

## **1. Introduction**

- 1.1. In June 2009 trust board approved a strategy aimed at reducing the trust carbon emissions by 10% by 2015 from a 2007 baseline of 8,896 tonnes.
- 1.2. This equates to a reduction of 900 tonnes of carbon and is needed in order for the trust to meet the targets set by the 'NHS Carbon Reduction Strategy for England' guidance document, issued by the Sustainable Development Unit in support of the obligations laid out in the provisions of the Climate Change Act 2008
- 1.3. This outturn report for 2009-10 highlights the progress made in the last 12 months to implement the trust's Carbon Reduction Strategy.

## **2. Key Achievements for 2009-10**

- 2.1. The Trust's key Carbon Reduction achievements for 2009-10 were :-
  - An overall reduction in carbon emissions of 389 tonnes on emissions in 2008-09
  - The development of a board approved carbon reduction strategy
  - The implementation of an annual capital investment plan aimed at carbon reduction
  - All capital schemes include a consideration towards the impact on sustainability
  - The introduction of a carbon based charge for car parking permits
  - An improvement on the level of recycling achieved by the trust
  - The securing of additional investment for capital schemes
  - Closer working with local organisations collaborating on carbon reduction initiatives.

### 3. CRS Workplan for 2009-10

3.1. The Trust invested £104k in carbon reduction measures in 2009/10 out the Trust's total capital allocation of £6.6m. Although the sum was modest, it established the principle that carbon reduction is a mainstream policy and one that will roll over in to the new financial year

3.2. The table below describes the outturn status of all the carbon reduction projects for 2009-10 :-

| CRS Objective   | CRS Project   | Benefit  | Project Status  |
|---|---|--|---|
| <b>Board level reporting</b>                                  | Annual reporting to the trust board                           | Board level engagement in carbon reduction as a key goal for the trust<br><br>Governance of Trust's performance against mandatory carbon reduction targets and risks associated with non-achievement   | <b>Report to the trust board of October 2010</b>  |
|   | Report to Islington Climate change partnership                | Continued links and collaboration with Local Authority to share knowledge and common goals on carbon reduction.<br><br>Opportunity for joint bids for carbon reduction capital funding<br><br>Commitment to corporate citizenship responsibilities | <b>Data provided for 2009 carbon emissions. Report for 2009 published April 2010</b>  |
| <b>Carbon measure to become standard for energy reporting</b> | Consumption reports to be made in terms of carbon emissions   | Alignment with targets set by government and NHS Central expressed in carbon emissions as CO <sub>2</sub> . Standard conversion factors, issued by Environment Agency as part of CRC, are used   | <b>Consumption data converted to CO<sub>2</sub>, backdated to 2005 for comparative purposes. Continue to update monthly</b> |
|   | A five year investment plan to be ratified by the trust board | Continuous investment in carbon reduction measures will improve the response to meet national targets and the direct environment of care for patients  | <b>Plan approved in the 2009 strategy, and amended annually to reflect changes in priority</b>                              |

| CRS Objective   | CRS Project  | Benefit   | Project Status  |
|---|--|---|---|
| <b>Review of the potential for the use of renewable energy sources</b>                              | A renewable energy resources plan to be considered by the CRSG   | Finding solutions to problem of continuing CO <sub>2</sub> reduction over several years after traditional energy saving measures have been exhausted.   | <b>Technologies are still relatively expensive. Feasibility study of Solar Thermal scheme in 2009 suggested costs would be over £5,000 per tonne CO<sub>2</sub> saved. Current schemes are costing &lt;£1000 per tonne saved</b>  |
| <b>Capital developments to be evaluated on whole life basis including use of low carbon options</b> | All new capital projects will have and environmental impact assessment carried out as part of the planning process. This will be documented and the impact statement published in the Link | Avoidance of unexpected rise in energy consumption and CO <sub>2</sub> emissions due to new developments. Planners to consider CO <sub>2</sub> emissions impact of the scheme and incorporate measures to reduce. | <b>Capital Project Approval forms have basic environmental impact comment section to complete by Environmental Manager. Detailed Environmental Impact Assessments involving Project planners are not yet common place. Consideration given to introducing this on schemes in excess of £1m in 2010/11</b> |

