Bracknell Forest Council

Schools Annual Environmental Management Report

2014/15

CONTENTS

PART FIVE - WASTE

PART SIX- TRANSPORT

PART SEVEN - APPENDICES

PART ONE - INTRODUCTION

1.1 Introduction

This is the twelfth annual report on energy management in Bracknell Forest Council (BFC) schools. The report was expanded in 2005/06 to include a section on water however insufficient schools submitted readings for a meaningful water report to be updated. Waste and transport have also been included under the broader heading of environmental management.

Following new Defra and Carbon Trust guidelines in 2008, the purchase of 'green' electricity is no longer recognised as a means of reducing Carbon Dioxide (CO_2) emissions and this is reflected in the reports with historical figures adjusted accordingly

1.2 Executive Summary

a. At end of March 2015 30 schools in Bracknell Forest (83%) are registered with the Eco-Schools programme. Twenty four of these achieved a bronze award, thirteen achieved a silver award and two achieved a green flag award.

b. Overall energy costs have increased marginally due to increased electricity, gas and oil prices.

c. Energy consumption has reduced compared to last year due to warmer weather but is comparable to 2011/12 when weather was similar. However energy performance has decreased from 134 to 136 kWh/m^2. This is specifically due to increasing electricity use in secondary schools with one school using electricity as a means of space heating.

d. The environmental impact of energy use, measured by the production of carbon dioxide emissions from burning fossil fuels has reduced marginally since the previous year due to the reduced use of fuel oil as means of heating.

e. There is scope for improved energy performance in schools, and most schools could make savings through no/low cost housekeeping measures.

f. The increased provision of schools meals has increased some schools electricity consumption considerably.

1.3 Recommendations

a) All Schools should register and improve their accreditations under for the Eco-Schools program to provide a management framework and accreditation scheme for environmental management.

b) Schools should adopt a 'Whole School approach' as recommended by the Carbon Trust that includes pupils, staff, and governors and commit to an Energy Policy Statement. See Appendix B for details of the "Whole School Approach".

c) Schools should monitor/target their own energy and water use via the web based BF Council supported Systems-Link database as part of their own Energy/Environmental Policy. This allows schools to recognise at an early stage their energy or water consumption is increasing and to take remedial action accordingly.

d) Where schools cannot monitor their water consumption due to location/access of meter, it is recommended that consultation with appropriate water board is required in terms of either relocating the meter or providing an easy accessible sub-meter within the premises or fitting an automatic meter reading device-the Council Energy Manager can provided assistance on this. Alternatively a no cost measure (but less accurate) would be to enter meter readings into Systems-link as shown on water board invoices.

e) Schools should obtain energy or water audits where their energy or water consumption is high compared to other similar schools, or where their energy consumption has increased significantly, to identify energy/water saving measures (see Part 2 on Energy and Part 3 on Water).

f) Schools should implement energy/water saving measures through a combination of management and physical works to their buildings. Where funds for works are not available schools should consider bidding to the Council for capital funding for energy conservation works under the Council Invest-to-Save scheme or the Carbon Trust Salix Interest Free Loan Scheme (via the Council). Those schools willing to participate in either will receive help in the financial appraisal of energy/water saving measures by the Energy Manager

Garth Hill College using the Council Invest to Save scheme installed a 50 kWe Solar Photovoltatic system on the Sports Hall roof.

Recently Binfield Primary School using the Salix Loan Scheme replaced all their existing inefficient lighting by LED lighting. In addition Easthampstead Park School replaced all their sports centre lighting by LED lighting.

Great Holland's Primary replaced all old fluorescent lighting by LED panels in the Summer of 2014 by using the Salix Loan Scheme.

Before

After

g) Schools should consider participating in the BFC maintenance contract for flush controls.

h) Schools should audit the waste they produce on site, and implement measures to reduce it.

i) Schools should increase the scope and scale of recycling on their sites, including taking advantage of the waste recycling service offered under Council's waste contract.

j) Schools should continue to develop their School Travel Plans to review the transport choices made by the school and the pupils, and introduce measures that promote and encourage more sustainable travel modes.

k) The Council should give early consideration to the energy performance of plant, buildings and lighting when drawing up the annual planned maintenance program and new works.

l) The Council should continue to provide training/workshops for schools with respect to good housekeeping and energy awareness, with particular emphasis on saving electricity.

1.4 Scope

The report considers schools performance in the management of energy, and waste in the 2014/15 financial year.

1.5 Purpose

This report has been created in response to strategic policy initiatives at national and local level, including:

a) EU Directive 2002/91/EC Energy Efficiency: Energy Performance and Buildings, requires energy performance certificates for individual buildings above 1000m^2, including schools, to be provided on an annual basis. In addition from January 2013 public buildings over 500m^2 will require a Display Energy Certificate (DEC). This will be applicable to the 2 schools which currently do not have DECs.

b) The Climate Change Act (2008) puts into statute the UK's target to reduce carbon dioxide emissions (CO_2) by 80% by 2050, and 26% by 2020 against a 1990 baseline.

c) The Bracknell Forest Partnership Sustainable Community Plan 2005 "Living Together Working Together", which includes the priority to protect and enhance the environment by increasing energy efficiency and the use of renewable energy while reducing waste and pollution.

d) Bracknell Forest Council's Medium Term Objective, "To keep Bracknell Forest clean and green".

e) The Nottingham Declaration on Climate Change was signed by the Council on 27th February 2007. This commits the Council to developing and implementing a local climate change action plan in two years. The Climate Change Action Plan was

published by the Council in October 2008 and updated in July 2010, January 2013 and December 2015.

i) Energy Performance of Buildings Directive: Air conditioning inspection of buildings. All buildings including schools with an air conditioning load of greater than 12Kw will require an air conditioning energy performance certificate by January 2011.

j) In April 2010, the Government introduced a system of Feed-in-Tariffs to provide financial incentives for the installation of renewable electricity technologies including solar photovoltaic (PV) systems. FITs are index linked; guaranteed for 20 years for solar PV; and provide an attractive rate of return. St Joseph's Catholic Primary was the first school in Bracknell Forest to install solar PV during 2011.Since then PV system have been installed in Holly Spring, Crown Wood, Kennel Lane and Garth Hill schools. Meter readings of the Generation meter must be submitted to FIT provider every 3 months to obtain FIT payment.

1.6 Objectives

The objectives of the report are to:

a) Record and benchmark schools annual performance under environmental management.

b) Identify priority schools so they can take follow up action.

c) Identify and analyse trends in environmental management performance by year on year comparison.

d) To make general recommendations about environmental management in schools.

1.7 Contact

For further information or if there are any queries relating to the contents of this Report please contact:

Chris Taylor
Head of Education Capital & Property
Tel: 01344 354062
chris.taylor@bracknell-forest.gov.uk

1.8 Distribution

a) This Report will be reported to:
- Executive Member for Children, Young People & Learning
- Children, Young People & Learning Departmental Management Team
- Children, Young People & Learning Planned Works Programme Board

b) Copies will be circulated to Head Teachers, Bursars and Chairmen of School Governors.

c) The report will also be posted on the Council's website.

PART TWO - ECO SCHOOLS

2.1 Accredited Environmental Management Scheme

a) Bracknell Forest Council has adopted the Eco-Schools programme as the overall measure of schools' performance under environmental management.

b) The Eco-Schools programme provides a simple accredited management framework to enable your school to analyse its operations and become more sustainable. It guides schools through examination of their environmental impact across a wide range of issues including energy, waste, transport etc. The scheme is rooted in a genuine desire to help children become more effective citizens by encouraging them to take responsibility for the future of their own environment. At the same time the school can make financial savings through reducing resource consumption and therefore its utility bills.

2.2 Registration and Recognition

a) Eco-Schools is run internationally by the Foundation for Environmental Education (FEE). In England it is managed by Keep Britain Tidy.

b) Eco-Schools begin with registration. Once registered your school will be part of an international group of schools working towards education for sustainable development (ESD) and a better quality of life for local and (through joint action) global communities.

c) It is also an award scheme that will celebrate your achievements as a school and raise the profile of your school in the wider community.

2.3 Three Levels of Award:

a) Bronze award - self-assessed via website leading to a certificate

b) Silver award - self-assessed via website leading to a certificate.

c) Green Flag - the highest level, externally assessed leading to a certificate and Flag.

2.4 Participation and progress

a) By the end of March 2015, 30 state schools and 6 independent schools were registered with the Eco-Schools programme in Bracknell Forest. Awards received to date include 25 Bronze, 12 Silver and 2 Green Flags. The Borough's first Green Flag award was achieved by Sandy Lane Primary School in September 2009 followed by Ascot Heath Infant in November 2013.

b) Please refer to Table 1.

2.5 Support from Bracknell Forest Council

The Council is keen to support local schools on the Eco-Schools programme as we believe it is an effective way of combining good utility management with environmental education. Officers from across the Council are available to offer support to schools on the Eco-Schools programme on the 9 topics within the programme; these include energy, biodiversity, healthy living, litter, school grounds etc.

