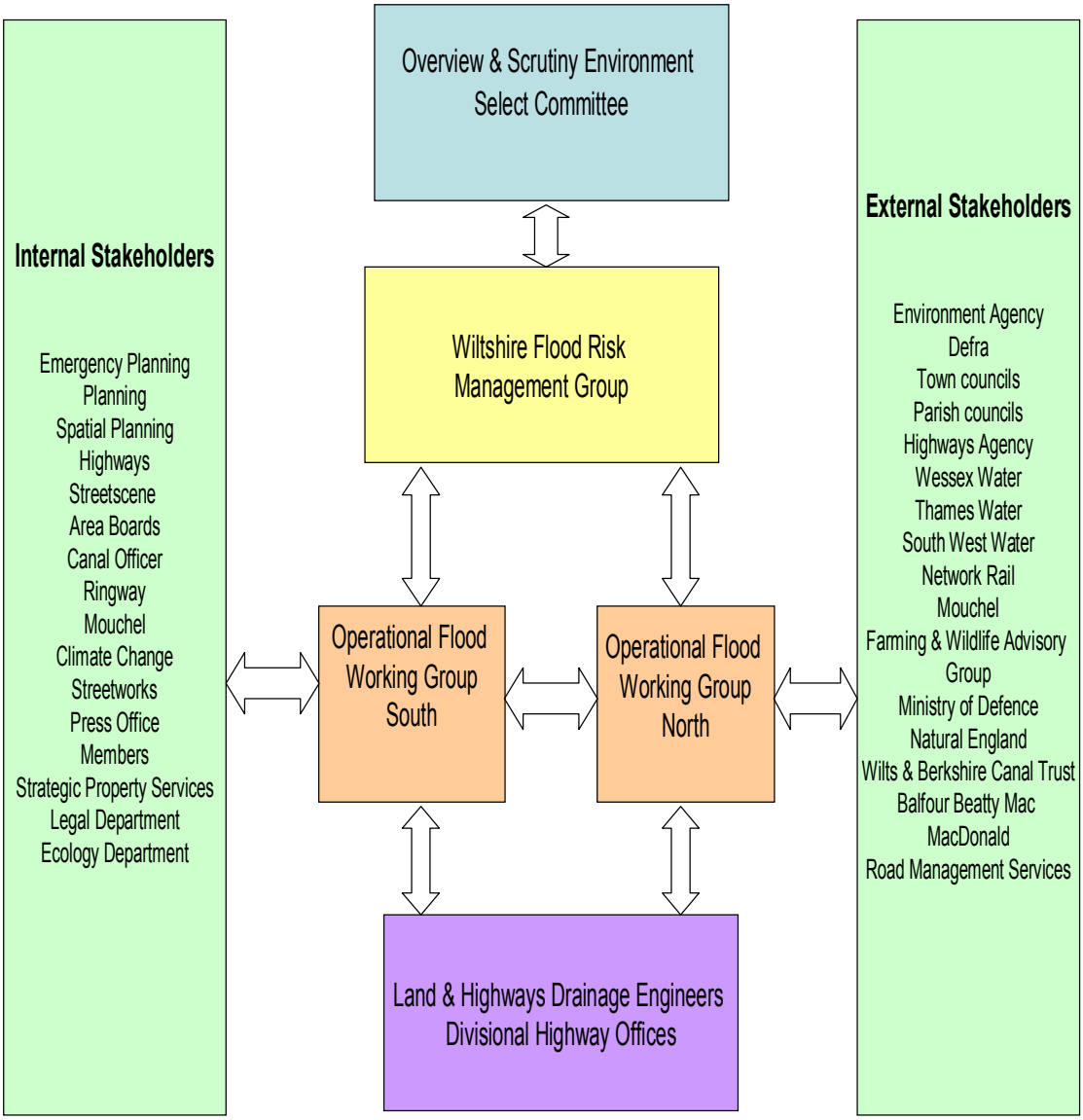
Each group generally meets every two months, and is often attended by representatives from the Environment Agency, Network Rail, Wessex Water, Thames Water, South West Water, Highways Agency, MoD and other statutory agencies. Town and Parish Councils are invited to attend and contribute to the meetings in connection with issues in their particular areas.

The council carries out a substantial programme of flood alleviation and drainage improvements with a budget of £500,000 annually in recent years. All drainage schemes carried out throughout the county are considered by OFWG and agreed with the partner organisations in order to prevent duplication and to co-ordinate work. The main benefit of these groups has been the commitment from all involved to remove barriers and promote collaborative working. The groups enable open discussions within a safe environment, and help identify and highlight areas of concern.

The day to day responsibility for dealing with flood and drainage issues in the council lies with the land and highways drainage engineers within the three divisional offices. The area highway engineers, technicians, rights of way wardens and streetscene officers attend highway and land drainage flooding incidents, and can call on specialist assistance from the land drainage team to deal with identified problems. The benefits of combining the highway and land drainage teams in a large unitary authority have become apparent, and will continue to be developed to reduce local flood risk.

Communication with the public is important for the council, and **p**ublic engagement is managed through the council's 18 Area Boards covering the whole county. The public are encouraged to raise issues with their respective town and parish councils, who bring an issue to the meeting or to attend in person. Relevant issues raised through the area boards are bought to the attention of OFWG or may be directed to the drainage team to address.

Flood Risk Management Governance Structure within Wiltshire



Other responsibilities

Wiltshire Council is the LLFA for Wiltshire and the council has other responsibilities in connection with the Flood and Water Management Act and Flood Risk regulations, and further responsibilities will be introduced as the relevant legislation is enacted.

These include:-

Development of local strategy for flood risk management - to develop and maintain a local strategy for flood risk management within the county.

Investigating flood incidents - to investigate and record details of significant flooding events within the county, how it was managed and any recommendations for future flooding incidents.

Maintaining an asset register – to maintain a register of structures or features which have an effect on flooding risk which include details of ownership and condition and is available for inspection.

SuDS approval – the SuDs approving body for any new sustainable drainage system and must approve, adopt and maintain any new sustainable drainage schemes.

Designated powers – the power to designate structures and features that affect flooding in order to safeguard assets that are relied upon for flood protection.

The details of the legislation and accompanying guidance will provide more details on the exact role to be undertaken by the council in due course.

Methodology and data review for PFRA

Approach and methodology

This PFRA has been prepared by Wiltshire Council in consultation with stakeholder partners including Wessex, Thames and South West Water, Highways Agency, Network Rail and Environment Agency. Records of flooding have been collected in order to develop an understanding of flood risk within the county. No new hydraulic modelling or analysis has been undertaken by the council for the report, which is in accordance with published guidelines regarding the regulations.

The objective was to identify the existing and easily obtainable local information which could be used to improve the national understanding of flood risk. Historical records are often difficult to access and do not necessarily contain all the information required. Local parish and town records have mainly been stored in paper format and often require considerable resources to access them. Currently resources are not available to undertake this task, but a project is being developed to consider the feasibility of transferring this data to an electronic format. Information held by stakeholders has been recorded according to their own requirements and do not necessarily reflect those needed by the council.

Information held by Wiltshire council

The council hold a variety of records within various departments and teams concerned with recording flooding information.

Daily flood reporting spreadsheet

The council ensures that a log is kept of all in and out of hours flooding events for highway and land drainage flooding. The responses to incidents are reviewed regularly by the drainage engineers, and are discussed at the relevant service delivery meetings as appropriate.

This information provides a good record of frequent events. In recent years there have been many incidents involving road flooding, or flooding of individual properties, but no significant flooding incidents affecting large numbers of properties have occurred.

As a unitary authority the council has developed a new reporting form for recording flooding events for use by officers and to meet the council's responsibilities as the LLFA.

Strategic flood risk assessment

As the minerals and waste planning authority the council has undertaken a Strategic Flood Risk Assessment (SFRA). This review concentrated on the major flood risks for the county, which are fluvial, surface and groundwater as indicated by the Environment Agency's flood risk zone. It does not contain new information regarding local flood risk.

The council is in the process of preparing its strategic planning policy framework, the cornerstone of which is the Wiltshire core strategy. This document will present policies and proposals to guide the direction of new development across Wiltshire for the period up to 2026.

Wiltshire core strategy

The emerging Wiltshire core strategy, is supported by an evidence base covering a range of social, economic and environmental concerns all underpinned by the rigour of a Strategic Environmental Assessment, Sustainability Appraisal and Habitats Regulations Assessment. One of the fundamental issues covered within the evidence base is the relationship between proposed new development areas and the management of all forms of flood risk.

At a fundamental level, the issue of managing flood risk across Wiltshire reflects the guidance in national policy (PPS25) and best practice locally. In terms of forward planning, a Strategic Flood Risk Assessment (SFRA) has been prepared to help guide strategic decision making through the sequential test approach. This work is being augmented by outputs from our SWMP process in relation to the three key strategic towns of – Trowbridge, Chippenham and Salisbury.

A number of key towns and development areas are known to experience seasonal surface, groundwater or fluvial flooding problems. These include the strategic towns of Chippenham, Trowbridge and Salisbury; as well as the smaller market towns of Marlborough, Warminster, Melksham and Malmesbury. However, the mechanisms that combine to define specific flood issues have not always been easy to characterise. This has led to the Council developing the SFRA and SWMPs to provide more detailed evidence to support the preparation of the Core Strategy. In due course, more detailed work - such as SFRA Level 2 modelling and Water Cycle Studies will be developed to support proposals.

In overall terms, the council is committed to understanding and addressing flood risk. The work associated with preparing the PFRA will help provide an overarching framework for wider initiatives such as – SFRA, SWMPs and securing mechanisms to alleviate flood risk through land-use policies, planning obligations and capital intervention.

The SWMP output is being finalised and will be used to inform the assessment of future flood risk in due course.

Town and Parish Council data

The council holds information on flooding and drainage information received from the ex district councils of North Wiltshire, Kennet, Salisbury and West Wiltshire. Much of this information is stored on paper files and a project is underway to transfer this information into an electronic format to allow easier access.

In 2010 the council embarked on a community flooding and drainage information project. All the towns and parishes in Wiltshire were issued a map and questionnaire. They were asked to detail any known flooding or drainage issues, and to identify the possible causes. They were also asked to identify whether the flooding was to land, property, roads or a combination of these. If there had been instances of internal property flooding, they were asked to identify the number of properties affected.

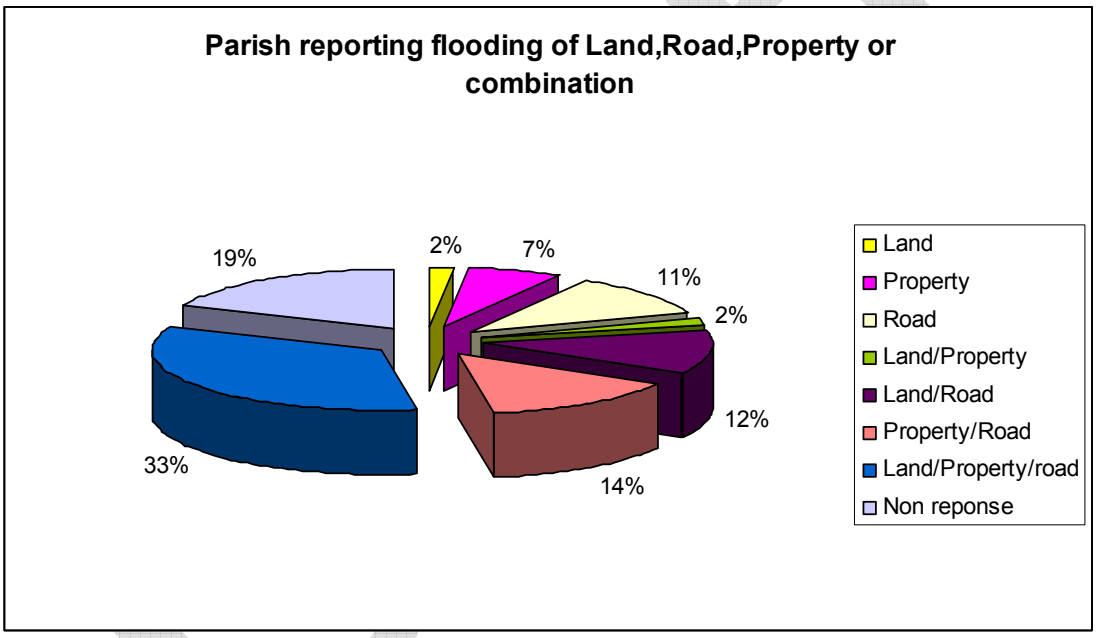
By April 2011 the council had achieved a 74% response rate from the communities, which demonstrated the importance of this issue to them. Other approaches will be made to gather information from those communities who have not yet responded.

Some of the town and parish council now have the ability to prepare and amend their own mapping database, and exchange information with the council's mapping team. They are identifying areas of concern, together with sizes and locations of culverts, ditches and watercourses. Their help in identifying and liaising with landowners can be invaluable.

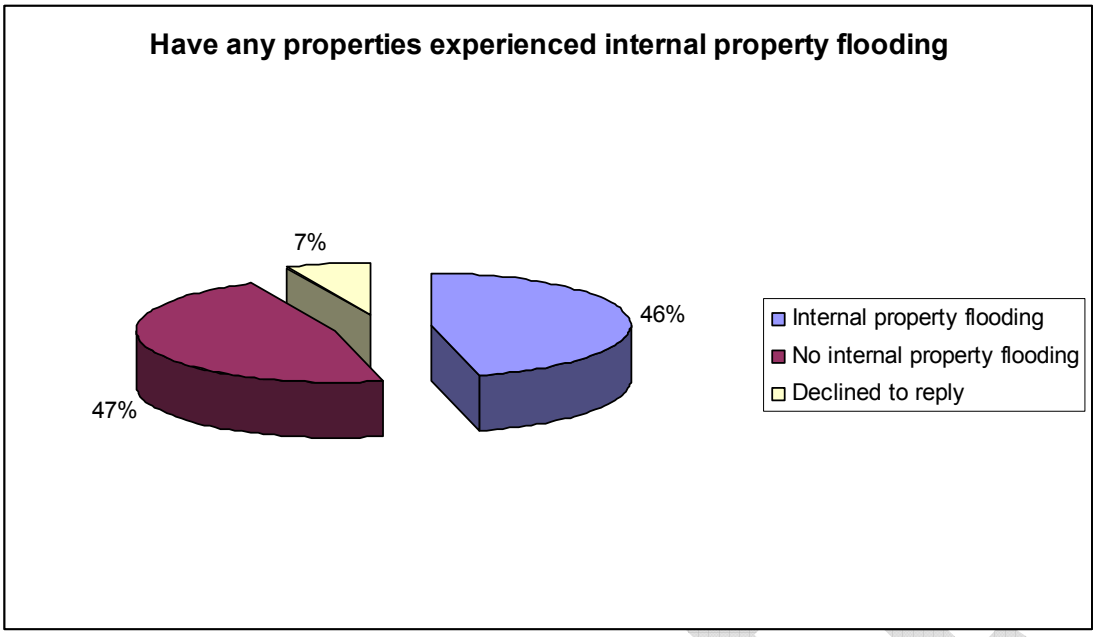
When installing or upgrading drainage systems, the council through the OFWG actively encourages the communities to participate in the decision making process, and monitor its operation giving feedback when needed.

The information received to date has been transferred onto a town and parish layer within the council's GIS system.

The communities were asked to identify whether the flooding affected land, property, road or combination of these. The chart below illustrates how these communities were affected by flooding. This is the first stage in enabling the council to create a detailed picture of local flooding within the county.



The communities were also asked if any internal property flooding had been experienced, and if so how many properties were affected. Of the 74% of town and parish councils who responded to the questionnaire almost half reported some internal property flooding. A small percentage declined to respond to this question because of concerns about future property insurance.



A pilot scheme is being established in the south of the county and the local highways officers will be looking at the responses received from parishes in their locality. They will liaise with the parishes and investigate the reasons for the flooding and consider possible measures to alleviate the issue where appropriate.

The data collected from the town and parish councils is proving helpful in identifying locally significant flooding. Data collected from the town and parish councils has been supplied by third party and therefore its accuracy cannot be guaranteed.

Bridges and Structures

The council's bridges are regularly inspected. The Department for Transport has a protocol for managing the risk of scour at bridges BA74/06 and in Wiltshire all of the council's bridges and related structures are assumed to be high risk and are routinely inspected every two years. Following substantial incidents of flooding, structures are inspected for damage. Historical records indicate one instance of damage to a structure in December 2008. All records of bridge inspections are held electronically.

Wiltshire Farms – (to be added)

Rights of way

The council's Rights of Way team holds large amounts of information on highways and rights of way, many of which cross or are adjacent to watercourses. Strategic and locally important paths are inspected annually to enable any urgent problems to be identified and the necessary rectification work carried out quickly. Issues on ordinary watercourses are reported directly to the drainage team and those involving main rivers are reported to the Environment Agency. Records of rights of way inspections are held electronically.

Information held by Stakeholder partners

Approaches were made to other organisations with an interest in flooding to obtain any relevant information they held regarding flood risk in Wiltshire. The information supplied has been transferred onto a GIS mapping layer

Wiltshire Fire & Rescue S**ervices** hold records of flooding incidents in the county. The records for the north and east of the county have been obtained by the council in electronic format for future reference.

Canal Trust – Wiltshire has a number of canals, some of which are disused and being restored. These can act as linear drainage features. The council drainage team are working with the canal trust to incorporate the canals and their storage capacity information in the longer term plans for flood prevention. The canal trust do not hold flooding records, but hold information on the disused canals and have a project for reinstatement of canals throughout Wiltshire. Many sections of the canal have already been restored, with other sections are programmed to be restored over the next few years. In doing this work they are recovering spillways, water courses, and water storage areas which could assist in reducing flood risk by safely transporting the water away from populated areas, or allowing the peak event to subside before the water migrates into watercourses. Any changes to the canals could have flood risk implications, and a close working relationship has been established with the trust.

FWAG & Natural England - Wiltshire Council has started working with the Farming and Wildlife Group (FWAG), Natural England, Environment Agency (EA) and landowners to identify good farming practices to aid in flood prevention. This includes consideration of land usage, directional ploughing and set aside to help with storage capacity to reduce run off rates in conjunction with rural flood defence schemes. Information is held by FWAG on land ownership and landowners who have signed up to stewardship schemes where they undertake written commitments to qualities and farming practice.

Wessex, Thames and Southern Water - Water authorities regularly attend the two OFWGs in order to help identify problem areas and consider opportunities for collaborative working. They have a particular interest as high levels of surface water inundation within foul systems can cause flooding, health hazards, pollution, and risk to safety, properties and ecology. The council has worked with them on many projects and joint ventures within the county. This is includes work on existing assets, proposed schemes and prospective planning applications, where assets can be shared or co-ordinated to reduce maintenance liability. The water authorities hold information on incidents of flooding from public sewers and the DG5 register. They also hold information on surface water systems, culverted watercourses and shared highway drainage systems.

Information held by Thames and Wessex Water has been provided to the council and included in the council's GIS mapping system.

MoD - The Ministry of Defence has a significant land holding within the county and undertakes maintenance as riparian owners. Where there is a shared interest in flooding there is an agreed protocol in place, and liaison takes place with their managing agents.

Town and Parish Councils – From the data collection exercise it is apparent that information held by town and parish councils on local flooding is largely anecdotal,

with only a small number of parishes holding detailed records of historical flooding in either paper of electronic format.

Highways Agency & Network Rail - Both organisations have assets which cross the whole county and can affect watercourses and surface water flows. They also have their own drainage assets such as ditches, watercourses, culverts, and control features. There is scope for collaborative working with these agencies to help reduce flood risk, coordinate maintenance to re-establish natural flood routes and improve attenuation. Both agencies hold comprehensive records relating to the property and assets they own.

The Highways Agency have provided the council with data on flooding affecting the A36, A303, A419 and M4. This information has been included in the council's GIS mapping system.

National Data

Significant data has been provided by the Environment Agency regarding flood risk and consists of the following:-

Flood Map (Rivers and Sea) - These maps show the extent of potential flooding from rivers with a catchment of more than 3km^2. Flood zone 2 shows the areas at risk of greater than 0.1%, and Flood zone 3 shows the areas at risk of greater than 1% and 0.5% from the sea.