| CRS Objective   | CRS Project   | Benefit   | Project Status  |
|---|---|---|---|
| <p><b>NHS staff members to be encouraged to take responsibility for energy consumption and carbon measures.</b></p> | <p>New focus groups to be developed and supported and to report activities through the Link and to the CRSG</p> | <p>A change in the current organisational culture in relation to carbon management and that the organisation and local community benefits from a body of staff that has increasing awareness of the impact of our common activity on the environment.</p> | <p><b>Role description for ‘Green Champions’ produced and requests for volunteers made. Recruitment to be undertaken at the Green Day in September 2010. There has been an increase in publicity and information surrounding activities of the CRSG, including screensaver wall paper and ‘Carbon Corner’ in the Link</b></p> |
| <p><b>The promotion of sustainable food and nutrition throughout the trust</b></p>                                  | <p>A menu cycle in the N19 to reflect more seasonably and locally available produce.</p>                        | <p>The use of seasonably available vegetables demonstrates a corporate commitment to the current carbon reduction policy and to sustainable procurement from local (UK) providers</p>   | <p><b>Local sourcing and menu reviews were started, but changes will not be made until 2010/11. This objective will roll forward into 2010/11</b></p>   |

| CRS Objective  | CRS Project   | Benefit   | Project Status   |
|--|---|---|--|
| <p><b>The promotion of sustainable food and nutrition throughout the trust (cont.)</b></p> | <p>The trust will make a transition to sustainable producers seeking out those who offer organic products. We will specifically aim to achieve recognition via the Good Egg Award</p> | <p>By committing to sourcing affordable organic alternatives to current produce we will be making a corporate statement about the procurement of sustainable food and a commitment to increasing biodiversity</p> <p>Reduced water pollution from contamination by inorganic fertiliser.</p> <p>Reduced carbon production associated with production of fertiliser.</p> | <p><b>Organic produce can be more expensive than alternatives and so finding a sustainable alternative to 'cheap' non-organic food is challenging. The trust currently purchases free range eggs and more sustainable alternatives will be sought into 2010/11</b></p> |

| CRS Objective  | CRS Project  | Benefit  | Project Status   |
|--|--|--|--|
| <p><b>Local procurement, whole lifecycle costs and environmental impact of financial decisions to be considered by the trust</b></p> | <p>A short list of products to be prepared for consideration identifying potential products that can be introduced that are recycled or have a lower carbon cost</p> | <p><u>MFD Project</u></p> <p>A scheme to introduce multi function devices and remove energy inefficient printers will reduce direct carbon emission arising from excessive and inefficient print devices, and reduce paper consumption by up to 50%. It will also reduce pollution associated with the manufacture and disposal of ink cartridges.</p> <p><u>Bulk Storage</u></p> <p>Holding items in the Bulk Store means that less orders are being generated and that less deliveries are required with associated carbon miles being reduced</p> <p><u>Laundry Services</u></p> <p>Procuring from a provider with an assured environmental management system reduces carbon emissions and water pollution.</p> | <p><b>A survey of all current devices was completed, but project complexities means it will not come to fruition until 2010/11</b></p> <p><b>A bulk store was opened and the range of products held is under constant review.</b></p> <p><b>Sunlight is one of only just over 160 UK organisations to be awarded the Carbon Trust Standard Certificate</b></p> |

| CRS Objective  | CRS Project   | Benefit  | Project Status   |
|--|---|--|--|
| <p><b>We will have a Board approved active travel plan as part of their sustainable development management plan.</b></p> | <p>The Trust Board will approve a revised and updated Travel Plan</p> | <p>A board approved travel plan will ensure that corporate influence is exercised over the travelling habits of staff, patients and visitors in their journeys to and from the trust. This in turn can inform and educate travellers about the most effective way to access our services and our hospital and change behaviours and choices.</p> | <p><b>The 2005 Travel plan remains extant and is therefore current and in use. However, it needs to be reviewed and assessed against the targets that were set. The objective will be rolled forward to 2010/11, firstly with the aim of assessing progress against the 2005 targets and then revising the plan to take into account current legislation and government policy. Targets set in the 2005 plan were;</b></p> <p><b>Increase proportion of staff cycling to work to 10% by 2006;</b></p> <p><b>Increase proportion of staff walking to work to 25% by 2006;</b></p> |

| CRS Objective   | CRS Project  | Benefit  | Project Status   |
|---|--|--|--|
| <p><b>Compliance with the NHS Mileage Consultation recommendation once published; to dovetail with the trust travel plan and strategies for sustainable development of NHS services</b></p> | <p>Harmonized mileage rates for public transport discouraging car use.</p> | <p>Currently personal allowances for car drivers incentivise the use of private vehicles for work related travel. Changing this balance would help incentivise travel by public transport, reducing carbon emission and reducing traffic congestion.</p> | <p><b>The trust currently provides public transport information within the main reception location. Additional travel information is also detailed on the trust website</b></p> <p><b>Season tickets and green travel options are promoted on the Trust intranet.</b></p> <p><b>Changes to mileage rates will be rolled forward to 2010/11</b></p> |