2.6 Contact

For further information please contact:

Hazel Hill
Sustainable Energy Officer
Tel: 01344 352536
Hazel.hill@bracknell-forest.gov.uk

Table 1: Bracknell Eco-Schools - March 2015

No.	School	Registered	Award	Date
1	Birch Hill Primary	30/09/05	Bronze	14/09/07
2	Harmans Water Primary	01/10/05	Bronze Silver	17/06/08 17/06/08
3	Uplands Primary	11/11/05	Bronze Silver	01/04/09 14/04/09
4	Great Hollands Primary	18/11/05	Bronze Silver	27/02/07 27/03/08
5	Warfield CE Primary	23/11/05	Bronze	04/10/06
6	Meadow Vale Primary	02/01/06	Bronze Silver	30/10/06 20/05/10
7	Sandy Lane Primary	27/01/06	Bronze Silver Green Flag	24/03/06 12/01/07 25/09/09 & 14/03/12
8	College Town Infant & Nursery	22/06/06	Bronze Silver	19/11/07 08/02/13
9	Holly Spring Junior	04/10/06	Bronze	18/06/09
10	Wooden Hill Primary & Nursery	16/10/06	Bronze	07/11/07
11	College Town Junior	05/11/06	Bronze Silver	09/07/08 09/07/08
12	Ranelagh School	10/01/07	Bronze Silver	10/05/07 16/07/10
13	Ascot Heath Junior	31/01/07	Bronze Silver	27/02/07 08/05/08
14	New Scotland Hill Primary	30/01/07	Bronze Silver	27/11/08 24/03/11
15	Wildmoor Heath	24/03/07	Bronze	10/12/08
16	Crown Wood Primary	21/05/07	Bronze Silver	04/10/12 18/07/13
17	Edgbarrow Secondary School	12/09/07	Bronze	17/06/09
18	St Micheal's CE Primary Easthampstead	08/11/07	Bronze	01/04/08
19	Sandhurst Secondary School	02/06/08		
20	Ascot Heath Infant	23/01/08	Bronze Silver Green Flag	05/07/09 22/10/10 27/11/13
21	St. Jospeh's Primary	09/06/08		
22	Crowthorne Primary	13/06/08	Bronze	21/07/10
23	Whitegrove Primary	05/12/08		
24	The Rowans	24/03/09	Bronze	17/06/09
25	The Pines	26/04/09	Bronze	27/06/09
26	Wildridings Primary	18/05/09	Bronze	01/07/09
27	Binfield CE Primary	13/01/10		
28	Brakenhale School	26/04/11	Bronze	27/04/11
29	Garth Hill College	14/11/13		
30	Winkfield St Mary's	14/10/13	Bronze	07/07/14

PART THREE - ENERGY

3.1 Scope

Energy in this case includes gas, oil, biomass and electricity used to provide heating, domestic hot water, lighting and general power within BFC schools in the 2014/15 financial year. The report considers energy under three main headings:

1. **Energy Cost:** The cost of energy at each school, which fluctuates in the marketplace.

2. **Energy Consumption:** The use of energy by schools as a single annual figure in kilowatt-hours (kWh).

3. **Energy Environmental Impact:** the impact on the environment, measured as the amount of Carbon Dioxide (Kg CO_2) released into the atmosphere through burning fossil fuels.

3.2 Data

a) The energy data used within the report is based on actual meter readings taken by schools in the financial year 2014/15, except where a school shares a common boiler house which is not sub-metered. In this case the gas/oil is apportioned according the schools own financial calculations.

Note: For Display Energy Certificates (DECs) oil tank readings must be taken at beginning and end of each assessment period. If readings are not taken, then it is assumed the tank is empty at the beginning or end of the assessment period resulting in higher oil consumption than expected. As such gauge readings must be taken on a monthly basis.

b) The report relies heavily on the accuracy of the data that has been used, and schools are requested to check the data carefully for their site to identify any anomalies in terms of the cost consumption of energy or floor area. Schools can view this data via the Systems-link website login www.systems-link.co.uk/webreports/ Please report any data anomalies or queries to Steven Milne, Council Energy Manager, Tel: 01344 351518 or e-mail: steven.milne@bracknell-forest.gov.uk.

c) By March 2011 automatic meter readers (AMRs) were installed on all major gas and electricity meters in addition to the statutory half-hourly meters already installed. This eliminates the need for manual meter reading at these sites, reducing potential billing errors.

3.3 Benchmarking

Schools performance in the management of energy is benchmarked in the report:

a) Against other schools, within the primary and secondary sectors.

b) Against the previous year to indicate trends in performance since 2004/05.

c) Schools are benchmarked via Display Energy Certificates (DECs) in a later report which take into account of occupancy and actual useable floor area.

3.4 Summary of Energy Cost, Consumption and Environmental Impact

The following data has been derived from invoices and meter readings.

Table 2 - Energy Consumption (kWh)

FUEL TYPE					% Increase / Decrease		
	2011/12	2012/13	2013/14	2014/15	on 2011/12	On 2012/13	On 2013/14
Elec	6,452,750	6,842,822	6,919,788	6,949,542	7.70%	1.56%	0.43%
Gas	7,006,381	9,485,277	8,745,255	8,775,207	25.25%	-7.49%	0.34%
Oil	3,404,768	3,572,370	2,932,963	2,764,580	-18.80%	-22.61%	-5.74%
Biomass	316,320	158,300	325,749	158,300	-49.96%	0.00%	-51.40%
Totals	**17,180,219**	**20,058,769**	**18,923,755**	**18,647,629**	8.54%	-7.04%	-1.46%

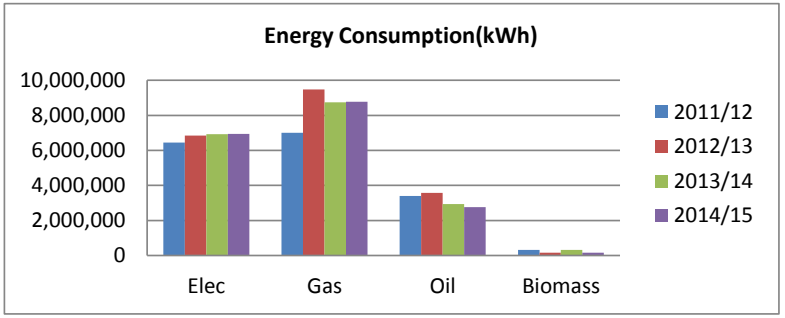


Table 3 - Weather Corrected Consumption(kWh/m^2)

Item							% Increase / Decrease	
		2011/12	2012/13	2013/14	2014/15	On 2011/12	On 2012/13	On 2013/14
Consumption (kWh)	Electricity	6,452,750	6,842,822	6,919,788	6,949,542	7.70%	1.56%	0.43%
	Fossil Fuels	10,869,008	10,648,678	11,324,921	11,608,944	6.81%	9.02%	2.51%
	Total	**17,321,758**	**17,491,500**	**18,244,710**	**18,558,485**	7.14%	6.10%	1.72%
Floor Area (m^2)		131,376	134,909	136,315	136,315	3.76%	1.04%	0.00%
Consumption (kWh/m^2)	Electricity	49	51	51	51	3.80%	0.51%	0.43%
	Fossil Fuels	83	79	83	85	2.94%	7.89%	2.51%
	Total	**132**	**130**	**134**	**136**	3.14%	4.73%	1.72%

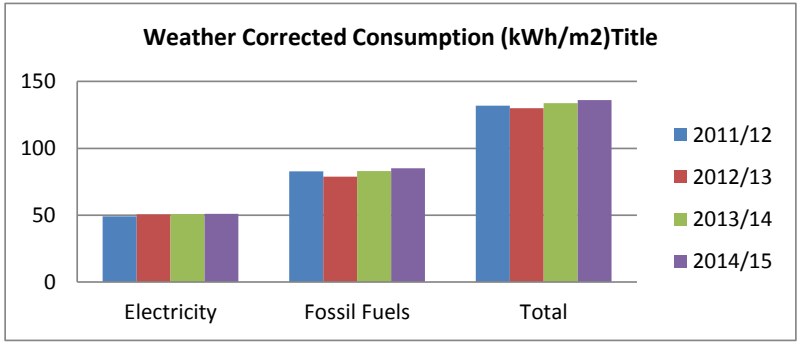


Table 4 - Energy Cost (£)

FUEL TYPE					% Increase / Decrease		
	2011/12	2012/13	2013/14	2014/15	On 2011/12	On 2012/13	On 2013/14
Elec	613,838	675,760	731,492	748,392	21.92%	10.75%	2.31%
Gas	232,074	318,962	304,393	301,686	30.00%	-5.42%	-0.89%
Oil	181,909	192,026	147,244	110,855	-39.06%	-42.27%	-24.71%
Biomass	12,143	6,266	13,005	6,269	-48.37%	0.05%	-51.80%
Totals	**1,039,964**	**1,193,013**	**1,196,134**	**1,167,202**	12.23%	-2.16%	-2.42%