Areas Susceptible to Surface Water Flooding (AStSWF) -This is the first generation of national flooding outlining areas at risk from surface water flooding across the country with three susceptibility bandings.

Flood map for Surface Water (FMfSW) - This is the second generation national surface water flood mapping released in 2010. The dataset includes two flood events (with a 1 in 30 and a 1 in 200 chance of occurring) and two depth bandings (greater than 0.1m and greater than 0.3m).

Areas Susceptible to Groundwater Flooding (AStGWF) – These plans indicate areas which are susceptible to groundwater flooding, but are at a low level of detail.

Historic Flood Map - Spatial flood extent data showing flooding from all sources

Historic Surface Water and Groundwater Geodatabase (HSWGW) National Receptor Database - This is a national database of social economic, environmental and cultural receptors, including residential properties, schools, hospitals, transport infrastructure and electricity substations.

Indicative Flood Risk Areas - National identified flood risk areas based on the definition of "significant flood risk" described by Defra and the Welsh Assembly.

PFRA CD of supporting information - Information on property counts in flood risk clusters and designated sites at risk of flooding.

Association of British Insurance (ABI) - The Association of British Insurance holds information on insurance claims relating to flood. Currently this data is not collated by postcode and is difficult to use for historical data purposes.

Data limitations

Inconsistent recording systems

As a unitary authority Wiltshire Council has been responsible for land drainage since April 2009 following the unification of the county and the four district councils.

Highway maintenance records from the former county council contain information on flooding affecting the highway, but do not identify any significant or harmful consequences from the flooding, such as the flooding of property, as it was held for highway maintenance purposes only.

The flooding information held by the former district councils is mainly held in paper format, and can be difficult to review and analyse. A project is being developed to transfer this information into electronic format to make accessing the information easier as there is detailed information on some locations which will be helpful in developing schemes to reduce flood risk.

The information provided by the town and parish councils was useful, but there were some difficulties in the use of terminology, and not all the communities have responded. Information is still being received and this will be added to the database as it becomes available.

Incomplete datasets

As a result of the different ways in which information has been stored by the various organisations the records are not as complete as would be wished, and in some cases may not represent the complete flood risk issues within the study area.

However, it is considered that there is adequate information to inform the preparation of the PFRA.

Records of consequences of flooding

Few of the data providers had comprehensive details of consequences for past flood events. This makes accurately assessing the consequences of historic flooding difficult.

Data storage

Wiltshire Council is recording flood risk data using the Esri GIS system and is party to the Public Sector Mapping agreement with Ordnance Survey which includes data copyright restrictions. At present files are only accessible to Wiltshire council staff, using Arc Map and Map Explorer, but systems will be developed to enable wider viewing of relevant information.

PAST FLOOD RISK

Significant harmful consequences

The national guidance issued by Defra has set the thresholds for defining areas where flood is significant. However, no guidance has been issued for defining locally significant harmful consequences, and it is for each LLFA to set its own definition.

The South West Flood Risk Managers Group, which Wiltshire is an active member of, has agreed a consistent definition for use in all South West PFRAs. This threshold will be used for recording past flood risk.

For the purpose of reporting past floods a flood is significant if it:

- Caused internal property flooding to 5 more residential properties, or
- Flooded 2 or more business premises, or
- Flooded 1 or more items of critical infrastructure, or
- Caused a transport link to be totally impassable for a significant period.

Using the UKRLG Code of Practice for Highway Maintenance Table, the definition of a significant period is determined as:

- Category 1 highways (motorways) and major rail links – 2 hours or more
- Category 2 and 3a highways and other railway links – 4 hours or more
- Category 3b and 4a highways – 10 hours or more
- Category 4b – 24 hours or more.

This has been determined for the following reasons:

1. Defra set a threshold of 200 persons or 20 businesses per km grid square flooded to a depth of 300mm during a 1:100 flood.
2. An order of magnitude less can be considered as 20 persons, which would average 8.5 properties (based on the national occupancy rate of 2.34 persons per property)
3. Recognising the rural nature and generally low population density within Wiltshire and the other South West Counties, a threshold of 10 properties has been adopted.
4. The number of business premises has not been reduced beyond 2 (as suggested by the EA) as this would have reduced the threshold to 1, which could result in very isolated minor flooding being considered significant.
5. Using the square grouping criteria of 30,000 persons an order of magnitude less would result in a threshold of 3,000 persons or 1,300 properties and Wiltshire would have no significant past events which was not considered to be appropriate.
6. The 2 hour period for closure of a motorway or major railway link is based on figures suggested by the Highway Agency representative for all parts of the trunk road and motorway network.
7. The 4 hour closure period of a category 2 or 3a highway or other railway link equates to an event affecting one peak period in a working day. (08.00 – 18.00)
8. The 10 hour closure period of a category 3b or 4a highway equates to an event affecting both peak periods in a working day (0.800 – 18.00)
9. The 24hour closing period of a category 4b highway equates to an event cutting off small numbers of properties and impacting on some rural businesses.

10. Major rail links have twin tracks carry several trains per hours in each direction, of which a number are “through trains” which do not stop at minor stations.

Past flooding in Wiltshire

From the information reviewed in connection with this assessment the following sites have been identified as being subject to flooding:-

Information to be added in final version			

It should be noted that because of the data limitations described previously the list of past flooding is unlikely to be a complete list of flooding events in Wiltshire. However, no events of the magnitude necessary to qualify as ‘significant’ within the definition as set out in the regulations and guidance have been noted.

Historic flood events considered to have had locally significant harmful consequences have been recorded on the Preliminary Assessment Spreadsheet which will be submitted with this document.

The information on historic flooding will be updated as any review or digitising of historic records takes place.

Significant harmful consequences of historical flooding

The information on historic flood events on people, the economy and the environment has not been consistently recorded in the past, and is likely to be incomplete.

It is concluded that there is insufficient data available to provide definitive conclusions regarding the consequences of historical flooding in Wiltshire.

FUTURE FLOOD RISK

Future flood risk in Wilshire

In order to consider future or potential flood risk the existing available information has been reviewed.

There have not been any significant studies or modelling of the effects of surface water flooding carried out by Wiltshire council for the whole of the county to date. Some work has been carried out with regard to specific sites and schemes, and the SWMPs are being developed for the main towns, but these are not adequate to accurately predict future flood risk for the whole of the county.

The best information on future flood risk available for Wiltshire is considered to be the Environment Agency national mapping datasets. These are the Areas Susceptible to Surface Water Flooding (AStSWF) and the Flood map for Surface Water (FMfSW) described previously.

It should be noted that this information is not sufficiently accurate to determine whether individual properties will be subject to flooding. The modelling only gives an indication of the areas potentially at risk.

Groundwater flooding is an appreciable risk in Wiltshire, especially in the south of the county, because of the local geology. The information contained in the Environment Agency's mapping of Areas Susceptible to Groundwater Flooding (AStGWF) is not sufficiently detailed to allow firm conclusions to be made regarding this aspect of flood risk in Wiltshire.

Locally agreed surface water Information

From the information reviewed in connection with the assessment it would appear that the FMfSW shows a reasonable representation of surface water flood risk. It is likely that future studies, including the developing SWMPs will allow some refinement or confirmation of the information.

In the meantime the FMfSW is considered to be the best surface water information for Wiltshire.

Future floods and possible consequences

Wiltshire Council has reviewed the available data and has noted that a number of areas within the county are at risk of flooding following significant periods of heavy rainfall. These communities do not meet the threshold in the Defra guidance definition of significant, but they do meet the criteria agreed by the South West Managers Group as being locally significant.

The PFRA for England carried out by the Environment Agency considered clusters of properties at risk of flooding within 1km map squares, with a threshold of an estimated 200 people at risk within any 1km square. Both Salisbury and Chippenham were above this threshold level based on a 1 in 200 annual probability using the Flood Map for Surface Water. They were ranked 180th and 190th respectively in the list of areas at risk in that assessment.

It should be noted that the mapping is not accurate enough to identify individual properties at risk, but it does help confirm that Salisbury and Chippenham both have

locally significant potential flood risks. However, the numbers of properties which may be affected are substantially below the threshold of significant under the regulations.

It is estimated from the surface water modelling carried out by Defra that over 16,000 properties in Wiltshire are at risk of surface water flooding in an extreme event. Over half of these are located in ten settlements. The mapping gives an indication of the scale of possible risk, but does not provide sufficient information to enable individual properties to be identified.

(The initial assessment has provided the indicative figures below which will be reviewed).

Community	Number of Properties at risk	Rank order nationally
Salisbury	2100	152
Trowbridge	1600	211
Warminster	1200	290
Calne	1100	308
Melksham	790	398
Westbury	690	441
Chippenham	690	444
Pewsey	610	488
Aldbourne	600	493
Marlborough	570	505

The above information provided by the Environment Agency on behalf of Defra has been reviewed and it confirms that there are no areas which meet the definition of a Flood Risk Area as defined by the regulations.

Climate change and long term development

Evidence

There is clear scientific evidence that global climate change is happening now. It cannot be ignored.

Over the past century around the UK we have seen sea levels rise and more of our winter rain falling in intense wet spells. Seasonal rainfall is highly variable. It seems to have decreased in summer and increased in winter, although winter amounts changed little in the last 50 years. Some of the changes might reflect the natural variation, however the broad trends are in line with projections from climate models.

Greenhouse gas (GHG) levels in the atmosphere are likely to cause higher winter rainfall in future. Past GHS emissions mean some climate change is inevitable in the next 20 – 30 years. Lower emissions could reduce the amount of climate change further into the future, but changes are still projected at least as far as the 2080's.

We have enough confidence in large scale climate models to say that we must plan for change. There is more uncertainty at a local scale but model results can still help us plan to adapt. For example we understand rain storms may become more intense even if we can't be sure about exactly where or when. By the 2080's, the latest UK climate projections (UKCP09) are that there could be around three times as many days in winter with heavy rainfall (defined as more than 25mm in a day). It is plausible that the amount of rain in extreme storms (with a 1 in 5 annual chance, or rarer) could increase locally by 40%.

Key projections for South West River Basin District

Winter precipitation in Key Projections for South West River Basin District.

If emissions follow a medium future scenario, UKCP09 projected changes by the 2050s relative to the recent past are:

- Winter precipitation increases of around 17% (very likely to be between 4 and 38%)
- Precipitation on the wettest day in winter up by around 12% (very unlikely to be more than 24%)
- Relative sea level at Plymouth very likely to be up between 12 and 42cm from 1990 levels (not including extra potential rises from polar ice sheet loss)
- Peak river flows in a typical catchment likely to increase between 11 and 21%

Increases in rain are projected to be greater near the coast than inland.

Implications for Flood Risk

Climate changes can affect local flood risk in several ways. Impacts will depend on local conditions and vulnerability.

Wetter winters and more of this rain falling in wet spells may increase river flooding.

More intense rainfall causes more surface runoff, increasing localised flooding and erosion. In turn, this may increase pressure on drains, sewers and water quality.

Storm intensity in summer could increase even in drier summers, so we need to be prepared for the unexpected.

Rising sea or river levels may increase local flood risk inland or away from major rivers because of interactions with drains, sewers and smaller watercourses.

There is a risk of flooding from groundwater in the district. Recharge may increase in wetter winters, or decrease in drier summers.

Where appropriate, we need local studies to understand climate impacts in detail, including effects from other factors like land use. Sustainable development and drainage will help us adapt to climate change and manage the risk of damaging floods.

Adapting to change

Past emission mean some climate change is inevitable. It is essential we respond by planning ahead. We can prepare by understanding our current and future vulnerability to flooding, developing plans for increased resilience and building capacity to adapt. Regular review and adherence to these plans is key to achieving long-term sustainable benefits.

Although the broad climate change picture is clear, we have to make local decisions uncertainty. We will therefore consider a range of measures and retain flexibility to adapt. This approach, embodied within flood risk appraisal guidance, will help to ensure that we do not increase our vulnerability to flooding.

Long term developments

It is possible that the long term developments might affect the occurrence and significance of flooding. However current planning policy aims to prevent development from increasing flood risk.

In England Planning Policy Statement 25 (PPS25) on development and flood risk aims to "ensure that flood risk is taken into account at all stages in the planning process to avoid inappropriate development in areas at risk of flooding and to direct development away from areas at highest risk. Where new developments is, exceptionally necessary in such areas, policy aims to make it safe without increasing flood risk elsewhere and where possible, reduce flood risk overall".

In Wales, Technical Advice Note 15 (TAN) on development and flood risk sets out a precautionary framework to guide planning decisions. The overarching aim of precautionary framework is "to direct new development away from those areas which are at high risk of flooding."

Adherence to Government policy ensures that new development does not increase local flood risk. However, in exceptional circumstances the Local Planning Authority may accept flood risk can be increased contrary to Government policy, usually because of the wider benefits of a new or proposed major development. Any significant exceptions would not be expected to increase the risk to levels which are "significant" (in terms of the Governments criteria).

Possible impacts of climate change in Wiltshire

Summary of likely climate trends in Wiltshire

The likely climate change trends in Wiltshire over the period up until the end of the century are summarised in table 1. These trends are derived from detailed

projections for annual, summer and winter changes, as set out in the following sections.

Summary of climate changes in Wiltshire for the 2020s, 2050s, and 2080s

The summaries below show the likely changes in temperature and precipitation in Wiltshire for the 2020s, 2050s, and 2080s under the medium emissions scenario. In each case, the figures given represent the 'likely range' (probability levels of 33 to 67%), and changes are relative to the 1961-1990 baseline.

Likely changes in temperature and precipitation in Wiltshire for the 2020s under medium emissions scenario

Temperature

- Increase in annual mean temperature by between 1.2 and 1.7°C
- Increase in summer mean temperature by between 1.2 and 2.0°C
- Increase in winter mean temperature by between 1.0 and 1.6°C
- Increase in temperature of warmest summer day by between 0 and 2.7°C

Precipitation

- Annual precipitation stays roughly the same
- Decrease in summer mean precipitation by between 1 and 15%
- Increase in winter mean precipitation by between 2 and 10%
- Increase in precipitation on the wettest winter day by between 2 and 11%

Likely changes in temperature and precipitation in Wiltshire for the 2050s under medium emissions scenario

Temperature

- Increase in annual mean temperature likely to be between 2.2 and 2.9°C
- Increase in summer mean temperature by between 2.3 and 3.5°C
- Increase in winter mean temperature by between 1.8 and 2.6°C
- Increase in temperature of warmest summer day by between 0.9 and 4.4°C

Precipitation

- Annual precipitation stays roughly the same
- Decrease in summer mean precipitation by between 10 and 28%
- Increase in winter mean precipitation by between 9 and 22%
- Increase in precipitation on the wettest winter day by between 6 and 21%

Likely changes in temperature and precipitation in Wiltshire for the 2080s under medium emissions scenario

Temperature

- Increase in annual mean temperature likely to be between 3.1 and 4.1°C
- Increase in summer mean temperature by between 3.3 and 4.9°C
- Increase in winter mean temperature by between 2.4 and 3.5°C
- Increase in temperature of warmest summer day by between 1.2 and 5.8°C

Precipitation

- Annual precipitation stays roughly the same
- Decrease in summer mean precipitation by between 13 and 34%
- Increase in winter mean precipitation by between 12 and 29%
- Increase in precipitation on the wettest winter day by between 11 and 29%

Impacts of climate change in Wiltshire

These projected climate changes are likely to lead to a range of impacts in Wiltshire. The Met Office has produced a table (below) showing some of the likely impacts for the energy, water, agriculture, built environment, and transport sectors across the UK as a whole. In addition, Wiltshire Council has been complied a *Local Climate Impacts Profile* (LCIP) to identify the most frequent weather events and those services that have been most affected by recent severe weather events directly and indirectly. The main event to cause disruption was excessive rainfall and flooding. The most frequent impacts of these events were infrastructure disruption which had a direct impact on frontline service delivery as well as indirectly impacting all services through access to offices or workplaces. The council is currently working towards the development of a *Climate Change Adaptation Action Plan* as part of the overarching *ECO Strategy 2011-2020*.

Long term developments

It is possible that long term developments might affect the occurrence and significance of flooding. However current planning policy aims to prevent new development from increasing flood risk.

In England, PPS25 on development and flood risk aims to "ensure that flood risk is taken into account at all stages in the planning process to avoid inappropriate development in areas at risk of flooding, and to direct development away from areas at highest risk. Where new development is, exceptionally, necessary in such areas, policy aims to make it safe without increasing flood risk elsewhere and where possible, reducing flood risk overall."

Adherence to Government policy ensures that new development does not increase local flood risk. However, in exceptional circumstances the Local Planning Authority may accept that flood risk can be increased contrary to Government policy, usually because of the wider benefits of a new or proposed major development. Any exceptions would not be expected to increase risk to levels which are "significant" (in terms of the Government's criteria).

No such developments have been identified in Wiltshire.

Identification of flood risk areas

Indicative flood risk areas have not been identified within the county of Wiltshire by the Environment Agency, and the review of flood risk by Wiltshire Council confirms that this is the case.

Next steps

There are no Flood Risk Areas in Wiltshire and consequently there is no requirement to produce hazard and risk maps by 2013 or Flood Risk Management Plans by 2015.

The draft PFRA will be considered by the Council's the Overview and Scrutiny Environmental Select Committee on 10th May 2011 prior to submission to the Environment Agency before 22nd June 2011.

The PFRA will require updating in 2016 and it is important that the council ensures accurate information is collected and recorded to inform this process. It will need to be kept up to date for future use, and will be used to support any additional flood risk assessments in connection with local flood risk management.

In the next cycle of PFRA development there is a mandatory requirement for the recording of floods that occur after 22nd December 2011.

Wiltshire council will investigate future flood events, and ensure the collection, assessment and recording of flood risk data. Work will continue with the Environment Agency, other organisations and the public to reduce flood risk in Wilshire and to improve the resilience of local communities.

References

(To be added)

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Wiltshire Council

Environment Select Committee

10 May 2011

Wiltshire Council's Carbon Management Plan 2010-2014

Executive Summary

This report sets out the Council's Carbon Management Plan 2010-2014, as the first of four action plans under the Council's recently adopted Energy, Change and Opportunity (ECO) Strategy.

Proposal

That the Committee notes the information in this report.

Reason for Proposal

Following the report on the Carbon Reduction Commitment (CRC) Energy Efficiency Scheme on 2 March 2011, the Committee requested an update on the Council's Carbon Management Plan which is the principle means of reducing the Council's CRC liabilities. The Carbon Management Plan 2011-2014 is the first of four Action Plans under the Council's Energy, Change and Opportunity (ECO) Strategy adopted in January 2011:

(a) Carbon Management Plan for the Council's emissions
(b) Climate Change Adaptation Plan for Wiltshire
(c) Low Carbon Transition Plan for Wiltshire
(d) Renewable Energy Action Plan for Wiltshire

The Carbon Management Plan identifies a programme of work to meet the Council's carbon reduction target.

MARK BODEN
Corporate Director
Department of Neighbourhood & Planning

Wiltshire Council

Environment Select Committee

10 May 2011

Wiltshire Council's Carbon Management Plan 2010-2014

Purpose of Report

1. To set out the key elements of the Council's Carbon Management Plan 2010-2014 (CMP).

Background

2. The national drivers for carbon reduction have already been presented to the Environment Select Committee in the context of the ECO Strategy (2 March 2010, 6 July 2010 and 7 September 2010).

3. Locally, the Council committed to tackling carbon emissions by signing the Nottingham Declaration in May 2009 and in November 2009 it signed up to the 10:10 campaign. In 2009, the Council accepted free of charge support for developing a CMP from the Carbon Trust as part of their local authority carbon management programme.

4. In April 2010, the Council became a participant in the new, mandatory, Carbon Reduction Commitment Energy Efficiency Scheme (CRC), which is projected to cost the Council £600,000 in 2011/12, and is expected to rise rapidly thereafter. Through implementing the Carbon Management Plan, there will be opportunities to reduce both the Council's carbon footprint as well as avoid some of these considerable costs.