| CRS Objective   | CRS Project   | Benefit  | Project Status   |
|---|---|--|--|
| <p><b>We will establish consistent monitoring arrangements so reductions in emissions from road vehicles used for NHS business can be measured.</b></p> | <p>Vehicle carbon reduction to be a key aspect in the delivery and future development of services</p> | <p>Monitoring of vehicle carbon emission will inform the trust board and our local population of the effectiveness of our policy</p>   | <p><b>Monitoring of vehicle emissions did not commence. This objective will be reviewed and considered by the CRSG for 2010/11</b></p> |
| <p><b>Efficient use of water should be integrated into building developments at the design stage.</b></p>   | <p>Amended capital project approval forms document routinely used in scoping capital projects.</p>    | <p>Reduce financial impact of water consumption by using more water efficient equipment installed as part of development projects.</p> <p>Reduced water consumption and waste results in reduced carbon emissions by the water companies – this contributes to the trust’s responsibilities under the corporate citizenship scheme</p> | <p><b>Efficient use of water is now routinely considered during the development of capital schemes</b></p>                             |

| CRS Objective  | CRS Project   | Benefit   | Project Status   |
|--|---|---|--|
| <p><b>Water costs and consumption will be measured, monitored and reported annually by all the trust as part of the Annual Report to staff, patients and the public.</b></p> | <p>Consumption details will be made in the annual report to the trust board, and be reported to wider stakeholders in the trust Annual Report</p> | <p>Publication and ready availability of our water usage demonstrates the impact of our strategy on consumption and demonstrates our commitment to our environmental management strategy.</p> | <p><b>Water consumption is measured and recorded on a monthly basis, and details included in reports to FMB. Annual report to trust board made in this report.</b></p> |

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|--|--|---|---|
| <p><b>Leaks in trust infrastructure should be identified and fixed immediately</b></p> | <p>Helpdesk figures identify number of leaks reported and average response times. A 12 month target to identify 'unknown' leaks in mains infrastructure within 24 hours of occurrence, and respond to fix within 28 hours. To repair dripping taps within 24 hours of reporting.</p> | <p>Prompt identification of infrastructure failures reduces wastage of water from faulty taps by carrying out prompt repairs.</p> <p>Reduced water consumption and waste results in reduced carbon emissions by the water companies – this contributes to the trust's responsibilities under the corporate citizenship scheme</p> | <p><b>Leak reporting standards established and performance is monitored through the Environmental and Food Safety Committee</b></p> |

| CRS Objective  | CRS Project   | Benefit   | Project Status   |
|--|---|---|--|
| <p><b>Water efficiency technology should be adopted as standard across the trust estate.</b></p> | <p>The number of conversions and installations of water saving devices to be monitored year on year.</p> <p>Target to have</p> <ul style="list-style-type: none"> <li>• all urinals waterless within 3 years</li> <li>• all taps where suitable low flow within 3 years</li> </ul> <p>Dual flush WCs within 3 years</p> | <p>The introduction of water efficient devices reduces water consumption and saves revenue costs.</p> <p>Reduced water consumption and waste results in reduced carbon emissions by the water companies – this contributes to the trust’s responsibilities under the corporate citizenship scheme</p> | <p><b>A programme of retrofitting water efficient devices was started in 2009/10</b></p> <p><b>Some urinals still outstanding for conversion to waterless.</b></p> <p><b>WC cisterns still to deal with to change to new dual flush.</b></p> <p><b>This objective will roll over into 2010./11</b></p> |
| <p><b>Routine purchasing of bottled water for hospitality events should be</b></p>               | <p>Identify bottle fed machines and year start and compare with number converted through the year end</p>   | <p>Mains water in the UK is potable and perfectly drinkable. The use of bottled water at meetings is extravagant and unnecessary. By adopting refillable water jugs we make a corporate and very public statement that supports the efficient use of resources</p>                                    | <p><b>Bottled water is no longer available for trust meetings.</b></p> <p><b>A project plan to replace bottle fed water coolers was developed and will</b></p>   |

| CRS Objective  | CRS Project  | Benefit  | Project Status  |
|--|--|--|---|
| avoided.   | Reduction in expenditure relating to bottled water                       |  | <b>be enacted in 2010/11</b>  |
|  | Source alternative to glass bottled water in trust operated retail units | Potentially Increases the amount of recycling of containers thereby reducing waste going to land fill  | <b>Retail units sell bottled water in a variety of containers all of which are 100% recyclable</b>  |
| <b>Management of domestic, clinical and hazardous waste should be reported at Board level by the trust as a key part of their sustainability reporting</b> | Bi-monthly reporting to a sub committee of the board.                    | By receiving an annual report into waste arising the trust board demonstrates its commitment to reviewing the environmental impact of the organisation and its support for the Carbon Reduction Strategy | <b>Waste reports on governance and tonnages made to Environment and food safety committee</b><br><br><b>Annual report made to the Trust Board</b> |