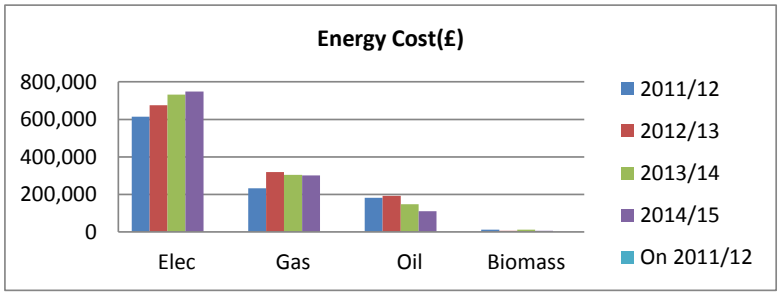
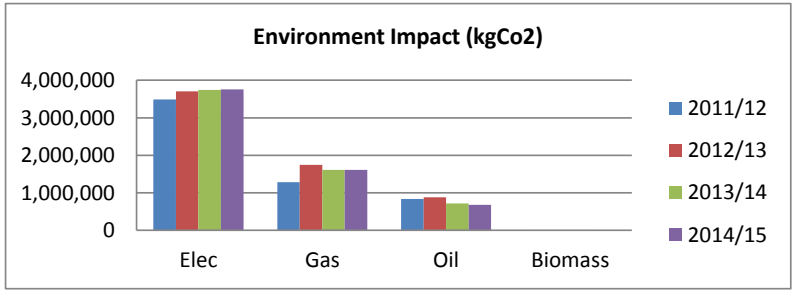


Table 5 - Environmental Impact ($kgCO_2$)

FUEL TYPE					% Increase / Decrease		
	2011/12	2012/13	2013/14	2014/15	On 2011/12	On 2012/13	On 2013/14
Elec	3,490,938	3,701,967	3,743,606	3,759,702	7.70%	1.56%	0.43%
Gas	1,286,372	1,743,416	1,609,127	1,614,638	25.52%	-7.39%	0.34%
Oil	836,166	877,327	720,297	678,944	-18.80%	-22.61%	-5.74%
Biomass	8,224	4,116	8,469	0	-100.00%	-100.00%	-100.00%
Totals	**5,621,700**	**6,326,825**	**6,081,499**	**6,053,284**	7.68%	-4.32%	-0.46%



3.5 Contact

For further information or if there are any queries relating to the energy contents of this report please contact:

Steven Milne
Borough Energy Manager
Tel: 01344 351518
steven.milne@bracknell-forest.gov.uk

3.6 Energy Cost

a) To compare energy costs within BFC schools, each school type i.e. Primary, Secondary, and Special schools are separated into groups and ranked in terms of their 'Total energy cost per floor area' (£/m^2) as shown in Table 6. The lowest energy cost per floor area is ranked one whereas the highest energy cost per floor area is ranked thirty for Primary schools, and six for Secondary Schools.

b) Despite increased gas and electricity unit costs, energy costs have reduced due to reduced energy consumption due to milder weather and much reduced use of expensive fuel oil.

c) It is therefore important for Head Teachers and Bursars to adopt energy efficiency practices and measures within their school. Effective energy management can reduce energy consumption without any loss of service, provide usable cost savings and is of benefit to environment.

d) Electricity remains the greatest fuel cost affecting schools budgets due to its high unit price. Direct electric heating should be avoided as a means of heating schools. There has been a considerable increase in energy costs in those schools which have received new school meals kitchens. Also school meal sales have increased from 3,300 to 5,042 per day in 2014/15 since the introduction of Universal Infant Free School Meals from September 2014.

3.7 How Can I Minimise Energy Cost in my School?

a) The recommended mechanism for reducing costs is to join the BFC fuel purchasing contracts. All schools are currently included.

b) Check invoices - tariff rates, readings and VAT via the Systemslink web site.

c) Order oil when demand is low and not affected by weather conditions.

d) Reduce energy consumption (see below).

Table 6 - Energy Cost 2014/15(£/m^2)

Site	Rank	Floor Area 14/15	Electricity Cost	Gas Cost	Oil Cost	Biomass Cost	Total Cost	% of Expenditure	14/15 £/m^2	Prev Yr 13/14 £/m^2	Trend
Primary Schools											
The Pines(Excludes Behaviour Support)	1	2,128	8,021	3,801	0	0	11,822	2.4%	5.56	5.49	1%
Crown Wood Primary	2	3,431	11,981	9,641		0	21,623	4.4%	6.30	5.82	8%
St Josephs Catholic Primary (VA)	3	1,430	5,779	394	3,036	0	9,209	1.9%	6.44	7.71	-16%
St Michaels CE Primary, S'hurst (VA)	4	1,323	5,320	3,289	0	0	8,608	1.7%	6.51	7.25	-10%
Sandy Lane Primary	5	3,598	12,915	11,571	0	0	24,486	5.0%	6.81	6.36	7%
St Michaels CE Primary, E'hamp (VA)	6	1,386	6,485	3,059	0	0	9,544	1.9%	6.89	7.56	-9%
Fox Hill Primary (incl. Rowans Childs Centre)	7	2,047	10,789	1,080	2,449	0	14,318	2.9%	6.99	7.88	-11%
Meadow Vale Primary	8	3,932	14,389	13,348	0	0	27,737	5.6%	7.05	7.61	-7%
Wildmoor Heath Primary	9	1,094	4,927	3,446	0	0	8,372	1.7%	7.65	7.75	-1%
Jennett's Park CE Primary (VA)	10	2,444	8,440	10,345	0	0	18,785	3.8%	7.69	7.40	4%
College Town Infants & Nursery	11	1,682	7,576	5,397	0	0	12,972	2.6%	7.71	8.37	-8%
St Margaret Clitherow Catholic Primary (VA)	12	1,144	6,250	2,669	0	0	8,919	1.8%	7.80	7.94	-2%
Winkfield St Marys CE Primary	13	1,036	4,606	3,492	0	0	8,097	1.6%	7.82	8.42	-7%
Binfield CE Primary (VA)	14	2,152	11,796	5,220	0	0	17,017	3.5%	7.91	9.30	-15%
Holly Spring Schools Combined	15	4,127	23,271	10,270	0	0	33,541	6.8%	8.13	7.78	5%
Wooden Hill Primary & Nursery	16	1,878	9,919	5,838	0	0	15,757	3.2%	8.39	8.06	4%
Ascot Heath Infant	17	925	4,719	3,086	0	0	7,805	1.6%	8.44	7.54	12%
New Scotland Hill Primary	18	1,405	7,966	1,144	2,767	0	11,878	2.4%	8.45	8.63	-2%
Birch Hill Primary	19	2,416	12,573	7,881	0	0	20,454	4.2%	8.47	8.18	4%
Warfield CE Primary	20	1,413	7,995	3,985	0	0	11,980	2.4%	8.48	8.76	-3%
Whitegrove Primary	21	2,298	9,905	10,115	0	0	20,020	4.1%	8.71	6.98	25%
College Town Junior	22	1,819	8,864	572	6,708	0	16,144	3.3%	8.88	8.30	7%
Great Hollands Primary	23	3,295	16,215	13,404	0	0	29,619	6.0%	8.99	8.31	8%
Owlsmoor Primary	24	2,318	12,462	8,489	0	0	20,951	4.3%	9.04	7.16	26%
Wildridings Primary	25	2,739	14,426	2,043	8,415	0	24,884	5.1%	9.09	8.42	8%
Harmans Water Primary	26	3,512	23,271	2,306	7,687	0	33,265	6.8%	9.47	8.47	12%
Crowthorne CE Primary	27	1,182	5,760	5,782	0	0	11,543	2.3%	9.77	9.29	5%
Ascot Heath CE Junior	28	1,416	9,506	341	4,917	0	14,764	3.0%	10.43	8.83	18%
Uplands Primary	29	1,432	6,963	8,638	0	0	15,601	3.2%	10.89	9.99	9%
Cranbourne Primary	30	1,522	6,936	6,246	4,287	0	17,468	3.5%	11.48	11.92	-4%
Sub Totals		**62,524**	**280,026**	**153,447**	**40,265**	**0**	**473,739**	**1**	**8**	**8**	**0**
Special Schools											
Kennel Lane (Special School)	1	4,674	26,961	19,919	0	0	46,880	100.0%	10.03	9.81	2%
Secondary Schools											
Sandhurst Comp (incl. Sp Cen)	1	13,417	56,287	11,509	12,413	0	80,209	12.4%	5.98	9.61	-38%
Brakenhale Comp (excl. OLC)	2	12,045	67,607	4,510	28,824	0	100,941	15.6%	8.38	8.58	-2%
Edgbarrow Comp (Excludes Sp Cen)	3	10,535	59,969	29,398	0	0	89,367	13.8%	8.48	7.98	6%
Easthampstead Park Community Comp	4	12,952	71,680	39,665	0	0	111,345	17.2%	8.60	8.46	2%
Ranelagh (Academy)	5	10,343	50,557	23,514	29,352	0	103,423	16.0%	10.00	9.87	1%
Garth Hill	6	9,825	135,304	19,725	0	6,269	161,298	24.9%	16.42	12.18	35%
Sub Totals		**69,117**	**441,405**	**128,321**	**70,589**	**6,269**	**646,583**	**100.0%**	**9.35**	**9.50**	**-2%**
Totals		**136,315**	**748,392**	**301,686**	**110,855**	**6,269**	**1,167,202**	**100**	**8.56**	**8.77**	**-2%**

3.8 Energy Consumption

a) Energy consumption in kWh/m^2 is set out on Table7 below. This has been taken directly from meter readings.

b) As shown in Table 8, energy consumption data for gas and oil has then been adjusted for ambient temperature using the formulae described in Appendix A. Primary, Secondary and Special Schools are shown as separate groups, but ranked in terms of their 'Total Weather Corrected energy consumption per floor area (including electricity). As with cost/m^2 the lowest is ranked as one whereas the highest is ranked thirty for a Primary school and six for a Secondary school.

c) For both Primary and Secondary Schools only 50% of schools show an improvement in energy performance.

d) Since 2007/08 however overall Energy Performance of Schools has improved each year with the exception of 2013/14.