5. The Corporate Plan 2010-2014 identified reducing our environmental impact as a priority and set the target to reduce our carbon emissions by 20% of our 2008/09 baseline by 2013/14 (equating to 11,823 tCO_2). The Council's Business Plan 2011-2015 highlighted energy efficiency as a key area of investment to save over the next four years, allocating £0.5m revenue per year for the next 4 years and £0.5m capital per year for the next 2 financial years.

6. In January 2011, Wiltshire Council published its Energy, Change and Opportunity (ECO) Strategy 2011-2014, which included a commitment to produce a Carbon Reduction Action Plan (the CMP).

Main Considerations for the Committee

7. The Council's vision is to embed carbon management into the delivery of all services and to set an example to the business sector and communities of Wiltshire. The Council has an aspirational target to halve its emissions by 2020, and in the meantime to reduce its emissions by 20% from the 2008/09 baseline by 2013/14, saving 11,823 tonnes CO_2 per year.

8. The objectives of the CMP are to ensure the Council:

- Makes energy cost savings
- Performs well under the Carbon Reduction Commitment Energy Efficiency Scheme (CRC)
- Reduces the Council's carbon footprint

In 2009/10, the Council's total carbon footprint was 61,500 tonnes of CO_2 arising from energy use for property, transport and street lighting. This figure includes emissions from contracted out services (eg recycling collections) as well as from in-house operations. These emissions were associated with an annual expenditure on energy and transport of £13.86 million.

9. As set out in the report of 2 March 2011, CRC costs only relate to carbon emissions from stationary sources. A further subset of emissions relates to the 10:10 campaign which will see the Council achieve a minimum 3% reduction on key 2009/10 emissions (658 tonnes CO_2), excluding school and contracted service emissions.

10. The **Table** below shows the headline split between stationary emissions and transport in 2009/10 in terms of **total** carbon emissions and spend. It can be seen that although transport accounts for 23% of the council's carbon emissions, it accounts for 40% of the council's energy spend.

Unit	Transport	Stationary sources	Total
Energy Cost (£)	£5.54m (40%)	£8.32m (60%)	£13.86m
Carbon Emissions (tCO_2)	12,040 (19.6%)	49,460 (80.4%)	61,500

Table: 2009/10 carbon emissions and energy spend

11. While the Council was responsible for 61,500 tCO_2 in total, 28% of these emissions result from contracted-out services. The total proportion of emissions that we have direct control over, therefore, accounts for 72% of our total footprint, equating to 44,542 tCO_2. We will try to influence the emissions produced by contractors, but may not be in a position to affect them until contracts come round for renewal.

12. An important first step for delivering the Carbon Management Plan is to ensure that our carbon data is accurate and comprehensive. The first goal is therefore to ensure that systems are put in place to collect, analyse and benchmark performance of every aspect of energy consumption to minimise the risk of waste. This should be in place by the end of July 2011.

13. With performance data and management frameworks in place the Energy, Change and Opportunity (ECO) Board will drive change from the top. The Carbon Management Team, made up of Senior Service Managers, will identify and implement carbon reduction projects within services. On the ground, a network of Green Champions will engage with staff directly, disseminating information across the organisation and providing feedback and valuable intelligence for new projects. This structure will be critical to enable a programme of behaviour change to begin immediately. A comprehensive portfolio of energy efficiency projects will be required for the short- and mid-terms, and ultimately a move to energy generation in the long-term.

14. Through the financial investment in invest-to-save energy efficiency projects (as outlined in the section on Financial Implications below), we estimate delivering a saving of 4,411 tCO_2, taking us 37% of the way to meeting our target. A further 3,273 tCO_2 are projected to be saved by phase 1 of the Campus and Operational Development Programme(CAOD) (ie reducing the Council's 97 administrative properties down to 4 large hub offices) taking us 65% of the way to meeting our target.

15. Future strategic opportunities for carbon reduction, which will be quantified as and when they are developed, include:

- Service Operational Campuses – Phase 2 of CAOD
- Leisure Review
- Libraries Review
- Low Carbon Standards for New Council Buildings
- Depot Review
- Harmonisation of Staff Terms and Conditions
- ICT
- Schools
- Street Lighting – Part Night Lighting
- Street Lighting Community-Based Projects
- Waste Management
- Fleet
- Implementation of the energy management system BS16001
- Sustainable Procurement
- Policy Alignment
- Renewable Heat and Energy

16. Carbon-saving opportunities of all types will be considered in terms of contribution to the overall objective and value-for-money.

17. Future projects will see the Council estate becoming increasingly energy efficient and new facilities will be built to be both sustainable and suitable for a changing climate. Procurement policy will be reviewed to ensure that sustainability is a core value and future decision making on all major projects will be informed by the impact on the environment through the key decision process.

Environmental Impact of the Proposal

18. Implementation of the CMP will directly reduce the Council's carbon emissions and thereby its impact on the environment.

Equality and Diversity Impact of the Proposal

19. The Council's climate change programme will indirectly have a positive impact on equalities and diversity as the implications of climate change will be disproportionate for those that are disadvantaged.

Risk Assessment

20. Delivering this level of reduction in carbon emissions will be challenging for the Council and carries a range of risks:

Organisational buy-in:

- Resistance to behaviour and policy changes required for successful carbon reduction.

Financial:

- Insufficient investment available for energy efficiency measures to ensure achievement of the carbon reduction target, meaning that efficiencies in energy and transport costs are not realised.

- Failure to perform well under the Carbon Reduction Commitment (CRC), for example, by lack of investment in energy efficiency projects, which could lead to financial costs/penalties.

- Increased future cost of energy: The Council's gas and electricity energy supply contracts are fixed for one year which offers an opportunity to reduce costs through negotiation with suppliers. Oil and LPG prices will fluctuate all year round. As a consequence, energy costs are likely rise over the plan period.

- Decreased future cost of energy: Alternatively, effective procurement which results in lower contracted energy prices could result in invest-to-save projects becoming less cost-effective.

Legal:

- The main legal implications are for the subset of emissions relating to the Carbon Reduction Commitment Energy Efficiency Scheme (CRC) – the mandatory carbon trading scheme – and failing to comply.

Service delivery:

- Missed opportunity to deliver early energy efficiencies that have the potential to deliver benefits over many years.

- Risk that changes to service delivery may increase our carbon footprint (e.g the recent change in waste collection services will increase our transport emissions. Conversely, increasing the range of materials collected from kerbside may reduce householders' travel to our recycling centres, thus reducing the overall county emissions which we are also responsible for reducing).

Performance:

- Quality of energy data not good enough to comply with CRC requirements leading to additional CRC costs/penalties and poor performance in the CRC league table, consequently affecting the Council's reputation.

- Quality of energy data not good enough to be used to identify potential efficiency projects.

- Failure to meet our CRC obligation, which could lead to a fine against the Council and poor performance on the CRC with corresponding impact on our environmental reputation.

- Failure to engage with all services to meet the remaining 35% of our corporate target.

- Failure to reduce carbon emissions from services which are not fully under the control of the Council or involve a third party – eg schools, acadamies, PFI arrangements, contracted services.

Reputation:

- Residents and local businesses expect the Council to lead by example in reducing carbon emissions and preparing for unavoidable climate change. The November 2007 People's Voice Survey responses show that panellists want Wiltshire Council to take the lead in addressing climate change and support them individually to tackle climate change.

- The Wiltshire Assembly has identified climate change as being one of three top priorities to be addressed.

Financial Implications

21. The Council's Financial Plan 2011-2015 identifies £0.5m revenue per year for the next 4 years and £0.5m capital per year for the next 2 financial years. The projected budget for CRC starts at £600k in 2011/12, rising to £800k in 2014/15.

22. As an indicative cost of energy efficiency, saving a tonne of CO_2 through energy efficiency measures will initially require a one-off investment of the order of, on average, £900. It will take typically 4-5 years to recoup the invest-to-save cost. Savings should be understood as avoided costs.

23. The effect of continued Council investment of £0.5m revenue for the next 4 years and £0.5m capital for the next 2 financial years, as proposed in the Council's Business Plan 2011-2015 will be to save the Council £2.62m – which will continue to have an annual cumulative effect beyond 2015 – in avoided energy bills and is likely to save a further £260,000 in avoided CRC payments.

24. Where possible the Council will seek external investment to lever additional resources in its response to climate change. External funds of more than £600,000 were secured in 2010/11 to reduce carbon emissions in a diverse range of projects.

Legal Implications

25. As indicated above, the main legal implications are under the CRC. These are being addressed through the in-house legal team.

26. Notably, as the scheme currently stands, the Council continues to be responsible for emissions from academies, but without direct control over their energy consumption.

27. There are legal implications around the responsibility for energy consumption and the CRC where we are the landlord of leased properties.

28. There are likewise legal implications for contracted-out services.

Options Considered

29. Doing nothing is not an option as the Council is obliged to comply with legal and performance requirements relating to carbon emissions, the environment and climate change.

Conclusions

30. Through the implementation of the Carbon Management Plan the Council will be able to ensure it meets its climate change responsibilities.

MARK BODEN
Corporate Director
Department of Neighbourhood & Planning

Report Author:
Catherine Dixon
Senior Climate Change Officer

The following unpublished documents have been relied on in the preparation of this Report:

None.

Appendices

Appendix A – Wiltshire Council's Carbon Management Plan 2010-2014.

Appendix 1 – Wiltshire Council Energy Policy
Appendix 2 – Emissions Factors
Appendix 3 – Energy Efficiency Projects, 2010/11
Appendix 4 – Renewable Energy Schemes in Wiltshire Council, January 2011
Appendix 5 – The Carbon Trust's Carbon Management Matrix

Carbon Management Plan 2010 – 2014

Date: 18 March 2011

Version number: Final

Owner: Ariane Crampton

Approval route: Energy Change Opportunity Board

Approval status: Approved

The Nottingham Declaration

We acknowledge that

- *Evidence shows that climate change is occurring.*
- *Climate change will continue to have far reaching effects on the UK's people and places, economy, society and environment.*

We welcome the

- *Social, economic and environmental benefits which come from combating climate change.*
- *Emissions targets agreed by central government and the programme for delivering change, as set out in the UK Climate Change Programme.*
- *Opportunity for local government to lead the response at a local level, encouraging and helping local residents, local businesses and other organisation - to reduce their energy costs, to reduce congestion, to adapt to the impacts of climate change, to improve the local environment and to deal with fuel poverty in our communities.*
- *Endorsement of this declaration by central government.*

We commit our Council from this date ***5 May 2009*** *to*

- *Work with central government to contribute, at a local level, to the delivery of the UK Climate Change Programme, the Kyoto Protocol and the target for carbon dioxide reduction by 2010.*
- *Participate in local and regional networks for support.*
- *Within the next two years develop plans with our partners and local communities to progressively address the causes and the impacts of climate change, according to our local priorities, securing maximum benefit for our communities.*
- *Publicly declare, within appropriate plans and strategies, the commitment to achieve a significant reduction of greenhouse gas emissions from our own authority's operations, especially energy sourcing and use, travel and transport, waste production and disposal and the purchasing of goods and services.*
- *Assess the risk associated with climate change and the implications for our services and our communities of climate change impacts and adapt accordingly.*
- *Encourage all sectors in our local community to take the opportunity to adapt to the impacts of climate change, to reduce their own greenhouse gas emissions and to make public their commitment to action.*
- *Monitor the progress of our plans against the actions needed and publish the result.*

Wiltshire Council *acknowledges the increasing impact that climate change will have on our community during the 21st century and commits to tackling the causes and effects of a changing climate on our county.*

Contents

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List of Appendices

Glossary

AMR Automated Meter Readers (AMR or smart meters) which enable the accurate collection of data.
A meter will be defined as an AMR meter under CRC if it meets the following four criteria:

- The meter together with an ancillary device is capable of capturing consumption data on at least an hourly basis;
- The meter is the main fiscal meter and not a sub-metering device;
- The meter has been read remotely;
- The consumption data is made available to the customer.

BS16001 British Standard 16001 is a national accreditation for energy management systems using a 'plan, do, check, act' format to set and monitor performance targets

CMP Carbon Management Plan

CAOD Campus and Operational Development Programme (previously the Workplace Transformation Programme (WTP)). The CAOD is a major undertaking seeking to streamline the council's building stock. The first phase of the project is expected to reduce the council's 98 administrative properties down to four large hub offices with hot-desking facilities by 2014. Of the 4 hubs, two existing offices will be fully refurbished (Trowbridge: County Hall and Devizes: Browfort) to make them fit for purpose; one will require moderate modernisation and one is a new build. Further phases of the programme to review, rationalise and invest in the operational property estate have been approved.

CRC The Carbon Reduction Commitment Energy Efficiency Scheme is a mandatory scheme to improve energy efficiency and therefore cut CO_2 emissions in large public and private sector organisations. These organisations are responsible for around 10% of the UK's CO2 emissions. The scheme features a range of reputational, behavioural and financial drivers which aim to encourage organisations to develop energy management strategies that promote a better understanding of energy usage.

Defra Government's Department for the Environment, Farming and Rural Affairs

ECO Strategy / Board / Team The Energy, Change and Opportunity (ECO) Strategy is a framework strategy which sets out the council's ambitions for reducing its carbon emissions as an organisation, for leading the county's low carbon transition and preparing for unavoidable climate change. As a framework strategy it is underpinned by and linked to other council strategies to ensure objectives are embedded across the entire organisation.

The ECO Board, chaired by the Cabinet Member for the Environment and with a membership of directors from services across the council, oversees implementation of the ECO Strategy, supported by the ECO Team.

ICT Information and Communications Technology

ISO14001 The international standard ISO 14001 is used by organizations for designing and implementing an effective environmental management system.

NI 185 Until 2010, Government required local councils to report on their emissions data through national performance indicator NI 185. At the time of writing, reporting against this performance indicator had been suspended as the national indicator set was under review and due to be replaced in April 2011 by a single data set for local authorities which is expected to include a requirement to report on carbon emissions.

Salix Independent social enterprise which provides interest free loans to UK public sector bodies to finance carbon reduction projects.

tCO_2 Tonnes of Carbon Dioxide

UKCP09 UK Climate Projections 2009, http://ukclimateprojections.defra.gov.uk/ See also http://ukclimateprojections.defra.gov.uk/

Foreword from Wiltshire Council's Cabinet member for the Environment

Wiltshire Council had a carbon footprint of 61,500 tonnes in 2009/10. To put this in context, this is the same as the annual static carbon emissions from around 12,000 Wiltshire homes. This carbon management plan sets an aspirational target for the council to reduce its footprint by 50% by 2020, with an interim pledge of saving 11,823 tonnes by 2013/2014.

This challenging target will require us to change how all parts of the council do their business. It places the council firmly at the forefront of the fight against climate change and will enable us to lead others to follow our example to a low carbon future.

The impact of our work will be amplified if it is matched by the commitment of businesses, other public sector organisations and local residents to reducing their carbon footprints. The Wiltshire Assembly has identified climate change as one of the top three issues that need to be tackled. Other partners are already fully engaged – for example, Wiltshire Fire and Rescue Service have adopted their own carbon management plan.

This plan shows that we are committed to getting our own house in order. We are also working with the Energy Saving Trust to develop a carbon reduction strategy for the whole of Wiltshire, and will be developing a plan to deal with unavoidable climate change alongside these.

Cllr Toby Sturgis
Cabinet member for the Environment

Foreword from the Carbon Trust

Cutting carbon emissions as part of the fight against climate change should be a key priority for local authorities - it's all about getting your own house in order and leading by example. The UK government has identified the local authority sector as key to delivering carbon reduction across the UK in line with its Kyoto commitments and the Local Authority Carbon Management programme is designed in response to this. It assists councils in saving money on energy and putting it to good use in other areas, whilst making a positive contribution to the environment by lowering their carbon emissions.

Wiltshire Council was selected in 2009, amidst strong competition, to take part in this ambitious programme. Wiltshire Council partnered with the Carbon Trust on this programme in order to realise vast carbon and cost savings. This Carbon Management Plan commits the council to a target of reducing CO_2 by 11,823 tonnes by 2013/14 which would represent a potential financial savings, through avoided energy costs, to the council of around £2.8 million over this period.

There are those that can and those that do. Local authorities can contribute significantly to reducing CO_2 emissions. The Carbon Trust is very proud to support Wiltshire Council in their ongoing implementation of carbon management.

Richard Rugg
Head of Public Sector, Carbon Trust

Executive Summary

Why we need a carbon management plan:

Wiltshire Council is committed to moving towards a low-carbon future and the Carbon Management Plan 2010-2014 presents the council's vision and details the means for achieving it. Wiltshire Council has already committed to tackling carbon emissions by signing the Nottingham Declaration in May 2009 and in November 2009 signed up to the 10:10 campaign.

Good carbon management is important as it reduces the council's environmental impact as well as reduces operating costs, allowing the council to provide better value for money in its services to taxpayers**.** Support for developing this plan was provided free of charge from the Carbon Trust.

In 2009/10, the council's total carbon footprint was 61,500 tonnes of CO_2, arising from energy use for property, transport and street lighting. This figure includes emissions from contracted out services (eg recycling collections) as well as from in-house operations. These emissions were associated with an annual expenditure on energy and transport of £13.86 million.

In April 2010, the council became a participant in the new, mandatory, Carbon Reduction Commitment Energy Efficiency Scheme (CRC), which is projected to cost the council £600,000 in 2011/12, and is expected to rise rapidly thereafter. Through implementing a carbon management plan, there will be opportunities to reduce both the council's carbon footprint as well as avoid some of these considerable costs.

What this plan seeks to achieve:

The council's vision is to embed carbon management into the delivery of all services and to set an example to the business sector and communities of Wiltshire. The council will work to influence and support others to reduce their carbon emissions, thereby taking the lead and driving forward efforts to reduce the effects of climate change. The consequences of excessive climate change are very severe and the appropriate response is to ensure the targets for carbon reduction are correspondingly challenging. Such targets should emphasise strong, early action and the council has set an aspirational target to halve its emissions by 2020, and in the meantime to reduce its emissions by **20% from the 2008/09 baseline by 2013/14, a total of 11,823 tonnes CO_2.**

How we will deliver this plan:

An important first step for delivering this carbon management plan is to ensure that our carbon data is accurate and comprehensive. The first goal is therefore to ensure that systems are put in place to collect, analyse and benchmark performance of every aspect of energy consumption to minimise the risk of waste. With performance data and management frameworks in place the Energy, Change and Opportunity (ECO) Board will drive change from the top. On the ground, a network of Green Champions will engage with staff directly, disseminating information across the organisation and providing feedback and valuable intelligence for new projects. This structure will be critical to enable a programme of behaviour change to begin immediately. A comprehensive portfolio of energy efficiency projects will be required for the short- and mid-terms, and ultimately a move to energy generation in the long-term.

Carbon-saving opportunities of all types will be considered in terms of contribution to the overall objective and the council's commitment to value-for-money. The council has allocated an invest-to-save budget of £0.5m revenue for the next 4 years and £0.5m capital for the next 2 financial years for energy efficiency projects. These projects will achieve important financial savings by avoiding energy and carbon trading costs. Where possible the council will seek external investment to lever additional resources in its response to climate change. External funds of more than £600,000 have already been secured to reduce carbon emissions in a diverse range of projects. Future projects will see the council estate becoming increasingly energy efficient and new facilities will be built to be both sustainable and suitable for a changing climate. Procurement policy will be reviewed to ensure that sustainability is a core value and future decision making on all major projects will be informed by the impact on the environment.

Monitoring progress:

The intention is for the plan to be regularly updated and to be produced as a web-based, living document. Progress towards our target will be reported on an annual basis.

Some change in the natural climate is now believed to be inevitable, but strong and consistent action to reduce carbon emissions is a vital step to minimising any further change and reduce the future financial and human cost of actions taken today. This plan provides a clear direction for reducing carbon emissions and for embedding a culture of awareness and responsibility throughout Wiltshire Council.

March 2011

1. Introduction

Wiltshire has a population of approximately 460,000 (or 200,000 households), making it one of the largest populations of all English authorities, behind conurbations such as Birmingham. The population is distributed throughout a large and predominately rural area extending approximately 54 miles north to south and 34 miles east to west. The size of the county has a significant impact on the way in which services are delivered in Wiltshire and this directly affects carbon emissions.