| CRS Objective   | CRS Project  | Benefit   | Project Status  |
|---|--|---|---|
| <p><b>The trust should monitor the quantity and cost of all waste streams and set trajectories to manage and reduce them over time.</b></p> | <p>To identify the quantity of waste arising within each waste stream and to set the following targets. To reduce waste arising on 2008/9 totals by;</p> <p>Clinical Waste – 10%<br/>Domestic Waste – 10%<br/>Skip Waste – 10%</p> | <p>To demonstrate the effectiveness of the strategies to handle, manage and reduce waste arising from trust activities.</p> | <p><b>Waste Stream data recorded on monthly basis. Figures form part of FMB dashboard.</b></p> <p><b>Domestic waste tonnage has shown reduction. Recycling has remained static at 12%, but a new initiative in conjunction with waste contractor is due to begin in October 2010.</b></p> |
|   | <p>To review waste recycling targets in line with new government policies and to identify strategies to reduce waste arising.</p>  | <p>To ensure that the trust remains on course to meet waste reduction commitment</p>  |   |

| CRS Objective   | CRS Project  | Benefit  | Project Status  |
|---|--|--|---|
| <p><b>All decisions about design and build of healthcare facilities will be explicit about how they encourage a broader approach to sustainability including transport, delivery of service and community engagement.</b></p> | <p>All new refurbishment schemes will show evidence of environmental assessment on materials and techniques being used, and on carbon saving measures being incorporated</p> | <p>To demonstrate a corporate commitment to ensure that capital investment in schemes considers environmental impact</p> | <p><b>The project initiation document includes a section which requires consideration of environmental impact</b></p> |

| CRS Objective  | CRS Project  | Benefit  | Project Status   |
|--|--|--|--|
| <p><b>Trust buildings need to move quickly to have a significantly lower carbon impact, not only in construction but also in their lifetime use and in their decommissioning . Buildings will be designed to promote sustainable behaviours in staff, patients and visitors, and they must be adaptable to support change towards low carbon patient pathways.</b></p> | <p>An assessment of a buildings in use BREEAM assessment in order to establish a baseline for carbon emission, and to plot reductions year on year</p> | <p>The BREEAM assessment is seen as a benchmark in national corporate good environmental governance.</p> | <p><b>The CRSG considered the standard and agreed that the latterly adopted NHS requirement for Corporate Citizenship should be adopted as the standard for the trust to aspire to.</b></p> <p><b>To be rolled over to 2010/11</b></p> |



| CRS Objective  | CRS Project  | Benefit  | Project Status   |
|--|--|--|--|
| <p><b>Future leadership development will take account of the competencies required to deliver carbon reduction.</b></p>  | <p>To ensure that future relevant courses include competencies</p> | <p>All leaders will be aware of the vital role they play in carbon reduction and driving this agenda forward locally and at Trust level.</p> | <p><b>Achieved by publishing the Carbon Reduction Strategy and establishing cross trust membership of the CRSG</b></p> |
| <p><b>The trust will include sustainability and carbon governance as a responsibility on all job descriptions for Chief Executives and Director level posts and on all job descriptions for NHS staff.</b></p> | <p>All job descriptions amended</p>                                | <p>All staff will be aware of their responsibilities to contribute to the carbon reduction agenda.</p>                                       | <p><b>Complete</b></p>   |

| CRS Objective  | CRS Project                           | Benefit   | Project Status   |
|--|---------------------------------------|---|--|
| <p><b>Audio, video and web conferencing technology must be made available by the trust and staff will be trained in these technologies to support a cultural shift away from routine care and other high carbon travel and to encourage more home working.</b></p> | <p>Capital investment in IM&amp;T</p> | <p>Use of technology can reduce the need for staff to travel thereby reducing carbon emission associated with trust activities.</p> | <p><b>146 remote access tokens have been issued to staff to enable them to securely access IT services from home and save on journeys into work.</b></p> <p>The Trust has a very modern teleconferencing solution installed in its Undergraduate Centre that is linked to UCLH and Royal Free for weekly MDT meetings.</p> <p>The Trust has access to telephone conferencing facilities in offices using Voice over IP telephony.</p> <p>The Trust has invested in 20 laptops for the midwife teams to allow them to access IT services out in the community and remove the capture of information on paper and driving back to the hospital to enter.</p> <p>The Trust has a 4 year rolling PC replacement programme for 1600 PCs, and the latest PCs are 40% more energy efficient than the 4 year old models.</p> <p>Similarly, the Trust has adopted new</p> |