3.9 How Can I Reduce Energy Consumption in my School?

a) Form a working group to review energy use in your school.

b) Adopt a whole school approach that involves pupils, staff and governors. (See Appendix B).

c) Undertake an energy awareness campaign. Contact Hazel Hill, Sustainable Energy Officer on 01344 352536 or hazel.hill@bracknell-forest.gov.uk

d) Undertake recommendations as given in 2009/10 Display Energy Certificate Advisory Reports.

e) Ensure all major energy using plant and air conditioning has a maintenance contract associated with it.

f) Ensure all IT equipment is switched off or has automatic shut down facilities for out of school hours.

Table 7 - Energy Consumption 2014/15 (kWh/m^2)

Site	Rank	Floor Area 14/15	Electricity kWh	Gas kWh	Oil kWh	Biomass kWh	Total Consum-ption kWh	14/15 Weather Corrected kWh	14/15 Weather Corrected kWh/m2	13/14 Weather Corrected kWh/m2	Trend
Primary Schools											
The Pines(Excludes Behaviour Support)	1	2,128	75,288	101,981	0	0	177,269	176,492	82.94	88.71	-7%
Fox Hill Primary (incl. Rowans Childs Centre)	2	2,047	96,622	23,454	72,850	0	192,926	192,193	93.89	107.62	-13%
St Michaels CE Primary, E'hamp (VA)	3	1,386	61,851	84,838	0	0	146,688	146,042	105.37	117.59	-10%
St Josephs Catholic Primary (VA)	4	1,430	53,976	7,132	93,306	0	154,413	153,648	107.45	113.17	-5%
New Scotland Hill Primary	5	1,405	73,933	26,363	55,159	0	155,455	154,834	110.20	115.48	-5%
Meadow Vale Primary	6	3,932	135,907	300,773	0	0	436,680	434,388	110.48	117.07	-6%
Holly Spring Schools Combined	7	4,127	194,825	265,125	0	0	459,950	457,930	110.96	110.98	0%
College Town Junior	8	1,819	85,073	14,819	109,296	0	209,188	208,242	114.48	107.86	6%
Jennett's Park CE Primary (VA)	9	2,444	78,872	204,686	0	0	283,557	281,998	115.38	114.91	0%
St Margaret Clitherow Catholic Primary (VA)	10	1,144	60,722	73,844	0	0	134,567	134,004	117.14	115.16	2%
Crown Wood Primary	11	3,431	112,995	295,077	0	0	408,071	405,823	118.28	94.18	26%
Wildmoor Heath Primary	12	1,094	45,853	87,624	0	0	133,478	132,810	121.40	130.80	-7%
St Michaels CE Primary, S'hurst (VA)	13	1,323	53,232	108,806	0	0	162,038	161,209	121.85	127.50	-4%
Harmans Water Primary	14	3,512	152,271	58,735	219,490	0	430,496	428,375	121.97	123.11	-1%
College Town Infants & Nursery	15	1,682	70,065	139,929		0	209,994	208,928	124.21	142.10	-13%
Binfield CE Primary (VA)	16	2,152	120,141	152,070		0	272,210	271,051	125.95	153.07	-18%
Sandy Lane Primary	17	3,598	121,880	340,783	0	0	462,663	460,066	127.87	131.07	-2%
Winkfield St Marys CE Primary	18	1,036	42,805	98,209	0	0	141,014	140,266	135.39	142.45	-5%
Warfield CE Primary	19	1,413	76,140	118,089	0	0	194,229	193,329	136.82	135.73	1%
Ascot Heath Infant	20	925	46,540	80,801		0	127,341	126,725	137.00	121.51	13%
Uplands Primary	21	1,432	63,691	134,339	0	0	198,030	197,006	137.57	151.49	-9%
Wildridings Primary	22	2,739	142,611	50,204	187,034	0	379,849	378,041	138.02	124.67	11%
Birch Hill Primary	23	2,416	120,736	224,070		0	344,806	343,099	142.01	140.74	1%
Wooden Hill Primary & Nursery	24	1,878	92,732	177,233	0	0	269,965	268,614	143.03	131.89	8%
Great Hollands Primary	25	3,295	112,647	392,997	0	0	505,644	502,649	152.55	162.27	-6%
Owlsmoor Primary	26	2,318	117,543	238,549	0	0	356,093	354,275	152.84	123.39	24%
Ascot Heath CE Junior	27	1,416	93,753	992	123,720	0	218,465	217,514	153.61	116.85	31%
Crowthorne CE Primary	28	1,182	52,989	150,062	0	0	203,051	201,907	170.82	166.04	3%
Whitegrove Primary	29	2,298	95,284	320,647	0	0	415,931	413,488	179.93	116.47	54%
Cranbourne Primary	30	1,522	63,985	182,499	125,782	0	372,266	369,917	243.05	206.43	18%
Sub Totals		**62,524**	**2,714,961**	**4,454,729**	**986,636**	**0**	**8,156,327**	**8,114,862**	**129.79**	**126.23**	**3%**
Special Schools											
Kennel Lane (Special School)	1	4,674	258,858	582,475	0	0	841,333	836,894	179.05	184.60	-3%
Secondary Schools											
Edgbarrow Comp (Excludes Sp Cen)	1	12,952	525,961	794,437	0	0	1,320,398	1,314,344	101.48	116.27	-13%
Sandhurst Comp (incl. Sp Cen)	2	10,535	507,598	348,556	340,230	0	1,196,384	1,191,135	113.06	135.82	-17%
Brakenhale Comp (excl. OLC)	3	12,045	608,394	118,399	750,429	0	1,477,222	1,470,601	122.09	112.33	9%
Easthampstead Park Community Comp	4	13,417	608,961	1,209,649	0	0	1,818,610	1,809,392	134.86	139.62	-3%
Ranelagh (Academy)	5	9,825	463,598	702,078	687,285	0	1,852,961	1,842,374	187.52	166.30	13%
Garth Hill	6	10,343	1,261,210	564,884	0	158,300	1,984,394	1,978,883	191.33	152.73	25%
Sub Totals		**69,117**	**3,975,722**	**3,738,003**	**1,777,944**	**158,300**	**9,649,969**	**9,606,729**	**138.99**	**137.30**	**1%**
TOTALS		**136,315**	**6,949,542**	**8,775,207**	**2,764,580**	**158,300**	**18,647,629**	**18,558,485**	**136.14**	**133.84**	**2%**

Table 8 - Weather Corrected Consumption 2014/15 (kWh/m^2)