Since being formed in April 2009, Wiltshire Council began working with the Carbon Trust, following the Carbon Trust Local Authority Carbon Management Programme to establish a Carbon Management Plan for Wiltshire. In its seventh year, the Programme has worked with local authorities and other organisations to reduce carbon emissions. (Of the former local authorities in Wiltshire, Wiltshire County Council had previously taken part in the Programme but none of the four former district councils had.)

The Programme is well structured and managed, following a five step process:

- step 1: mobilise the organisation
- step 2: set baseline and forecast
- step 3: identify and quantify projects
- step 4: define your Carbon Management Plan (CMP)
- step 5: implementation

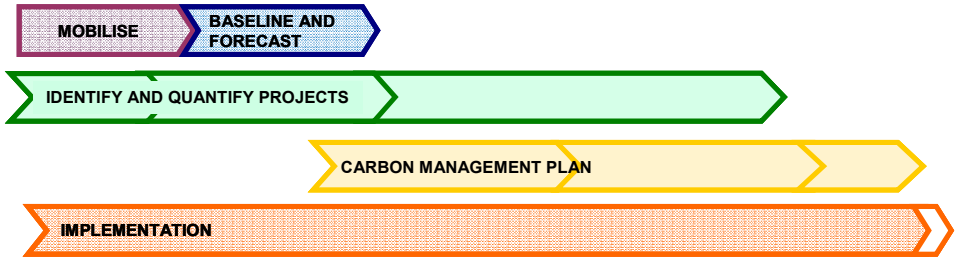


Figure 1: The Carbon Trust Five Step Process

This process has resulted in the production of this plan which sets out the current extent of the council's carbon emissions, the financial cost of those emissions, and the rationale for reducing them.

This **carbon management plan** covers the 4 year period between 2010/11 and 2013/14. It starts to provide details of individual projects that will reduce the council's emissions over the plan period and beyond. Review of the Plan will be on-going so that new projects can be added when identified. The council's ECO Board, with its senior corporate membership, will oversee this work ensuring that it remains high on the corporate agenda.

2. Wiltshire's Carbon Management Strategy

2.1 Context and Drivers for Carbon Management

Good carbon management is important for two key reasons:

- **it reduces the impact of carbon emissions on the environment**
  The environmental impact of carbon emissions and other greenhouse gases is a serious change to the world's climate. Whilst climate is subject to natural fluctuations, the recent acceleration of temperature rise is due to human activities, mainly the burning of fossil fuels that generate carbon dioxide, a key greenhouse gas. In the South West of England, climate projections show that under the 'least emissions scenario' mean summer temperature will rise by 0.7 to 2.7 degrees by the 2020s[1]. Winters are likely to be wetter and summers drier; extreme weather events will be more common. Worldwide, food and water shortages could cause mass population migration. Locally, symptoms will include damage to infrastructure and increased strain on services such as health provision.

- **it reduces operating costs**
  Reducing operating costs allows the council to provide better value for money in its services to taxpayers. The current economic climate means the council faces considerable financial pressures, such as the introduction of a mandatory carbon trading scheme, reduced budgets and rising energy prices.

The following sets the environmental policy and economic context for the council's Carbon Management Plan.

Mandatory National Drivers:

The UK is taking a lead on tackling the effects of climate change: the Department of Energy and Climate Change has been created; the **Climate Change Act 2008** set a challenging target of an 80% reduction in green house gas emissions by 2050. A further national target requires a 34% reduction of carbon emissions from a 1990 emissions baseline by 2020. The **Stern Report** of 2006 presented a persuasive case for the economics of tackling climate change, highlighting that action taken now will be more cost effective than action taken later. The **Energy Performance of Buildings Directive** has introduced Display Energy Certificates meaning that the energy use in council buildings is now open to scrutiny in the public domain.

Carbon Reduction Commitment:

The Carbon Reduction Commitment (CRC) is a mandatory scheme which came into force in April 2010 and provides both a financial and reputational incentive for carbon reduction. The CRC makes large energy users such as the council responsible for buying 'allowances' to cover their carbon emissions. The scheme is intended to be a 'cap and trade' scheme, although initially allowances will be bought retrospectively based on actual emissions. At the time of writing, the scheme is still being finalised. Key features are:

- Carbon emissions from all council buildings (including schools) and from street lights will be included in the scheme. Emissions from transport will be excluded.

[1] From UK Climate Projections 2009 (UKCP09) for the South West region.

- First compliance year: April 2010- March 2011. Annual Report and Footprint Report due July 2011 for the period 2010-2011. Phase 1 will runs to 2013/14.
- Carbon allowances to cover emissions will need to be purchased at a cost of £12 per tonne during phase 1. This amounts to a cost of approximately £600,000 per year for Wiltshire Council. The cost of allowances are expected to rise rapidly over time – see table 1 below.
- A league table will be published in October every year starting in 2011 showing the relative performance of all organisations taking part in the scheme nationally. Councils will be competing against large companies such as national supermarket chains. Good performance will be achieved through demonstrating a year on year reduction in emissions.

Table 1 summarises projected CRC costs that have been built into the council's medium term financial planning:

	2011/12	**2012/13**	**2013/14**	**2014/15**
Estimated CRC tCO_2	51,000	50,000	48,000	48,000
Budget forecast for CRC allowances	£600,000	£600,000	£700,000	£800,000

Table 1: Projected budget for CRC, 2011/12 – 2014/15

This carbon management plan identifies a long term strategy for carbon reduction within the council. A sustained approach will be critical to the council's success under the CRC. The delivery of this carbon management plan will be directly linked to the council's performance within the CRC league tables and any future financial costs that might be incurred.

Other national drivers:

From its inception on 1 April 2009, Wiltshire Council committed to tackling carbon emissions by signing the **Nottingham Declaration**. The text of the declaration is reproduced at the start of this document. The signing of the declaration is a public commitment to acknowledging and tackling climate change and any related campaign or scheme to reduce carbon emissions or enable adaptive measures to be implemented will be consistent with this policy alignment. The council re-confirmed its commitment to the Nottingham Declaration and signed up to the 10:10 campaign following a debate at full Council in November 2009.

The **10:10 campaign** is a grassroots initiative that has national support and includes individuals, Government departments, local authorities and businesses. The target will see the council achieve a minimum 3% reduction on key 2009/10 emissions (658 tonnes CO_2), excluding school and contracted service emissions. The delivery date for this annual footprint reduction is the end of 2010/11.

The **cost of energy** is expected to rise[2] over the coming years as primary energy reserves dwindle and are replaced by technologies with a higher minimum cost than is currently attainable. This level of cost increases is likely to be higher than inflation which means the council will face higher operating costs from energy consumption unless it can be more energy efficient or find non-fossil fuel alternatives.

[2] Ofgem's 2009 review of UK energy supplies developed four scenarios which would result in increases in domestic energy bills of between 14% and 25% by 2020 (from 2009 levels) and the possibility that wholesale price spikes could lead to an increase in domestic energy bills of up to 60% in the interim.

The Government published its **Comprehensive Spending Review** on 20 October 2010, which fixed spending budgets for each Government department up to 2014-15. The result of the spending review is an immediate and challenging cut to local government budgets. The effect for Wiltshire Council is that we will need to realise efficiencies in all areas as quickly as possible.

Local external drivers:

Climate change has emerged as an area of focus for Wiltshire Council and is high on the **Wiltshire Assembly's** list of priorities (the Assembly is the forum for Wiltshire organisations to come together to decide what needs to happen in order for Wiltshire to build a bright future for itself).

Local internal drivers:

A fundamental driver behind the creation of the new unitary council was the need to **deliver efficiencies**. Combined with budget cuts from the 2010 Government Comprehensive Spending Review, this means the council has a strong financial requirement to become more energy efficient.

The new unitary authority has a property portfolio of over 800 sites which represent the combined inherited assets from the five former authorities. This is a diverse property portfolio that includes school campuses, libraries, leisure centres, depots, care homes and administrative buildings. Added to this inventory are various in-house fleets of vehicles and contracted-out services which cover such services as waste collection, meals on wheels, street cleaning and road maintenance. Wiltshire Council is in the process of transforming itself and is forming some key programmes of work to deliver efficiencies in the medium and long term. Many of these programmes represent **strategic opportunities for carbon efficiencies** to be embedded across the council's estate, service operations and fleet.

2.2 Wiltshire Council's Strategy and Vision

Wiltshire's Energy, Change and Opportunity Strategy 2011-2020

Wiltshire Council has developed a strategic response to climate change and national requirements that is set out in the Energy, Change and Opportunity (ECO) Strategy 2011-2020. The strategy incorporates two types of response:

- Mitigation: those responses that seek to reduce the impact of our behaviour on the natural systems of our planet; that is, reducing greenhouse gas emissions.
- Adaptation: those responses that seek to prepare us better for the challenges likely to arise from climate change.

The ECO Strategy is a framework strategy which sets out the council's ambitions for reducing its carbon emissions as an organisation, for leading the county's low carbon transition and preparing for unavoidable climate change. As a framework strategy it is underpinned by, and linked to, other council strategies to ensure our objectives are embedded across the entire organisation. It will be supplemented by detailed action plans to set out more specifically how we are going to deliver our climate change ambitions, including:

- **Carbon Management Plan** for the council's emissions (this document)
- Climate Change Adaptation Plan for Wiltshire

- Low Carbon Transition Plan for Wiltshire
- Renewable Energy Action Plan for Wiltshire

Together, the strategy and the action plans will enable the council to deliver against the key themes of waste, transport, water, purchasing and procurement, biodiversity and natural environment, energy, planning and communicating environmental issues.

Wiltshire Council's Low Carbon Vision:

Wiltshire Council will embed carbon management into the delivery of all services to reduce our carbon emissions and set an example to the business sector and communities of Wiltshire. We will use the experience gained to influence and support others to reduce their carbon emissions, thereby mitigating the effects of climate change.

2.3 Objectives and Target

In the Corporate Plan 2010-2014, the council set out the following **target:**

Wiltshire Council will reduce its annual CO_2 emissions by 20% of its 2008/09 baseline by end 2013/2014, equating to a reduction of 11,823 tCO_2.

In the longer term, it is the council's aspiration to halve its emissions by 2020.

The council has also pledged to meet the 10:10 challenge, which requires as a minimum a 3% reduction on key 2009/10 emissions (equivalent to 658 tonnes CO_2), excluding school and contracted service emissions.

The **objectives** of this carbon management plan are to ensure the council:

1. Makes energy cost savings
2. Performs well under the Carbon Reduction Commitment Energy Efficiency Scheme (CRC)
3. Reduces the council's carbon footprint

2.4 Our Approach

A Whole Council Approach:

The analysis of our carbon footprint (detailed in Section 3) has established that all aspects of the council's work generate carbon emissions. Tackling emissions successfully will therefore require cooperation from across the council, driven by the strong support of leadership of Members and senior management. The ECO Board (discussed in Section 7) will drive change from the top, and the creation of a network of Green Champions will establish a channel for disseminating information across the organisation as well as generating ownership within service areas.

Both the long term and near term targets represent a significant challenge for the authority. The identification and delivery of carbon reduction projects will not only require financial investment, but will also require a fundamental shift in the way that the council manages its energy use. The sheer scale of the organisation, both in terms of the number of assets and geographic spread, means that project identification cannot be the sole responsibility of a single employee or team. The council will need a comprehensively planned and monitored energy management system and to carefully consider the way in which energy budgets are managed.

In order to ensure that the implementation of carbon management is distributed across services, the council has decided to implement an energy management system - BS16001. This will provide a structured approach to energy and hence carbon management.

Energy Policy:

Wiltshire Council is committed to responsible energy management with continual improvement as part of our wider environmental and property management strategy. The council has adopted an Energy Policy, which sets out the authority's aims and objectives that will be used to assess our progress – the full policy is reproduced at Appendix 1.

BS16001 Energy Management System:

The council is aiming to achieve British Standard 16001 accreditation for a new Energy Management System by April 2011. BS16001 has been developed using the same structure and principles as the ISO14001 environmental management system and will facilitate continuous improvement in the management of the council's energy. In using the 'plan, do, check, act' format, it requires organisations to:

- Put in place mechanisms for the collation of accurate and timely energy data.
- Analyse historic information to identify trends and significant energy aspects.
- Develop an action programme for reducing energy consumption (and carbon emissions) through the establishment of objectives and targets.
- Understand who in the organisation contributes to energy consumption, and ensure there is adequate training and support to generate reductions in consumption.
- Instigate a cycle of audits to ensure compliance with the energy policy and action programme.
- Nominate a senior management representative who will oversee the installation and running of the system.

A number of different benefits will arise through the installation of an energy management system, namely:

Issue	Benefit
Energy and financial efficiencies	Reducing energy consumption will result in lower utility bills and reduced exposure to future price increases.
Accurate data	The development of an accurate baseline and automated energy management database will produce accurate and timely data.
Greater departmental awareness of energy issues	The establishment of departmental energy budgets will generate a wider awareness of energy issues. The system should encourage all departments to take the lead.

The Energy Hierarchy:

Action to reduce carbon emissions will generally fall within three categories which should all be tackled for maximum benefit. Figure 2 below shows the energy hierarchy which seeks to rank action in order of return on investment.

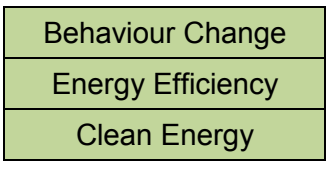


Figure 2. The energy hierarchy

The energy hierarchy will form the basis of the approach to carbon reduction within the council. In the first instance, projects relating to energy saving through behaviour change will be taken forward. Behavioural change offers a low cost way of reducing energy consumption and therefore carbon emissions. These savings can be significant with in some cases up to 10% energy saving being delivered through raised awareness and action (see Figure 3). The impact of behaviour change projects will depend on how much control and influence building/transport users have over the energy consumed. Some key roles will have more influence than others (eg facilities managers). This plan identifies projects such as the Green Champions network and BS16001 that will deliver positive behavioural change, amongst staff and contractors through targeted campaigns aimed at raising awareness.

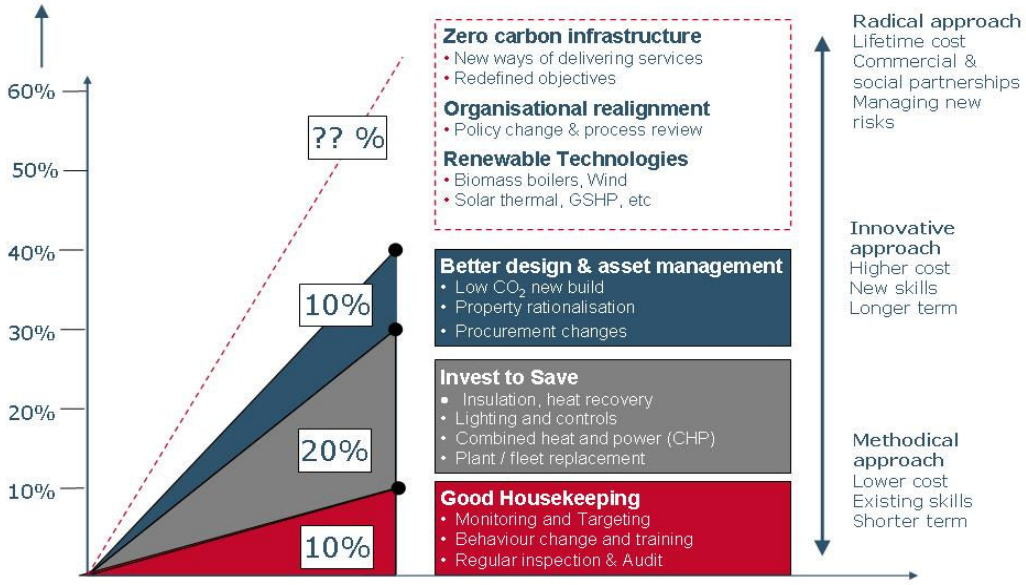


Figure 3: Proportion of carbon likely to be saved through different measures

A significant proportion of carbon to be saved will come through improvements to energy efficiency. Within the council there are numerous opportunities to make more efficient use of the energy we use to heat and light our buildings. Improvements to insulation, efficient lighting and the switch to more efficient appliances (such as laptop computers) can all reduce the amount of energy the council consumes.

The installation of renewable or low-carbon technology is a good way of reducing carbon emissions once demand has been reduced through energy efficiency projects and changing behaviours. It is capital intensive and needs strategic planning. Opportunities for renewable energy exist, and it is likely that these will be rolled out in the medium to long term.

3. Emissions, Baseline and Projections

3.1 Scope

In understanding and tackling emissions, it is necessary to work with three differing datasets: the **council's total carbon emissions** (all emissions from council and contracted out services, including buildings, streetlighting and transport), the subset that covers **CRC emissions** (which includes buildings and excludes transport and some contractors' emissions) and the **10:10 emissions** (covering buildings emissions and mileage emissions but excluding schools). Figure 4 below shows the 2009/10 footprints (total footprint, CRC and 10:10) and the difference between these three datasets.

The council's CRC, 10:10 and total footprint cannot be compared directly.

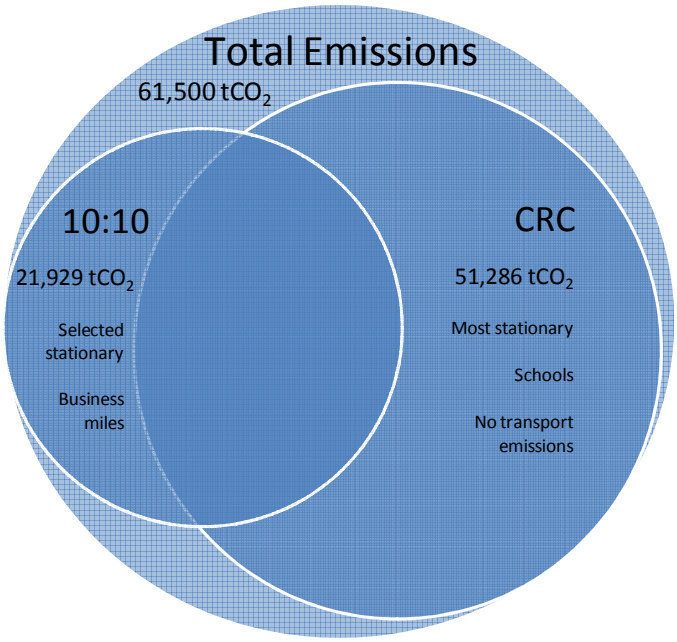


Figure 4: Comparison of Total emissions, CRC and 10:10 footprints

Wiltshire Council's Total Carbon Footprint:

The council's total carbon footprint is determined by calculating emissions arising from energy use for property, transport and street lighting. Included in the footprint are:

- Council owned buildings energy use (including administrative buildings, schools , leisure centres, depots, care homes, etc)
- Building energy use for outsourced council functions (including PFI arrangements, and other contracted services such as leisure centres)
- Street lighting energy consumption
- Council owned fleet fuel use

- Fleet fuel use for outsourced council functions (eg waste management, school transport, highways maintenance)
- Council business travel
- Business travel for outsourced council functions

Excluded from the council's footprint are:

- Subsidised bus transport (ie public transport, as these are included in the county's footprint)
- Emissions from non-energy sources, such as landfill gas, etc
- Council employee commuting
- Energy use in council owned housing
- Waste produced by council buildings and operations
- Water used in council buildings and operations

The energy data for internal council operations is collected in three streams:

- **Property** data for council property is collected by Strategic Property Services
- **Transport** data for transport is collected from Fleet Services for large vehicle plant, for example refuse vehicles, and the Shared Services Team for business travel
- **Street-light** information is collected by the street-lighting service.

Emissions data is requested from **contractors** on a regular basis.

A large proportion of the transport emissions in the baseline from fleet services is derived from estimated rather than actual mileage. Some of the fleet emissions from social services (client transport mileage) and schools (pupil transport) were omitted in 2008/09 while data relating to business mileage could not be broken down by fuel and engine type as this data was not collected. However, this data has been included in the 2009/10 baseline (see also Section 3.2 on data quality).