3.3. The table below describes the CRS projects for 2009-10:-

| <b>Project</b>                    | <b>Planned savings from 5 year Capital Plan for 2009/10<br/>(Tonnes CO2)</b> | <b>Savings achieved (over CO<sub>2</sub> emissions of 2008/09 )<br/>(Tonnes CO2)</b> | <b>Comments</b>  |
|-----------------------------------|--|--|--|
| Boiler decentralisation Phase I I | 180  | 190  | Savings exceeded estimated outcome   |
| Voltage Reduction                 | 375  | 120  | Only partially reduced due to concerns that further reductions via transformer tappings could compromise infrastructure far points.. |
| HouseKeeping                      | 100  | 70   | Savings mainly achieved from some improvement in heating control adjustments. Small % from switching off lights                      |
| Other capital works               |  | 9  | Savings made by including low energy lighting in a number of refurbishment works.  |
| <b>TOTAL</b>                      | <b>655</b>   | <b>389</b>   |  |

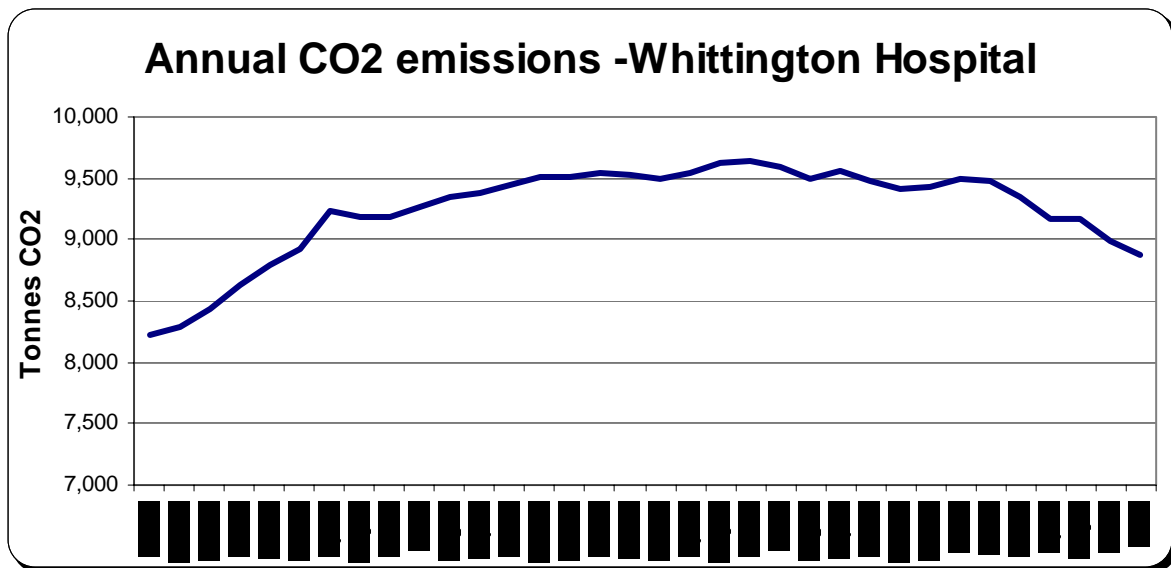
## 4. Carbon reduction summary

### 4.1 Gas

During 2009/10 CO<sub>2</sub> emissions from gas usage fell by 260 tonnes, largely due to effects of boiler decentralisation .

### 4.2 Electricity

During 2009/10 CO<sub>2</sub> emissions from use of electricity consumption was 2.3% down on the previous year and represents a saving of 129 tonnes CO<sub>2</sub>. Several refurbishment projects, included elements of lighting improvements, and voltage reduction, helped limit the normal year on year growth of electrical consumption to 1.1% instead of 4-5%.



#### 4.6 Summary

Carbon emissions rose from 2007, mainly due to increasing electrical consumption across the hospital. The Carbon reduction strategy was developed and ratified in 2009. In 2009/10 CO<sub>2</sub> emissions started to reduce and the prospect for 2010/11 looks even better. There are several projects specifically aimed at CO<sub>2</sub> reduction planned, in addition to the newly established requirement to consider environmental impact in schemes with a broader remit. These should see a return to CO<sub>2</sub> emission levels of the baseline year of 2007 setting us a further 4 years to achieve the target reduction of 900 tonnes.