School	Rank	Floor Area m2								Weather Corrected Consumption kWh/m2							
Primary Schools		**2007/08**	**2008/09**	**2009/10**	**2010/11**	**2011/12**	**2012/13**	**2013/14**	**2014/15**	**2007/08**	**2008/09**	**2009/10**	**2010/11**	**2011/12**	**2012/13**	**2013/14**	**2014/15**
The Pines(Excludes Behaviour Support)	1	2903.00	2128.00	2128.00	2128.00	2,128	2,128	2,128	2,128	125.05	105.52	101.36	104.10	91.43	92.82	88.71	82.94
Fox Hill Primary (incl. Rowans Childs Centre)	2	2047.00	2047.00	2047.00	2047.00	2,047	2,047	2,047	2,047	135.02	134.88	124.49	116.89	111.28	114.72	107.62	93.89
St Michaels CE Primary, E'hamp (VA)	3	1386.00	1386.00	1386.00	1386.00	1,386	1,386	1,386	1,386	205.86	185.10	126.52	132.98	137.57	116.38	117.59	105.37
St Josephs Catholic Primary (VA)	4	1374.00	1373.80	1373.80	1373.80	1,374	1,430	1,430	1,430	147.57	131.92	128.57	132.35	119.79	109.66	113.17	107.45
New Scotland Hill Primary	5	1362.00	1362.30	1362.30	1362.30	1,405	1,405	1,405	1,405	131.90	129.05	127.62	120.41	108.91	104.89	115.48	110.20
Meadow Vale Primary	6	3098.80	3098.80	3098.80	3098.80	2,980	3,554	3,932	3,932	150.40	151.89	152.49	149.83	147.44	118.09	117.07	110.48
Holly Spring Schools Combined	5	2982.00	2982.00	2982.00	2982.00	2,982	4,127	4,127	4,127	141.63	137.51	141.31	128.92	129.92	113.85	110.98	110.96
College Town Junior	4	1782.00	1782.00	1782.00	1782.00	1,819	1,819	1,819	1,819	108.08	103.86	114.34	108.33	96.22	99.84	107.86	114.48
Jennett's Park CE Primary (VA)	7	0.00	0.00	0.00	n/a	2,444	2,444	2,444	2,444	n/a	n/a	n/a	n/a	85.11	115.67	114.91	115.38
St Margaret Clitherow Catholic Primary (VA)	8	1144.00	1144.00	1144.00	1144.00	1,144	1,144	1,144	1,144	129.27	125.35	115.24	109.88	103.96	112.76	115.16	117.14
Crown Wood Primary	2	2297.70	2297.70	2297.70	2297.70	2,403	2,403	3,431	3,431	159.04	158.63	159.55	152.02	149.27	124.14	94.18	118.28
Wildmoor Heath Primary	19	1093.60	1093.60	1093.60	1093.60	1,094	1,094	1,094	1,094	120.52	158.43	125.62	137.30	109.49	125.88	130.80	121.40
St Michaels CE Primary, S'hurst (VA)	18	1322.00	1321.90	1321.90	1321.90	1,323	1,323	1,323	1,323	149.58	135.54	142.30	126.52	116.01	120.01	127.50	121.85
Harmans Water Primary	15	3512.00	3512.00	3512.00	3512.00	3,512	3,512	3,512	3,512	114.68	136.33	112.32	105.16	111.69	128.46	123.11	121.97
College Town Infants & Nursery	24	1540.00	1515.00	1682.00	1682.00	1,682	1,682	1,682	1,682	171.77	160.55	168.31	150.61	148.57	154.79	142.10	124.21
Binfield CE Primary (VA)	27	2138.00	2138.00	2138.00	2138.00	2,152	2,152	2,152	2,152	137.01	155.59	137.46	137.80	138.46	150.27	153.07	125.95
Sandy Lane Primary	20	3258.00	3258.00	3258.00	3379.00	3,598	3,598	3,598	3,598	130.56	125.32	130.41	150.68	133.30	137.35	131.07	127.87
Winkfield St Marys CE Primary	25	1036.00	1036.00	1036.00	1036.00	1,036	1,036	1,036	1,036	157.73	190.99	160.62	140.19	148.18	149.48	142.45	135.39
Warfield CE Primary	22	1413.00	1413.20	1413.20	1413.20	1,413	1,413	1,413	1,413	184.72	193.24	174.37	146.21	142.15	138.07	135.73	136.82
Ascot Heath Infant	14	913.00	925.00	925.00	925.00	925	925	925	925	105.41	105.55	113.41	126.24	117.07	116.42	121.51	137.00
Uplands Primary	26	1432.00	1432.00	1432.00	1432.00	1,432	1,432	1,432	1,432	146.32	137.70	126.97	124.51	110.83	116.17	151.49	137.57
Wildridings Primary	17	2739.00	2739.00	2739.00	2739.00	2,739	2,739	2,739	2,739	157.50	133.31	150.99	127.03	121.26	129.96	124.67	138.02
Birch Hill Primary	23	2416.10	2416.10	2416.10	2416.10	2,416	2,416	2,416	2,416	151.25	143.01	140.38	136.81	131.65	140.76	140.74	142.01
Wooden Hill Primary & Nursery	21	1896.00	1896.00	1896.00	1896.00	1,878	1,878	1,878	1,878	152.60	159.01	139.50	138.00	135.22	121.64	131.89	143.03
Great Hollands Primary	28	3295.00	3295.00	3295.00	3295.00	3,295	3,295	3,295	3,295	174.44	189.32	178.38	161.02	210.30	162.14	162.27	152.55
Owlsmoor Primary	16	2314.80	2314.80	2314.80	2314.80	2,318	2,318	2,318	2,318	119.65	120.56	132.28	116.03	100.30	132.32	123.39	152.84
Ascot Heath CE Junior	11	1415.50	1415.50	1415.50	1415.50	1,416	1,416	1,416	1,416	161.51	166.98	151.81	147.05	135.76	147.93	116.85	153.61
Crowthorne CE Primary	29	1181.50	1181.50	1181.50	1181.50	1,182	1,182	1,182	1,182	139.87	169.05	160.55	162.98	152.95	161.55	166.04	170.82
Whitegrove Primary	10	2292.30	2292.30	2292.30	2292.30	2,298	2,298	2,298	2,298	167.86	159.74	175.45	148.41	131.65	136.18	116.47	179.93
Cranbourne Primary	30	1421.00	1421.00	1421.00	1421.00	1,522	1,522	1,522	1,522	208.18	177.29	189.01	174.04	177.56	211.88	206.43	243.05
Sub Totals		**57,005**	**56,218**	**56,385**	**56,506**	**59,343**	**61,118**	**62,524**	**62,524**	**146.64**	**146.54**	**141.89**	**134.96**	**129.89**	**129.75**	**126.23**	**129.79**
Special Schools	**Rank**	**2007/08**	**2008/09**	**2009/10**	**2010/11**	**2011/12**	**2012/13**	**2013/14**	**2014/15**	**2007/08**	**2008/09**	**2009/10**	**2010/11**	**2011/12**	**2012/13**	**2013/14**	**2014/15**
Kennel Lane (Special School)	1	3,530	3,530	3,530	3,530	3,530	4674.00	4674.00	4674.00	298.07	278.61	270.61	259.93	212.72	165.56	184.46	179.05
Secondary Schools	**Rank**	**2007/08**	**2008/09**	**2009/10**	**2010/11**	**2011/12**	**2012/13**	**2013/14**	**2014/15**	**2007/08**	**2008/09**	**2009/10**	**2010/11**	**2011/12**	**2012/13**	**2013/14**	**2014/15**
Edgbarrow Comp (Excludes Sp Cen)	1	8,247	8,247	8,247	10,202	10,202	10,535	10,535	10,535	1,653	158.96	147.61	122.94	124.64	118.92	116.27	101.48
Sandhurst Comp (incl. Sp Cen)	2	9,825	9,825	9,825	9,825	9,825	9,825	9,825	9,825	1,653	149.13	149.71	112.72	131.44	124.81	135.82	113.06
Brakenhale Comp (excl. OLC)	3	13,135	11,075	11,075	11,764	11,764	12,045	12,045	12,045	1,653	149.81	151.78	148.09	115.73	97.15	112.33	122.09
Easthampstead Park Community Comp	4	12,952	12,952	12,952	12,952	12,952	12,952	12,952	12,952	1,653	144.46	137.72	150.50	116.70	125.10	139.62	134.86
Ranelagh (Academy)	5	11,469	11,469	11,469	11,469	10,343	10,343	10,343	10,343	1,653	165.19	175.02	163.24	149.84	164.73	166.30	187.52
Garth Hill	6	12,615	12,615	12,615	13,016	13,417	13,417	13,417	13,417	1,653	130.71	125.20	160.59	139.92	135.24	152.73	191.33
Sub Totals		**68,243**	**66,183**	**66,182**	**69,228**	**68,503**	**69,117**	**69,117**	**69,117**	**154.50**	**148.83**	**147.16**	**142.95**	**129.38**	**127.14**	**137.30**	**138.99**
Totals		**128,778**	**125,930**	**126,096**	**129,263**	**131,376**	**134,909**	**136,315**	**136,315**	**154.95**	**151.45**	**148.26**	**142.00**	**131.85**	**129.65**	**133.84**	**136.14**

3.10 Energy Environmental Impact

a. The burning of fossil fuels releases greenhouse gasses into the atmosphere, principally Carbon Dioxide (CO_2), which is considered to be responsible for Climate Change through global warming.

b. Each fuel type has a different intensity of Carbon Dioxide emitted per kilowatt-hour of energy used as shown in Appendix A. Consequently fuel type and quantity has a varying impact on the environment in term of Carbon Dioxide emissions. Carbon Dioxide emissions are also subject to correction for ambient temperature. In Table 9, the total figure for weather-corrected Carbon Dioxide emissions has then been ranked by floor area ($kgCO_2/m^2$)

c. The increase in weather-corrected Carbon Dioxide emissions in 2013/14 as compared to the previous year is mainly attributable increased electricity consumption.