In previous years, the Government required local councils to report on their emissions data through **National Indicator 185**. Reporting against this performance indicator has been suspended as the national indicator set is under review and due to be replaced in April 2011 by a single data set for local authorities which will include a requirement to report on carbon emissions. The NI85 data allowed a temperature correction for each year to enable a more accurate comparison of performance between local authorities in different parts of the UK and between years when weather may be milder or colder. It is expected that the new data set will allow for the same weather correction. The total emissions footprint outlined above equates to the former NI185 data, without temperature correction.

CRC Energy Efficiency Footprint:

The council is obliged to participate in the CRC scheme and the data required for participation is extracted from the total carbon footprint data set. The following are not included in the CRC Energy Efficiency Scheme:

- Transport
- Tenant emissions
- Emissions from contracted-out services where the contractors are mandatory participants in the CRC scheme

10:10 Footprint:

The emissions covered by the 10:10 campaign include those from:

- Electricity consumption
- On-site fuel use (eg gas, etc)
- Road transport
- Air travel

Emissions from schools and contracted services are excluded from the 10:10 footprint for councils as they are encouraged to sign up to the campaign separately.

The 10:10 target will see the council achieve a minimum 3 % reduction on key 2009/10 emissions (658 tonnes CO_2). The delivery date for this relative annual footprint reduction is the end of 2010/11. A number of energy savings projects implemented in 2010/11 will result in a reduced carbon footprint. Once all the savings projects are implemented by the end of the financial year, our performance will be as identified in the table below, and we therefore expect to have exceeded our 10:10 target.

10:10 Footprint	21,928	tCO_2
TARGET: 3% reduction in emissions	**658**	**tCO_2**
Annual savings expected from all projects to be installed by March 31st 2011	742	tCO_2

Table 2: Projected performance against 10:10 carbon footprint reduction target

3.2 Data Quality

In our workings on footprints and emissions projections we use the latest and best available data. We recognise that there is scope to improve the quality of our data and a number of measures are underway. This means that reported data may change from time to time. In particular, we currently report on a proportion of estimated rather than actual consumption. As data gathering is improved, our footprint will therefore become more accurate.

The baseline for this Carbon Management Plan is the financial year 2009/10 which is the first year of Wiltshire Council operating in place of the five original authorities. The baseline is the carbon emissions total obtained from meter readings, bill analysis, fleet fuel use data, staff transport claims and contractors' emissions.

An early baseline process collected the council's carbon emissions from all five Wiltshire authorities for 2008/09 and this information was used to set a target in the council's Corporate Plan 2010-2014. Since the merging of the five local authorities into a single unitary authority a considerable amount of work has been necessary to consolidate and improve data collection and monitoring. This has been due to the fact that the council inherited five different systems; and secondly, that most of the energy consumption data was estimated, not actual. Accuracy in reporting data is a key requirement of the CRC and inaccurate reporting carries financial penalties.

A substantial amount of work has been undertaken to ensure that all energy-using properties and all energy bills have been captured in the energy database, to ensure that no consumption data is missing. Work is ongoing to ensure that this data accurately represents all energy use in council

buildings. The recent installation of new energy monitoring and targeting software has facilitated this programme of work and once fully operational this software will allow detailed monitoring of energy information.

As very few council buildings had automated meter readers, a programme to install Automated Meter Readers (AMR or smart meters) has been instigated for both schools and non-schools buildings, to enable the accurate collection of data for the majority of our consumption / emissions. The smart meter roll-out is contracted for completion by the end of the financial year 2010/11.

Improving Data from Non-School Buildings:

The council's Energy Services Team has begun improving data collection for energy consumption from non-schools buildings. A programme of installing smart meters into 70 of the high energy using non-school properties is underway. This will provide accurate and regular energy use information for 66% of non-school properties (i.e. within the direct control of the council). Data collected from these meters will be automatically transferred into an energy database, as well as being sent directly to the supplier. This will mean no more estimated data on any property that has a smart meter.

In order to improve energy data collection on the remainder of the estate, a system has been introduced to allow individual site meter readings to be entered onto a dedicated web page. Readings entered into the web page are transferred into the central energy database held by the Energy Services Team. This information will allow a fuller coverage and more accurate data for all sites, including schools. It should also reduce the occurrence of estimated data. It relies on the co-operation of site-based staff to take the readings and enter them.

In the buildings where oil is used for heating it is proposed to fit an automatic oil level meter (a 'watchman') on each tank. This will automatically monitor the oil level in a tank and send a level reading to a logger that can be fitted within the building. This system will allow building staff to enter the monthly oil level reading onto the web page without having to go to the tank. It will also allow for more consistency between readings. Sites with oil will be asked to enter oil delivery information onto the web page as well as the monthly level. This system will be fitted onto all non-school oil tanks during 2011.

Overall these new systems will greatly improve the authority's ability to monitor energy use and therefore target areas for greater savings.

Improving Data from School Buildings:

There are over 230 schools across Wiltshire. Carbon emissions from schools amount to 45% of the council's emissions and the council is corporately liable for these emissions under the CRC.

The service director for schools wrote to all schools in February 2010, and again in July 2010 setting out what the CRC means for them; reinforcing the need for the council and schools to work together; and offering to fund the installation of AMR units across the school estate.

A contract to install over 400 smart meters was set up in October 2010 and is contracted for implementation by end March 2011. Once the programme of smart meter installation is complete, the accurate and detailed consumption information that they provide will be fed into the Energy Database. From this database it will be possible for the council and each individual school to monitor and analyse their energy use. In particular, the database will assist in identifying unusual

patterns of energy use; high energy use; and potential areas for improving energy efficiency. Schools may also use the data relevant to them for curricula activity.

Improving Data from Transport:

In order to better capture emissions from **council fleet**, work is underway to harmonise fuel records across all depots with the introduction of a new fuel management system. It is anticipated that this system will be rolled out in late 2010/11. A short-term measure which extrapolates emissions based on expenditure on fuel, broken down by vehicle type and use, has been introduced to provide indicative data. This method of estimating emissions has also been applied to social care client and pupil transport.

A key, low cost method of reducing emissions from our **fleet** is by improving driver technique through information obtained from in-vehicle telematic systems. During 2011 the Eco Team will work with Fleet Services to determine a specification for a fleet-wide roll out of this system and develop a business case for its implementation.

In order to improve the collection of **business mileage** data, the council's finance and procurement system (SAP) will be updated to record it more accurately. This will need to include fuel type, engine size and journey mileage so that accurate information can be collected and broken down by service area, which in turn will assist in the identification of potential projects.

Improving Data from Contractors:

To understand all emissions generated as a result of the council's activities, emissions data is requested from contractors on a regular basis. For example, Ringway monitor fleet activity at Devizes Depot through a GPS telemetry system, and the council already has access to data for the 12 facilities managed by DC Leisure.

3.3 Wiltshire Council's Emissions Baseline

For the baseline year 2009/10 the total carbon emissions from Wiltshire Council operations were 61,500 tonnes of CO_2 associated with an annual expenditure on energy and transport of £13.86 million.

Of these total emissions, for 2009/10, the emissions relating to CRC and 10:10 were:

Total emissions:	61,500 tCO_2
CRC footprint:	51,286 tCO_2
10:10 footprint:	21,928 tCO_2

Table 3 below shows the headline split between stationary emissions and transport in 2009/10 in terms of total carbon emissions and spend. It can be seen that although transport accounts for 23% of the Council's carbon emissions, it accounts for 40% of the council's spend.

Unit	Transport	Stationary sources	Total
Energy Cost (£)	£5.54m (40%)	£8.32m (60%)	£13.86m
Carbon Emissions (tCO_2)	12,040 (19.6%)	49,460 (80.4%)	61,500

Table 3: 2009/10 carbon emissions and energy spend

While the council is responsible for generating 61,500 tCO_2 in total, 28% of these emissions result from contracted-out services – see table 4 below. The total proportion of our emissions that we have direct control over, therefore, accounts for 72% of our total footprint, equating to 44,542 tCO_2. We will try to influence the emissions produced by contractors, but may not be in a position to affect them until contracts come round for renewal.

Source	Emissions (tCO_2)	% of Total Emissions	Internal / contracted
Internal Facilities	37,049	60%	72%
Internal Transport	7,493	12%	
Contracted Facilities	12,411	20%	28%
Contracted Transport	4,547	7%	
Total:	61,500	100%	100%

Table 4: Split of carbon emissions by source and internal or external responsibility

Figure 5 below shows the proportionate split between internal and contracted emissions while figure 6 shows their service source.

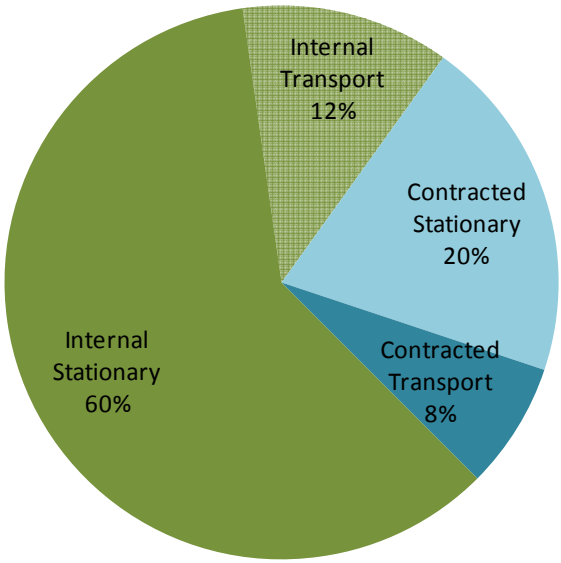
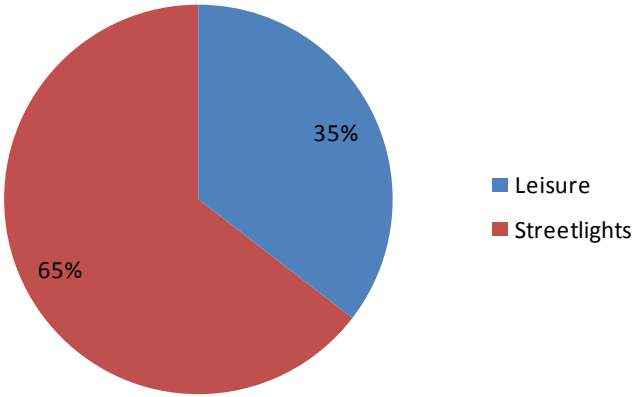
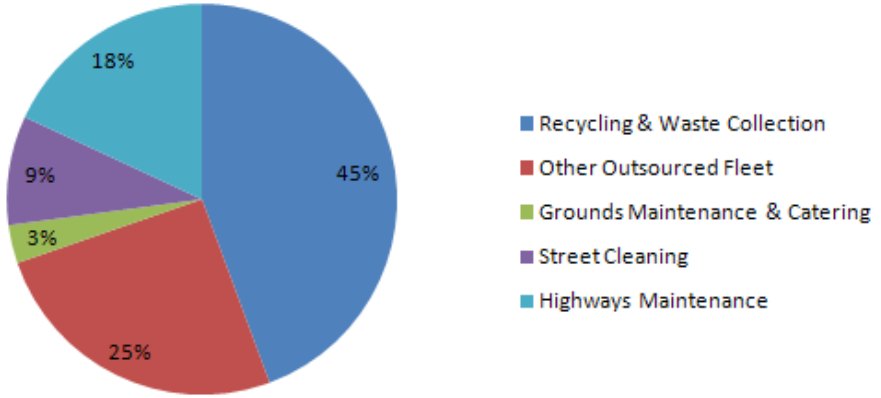


Figure 5: Proportion of internal and contracted carbon emissions, 2009/10

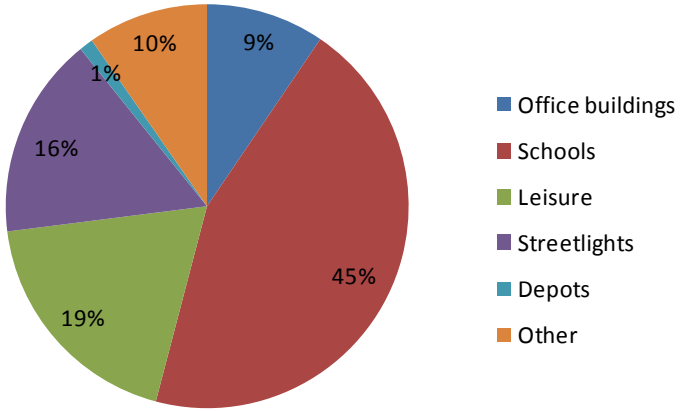
Contracted Stationary Emissions



Contracted Transport Emissions



Internal Stationary Emissions



Internal Transport Emissions

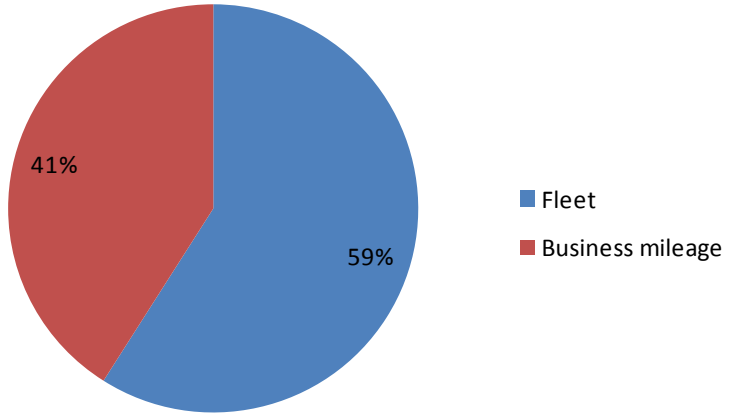


Figure 6: Service-related source of carbon emissions, 2009/10

3.4 Emission Factors and Assumptions

As well as accuracy of the data (discussed in 3.2 above), there are a number of variables and assumptions that influence the calculated carbon emissions and cost to the council. The key variables relate to:

- Energy costs
- Mileage rates
- Weather (temperature correction)
- Emission factors
- Growth: absolute and relative reductions

Energy costs are prone to fluctuation and significant price changes are frequent. The council's gas and electricity energy supply contracts are fixed for one year which offers an opportunity to reduce costs through negotiation with suppliers. Oil and LPG prices will fluctuate all year round. As a consequence, energy costs may rise over the plan period and this will be monitored in reporting and forecasting work. The calculations currently assume an annual cost increment of base rate plus 2% per annum, although in reality this may be much higher in any given year. For example in April 2008 gas prices rose by 35% and in October 2008 electricity prices rose by 70%.

In 2009/10 staff claimed almost 6.9m miles. At an average **mileage rate** of £0.40, it is estimated that the cost to the authority in 2009/10 was £2.7m. Whilst £0.40 is the HMRC rate paid to staff on Wiltshire Council contracts, a variety of different rates are currently in place as a legacy from the historic county and district council structure. A new staff travel policy is being developed that will harmonise terms and conditions. By making changes to allowances, it aims to encourage staff to travel more sustainably, whilst reducing the annual budget payable.

As mentioned in Section 3.2 above, **weather / temperature correction** is useful to enable the comparison of performance between years as the mean temperature has a very significant effect on the amount of heating or cooling required and therefore on fuel consumption and resulting emissions. For example, the 2009/10 winter was the coldest for 30 years and direct comparison of energy consumption for previous or subsequent years with this baseline year could be misleading.

The amount of carbon dioxide emitted by any particular fuel is dependent upon its carbon content – the higher the level of carbon, the higher the level of CO_2 emitted. Different fuels will have a higher impact than others. Defra-published **Emission Factors** convert existing data sources (e.g. utility bills, car mileage, refrigeration and fuel consumption) into CO_2 equivalent emissions by applying relevant conversion factors (e.g. calorific values, emission factors, oxidation factors). For further details see Appendix 2.

Most organisations will expect an inflationary effect of consuming more energy and resources each year compared with the previous year. The industry standard is to expect an annual **growth of emissions** of 0.7 %. This is **not** accounted for in this plan's targets; the targets in this plan will therefore be a **relative reduction** and not an **absolute reduction** in emissions. Absolute carbon reductions must take this growth into account and must therefore be larger cuts than relative cuts if overall emissions are on the increase. The figure below illustrates the widening gap caused by consistent emissions growth between an absolute cut and a relative cut of five percent against the baseline year.

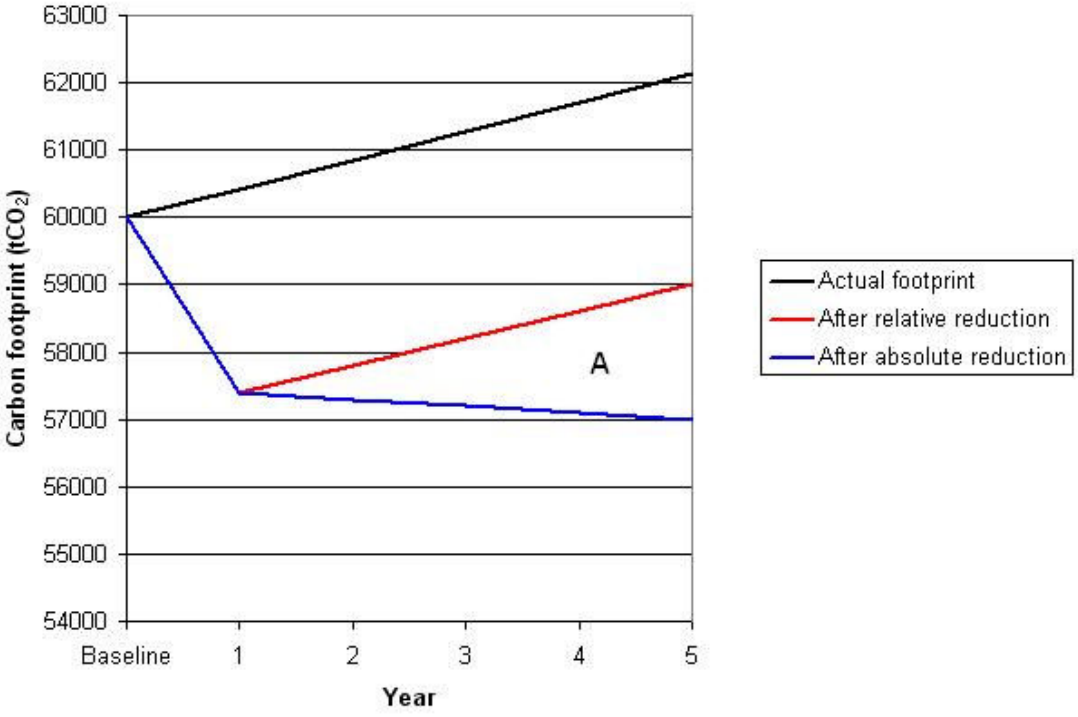


Figure 7. Gap (A) between absolute and relative reduction of five percent in year one by the end of a five year plan period.

4. Delivery

The analysis of council operations has shown that all aspects of the council's work generate carbon emissions. Tackling emissions successfully will therefore require cooperation from across the council which will be supported by strong leadership from Members and senior management. This chapter presents the key services associated with the reduction of carbon emissions, the major programmes of work that must be engaged with, describes the issues surrounding the management of the school estate and sets out specific projects to reduce carbon emissions.

The creation of the new unitary authority in April 2009 means that the council is in a unique position in terms of carbon reduction. Wiltshire Council operates in a fundamentally different way to the previous five authorities. The first year of the new unitary was a 'transitional' year, with services being brought together in a way that minimised disruption to service delivery. The council is now moving into a phase of transformation to realise efficiencies and improve service quality. This transformation programme offers the opportunity to deliver carbon reduction and will form the basis for a significant proportion of our carbon savings during the life of this plan and beyond.

Section 4.1 below identifies a number of key strategic programmes of work that are underway which could impact on the council's carbon emissions. Some of the proposed programmes could increase carbon emissions, while the majority are expected to reduce our footprint. These strategic work programmes will need to assess and quantify the carbon emissions impact.

4.1 Delivery Opportunities

Office and workplace transformation:

One of the major changes that the council is making relates to the rationalisation of its building assets. The Campus and Operational Development Programme (CAOD) is a major undertaking seeking to streamline the council's building stock. The first phase of the project is expected to reduce the council's 98 administrative properties eventually down to four large hub offices with hot-desking facilities by 2014. Of the 4 hubs, two existing offices will be fully refurbished (Trowbridge: County Hall and Devizes: Browfort) to make them fit for purpose; one will require moderate modernisation and one is a new build. The carbon management plan will be updated to reflect new developments as this dynamic area of work progresses.

Service Operational Campuses:

The second phase of the Campus and Operational Development Programme will review operational accommodation to provide 'service campuses' that co-locate service centres with administrative centres, in each community area (approximately 20 in total). Several of these will be delivered in the same timeframe as phase one. As with the first phase, a significant property disposal programme will be implemented to help realise additional benefits and savings. The outcome of this work programme may significantly affect the CMP and the document will need to be updated with the outcome of the review when that process is complete.

Leisure Review:

In tandem with the campus review, the authority has conducted a review of leisure provision and the proposals have gone through consultation process. Final decisions will be made through the campus review process.

The council currently owns 22 leisure facilities across Wiltshire:

- 8 managed by the council
- 12 managed by DC Leisure on behalf of the council
- 2 leased to community sports associations. (Calne and Cricklade)

The council is also in the final stages of negotiating a contract extension with DC Leisure for a further two year period (01/04/11 - 31/03/2013). As part of this extension the council (via Strategic Property Services) is looking to assume responsibility for the procurement of all the utilities. This means that the emissions from these buildings will fall under the council's in-house footprint (where before they were contracted out) and we will be responsible for them under CRC. On the other hand, the council will have direct control over influencing consumption and implementing energy efficiency measures.

Libraries Review:

The Library Service is currently engaged in a review process to ensure that provision is effectively matched to customer need. By March 2012 the service will have analysed its current provision, sought customer and stakeholder views and designed/implemented its future delivery model. It is likely that these processes will identify opportunities for carbon reduction through analyses of building, transport and service delivery operations.

The review also falls under the Campus and Operational Development Programme, with Libraries having an involvement in several workstreams, many of which will bring a carbon reduction benefit – County Hall refurbishment (new Trowbridge Library and alternative location for the functions sited in the Chapmans building), touchdown centres (the first of which will be within the new energy-efficient library at Pewsey), personal care facilities for people with severe disabilities, service co-location, service campuses and the re-designed approach to customer focus.

Low Carbon Standards for New Council Buildings:

A working group has been set up with a view to developing a low carbon building policy that, once adopted, could be applied to any building development or refurbishment being carried out by the council or on its behalf. The group consists of representatives of the ECO team, Strategic Property Services team and School Buildings team. The Policy will build on the work on sustainable schools that has already been started within Strategic Property Services and will tie in with the Climate Change Adaptation Plan.

Depot Review:

The authority has conducted a review of depot sites and plans to rationalise them for greater operational and cost efficiency. The review has forecasted that carbon emissions from depots will be reduced by 20% (5000 tonnes) over the life of the project.

Harmonisation of Staff Terms and Conditions:

This programme of work is driven by the need to ensure all staff from the five former councils move to the same employment terms and conditions. It presents an opportunity to develop a new staff travel policy and a duty for all staff to act responsibly for their energy and fuel consumption at work.

ICT:

Supporting all of these projects will be information technology (IT) systems that will allow staff to access information and programs when and where they need them. In order to achieve this flexible approach, the five networks of the former authorities need to be amalgamated. Although this will take time, it will lead to a carbon saving in its own right as the number of data centres (which need to be powered and cooled) will be reduced from five down to two.

Data Centre Consolidation will essentially reduce the number of computer rooms that the Council has. As well as moving physical equipment and putting it into two big data centres, it also involves the virtualisation of servers. Virtualisation is the hosting of individual servers as virtual machines within a much larger system meaning that the amount of power needed is reduced, realising carbon savings from decommissioning physical machines.

Having a joined up network will enable ICT to implement other programmes for example the switching off of ICT equipment when it is idle i.e. screens and workstations overnight. Since these will not be drawing any power when turned off, there is a declarable carbon saving to be made. The ICT Team have started looking at suitable solutions for this.

Through CAOD, more flexible working patterns can be developed. This will include but will not be limited to; secure remote working, video conferencing capabilities, tele-conferencing capabilities, etc. All of these are designed to reduce the amount of miles travelled by staff to attend meetings at other sites, saving on fuel and carbon emissions.

As a service, ICT has partnered with a company called Redemtech to dispose of obsolete equipment either through recycling or sale. Redemtech provide a quarterly report of carbon and trace metal savings achieved.

Schools:

There are over 230 schools in Wiltshire, some operating from more than one site. Although schools are increasingly autonomous from the local authority, the council is responsible for their carbon emissions under CRC. A Climate Change Project Officer: Schools post was created in October 2010 to develop resources and communications to schools to ensure that they understand their responsibilities under the CRC and to work with them to reduce their emissions, identifying and obtaining external funding where possible. The officer will also network with officers in other authorities to establish best practice.

A climate change section will be published on Wisenet – the Wiltshire Council schools' online resource – and will provide a reference point for all schools to access guidance on sustainability issues. There may be scope for a designated forum for schools to be created, to provide networking opportunities for schools who want to become more sustainable.

A working group has been established to update key members of staff within the ECO Team, Department of Children and Education and Energy Services Team on progress within the project.

Street Lighting – Part Night Lighting:

Money and energy will be saved by Wiltshire Council in converting around 400 main street lights across the county to part night lighting.

The new scheme will mean street lights are to be switched off for part of the night on some main roads where there are generally no properties or junctions. They would be switched off between midnight and 6am when traffic flows are low and there is less need for the lighting. Reducing the time the 400 lights are on will save more than £9,400 per year at the current price of electricity. This could mean savings of more that £300,000 over the next 25 years.

The lights are on the following roads:

- A3102 Greenacres Way, Calne
- A350 West Cepen Way, A4 Pewsham Way, A4 Avenue La Fleche, Chippenham
- A4 Corsham to Box
- A361 Caen Hill, A361 London Road, Devizes A350 Western Way (between Semington Roundabout and Countrywide Roundabout) Melksham
- A4 Pewsham
- A338 Churchill Way South and New Bridge Road, Salisbury
- A361 Hilperton Drive, Trowbridge

Temporary signs will be in place to advise motorists the lights will be turned off for part of the night, the scheme is due to start by the summer 2011.

Street Lighting Community-Based Projects:

The council is also working with local communities to convert village lights to only operate for part of the night. A pilot project has already been successfully introduced in trial sites at Urchfont and Tidworth. The council has set aside £5,000 for each of the 18 Area Boards to introduce schemes in their areas in 2010/11, garnering interest from Town and Parish Councils and other interested parties to take part in the scheme. £5,000 would enable over 100 units to be converted to part night lighting so that they would go off at about midnight and come back on at approximately 5.30am.

Interested communities must nominate an individual to act as Project Leader to take the lead in identifying groups of street lights to be altered, undertake consultations and liaise with the community. Council staff and specialists will advise on technical aspects, including the viability of the proposals, and will arrange the implementation of the schemes.

In urban areas there may be concerns about crime and personal safety, as well as road safety implications, and it may be more appropriate to dim the street lighting during part of the night. In rural areas and villages turning off street lighting for part of the night may have local support, especially where night sky pollution is a concern, and there is a desire to preserve the rural environment as well as concerns about climate change.

Waste Management:

The council intends to make changes to waste and recycling collections in line with government policies and a corporate objective of reducing waste sent to landfill to 25% of the total collected by

2014. The changes to collections is forecast to increase the council's average recycling rate to about 50%, compared to 40% currently.

There is no clear guidance about the extent to which this general presumption in favour of recycling might be undermined when additional vehicle miles will be travelled and additional fuel will be needed to collect the recyclates. For this reason, the proposed changes were assessed for the likely vehicle mileage impact and mitigating factors at the collection stage. The assessment concluded that the changes will result in an increase in collection vehicle mileage of about 20%, which will result in the authority's carbon footprint increasing. Based on the figures contained within the assessment, it is estimated that an additional 634 tonnes of CO_2 will be emitted which equates to the 2009/10 emissions from Durrington and Warminster leisure centres combined.

The provision of a garden waste collection service should divert an increased quantity of waste which is 100% biodegradable from landfill. Similarly, the decision to provide a cardboard collection service should divert a considerable quantity of card, which is also 100% biodegradable, from landfill. With less biodegradable municipal waste entering landfill, a lower methane production from landfilled waste could mitigate any increase in carbon emissions from additional miles travelled to collect these materials.

The changes to collections should see a decrease in the overall county carbon emissions as residents would make fewer journeys to household recycling centres and local recycling sites, instead taking advantage of the enhanced kerbside recycling services. Whilst this scenario cannot be proven at this stage, if realised approximately 681 tonnes of CO_2 could be saved on the county's carbon footprint, cancelling out the increase due to kerbside collections. There would also be a slight reduction in heavy goods vehicle miles for servicing these sites.

Whilst these estimates cannot be confirmed, they indicate that the net mileage impact of collections on Wiltshire's carbon footprint is likely to be relatively slight, and likely to be broadly neutral in its effect on the collective Wiltshire Council and county carbon footprint.

Plans for a proposed mechanical biological treatment (MBT) plant in Westbury have been approved and it is expected to be in operation in 2014. The £15 million plant will turn more than 45,000 tonnes of local rubbish in to a fuel to be used at a variety of outlets. The approved plans also include a household recycling centre (HRC) which means that local residents will no longer need to travel to Warminster and Trowbridge.

Fleet:

Options for reducing emissions from fleet operations include investing in vehicle carbon emission telemetry, which would give us more detailed data to ensure they are operating as efficiently as possible.

Vehicle carbon emissions telemetry should also be specified for future fleet contracts.

Implementation of BS16001 :

As part of the BS16001 Energy Management System, site inspections and audits will be carried out, initially targeted at eight sites, but eventually for all sites. The Energy Services and ECO Teams will work with building users to develop robust energy management practices. This will allow for greater understanding of energy use in the council's buildings, enable the embedding of

carbon reduction work into the day-to-day running of council properties, and identify opportunities for potential carbon saving projects.

Sustainable Procurement:

The council needs to consider how it influences carbon emissions from services that are contracted out to third parties. This is particularly challenging where contracts are already let. Engagement with procurement at the earliest stage is essential to ensure tender specifications keep CO_2 levels as low as possible. For existing contracts, provision needs to be put in place for the council to work with contractors to cut carbon, reclaiming money from the operator where the council's invest to save fund has been used on energy efficiency projects.

Another issue that needs to be considered during the tendering process is the Carbon Reduction Commitment (CRC). Liability for the payment of these allowances could fall with the Council if the contractor does not participate in the CRC scheme in their own right. However, if they are large enough then liability for these allowances would be passed from the council to the contractor. This variance has the potential to skew tender price submissions and needs to be factored in accordingly during the tender evaluation process.

During 2011 the Senior Procurement Practitioners Group will look at how energy efficiency and the CRC can be embedded within contracts. There is the potential that this could be done in several different ways, including:

- Revising the procurement toolkit
- Providing training to key members of staff who undertake procurement
- Assisting with the development of ranking matrices for tender responses that take energy and carbon issues into consideration.
- Developing contract clauses that enable the council to work closely with third parties on energy efficiency projects, reclaiming money where we have invested money in projects.
- Undertaking a carbon audit of services before tender specifications are written to determine ways services can be made greener.

The Energy Project Team task group, made up of officers from the ECO Team, Energy Services Team, Procurement and contract managers is investigating the possibility of moving all sites onto an Office of Government Commerce (OGC) energy contract in order to achieve savings to the council, as well as to move where possible to low carbon or green energy contracts.

Policy Alignment:

To ensure all policies and services align with the council's low-carbon vision, key decisions deliberated by Cabinet must now include an assessment of the carbon emissions and climate change adaptation impacts.

Renewable Energy and the Feed In Tariff (FIT):

The potential for the council to consider renewable energy for its buildings is currently being considered separately to this plan and is expected to be published in early May 2011. The final recommendations will be fed through into reviews of this plan.

Appendix 4 identifies existing renewable energy schemes installed across council services.

4.2 Carbon Management Projects

Carbon reduction projects have been identified to deliver emissions and cost savings both in the short, medium and long term. These may be either behavioural or technology based.

Behavioural projects relate to how people interact with technology - either reducing the need to use energy or encouraging a preference for a lower-carbon alternative. This would range from creating a culture of switching off devices when not required, to choosing not to travel to a meeting and use a remote conferencing option instead. Behavioural projects are characterised by minimal capital cost. They involve staffing (revenue) costs to implement and maintain the programme, difficulties in generating momentum and then later quantifying its impact and, critically, a very high and immediate potential impact on carbon emissions. Ancillary benefits include greater staff engagement and improvements in domestic practice when staff take energy saving ideas into the home environment.

One of the key areas for carbon reduction over the short term will be through behavioural change and staff engagement though raising awareness of energy efficiency. This is assumed to deliver an approximate 5% saving on energy. It should be noted that the carbon savings identified through these projects are a theoretical maximum across all energy types and locations. The ability for staff to actively save energy will be dependent upon the building they work in.

Technology-based projects include lighting sensors, high-efficiency lamps, timer switches, energy-efficient heating, cooling and ventilation equipment. In some cases equipment will deliver a cost saving irrespective of the end user, for example voltage optimisation equipment. Other equipment may be expected to generate a saving but may be compromised by the end user, for example auto-closers fitted to doors that are then propped open. The expected savings from a project can also be compromised by the subsequent introduction of other equipment, for example when high-frequency lighting replaces the original lighting after a voltage optimiser unit has been fitted.

Short Term (First year of Plan, 2010/11):

Appendix 3 sets out the programme of energy efficiency measures to be delivered in the short term, together with expected costs and carbon savings. In addition, a programme of awareness raising and behaviour change has been launched across the council with the aim of meeting part of the 20% reduction target and the impact of this campaign will be quantified and monitored.

In total, the energy efficiency projects implemented in 2010/11 will save an annual total of 742 tCO_2.

Medium term (2011/12 to end of plan period, 2013/2014):

In the medium term, in addition to invest-to-save schemes implemented through the council's invest to save energy efficiency budget (see table 7), a number of strategic work programmes have been identified, in particular through the Campus and Operational Development Programme (CAOD) and are quantified in Table 6 below:

Project	Description	Footprint Reduction	Avoided Energy Cost	Avoided CRC	Total annual avoided

		tCO_2	(£ m)	Cost (£ m)	costs (£m)
CAOD: Office Review – Phase 1 (V4)	Streamlining the council's building stock by 2014. Phase 1 objective: reduce the council's 97 administrative properties down to 4 large hub offices with hot-desking facilities.	3,273	£0.998	£0.161	£1.159

Table 6: Medium Term Strategic Work Programme

Long term (Beyond Plan Period, post 2014):

In the longer term, a number of further strategic programmes have been identified that present the opportunity to make carbon emissions and related cost savings. These are listed below. Work will be ongoing to quantify the savings.

CAOD: Office Review – Phase 2	Phase 2: Extend service operational accommodation to form service campuses in each community. Dispose excess properties.
CAOD: Leisure Review	The review of Leisure services and campuses will offer the opportunity to reduce carbon emissions and increase energy efficiency.
CAOD: Libraries Review	The co-location of services in service campuses will offer the opportunity to reduce carbon emissions and increase energy efficiency.
CAOD: Depot Review	Review in the potential to reduce / streamline council depots
Low carbon standard for new council buildings	Development of low carbon building policy to apply to new building developments or refurbishments of existing buildings
BS16001 Energy Management System	Develop robust energy management practices in the council's buildings, enable the embedding of carbon reduction work into the day-to-day running of council properties, identify opportunities for potential carbon saving projects and implement behavioural change projects.
Renewable / low carbon energy generation	Development of a policy to maximise investment in or procurement of renewable / low carbon energy generation. Existing schemes are outlined in Appendix 4
Harmonisation of staff terms and conditions	Opportunity to develop a new staff travel policy and duty for all staff to be responsible for efficient energy and fuel consumption at work.
ICT	Development of ICT systems to provide: • Hot desking and support for flexible working (remote working, video conferencing; teleconferencing); • Consolidation of the 5 existing networks – Reduction of data centres from 5 to 2;

	• Virtualisation of servers; • Power down software for idle equipment; • Recycling of obsolete equipment
Street Lighting Projects	Improved energy efficiency for street lighting (eg implementation of dimmers, energy efficient technology or switch-offs)
Procurement	Incorporating carbon efficiency into corporate procurement
Policy Alignment	Review of key decisions in Cabinet papers for their carbon emissions and climate change adaptation impacts

5. Investment, Savings and Benefits

As an indicative cost of energy efficiency, saving a tonne of CO_2 through energy efficiency measures will initially require a one-off investment of the order of, on average, £900[3], while emitting a tonne of CO_2 currently costs £310 per year in energy bills. It will take typically 4-5 years to recoup the invest-to-save cost. Savings should therefore be understood as **avoided costs.**

5.1 Savings

The council spent £14m on energy and transport in 2009/10, with an associated carbon footprint of 61,500 tonnes of CO2. The council has set a target to reduce its carbon footprint by 20% by 2013/14 (11,823 tCO2). In reality energy efficiency projects do not necessarily deliver an absolute reduction in costs as there are many inflationary factors (see Section 3.4 on assumptions) and thus are most likely to effect relative reductions through avoiding costs.

The Carbon Reduction Commitment means that for every tonne of carbon emitted from our buildings and streetlights we project that we will pay £12 in 2011/12 and 2012/12; £16 in 2013/14 and increasing amounts thereafter. (See table 1 above.) Reducing our carbon emissions will reduce the CRC costs as well as avoid energy costs.

To illustrate the level of savings that are possible, during 2010/11, £0.5m was allocated in the capital programme and £0.7m was secured as a 0% government loan. This has been invested in a range of energy efficiency projects such as LED bollards, an air source heat pump at the Shurnhold office, building management systems at leisure centres and a combined heat and power (CHP) plant at the Salisbury 5 Rivers Leisure Centre. The CHP plant was financed through the 0% loan. It cost £176,000, will payback within 5 years and will save 6% of emissions from leisure centres currently operated by the council in Wiltshire.

In the event, not all the 2010/11 projects from the £1.2m budget will have been fully implemented by end March 2011. Those that have been implemented are projected to realise a saving of £116,000 per year of avoided costs, or a total of £580,000 over 5 years (see table 7 below).

5.2 Investment

To achieve the target carbon reduction, both capital and revenue will be necessary to invest-to-save. Additionally, external funding will be levered in wherever possible. As already indicated, £0.7m was raised as a 0% loan from government in 2009/10. Payback on the loan is achieved through the energy cost savings.

The effect of continued council investment of £0.5m revenue for the next 4 years and £0.5m capital for the next 2 financial years, as proposed in the council's Business Plan 2011-2015 will be to save the council £2.62 in avoided energy bills and is likely to save a further £260,000 in avoided CRC payments as illustrated in Table 7:

[3] The figure £900 per tonne is an indicative figure, based on energy efficiency surveys carried out by the Carbon Trust on a number of different council buildings. If we succeed in implementing projects at a more cost-effective rate, our investment fund could potentially generate greater carbon and financial savings.

	Investment (£ m)	Emissions Footprint Reduction (tCO_2)	Avoided Energy Cost (£ m)	Indicative avoided CRC Cost (£ m)	Total Avoided Spend (£m)
2010/11 (Council)	0.5	Full annual saving realised in next financial year			
2010/11 (External)	0.7				
2011/12	1	742	0.107	0.009	0.116
2012/13	1	2,467	0.404	0.030	0.433
2013/14	0.5	3,578	0.604	0.057	0.661
2014/15	0.5	4,134	0.704	0.074	0.778
2015/16	-	4,411	0.804	0.088	0.892
Total	**£4.20**	**4,411**	**£2.62**	**£0.26**	**£2.88**

Table 7: impacts of energy efficiency investment [4]

Projections for energy savings are based on an average payback period of 5 years. Some may take longer, others may pay back in 1-4 years, and so are a good opportunity for invest to save.

5.3 Non-financial benefits

In addition to the benefits quantified above, implementation of the Carbon Management Plan will ensure Wiltshire Council:

- Meets its commitments under the CRC scheme.
- Meets regulatory compliance.
- Improves its reputation with staff, stakeholders and the public through leading by example.
- Understands and is able to adapt its services in response to the unavoidable consequences of climate change.
- Delivers environmental benefits for Wiltshire.