3.11 How Can I Minimise Energy Environmental Impact in my School?

a) Replace existing 15 year old plus oil /gas fired boiler plant by modern high efficiency gas fired boiler plant or biomass boiler plant (requires a technical assessment).

b) Consider implementing a renewable energy scheme for your school.

c) Reduce consumption (see above)

Table 9 - Energy Environmental Impact 2014/15 (CO_2/m^2)

Site	Rank	Floor Area 14/15 (m2)	Elect kgCO2	Gas kgCO2	Oil kgCO2	Biomass kgCO2	Total Fuel kgCO2	14/15 Weather Corrected Fuel CO2	14/15 Weather Corrected Fuel CO2/m2	13/14 Weather Corrected Fuel CO2/m2	Trend
Primary Schools											
The Pines(Excludes Behaviour Support)	1	2,128	40,731	18,765	0	0	59,495	59,352	27.89	29.17	-4%
Meadow Vale Primary	2	3,932	73,526	55,342	0	0	128,868	128,446	32.67	38.49	-15%
Jennett's Park CE Primary (VA)	3	2,444	42,670	37,662	0	0	80,332	80,045	32.75	32.14	2%
Crown Wood Primary	4	3,431	61,130	54,294	0	0	115,424	115,010	33.52	30.37	10%
St Michaels CE Primary, E'hamp (VA)	5	1,386	33,461	15,610	0	0	49,071	48,952	35.32	39.08	-10%
Sandy Lane Primary	6	3,598	65,937	62,704	0	0	128,641	128,163	35.62	36.50	-2%
Fox Hill Primary (incl. Rowans Childs Centre)	7	2,047	52,273	4,316	17,891	0	74,479	74,310	36.30	40.21	-10%
St Michaels CE Primary, S'hurst (VA)	8	1,323	28,799	20,020	0	0	48,819	48,666	36.78	39.87	-8%
St Josephs Catholic Primary (VA)	9	1,430	29,201	1,312	22,915	0	53,428	53,243	37.23	39.11	-5%
Holly Spring Schools Combined	10	4,127	105,400	48,783	0	0	154,183	153,812	37.27	35.32	6%
Wildmoor Heath Primary	11	1,094	24,807	16,123	0	0	40,929	40,807	37.30	39.31	-5%
College Town Infants & Nursery	12	1,682	37,905	25,747	0	0	63,652	63,456	37.73	42.98	-12%
Winkfield St Marys CE Primary	13	1,036	23,157	18,071	0	0	41,228	41,090	39.66	44.01	-10%
Great Hollands Primary	14	3,295	60,942	72,311	0	0	133,253	132,702	40.27	44.10	-9%
St Margaret Clitherow Catholic Primary (VA)	15	1,144	32,851	13,587	0	0	46,438	46,335	40.50	40.86	-1%
Uplands Primary	16	1,432	34,457	24,718	0	0	59,175	58,987	41.19	44.89	-8%
College Town Junior	17	1,819	46,024	2,727	26,842	0	75,593	75,367	41.43	40.23	3%
New Scotland Hill Primary	18	1,405	39,998	4,851	13,546	0	58,395	58,255	41.46	43.04	-4%
Harmans Water Primary	19	3,512	82,379	10,807	53,904	0	147,090	146,597	41.74	42.32	-1%
Binfield CE Primary (VA)	20	2,152	64,996	27,981	0	0	92,977	92,764	43.11	51.81	-17%
Ascot Heath Infant	21	925	25,178	14,867	0	0	40,046	39,932	43.17	39.66	9%
Wooden Hill Primary & Nursery	22	1,878	50,168	32,611	0	0	82,779	82,530	43.95	42.46	3%
Birch Hill Primary	23	2,416	65,318	41,229	0	0	106,547	106,233	43.97	43.90	0%
Warfield CE Primary	24	1,413	41,192	21,728	0	0	62,920	62,755	44.41	47.03	-6%
Owlsmoor Primary	25	2,318	63,591	43,893	0	0	107,484	107,150	46.23	37.28	24%
Crowthorne CE Primary	26	1,182	28,667	27,611	0	0	56,279	56,068	47.43	47.35	0%
Whitegrove Primary	27	2,298	51,549	58,999	0	0	110,548	110,098	47.91	36.81	30%
Wildridings Primary	28	2,739	77,153	9,238	45,933	0	132,323	131,903	48.16	44.40	8%
Ascot Heath CE Junior	29	1,416	50,720	182	30,384	0	81,287	81,054	57.24	45.74	25%
Cranbourne Primary	30	1,522	34,616	33,580	30,890	0	99,086	98,595	64.78	57.71	12%
Sub Totals		**62,524**	**1,468,794**	**819,670**	**242,305**	**0**	**2,530,769**	**2,522,676**	**40**	**40.30**	**0%**
Special Schools											
Kennel Lane (Special School)	1	4,674	140,042	107,175	0	0	247,217	246,401	52.72	53.98	-2%
Secondary Schools						0					
Edgbarrow Comp (Excludes Sp Cen)	1	12,952	284,545	146,176	0	0	430,721	429,607	33.17	40.27	-18%
Sandhurst Comp (incl. Sp Cen)	2	10,535	274,611	64,134	83,556	0	422,301	421,176	39.98	48.40	-17%
Easthampstead Park Community Comp	3	13,417	329,448	222,575	0	0	552,023	550,327	41.02	43.02	-5%
Brakenhale Comp (excl. OLC)	4	12,045	329,141	21,785	184,295	0	535,222	533,651	44.30	42.81	3%
Ranelagh (Academy)	5	9,825	250,807	129,182	168,788	0	548,777	546,507	55.62	50.76	10%
Garth Hill	6	10,343	682,315	103,939	0	4,116	790,369	789,546	76.34	58.92	30%
Sub Totals		**69,117**	**2,150,866**	**687,792**	**436,640**	**4,116**	**3,279,414**	**3,270,814**	**47**	**47.57**	**-1%**
TOTALS		**136,315**	**3,759,702**	**1,614,638**	**678,944**	**4,116**	**6,057,400**	**6,039,891**	**44**	**44.46**	**0%**

PART FOUR - WATER

4.1 Scope

The report is limited to schools which monitor their water consumption via the Systems-link website.

Insufficient schools have updated their water consumption and costs on Systems-link so this section has not been updated for 2014/15.

The report includes water under two main headings:

Water Cost: The cost of water use in terms of supply and sewage which fluctuates occurring to supplier price as governed by Ofwat. There are two water suppliers for BFC schools:

- South East Water
- Affinity Water Ltd

Both companies use Thames Valley Water for sewerage, price of which is incorporated in the suppliers invoice.

Water consumption: The use of water in schools as a single annual figure in cubic meters (m^3).

4.2 Data

a) The water data used within the report is based on water meter readings entered into Systems-link.

b) The report relies heavily on the accuracy of the data that has been used, and schools are requested to check the data carefully for their site to identify any anomalies in terms of the cost, consumption of water or pupil numbers. Schools can view this data via the Systems-link website login www.systems-link.co.uk/webreports/. Where schools cannot monitor their water consumption due to location/access of meter, it is recommended that consultation with the appropriate Water Board is required in terms of either relocating meter or providing an easy accessible sub-meter within the premises or investigate the possibility of an automatic meter. Please report any data anomalies or queries regards to Steven Milne, Borough Energy Manager, Tel: 01344 351518 or e-mail: steven.milne@bracknell-forest.gov.uk.

c) As of end of March 2014, 10 schools (30%) were using Systems-link for monitoring water (See Appendix E). The reasons for schools not taking water readings was the meter being inaccessibility or forgot to take read.

d) Following guidance from the DfE, pupil numbers are based on the NOR in January that particular year. Thus January 2014 NOR is used for financial period 2013/14

4.3 Benchmarking

Schools performance in the management of water is benchmarked in the report:

a) Against other schools, within the primary and secondary sectors

b) Against Environment Agency water benchmarks for schools. Note: there are different indices for primary schools with or without swimming pool to reflect to the expected higher use of water in schools with pools.

c) Against previous year to indicate trends in performance since 2009/10.

4.4 BFC Summary of Water Cost and Consumption 2010/11 to 2012/13

The following data has been derived from meter reading data.

Table 10 – Water Cost (£)

Water Cost (£)			% Increase/Decrease		
2011/12	2012/13	2013/14	On 2010/11	On 2011/12	On 2012/13
47,517	43,090	52,436	-1.13%	10.35%	21.69%

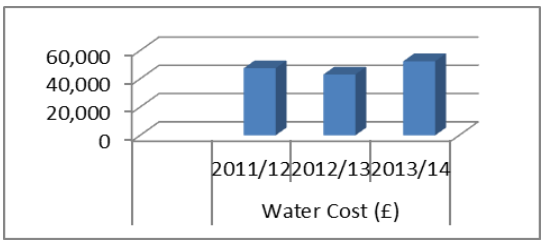
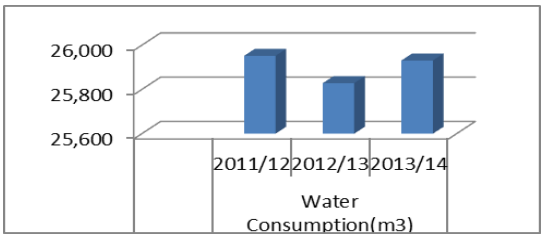


Table 11 – Water Consumption (m^3)

Water Consumption(m3)			% Increase/Decrease		
2011/12	2012/13	2013/14	On 2010/11	On 2011/12	On 2011/12
25,952	25,828	25,931	-20.34%	-0.08%	0.40%



4.5 Contact

For further information or if there are any queries relating to the water contents of this report please contact:

Steven Milne
Borough Energy Manager
Tel: 01344 351518
steven.milne@bracknell-forest.gov.uk

4.6 Water Cost

To compare water costs within BFC schools, each school type i.e. Primary, Secondary, and Special schools are separated into groups and ranked in terms of their 'Total water cost per pupil number' (£/pupil no.) as shown in Table 10. The lowest water cost per pupil number is ranked one whereas the highest water cost per pupil number is ranked twelve for primary schools, and five for secondary schools.