[4] Assumptions: mean investment required to save a tonne of CO_2 is £900; payback rate is 4-5 years on average; 90% of carbon reduction funding is used for buildings or streetlights and therefore reduces CRC liability; energy cost inflation is 5% (base rate + 2%).

6. Programme Management

6.1 The Programme Board – strategic ownership and oversight

Strategic ownership and oversight of the carbon reduction work programme is undertaken by the ECO Board. Chaired by the Cabinet Member and portfolio holder for the Environment, it includes directors from across the council. The full membership is presented in Table 8.

Table 8. Membership of the Energy Change Opportunity Board

Cllr Toby Sturgis	Cabinet member with responsibility for Environment (Chair)
Mark Boden	Corporate Director, Neighbourhood & Planning
Alistair Cunningham	Director Economy and Enterprise (Project Sponsor)
Parvis Khansari	Director of Strategic Services
Laurie Bell	Director of Policy, Research and Communications
Michael Hudson	Interim Chief Finance Officer
Mark Stone	Transformation Programme Director
Jacqui White	Service Director Shared Services & Customer Care
Tracy Carter	Director of Waste Management Services
Mark Smith	Director of Neighbourhood Services
Stephanie Denovan	Director of Schools and Learning
Niki Lewis	Director of Community Communities, Libraries, Heritage & Arts
Ariane Crampton	Head of Climate Change Team

The Board's Terms of Reference are as follows:

WILTSHIRE COUNCIL ECO BOARD

Terms of Reference

The Board will:

- Champion and provide leadership on climate change work
- Set and review strategic direction and targets
- Own the scope of the climate change programme and prioritise carbon reduction projects
- Monitor progress towards objectives and targets
- Remove obstacles to successful completion of climate change projects
- Review and champion plans for financial provision of climate change projects
- Ensure there is a framework to co-ordinate climate change projects

The Board will meet on quarterly basis or more often if deemed necessary. Minutes and action points from the meeting will be recorded and distributed to members.

The ECO Board recognised early on that the Campus And Operational Development Programme (the former Workplace Transformation Programme) would be able to deliver a significant amount of carbon savings by 2014. Therefore a joint paper was prepared by the Head of ECO Team and the CAOD Director setting out the relationship between the two Boards. The Project Sponsor (the Service Director for Economy and Enterprise) for the carbon management programme sits on the CAOD Board and the Director of the CAOD Programme reports to the ECO Board as a standing item.

CAOD has committed to reducing carbon emissions by 40% for all buildings in scope.

Alongside the CMT, the ECO Team is engaged in working with task groups on sustainable procurement. The Energy Project Team and the Senior Procurement Practitioners Group (discussed in Section 4: Sustainable Procurement) report to the council's Procurement Board.

In addition to the involvement of the Corporate Director for the Department of Neighbourhood & Planning on the ECO Board, the Corporate Director for the Department of Resources is the Senior Responsible Officer for the CRC scheme.

6.2 The Carbon Management Team

The Carbon Management Team was set up in July 2009 and has successfully engaged with all relevant parts of the council. The membership is presented in Table 9 and its agreed terms of reference are as follows.

The Carbon Management Team will:

- support the project leader
- ensure carbon management is integrated across the council
- provide baseline data
- identify projects, write project definitions and quantification
- implement projects

The team will meet on a quarterly basis or more often if deemed necessary. Minutes and action points from the meeting will be recorded and distributed to members.

Table 9. Membership of the Carbon Management Team.

Issue/Role	Team Member
Project Lead	Ariane Crampton, Head of ECO Team
Energy Management (and Deputy PL)	Viviene Sawyerr, Senior Energy Officer
Internal Communications	Donna Mountford, Communications Officer
Strategic Property Services	Neil Ward, Head of Property Services
Leisure Facilities	Robin Townsend, Head of Leisure
Fleet Management	Andrew Saxton, Fleet Manager
Street Lighting	Peter Binley, Head of Highways Asset Management
Waste Management	Andy Conn, Head of Waste Management Martin Litherland, Head of Waste Collection
Schools	Nick Glass, Head of Secondary School Improvement
Sustainable Procurement	Tony Brett, Head of Procurement
IT Services	Steven Grieshaber, ICT Service Design and Infrastructure Manager
Campus and Operational Development	Sarah Ward, Project Manager

6.3 Succession Planning for Key Roles

It is important that the momentum of the carbon reduction programme continues to drive forward. The first year of the plan period (2010/11) focussed on setting up the internal structures and resourcing to ensure continued support. Key steps have been:

- Including a carbon reduction target in the council's Business Plan 2010 – 2014.
- Ensuring that energy efficiency is recognised as a corporate priority in the Business Plan.
- Setting up the ECO Board with leadership from the portfolio holder for the environment, and membership at director level across a wide range of the council's services.
- Ensuring both revenue and capital budget resources are allocated to support implementation of the programme.
- Ensuring all services and policies align with the council's low-carbon vision; key decisions deliberated by Cabinet must now include an assessment of the carbon emissions and climate change adaptation impacts.

These measures ensure that there is support both top down and across the organisation to secure carbon reduction activities as a priority. An absence of key personnel at any level will result in issues being escalated (either to higher levels of management or to the ECO Board) to ensure progress is maintained.

6.4 Priority activities

The approach for reducing carbon emissions in Wiltshire Council will be:

- To balance total emission reductions with overall cost effectiveness
- To prioritise programmes of work that will promote behavioural change in the organisation
- To prioritise programmes of work that deliver financial savings as well as carbon reduction

The initial areas of focus will be:

- Data quality and coverage
- Energy management and performance monitoring
- Sustainable procurement
- Sustainability in decision making for large projects
- Establishment of a Green Champions network to deliver behaviour change
- The establishment of a framework for energy efficiency projects
- Identification and implementation of projects

6.5 Review and monitoring

Table 10. Programme reporting structure and review cycle.

Type	Who involved	When	Purpose
ECO Board	Board members	February	To agree business plan and annual work programme to begin the following April **Report on to Corporate Leadership Team & Cabinet**
ECO Board - Mid Year review meeting	Board members	October	To review progress of work programme against targets and budget To consider opportunities to develop the business plan To consider funding opportunities
ECO Board – Quarterly meetings	Board members	Every 3 months	To monitor progress of the work programme To address barriers to progress To consider funding opportunities
Quarterly reporting	ECO Team, Carbon Management Team, Energy Services Team, Corporate Finance	Written report Q1 Jul Q2 Oct Q3 Jan Q4 Apr	To provide written progress report to the Board To monitor against corporate plan targets To update the ECO Board on the funding position **Report on to Corporate Leadership Team as necessary**
Progress Monitoring and Development planning	ECO Team, Energy Services Team	Monthly	Monitoring of progress of projects including identification of barriers Assessment of work programme to ensure sufficient projects are identified and worked up to implementation **Report on to Sponsor as**

Type	Who involved	When	Purpose
			necessary
Scrutiny – Environment Select Committee	ECO Team	Annually	To review progress of work programme against targets and budget To consider opportunities to develop the business plan To consider funding opportunities

The ECO Team will monitor the Carbon Management Programme in the first instance using a RAG (Red, Amber, Green) alert system to identify areas of concern to the Carbon Management Team and the ECO Board.

The council's Internal Audit Team will provide audits for data management systems.

Wiltshire Council's Environment Select Committee has the power to scrutinise the whole work stream at any time and has already demonstrated a strong interest in the work on carbon management during 2009/10 and 2010/11.

7. Performance and Risk Management

In order for the Council to achieve its 2014 and 2020 targets it will be necessary to engage with all areas of council operations and introduce an awareness of carbon emissions. Direct reductions will be possible through funding specific projects, which will need to be continuously identified and funded. A project register will be used to record new projects and to prioritise them for funding through the ECO Board. The council is also taking action to improve its procurement strategy and move to requiring carbon reduction through its contracts with suppliers.

The carbon management programme will consist of a large number of projects spread across a wide range of the council's activities, including both technical projects (eg installing insulation in buildings) as well as corporate functions (eg corporate strategy, procurement policy, financial risk assessment, etc). It is therefore essential to have in place a rigorous management system to ensure the progress and success of the programme.

Sufficient carbon reduction projects will have to be identified and implemented in order to meet the challenging target. Although a number of projects have already been identified, the achievement of the interim and long term targets will require a step change in the way carbon reduction is dealt with in the council.

7.1 Risks

Risks associated with carbon management include:

	Risk	Owner	Mitigation
1.	Adequate financing is not made available.	Corporate	Business cases will be presented to the Portfolio holder for the Environment, ECO Board, SMT and Cabinet as appropriate. It essential to have adequate finance or the carbon reduction target will not be met.
2.	A reputational risk against failing to lead by example in reducing carbon emissions.	Corporate	ECO Board ensures adequate funding is available and monitors progress of the carbon reduction programme
3.	Missed opportunity to deliver energy efficiencies that have the potential to deliver benefits over many years (depending on the measures implemented).	Corporate	ECO Board ensures strategic opportunities are identified by board members. ECO Team identifies strategic opportunities that arise in key decisions that go to Cabinet. CAOD to include energy efficiency priorities within their work.

4.	Failure to meet our CRC obligation, which could lead to a fine against the council (as yet unquantified) and poor performance on the CRC with corresponding impact on our environmental reputation.	Corporate	The Nominated Director (Director of Resources) monitors progress against CRC requirements.
5.	Failure to respond to priorities identified locally through Wiltshire Assembly, leading to an impact on our reputation amongst both the Wiltshire public and our strategic thematic partners.	Corporate	Carbon reduction is included as a Corporate Priority in the Corporate Plan 2010-2014
6.	Failure to reduce carbon emissions from services which are not fully under the control of the council or involve a third party – eg schools, acadamies, PFI arrangements, contracted services	Corporate Schools Procurement	ECO Board includes appropriate service directors, eg Service Director Schools & Learning, Head of Procurement and ensures engagement with schools and third parties is progressed
7.	Increased future cost of energy: Energy is procured by the council as an annual contract, so costs are fixed for a one year period. As prices are generally expected to increase, the council therefore faces increased energy cost.	Corporate Strategic Property Services Procurement	Increasing energy costs increases the council's operational budget. This will increase the imperative to invest-to-save in energy efficiency projects. Procurement should endeavour to ensure that the council procures energy at the most favourable rate.
8.	Decreased future cost of energy: Alternatively, effective procurement which results in lower energy prices will	Corporate Strategic Property Services	Careful consideration of invest-to-save projects will be necessary to ensure the council invests in projects with the best financial and carbon reduction return.

	result in invest-to-save projects becoming less cost-effective.	ECO Team	
9.	Quality of energy data not good enough to comply with CRC requirements leading to additional CRC costs / penalties and poor performance in the CRC league table, consequently affecting the council's reputation. Quality of energy data not good enough to be used to identify potential efficiency projects.	Corporate Strategic Property Services ECO Team	Roll-out of AMR meters to improve data collection and increase the proportion of actual data readings compared with estimated data. Meter reading programme to ensure that remaining energy data captured. Use of monitoring and targeting software to identify data-quality issues

8. Progress

Wiltshire Council has already come a long way since becoming a unitary authority and starting to put the Carbon Management Plan together. Progress has been steadily improving, although the budget cuts resulting from the Government's Spending Review 2010 have created a financial pressure for the council and the carbon management programme. A team is in place to identify and implement carbon reduction projects, and the council is starting to implement an Energy Management System in order to embed responsibility for carbon management across the whole council.

8.1 Corporate Progress to end 2010/11

The Carbon Trust have developed a carbon management embedding matrix to assess the extent to which local authorities have embedded carbon management policies across their organisations (for full details see Appendix 5). Wiltshire Council scored as follows in January 2011 compared with July 2009 (launch of ECO Board) and March 2010:

	Corporate Strategy	Programme Management	Responsi-bility	Data Mgt	Communica-tion & training	Finance & Investment	Policy Alignment	Engagement of Schools
Jul 2009	1	2	3	3	2	2	1	2
Mar 2010	2	4	3	4	2	5	2	2
Jan 2011	3-4	4	3-4	4	3	4	2-3	3

Where 5 = best score, 1 = worst score

By the end of the plan period, the council aims to improve its performance across all of the criteria and to score the maximum 5 points wherever possible.

8.2 Carbon Reduction Progress to end 2010/11

As indicated in section 5 above, during 2010/11, £0.5m was allocated in the capital programme and £0.7m was secured as a 0% government loan. This has been invested in a range of energy efficiency projects such as LED bollards, an air source heat pump at the Shurnhold office, building management systems at leisure centres and a combined heat and power (CHP) plant at the Salisbury 5 Rivers Leisure Centre. The CHP plant was financed through the 0% loan. It cost £176,000, will payback within 5 years and will save 6% of emissions from leisure centres currently operated by the council in Wiltshire.

In the event, not all the 2010/11 projects from the £1.2m budget will have been fully implemented by end March 2011. Those projects that will have been implemented are projected to realise a saving of £116,000 per year of avoided costs, or a total of £580,000 over 5 years (see table 7 above). The total amount of carbon emissions savings for the projects will equate to 742 tCO_2. A full list of all the 2010/11 projects can be found at Appendix 3. Unspent capital budget will be rolled over to be spent in the next financial year.

Barriers to implementing projects are highlighted in Section 7.1 on risk above.

The commitment to investing £4.2m over the next four years would be an estimated saving of 4,411 tonnes of CO_2. This would take us 37% of the way to meeting our target to save 11,823 tonnes of CO_2 by the end of 2013/14. A further 3,273 tonnes CO_2 are projected to be saved by phase 1 of CAOD, taking us 65% of the way to meeting our target (see figure 9 below).

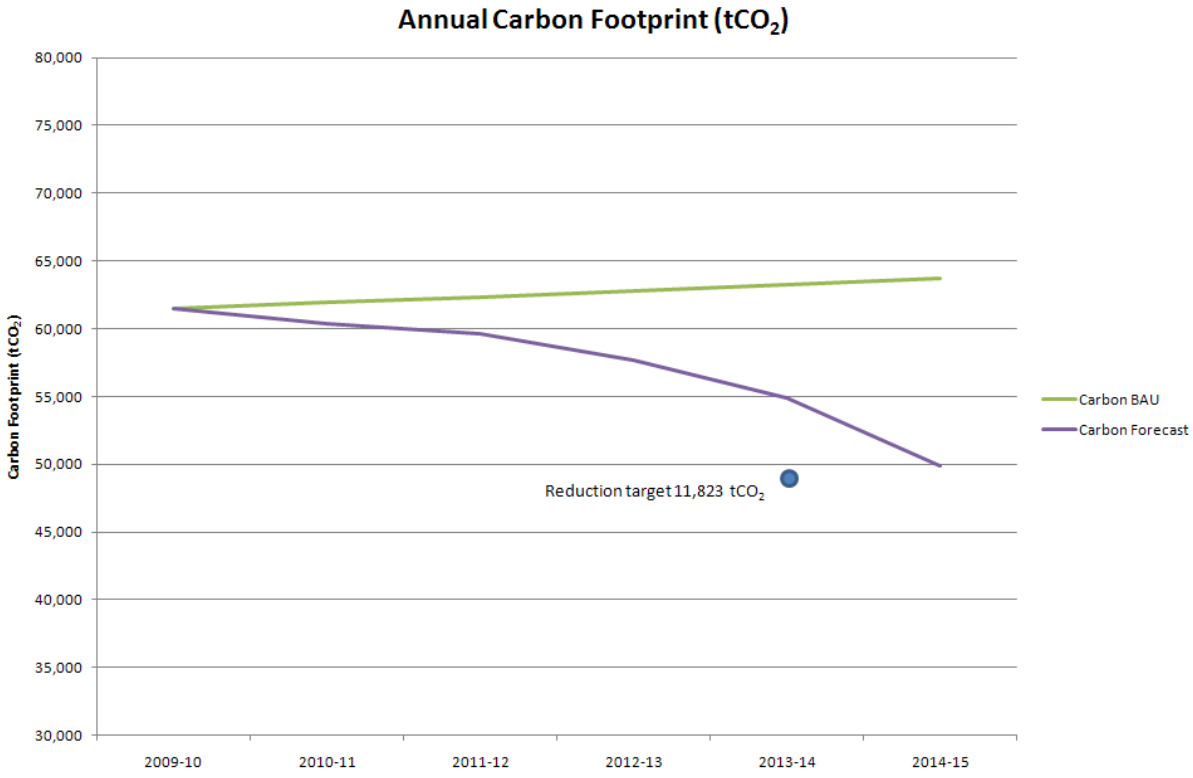


Figure 9: Predicted progress against target, as at March 2011

The graph above shows our predicted carbon footprint compared to our target, based on current levels of investment in energy efficiency projects and the first phase of CAOD programme coming into effect by 2014 as indicated in the Medium Term Strategic Work Programme (shown at section 4.2).

The sooner CO_2 reduction projects are implemented, the sooner savings can be realised and the greater these cumulative savings will be. Conversely, the longer they are left, the fewer cumulative carbon savings there will be and the deeper the CO_2 cuts that will be needed in subsequent years to meet the target. Over a number of years, the cumulative effects of carbon reduction projects will start to show themselves and bring overall emissions down.

The graph above highlights the rate of impact of carbon reduction for the council. The strategic nature of many of the projects, which require considerable implementation periods, shows a more dramatic impact is likely from 2013/14 once they are brought on line.

The programmes of work outlined for the Longer Term will be continue to be assessed and incorporated into forecasting and work programmes to ensure continued progress.

List of Appendices

Appendix 1: Wiltshire Council Energy Policy
Appendix 2: Emissions Factors
Appendix 3: Energy Efficiency Projects, 2010/11
Appendix 4: Renewable Energy Schemes in Wiltshire Council, January 2011
Appendix 5: The Carbon Trust's Carbon Management Matrix

Wiltshire Council Energy Policy

Energy Policy

Scope

Wiltshire Council is a unitary authority located in the South West of England and is responsible for providing a wide range of services, ranging from waste management and social care to schools and leisure facilities. The council operates more than 800 sites, many of which are rural and rely on stored fuels. This policy aims to reduce energy consumption and reliance on fossil fuels. The scope of this policy will cover all Wiltshire Council services that are provided either directly or through contractors.

Statement of commitment

Wiltshire Council is committed to responsible energy management with continual improvement as part of our wider environmental and property management strategy. This energy policy sets out the authority's aims and objectives that will be used to assess our progress.

Key goals

Wiltshire Council is committed to the following aims:

- Ensuring full compliance with all energy legislation and official codes of practice
- Procuring cost-effective, sustainable energy
- Actively promoting energy efficiency in all of the buildings from which services are provided
- Reducing CO_2 emissions per unit of energy consumed

The Council is committed to implementing an energy management system and gaining BS 16001 accreditation. This will set a framework for the future and provide evidence of our commitment to good practice.

How the goals will be achieved

To meet long term corporate commitments, improvements will be implemented in five key objective areas. Progress will be reviewed using the objectives set in each area.

1. Management Objectives

- Embed energy efficiency issues within all services
- Set and publish targets against which performance can be measured, reporting this frequently to senior management
- Provide information and assistance on energy issues relating to services and contracts

2. Monitoring & Targeting Objectives

- Set up and maintain an effective monitoring and targeting system
- Continually improve the quality and coverage of the system
- Use the system to regularly identify and review cost effective energy efficiency measures

3. Performance Objectives

- Set SMART targets for installing practical and technical improvements in buildings, reducing energy consumption, use of fossil fuels and increasing quantity of renewable energy used.

4. Building Design & Maintenance Objectives

- Develop a standard for energy efficiency in new and refurbished buildings
- Require the adoption of energy efficient measures where possible

5. Awareness & Training Objectives

- Maintain and develop a culture of staff responsibility for energy
- Communicate the performance of the council to all staff
- Raise awareness and provide appropriate training to all building users on energy management issues utilising the Council's Green Champions Network where appropriate

Reporting and review

Performance against these objectives will be monitored through Corporate and Service Delivery Plans and through National Indicators or their replacement. Strategic Property Services will be responsible for reporting on these objectives. Meeting the objectives is the responsibility of all Council building occupiers.

Signed Cllr Sturgis

Cabinet Member for Waste, Property & Environment Review date, May 2012

Emissions Factors

Table A below show the emission factors for a variety of fuel sources and are derived from the Defra guidance (BNXS01).