4.7 How can I Minimise Water Cost in my School

a) Review the size of the water meter serving your school. The size of the meter effects the standing water and sewerage charges applied on the invoice.

b) Check the water company tariff rates are correct for your property.

c) Check if your school is entitled to a surface water drainage rebate - If your surface water drains to a soak-away or a river or canal you may be entitled to a rebate.

d) Reduce water consumption (see below).

Table 12 - Water Cost 2009/10 to 2013/14 (£/pupil)

Site	Rank	2013/14 Pupil Nos	Meter Size(mm)	£ Cost 2009/10	£ Cost 2010/11	£ Cost 2011/12	£ Cost 2012/13	£ Cost 2013/14	13/14 £/pupil	12/13 £/pupil	Trend	Pool Y or N
St Margaret Clitherow Catholic Primary (VA)	2	208	24mm	849	1,113	1,071	1,041	1,230	5.91	5.15	15%	N
Meadow Vale Primary	4	577	50mm	2,838	3,650	2,970	3,572	2,031	3.52	6.61	-47%	N
Fox Hill Primary	8	214	40mm	2,279	2,192	2,373	2,688	3,659	17.10	12.80	34%	N
Birch Hill Primary	9	441	40mm	3,866	2,894	4,620	5,091	4,686	10.63	12.06	-12%	N
Cranbourne Primary	10	210	20mm		2,061	2,988	2,284	2,256	10.74	11.53	-7%	Y
The Pines	11	226	40mm	2,936	2,841	2,888	2,855	2,683	11.87	14.35	-17%	N
Ascot Heath CE Junior	12	240	50mm	3,617	4,639	2,565	4,011	4,743	19.76	16.85	17%	Y
Sub Totals		**2,116**		**16,385**	**19,390**	**19,475**	**21,541**	**21,288**	**11.36**	**11.34**	0%	
Secondary Schools												
Edgbarrow Comp (excl. Sp Cen)	2	1,365	50mm	11,387	7,606	6,924	6,785	9,259	6.78	5.18	31%	N
Sandhurst Comp (incl. Sp Cen)	3	950	50mm	6,591	10,535	6,389	7,382	12,359	13.01	7.41	76%	N
Brakenhale Comp	5	973	50mm	14,515	15,504	14,729	13,325	9,530	9.79	13.27	-26%	N
Sub Totals		**3,288**		**32,493**	**33,645**	**28,042**	**27,492**	**31,148**	9.47	8.62	10%	
TOTALS		**5,404**		**48,878**	**53,035**	**47,517**	**49,033**	**52,436**	**10.42**	**9.98**	4%	

Notes:

Ascot Heath Infant and Junior schools are based on sub-meter readings.

The following schools are supplied by Affinity Water Ltd:

- Cranbourne Primary
- Ascot Heath Infant and Junior
- Winkfield St Mary's Primary

All other schools are supplied by South East Water

4.8 Water Consumption

a) Water consumption in cubic meters (m^3) has been ranked by pupil numbers (m^3/pupil), and benchmarked against the Environment Agency water benchmarks. This publication is the most recent for national comparisons.

b) Primary, Secondary and Special Schools are shown as separate groups, but ranked in terms of their water consumption per pupil. As with cost/pupil, the lowest is ranked as one whereas the highest is ranked seven for a primary school and three for a secondary school.

e) As expected the highest water users are those schools with swimming pools, namely Ascot Heath Junior and Cranbourne Primary School.

f) In terms of national comparisons with reference to Environment Agency benchmarks only seven schools in 20013/14 have a benchmark that falls within the Best Practice criteria. Furthermore 7 schools show a worse than typical performance against benchmark. This implies there is considerable work required to improve water consumption in BFC schools.

g) Overall water usage has reduced from 5.22m^3/ pupil in 2012/13 to 5.18 m^3/ pupil in 2013/14, an overall decrease of 1%.

h) Compliance with Water Bye Laws. As noted in the previous annual report it is known that at least one school in 2006/07 has had a warning from South East Water with regard to compliance with current water bye laws: None of the cisternmisers were operational allowing urinal cisterns to continually flush 24 hours/per day.

Table 13 - Water Consumption 2009/10 to 2013/14 (m^3/pupil)

	Rank	2013/14 Pupil Nos.	m3 2009/10	(m^3) 2010/11	(m^3) 2011/12	(m^3) 2012/13	(m3) 2013/14	12/13 m^3 / pupil	Environ Agency Perform	Prv year 12/13 m^3/Pupil	Trend m^3/pupil	Pool Y or N
Primary Schools												
Meadow Vale Primary	1	577	1,272	1899	1330	1,609	1,500	2.60	Best Practice	2.98	-13%	N
St Margaret Clitherow Catholic Primary (VA)	2	208	458	617	525	536	576	2.77	Best Practice	2.65	4%	N
Birch Hill Primary	3	441	2,332	1681	2606	2,775	2,242	5.08	>Typical	6.58	-23%	N
The Pines	4	226	1,670	1644	1563	1,424	1,162	5.14	>Typical	7.15	-28%	N
Cranbourne Primary	5	210	1,129	1336	1364	1,316	1,236	5.89	>Typical	6.65	-11%	Y
Fox Hill Primary	6	214	1,202	1194	1197	1,323	1,688	7.89	>Typical	6.30	25%	N
Ascot Heath CE Junior	7	240	2,022	2730	1378	1,884	2,200	9.17	>Typical	7.92	16%	Y
Sub Totals		**2,116**	**10,085**	**11101**	**9963**	**10866**	**10604**	**5.50**		**5.75**	-4%	
Secondary Schools												
Edgbarrow Comp (excl. Sp Cen)	1	1,365	7,359	4645	3810	3,550	4,503	3.30	Best Practice	2.71	22%	N
Brakenhale Comp	2	973	9,586	10127	8705	7,502	4,649	4.78	>Typical	7.47	-36%	N
Sandhurst Comp (incl. Sp Cen)	3	950	3,944	6678	3474	3,911	6,175	6.50	>Typical	3.93	65%	N
Sub Totals		**3,288**	**20,889**	**21450**	**15989**	**14962.5**	**15327**	**4.86**	>Typical	**4.70**	3%	
TOTALS		**5,404**	**30,974**	**32,551**	**25,952**	**25,828**	**25,931**	**5.18**		**5.22**	-1%	

Notes:

Ascot Heath Infant and Junior schools are based on sub-meter reads.

Table 14 - Environment Agency Benchmarks based on 14,330 schools.

School	Typical (m^3/pupil/year)	Best practice(m^3/pupil/year)
Primary school with pool	4.3	3.1
Primary school without pool	3.8	2.7
Secondary with pool	5.1	3.6
Secondary without pool	3.9	2.7

4.9 How can I Reduce Water Consumption in my School

a) Identify the location of water meter and record readings on a regular basis via the Systems-link Web site to identify adverse high usage. Review consumption during weekends and holiday periods to identify unnecessary waste and leaks.

b) Carry out daily walk round checks at end of day to check all wash hand basin taps are closed and no water leaks are visible in service areas. Ensure a reporting mechanism exists for reporting leaks i.e. via Energy Working Group.

c) Check all urinal tanks have flush controls fitted. Those without would benefit considerably by installing flush controls.

d) Check existing urinal flush controllers are operating correctly and associated batteries have been replaced within the last year.

e) Consider replacing existing conventional taps with self closing or percussion type.

f) Consider participating in the Council established maintenance contract for flush controls.

g) Ensure push buttons on/off controls are fitted for showers.

h) Ensure swimming pools are covered when not in use. A pool cover not only reduces water consumption (lost via evaporation from pool) but also heat losses.

i) Obtain a free water efficiency audit from your water supplier:
- For South East Water users Contact: Mike Cook, Tel: 01444 448201 or mcook@southeastwater.co.uk
-

j) Raise awareness of water usage in your school
- For Junior Schools only: Free seminar for pupils on ‘The Wonderful World of Water’
- For South East Water users Contact: Karen Neal Tel: 0144 448258 or kneal@southeastwater.co.uk

k) Consider fitting an automatic meter reader to the water meter. This would enable water consumption to be monitored on a daily basis and assist early detection of leaks.

l) Consider installing a water sub-meter if your school shares the water supply with another Council building to ensure your school only pays for what it uses.

PART FIVE – WASTE.

5.1 Scope

The report considers waste in three ways – Residual Waste, Recycling, and Waste minimisation.