Table A: Emission factors for stationary source energy consumption

Energy type	Factor (kg CO_2/kWh gross)
Electricity (grid)	0.537
Natural gas	0.185
Burning and heating oil	0.268
LPG and propane	0.214

Similar emissions factors exist for transport and are again derived from Defra guidance. Table B highlights the average emission factors by fuel and transport type. Actual emissions will be dependent on the efficiency of the specific vehicle and driving style.

Table B: Emission Factors for transport fuels

Fuel or vehicle type		CO_2 factor (kg/unit specified)
Average petrol car	(kms)	0.209
Average diesel car	(kms)	0.198
Rail - national rail	(passenger kms)	0.060
Air – domestic	(passenger kms)	0.172
HGV All rigid UK average	(hrs)	0.895

The carbon factors are established by Defra and are updated annually.

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Energy Efficiency Projects, 2010/11

Project	Description	Investment (£)	Annual Saving (£)	Reduction (tCO_2)	Payback (Years)	Implementation
Salisbury Five Rivers Leisure Centre Combined Heat & Power Unit	To install a unit to provide baseload heat and electric power at a high level of efficiency. This flagship project will generate substantial cost and carbon savings throughout the year.	£176,000	£29,596	216.5	5.9	Installed
Wiltshire Street Bollards Relamp	To replace existing bollard lamps with high-efficiency luminaires, reducing electricity consumption all year round.	£166,770	£36,800	250.2	4.5	Installed
Trowbridge Castle Place MSCP Relamp	To replace existing ceiling lights with high-efficiency luminaires, reducing electricity consumption all year round.	£16,278	£7,253	49.3	2.2	Installed
Salisbury City Hall Auditorium Lighting Upgrade	To upgrade the auditorium lighting to high-efficiency lighting with digital controls. The project will significantly reduce energy bills all year round, providing improved light quality and aesthetics and allow for the latest stage lighting control requirements.	£27,936	£4,695	31.9	6.0	Installed
Shurnhold Office Air Source Heat Pumps	To install devices that use a small amount of electricity to extract heat from the air around the facility. This represents a cost effective alternative to oil-fired and conventional electric heating and will reduce carbon emissions at the site all year round.	£49,041	£3,556	12.1	13.8	Installed
Springfields Leisure Centre Insulation	To install insulation in the walls and roof spaces of the facility to reduce heat loss all year round.	£4,751	£2,778	26.9	1.7	Installed
Devizes Leisure Centre Variable Speed Drive (BA148JN-06)	To install invertors on various water pumps and air handling fan drives to allow the speed to be varied with demand. This will greatly increase the efficiency of the equipment all year round.	£13,190	£2,748	18.7	4.8	Installed
Marlborough Leisure Centre Variable Speed Drive (BA148JN-08)	To install invertors on various water pumps and air handling fan drives to allow the speed to be varied with demand. This will greatly increase the efficiency of the equipment all year round.	£10,175	£2,120	14.4	4.8	Installed
Durrington Leisure Centre Water Softener	To install a water softener that will reduce the build-up of scale in the pipework and reduce heating and pumping costs all year round.	£4,500	£941	3.4	4.8	Installed
Devizes Leisure Centre Lighting Upgrade	To fit light and motion sensors to control the lighting and switch off when areas of the building are not in use. This will save energy all year round.	£5,290	£1,785	12.1	3.0	Installed
Wilton Depot Boiler Replacement	To replace the existing boiler with a modern, energy efficient type saving energy during the heating season.	£4,000	£838	8.1	4.8	Installed
Urchfont Manor Relamp	To replace inefficient lamps with energy efficient ones, saving energy all year round.	£1,226	£380	2.6	3.2	Installed
Subtotal		£479,157	£93,490	646.2		Already installed

Salisbury Five Rivers Variable Speed Drive	To install invertors on various water pumps and air handling fan drives to allow the speed to be varied with demand. This will greatly increase the efficiency of the equipment all year round.	£35,000	£7,582	51.6	4.6	2010-11
Salisbury Central MSCP Relamp	To replace existing ceiling lights with high-efficiency luminaires, reducing electricity consumption all year round.	£14,054	£4,594	31.2	3.1	2010-11
Salisbury Five Rivers Liquid Pool Cover	To install dosing equipment to allow a chemical to be introduced to the pool water that forms a very thin layer on the pool surface when the water is still. This significantly reduces heat loss and the cost of heating the pool water all year round.	£5,000	£800	7.7	6.3	2010-11
BoA Library Light Fitting Replacement	To replace existing ceiling lights with high-efficiency luminaires, reducing electricity consumption all year round.	£2,990	£666	4.5	4.5	2010-11
Salisbury Five Rivers Hand Dryer Replacement	To replace the existing conventional hand-dryers with the most energy efficient devices, providing reduced energy costs and a better aesthetic.	£2,500	£333	1.1	7.5	2010-11
Subtotal		£59,544	£13,975	96.1		To be installed by end March 2011
Identified Projects Total		£538,701	£107,465	742.3		
2010-11 Rollover Total (est.)		£469,299				
2010-11 Unspent Salix Funds		£192,000				
2010-11 Budget Grand Total (est.)		£1,200,000	£107,465	742.3		

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APPENDIX 4

Renewable Energy Schemes in Wiltshire Council, March 2011

1) Existing schemes installed by across council services, as at March 2011

Renewable energy type	Location
Solar PV	• Amesbury Archer school • Christchurch School, Bradford on Avon • Corsham Primary school • Hardenhuish School • Melksham Oak school • Paxcroft school • Pewsey Library • Shrewton School • St Barnabus school • St Mary's Primary School, New Purton (in construction)
Solar thermal (hot water)	• Bradford on Avon Fitzmaurice Children's Centre • Braeside outdoor education centre, Devizes Downton Clearway Children's Centre Melksham Melksham Canberra Children's centre • Pewsey Children's Centre • Wootton Bassett Manor House Children's Centre
Biomass (boiler)	• Stanton St Quintin School • Wellington Academy
Wind turbine	• Hardenhuish School • New Lydiard Milicent Primary (in construction)
Combined Heat and Power	• Salisbury Five Rivers Leisure Centre • Olympiad Leisure Centre, Chippenham
Air Source Heat Pump	• Shurnhold council offices • Pewsey Library • Pewsey children's centre • Melksham Canberra children's centre
Ground Source Heat Pump	• New Purton St Marys primary (not built yet) • New Lydiard Millicent primary (not built yet)

2) Potential schemes under consideration by Wiltshire Council

The council is interested in renewable energy generation and has commissioned a study to investigate the renewable energy potential across the county. The council is currently reviewing its property portfolio and this will include, among other things, the potential to generate renewable energy and maximise income from the FIT. It is too early to be able to estimate the council's likely annual income from FIT.

Schemes that are under consideration include:

Renewable energy type	**Location - scheme**
Solar PV	MECH – refurbishment work
	County Farms – potential to install solar PV on suitable farm buildings
	Corsham Secondary School – discussions are underway with TransCoCo into the potential to install solar PV
Combined Heat and Power	• Trowbridge – there is potential to include a district CHP scheme within the Trowbridge vision development. Feasibility study underway. • Marlborough Leisure Centre – potential to install a CHP plant.
Hydro	Chippenham – Monkton Park weir. Investigations underway into possibility of a small hydro scheme
	Kennet & Avon Canal - Investigations underway into possibility of a small hydro scheme
Energy from Waste	MBT plant at Westbury – there is potential to work with Hills Waste Solutions Ltd to have the new MBT plant altered to include on-site energy generation.

The ECO Team is producing guidance for schools on Solar PV/thermal to ensure that if individual schools wish to take up offers from energy companies they get the best deal possible.

The ECO Team works closely with Strategic Property Services and the CAOD Programme to identify potential new schemes on an on-going basis.

APPENDIX 5

The Carbon Trust's Carbon Management Matrix

Best	CORPORATE STRATEGY	PROGRAMME MANAGEMENT	RESPONSIBILITY	DATA MANAGEMENT	COMMUNICATION & TRAINING	FINANCE & INVESTMENT	POLICY ALIGNMENT *	ENGAGEMENT OF SCHOOLS
5	• Top level target allocated across organisation • CO_2 reduction targets in Directorate Business Plans • Action plans in place to embed strategy. Progress routinely reviewed	• Cabinet / SMT review progress against targets on quarterly basis • Regular diagnostic reports provided to Directorates • Progress against target published externally	• CM integrated in responsibilities of senior managers • CM part of all contracts / T's&C's • Central CO_2 reduction advice available • Green Champions leading local action groups	• Regular collation of CO_2 emissions for all sources • Data externally verified • Monitoring & Targeting in place for: ○ buildings ○ street lighting ○ transport/travel	• All staff given formalised CO_2: ○ induction and training ○ communications • Joint CM communications with key partners • Staff awareness tested through surveys	• Finance committed for 2+yrs of Programme • External funding being routinely obtained • Ring-fenced fund for carbon reduction initiatives	• CO_2 friendly operating procedure in place • Central team provide advice and review, when requested • Barriers to CO_2 reduction routinely considered and removed	• A 'whole school approach' including curriculum • Mature programme of engagement in place • CO2 saving in schools having a wider community impact
4	• CO_2 reduction commitment in Corporate Strategy • Top level targets set for CO_2 reduction • Climate Change Strategy reviewed annually	• Sponsor reviews progress and removes blockages through regular Programme Boards • Progress against targets routinely reported to Senior Mgt Team	• CM integrated in to responsibilities of department heads • Cabinet / SMT regularly updated • Staff engaged though Green Champion network	• Annual collation of CO_2 emissions for: ○ buildings ○ street lighting ○ transport/travel • Data internally reviewed	• All staff given CO_2 reduction: ○ induction ○ communications ○ CM matters communicated to external community	• Coordinated financing for CO_2 reduction projects via Programme Board • Funding principles and processes agreed • Finances committed 1yr ahead • Some external financing	• Comprehensive review of policies complete • Lower level policies reviewed locally • Unpopular changes being considered	• A clear emphasis on energy / CO2 reduction in schools • Council activities fully coordinated • Broad set of education stakeholders engaged • Funding in place
3	• CO_2 reduction vision clearly stated and published • Climate Change Strategy endorsed by Cabinet and publicised with staff	• Core team regularly review CM progress: ○ actions ○ profile & targets ○ new opportunities	• An individual provides full time focus for CO_2 reduction • Key individuals have accountability for carbon reduction • Senior Sponsor actively engaged	• Collation of CO_2 emissions for limited scope i.e. buildings only	• Environmental / energy group(s) given ad hoc: ○ training ○ communications	• A view of the cost of CO_2 reduction is developing, but finance remains ad-hoc • Some centralised resource allocated • Finance representation on CM Team	• All high level and some mid level policies reviewed, irregularly • Substantial changes made, showing CO_2 savings	• A person has responsibility for Schools CO2 reduction • Schools CO2 reduction projects coordinated • Ad-hoc funding
2 Worst	• Draft Climate Change Policy • Climate Change references in other strategies	• Ad hoc reviews of CM actions progress	• CO_2 reduction a part-time responsibility of a few department champions	• No CO_2 emissions data compiled • Energy data compiled on a regular basis	• Regular awareness campaigns • Staff given CM information on ad-hoc basis	• Ad hoc financing for CO_2 reduction projects	• Partial review of key, high level policies • Some financial quick wins made	• Ad-hoc schools projects to specifically reduce energy / CO2
1	• No policy • No Climate Change reference	• No CM monitoring	• No recognised CO_2 reduction responsibility	• No CO_2 emissions data compiled • Estimated billing	• No communication or training	• No specific funding for CO_2 reduction projects	• No alignment of policies for CO_2 reduction	• No CO2 / energy reduction policy for schools

* Major operational policies and procedures, e.g. Capital Projects, Through Life Costing, Procurement, HR, Business Travel

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Wiltshire Council

Environment Select Committee

10 May 2011

Scrutiny of the Business Plan 2011 – 2015

Purpose

1. To determine how best to scrutinise the parts of the Business Plan relevant to the Environment Select Committee.

Background

2. The revised draft Business Plan was formally adopted at Council on 22 February having been approved by Cabinet the previous week. The 4 year Plan sets out how the Council intends to meet the challenges of reduced resources, legislative change and demographic impact whilst delivering the Council's vision to create stronger more resilient communities and achieving its goals. The Plan describes the changing landscape and strategic direction of the Council and gives a number of benefits and outcomes to the action it will take. The Financial Plan also approved by Council forms an appendix to the Business Plan (all councillors have copies of these documents and the latest version should be retained for future reference).

3. The focus of the Joint Scrutiny meeting on 10 February was the revenue and capital budget 2011/12 but did touch on some of the longer term issues in the Financial Plan as well as references to the Business Plan.

4. The Liaison Board met in the afternoon following the Joint Scrutiny meeting when it received the draft Business Plan. The Liaison Board decided to ask each select committee with the support of scrutiny officers to identify the themes and individual topics from the Business Plan that fell within their remit and ensure that this then became the focus for revising the forward work programmes of the committees.

Approach

5. It was felt that a common approach across the select committees would provide consistency for the future. The select committees already have a guide for how they should run their meetings and also recently discussed optimum size of agendas and briefing arrangements etc. This will also be turned into a guide for

consideration by the Liaison Board at the next meeting. A discussion paper on the benefits of having a positive working relationship with the Executive and the actions necessary to achieve this was also adopted by the Liaison Board last summer. The resulting protocol will be considered as part of the wider governance review on involvement of backbench members in decision making called for by the Leader.

6. Scrutiny officers in consultation with the chairmen and vice-chairmen have been through the Business Plan and have identified the following themes as relevant to the **Environment Services Select Committee:**

Theme	Plan References	£ Budget	Comments and Scrutiny approach
Protecting the Economy	P54	£4 million investment over four years	This is a new area for the committee to scrutinise.
Highways maintenance	P57		The committee has maintained an interest in this area receiving a number of briefings from the Corporate Director for Neighbourhood and Planning.
Waste Management	P58	£23m investment over 4 years	The transformation of the Waste Service has been followed by a task group and more recently by the committee.
Leisure Services	P59	£4.4m investment over four years	The committee has followed the transformation of the service.
Energy efficiency	P64	£4.7m investment over four years	The committee has maintained an ongoing interest in this area.
Housing	P68		The main focus for the committee to date has been the towards the delivery of the west Wiltshire PFI scheme.

7. Scrutiny officers, in consultation with the Chairman and Vice Chairman, Executive members, partners and directors, will undertake a work planning exercise around the above themes to establish their delivery, timescales, budget and potential scrutiny approaches. As mentioned above, this exercise should inform a revised work programme and be the priority for any future scrutiny activity. A draft revised work programme will be presented to the Committee for consideration at the next meeting.

8. The Select Committee needs to be aware of the budget implications for support services for 2011/12 and this should be taken into account when determining the future work programme of the Committee, particularly in terms of how much activity can be supported at any one time. The capacity of elected members especially those that lead on key activities should be also taken into account. The Liaison Board and Scrutiny Manager will continue to monitor the overall position regarding workload and pressures but this needs to be done in conjunction with the need to deliver positive outcomes for the Council as a whole.

9. In looking at priorities, it is also important to remember that the focus for O&S Select Committees should be on strategic and policy development matters and not 'local issues' which should be retained for consideration at Area Board level.

10. The forward planning activity outlined in this report should allow for better management of work flow and hopefully scheduling and communication of briefings and meetings. The adoption of the new Business Plan will mean that the current departmental delivery plans will be reviewed. These will also provide helpful detail on relevant themes and activities.

Recommendation

11. The Select Committee is asked to:

    (i) note that Council on 22 February adopted the 4 year Business Plan on recommendation from Cabinet;

    (ii) note the decision of the Liaison Board on 10 February that work is undertaken to identify relevant content from the Business Plan for the individual select committees;

    (iii) agree the list of themes set out above but acknowledging that further refinement will be made when more detail emerges; and

    (iv) recognise the budget implications and the demands on the leading scrutiny members in determining priorities and workload.

Paul Kelly

Scrutiny Manager (and Designated Scrutiny Officer)

Appendices

Appendix A - current Forward Work Programme

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Environment Select Committee
Rolling Work Plan from May 2011

SUBJECTS	COMMITTEE/ TASK GROUP	NEXT DATE TO O & S COMMITTEE	SPECIFIC ISSUES FOR DISCUSSION	REPORT AUTHOR	CABINET MEMBER/ PORTFOLIO HOLDER
Major Contracts (Standing)	Task Group	Ongoing	To provide an update following consideration by the O&S on the future structure where the 4 Task Groups would be retained but would also hold the Procurement Board to account.	Variable	Cllr John Noeken
Housing Commissioning Board	Committee	Ongoing	To receive an update on the work of the Board where available.	Cllr Ian McLennan	Cllr John Brady/ Cllr Howard Greenman
Gypsy & Traveller Project Board	Committee	Ongoing	To receive an update on the work of the Board where available	Cllr Jose Green	Cllr Toby Sturgis
Waste Recycling and Collection Service	Committee	July 2011	To receive a further update on the waste recycling and collection service	John Geary	Cllr Toby Sturgis
Real Time Passenger Information (RTPI)	Committee	March 2012	To receive an update report on the GPRS system in 18 months to provide clarity on the effectiveness of the new system (as agreed at the September 2010 Select Committee)	Liz Douglas	Cllr Dick Tonge/ Cllr Richard Gamble

SUBJECTS	COMMITTEE/ TASK GROUP	NEXT DATE TO O & S COMMITTEE	SPECIFIC ISSUES FOR DISCUSSION	REPORT AUTHOR	CABINET MEMBER/ PORTFOLIO HOLDER
Wiltshire Renewable Energy Action Plan	Committee	tbc	To receive a detailed proposal for developing the Wiltshire Renewable Energy Action Plan once available.	Arianne Crampton	Cllr Toby Sturgis

Draft Cabinet Forward Work Plan
May 2011 – August 2011

Items that may be of interest to the Environment Select Committee

SUBJECTS	DATE TO CABINET	SPECIFIC ISSUES FOR DISCUSSION	RESPONSIBLE CABINET MEMBER	OFFICER CONTACT
Budget Monitoring	24 May 14 June 26 July 2011	To receive an update on the Councils capital and revenue budget.	Cllr Fleur de Rhe-Philipe	Matthew Tiller
Housing Improvement Plan	24 May 2011	To consider a full revision and update of the Housing Landlords Service Improvements Plan.	Cllr John Brady	Graham Hogg
The Wiltshire Council Member and Parish, Town and City Council Review of the Development Control Service of Wiltshire Council	24 May 2011	To seek Cabinet's agreement for changes to the manner in which Wiltshire Council's Development Control Service operates following a review of the service.	Cllr John Brady	Brad Fleet
Draft Wiltshire Core Strategy Consultation	24 May 2011	To seek approval to undertake consultation on a draft Wiltshire Core Strategy consultation document, including locally derived housing figures for Wiltshire.	Cllr John Brady	Alistair Cunningham
Devizes Wharf Planning Brief	24 May 2011	To seek approval for consultation on a draft Devizes Wharf Supplementary Planning Document which will become part of the Local Development Framework.	Cllr John Brady	Carolyn Gibson

SUBJECTS	DATE TO CABINET	SPECIFIC ISSUES FOR DISCUSSION	RESPONSIBLE CABINET MEMBER	OFFICER CONTACT
Update on Performance	14 June 2011	To inform Cabinet about progress against the Council's priorities, including those in the Local Agreement for Wiltshire	Cllr Fleur de Rhe-Philipe	Sharon Britton
Aggregate Minerals Site Allocations DPD: Results of the Site Appraisals	14 June 2011	To provide Cabinet with the results of the detailed appraisals undertaken on the remaining 22 site options and to recommend a schedule of site options for inclusion within the Proposed Submission Draft Wiltshire and Swindon Aggregate Minerals Site Allocations DPD.	Cllr John Brady	Alistair Cunningham
Aggregate Minerals Site Allocations DPD – Proposals for Draft DPD	26 July 2011	To seek approval to consult on a draft DPD in September 2011 and, where necessary, notify central government of the need for a reduced sand and gravel provision rate.	Cllr John Brady	Alistair Cunningham