Residual Waste:

The household-type non recyclable waste that schools generate which is collected through the Bracknell Forest Borough Council waste collection contract by the Council's contractor SITA and sent to either landfill or an energy from waste site.

Recycling:

There are a number of schools engaged in the recycling of paper, plastic, tins, glass, toner, clothes or green waste ensuring that their waste is recycled or re-used.

30 primary schools continue to choose Woodside Recycling for their paper recycling collection. This is a free service and is not part of the service provided by the council although the council will provide recycling bins.

5.2 Waste Analysis

The total amount of waste generated by each school has been estimated following a waste analysis which comprised of waste from three schools in March 2014, comprising one secondary and two primary schools' bulk bins which were separately weighed to establish the average weight per bin.

Please note if a school has a large number of bins which are not all full each week they should request removal of some bins to ensure that their average weight calculated as full bins on the weight chart table 15 is fairly measured. This will also save collection costs.

The next planned waste analysis will be held in March 2015.

The average weight per landfill (green) wheeled bins are:

Primary Schools	97 kg
Secondary Schools	57 kg

Total amount of residual waste generated has been estimated by multiplying the average weight per bin audited by the number of bins at each school.

The estimated total amount of waste generated was:

Primary Schools	472 tonnes of landfill waste*
Secondary Schools	243 tonnes of landfill waste*

*Additional tonnage data is provided by Woodside who collect paper from the schools and is based on 15 kgs per sack of paper collected.
For 2014 they report that Primary Schools collectively recycled 99 tonne of paper, and Secondary Schools 28 tonne of paper.

Currently all 31 primary schools within the Borough utilise 107-1,100 litre residual waste bins and 55-240 litre recycling bins.

Currently the 7 secondary schools within the Borough utilise 46 -1,100 litre and 4 FEL skip and 8 – 240 litre wheeled residual waste bins and 13 – 240 litre recycling bins.

5.3 Reducing Waste Sent to landfill.

The waste that Bracknell Forest schools do not recycle attracts a landfill tax on top of the disposal costs. Landfill tax for 2014/15 is £80 per tonne It is therefore extremely important that schools, as well as householders, recycle and divert as much waste as possible from landfill. The government is looking to increase this additional tax in line with the annual rate of inflation so this tax will continue to rise.

Some schools are choosing to compact their waste as a way of reducing the number of bins they need. This can be a false economy as these bins are designed with a maximum load threshold of 150kgs for a standard 1,100 green bin. The Council's contractor will not be able to empty bins that are too heavy with compacted waste as refuse vehicles are fitted with a failsafe that does not allow the bin lift to lift overweight bins. If this happens the school would need to reduce the contents of the overweight bin and arrange an additional collection which is chargeable. If bins are damaged due to being overweight the school will be liable to pay for a replacement bin.

Some schools have replaced their standard waste bins with large metal containers (skips) called FEL's (Front End Loaders) and this is an options for the larger schools who have a lot of waste. Larger skips can also be provided for recyclable materials.

NB: With the introduction of primary schools having to provide school meals, it is likely that any additional waste created from this new service provision will incur the additional cost of disposal. The Council does not currently offer a food waste collection service but there are some waste companies that do provide this and schools may wish to investigate alternative outlets for the disposal of their food waste to save expensive landfill costs.

5.4 How to minimise the Amount of Waste Generated by Schools.

- Promote environmental awareness in all school activities to encourage waste minimisation, re-use and recycling.

- Encourage pupils to participate in recycling and re-use initiatives e.g. composting, keeping a wormery, re-using various materials for such things as arts/ and crafts etc.

- Pupils may also be interested in thinking about what is being thrown away and considering if it could it be re-used or recycled? Checking what is going in the bin can reduce unnecessary waste and help to increase the amount of materials recycled.

- Audit the supply chain to identify those suppliers whose products come with significant amounts of un-necessary packaging that is simply thrown away. Include minimum packaging in the specifications for new supply contracts.

- The Council's clothing and textile collection partner is able to offer special additional collections from schools to raise money for the school. This has been very successful in other boroughs as textiles and clothes are high value items and promoting and arranging for collections at schools can raise a significant amount of income

- Bracknell Forest Council's waste and recycling team can arrange for its contractor SITA undertake educational visits and supply information to schools about waste minimisation and recycling:- www.sita.co.uk/waste-as-a-resource/tools-for-schools

- Bracknell Forest Council is in a long term joint waste disposal partnership (known as Re3) with Reading and Wokingham Borough council and contractors FCC Environment (previously known as WRG).
  Schools will be able to obtain educational information about waste and recycling by logging online www.re3schools.org.uk.

5.5 Contact

For further information or if there are any queries relating to the waste and recycling parts of this report please contact:

Eric Redford
Refuse Collections Contract Manager
Tel: 01344 352516
Eric.Redford@bracknell-forest.gov.uk

Website:
http://www.bracknellforest.gov.uk/environment/env-waste-and-recycling.htm

Table 15 - Estimated Waste Production 2014/15 (Kg/pupil) (Landfill Only).

Primary Schools	Number of Pupils	How Many Bins	Estimated Total Kg	Estimated Kg Per Pupil	Ranking
Jennett's Park CE Primary	346	2	8,951	25.86	1
Sandy Lane Primary	671	4	17,903	26.68	2
Holly Spring Infant & Nursery	333	2	8,951	26.87	3
Whitegrove Primary	448	3	13,427	29.97	4
Holly Spring Junior	285	2	8,951	31.40	5
Wooden Hill Primary	380	3	13,427	35.33	6
Meadow Vale Primary	604	5	22,379	37.05	7
Owlsmoor Primary	572	5	22,379	39.12	8
Ascot Health Infant & Junior	443	4	17,903	40.41	9
Wildmoor Heath Primary	214	2	8,951	41.82	10
St Joseph RC Primary	210	2	8,951	42.62	11
Binfield CE Primary	417	4	17,940	43.02	12
Crown Wood Primary	518	5	22,379	43.20	13
Cranbourne Primary	207	2	8,951	43.24	14
St Margaret Clitherow Primary	207	2	8,951	43.24	14
Harmanswater Primary	715	7	31,395	43.90	16
St Michael's Primary, Sandhurst	199	2	8,951	44.97	17
College Town Infant & Nursery	276	3	13,427	48.64	18
Birch Hill Primary	443	5	22,379	50.51	19
Wildridings Primary	436	5	22,379	51.32	20
Uplands Primary	253	3	13,427	53.07	21
The Pines Primary	248	3	13,427	54.14	22
St Michael's Primary, Easthampstead	241	3	13,247	55.71	23
New Scotland Hill Primary	235	3	13,247	57.13	24
Crowthorne CE Primary	210	3	13,247	63.93	25
Winkfield St Mary's Primary	210	3	13,247	63.93	25
Warfield CE Primary	209	3	13,247	64.24	27
College Town Junior	263	4	17,940	68.21	28
Fox Hill Primary	222	4	17,940	80.81	29
Great Hollands Primary	425	8	35,880	84.42	30
Sub Totals	**10,440**	**106**	**474,874**	**n/a**	**n/a**
Special Schools					
Kennel Lane	177	5	22,425	126.69	n/a
Sub Totals	**177**	**5**	**22,425**	**n/a**	**n/a**
Secondary Schools					
Edgbarrow	1,358	10	26,220	19.30	1
Sandhurst	966	11	28,842	29.85	2
Brakenhale	973	10	29,640	30.46	3
Easthampstead	828	2 FEL	36,445	44.01	4
Garth	1,538	2 FEL	88,736	57.69	5
Ranelagh	986	**n/a**	**n/a**	**n/a**	**n/a**
Sub Totals	**6,657**	**43**	**24,3371**	**n/a**	**n/a**
Totals	**17,274**	**154**	**740,670**	**n/a**	**n/a**

Table 16 - Estimated Waste Production 2014/15 (Kg/pupil) (Recycling only-Woodside paper tonnages used).

Primary Schools	Number of Pupils	How Many Bins	Estimated Total (Kg)	Estimated Recycled per pupil (Kg)	Ranking
St Joseph RC Primary	210	2	4,605	21.92	1
Fox Hill Primary	222	2	4,350	19.59	2
Winkfield St Mary's Primary	210	2	3,915	18.64	3
St Margaret Clitherow Primary	207	2	3,600	17.39	4
Ascot Heath Infant & Junior	443	2	7,430	16.77	5
Warfield CE Primary	210	2	3,375	16.07	6
Great Hollands Primary	426	10	6,720	15.77	7
The Pines Primary	248	1	3,510	14.15	8
College Infant School	276	2	3,715	13.46	9
College Junior School	263	2	3,715	13.03	10
Sandy Lane Primary	671	2	8,640	12.87	11
Holly Spring Junior	285	1	3,525	12.36	12
Birch Hill Primary	443	2	5,385	12.15	13
St Michael's Primary, Sandhurst	199	2	2,415	12.13	14
Crown Wood Primary	518	0	5,895	11.38	15
Crowthorne CE Primary	210	2	2,340	11.14	16
Cranbourne Primary	207	4	2,100	10.14	17
St Michael's Primary, Easthampstead	241	2	2,415	10.02	18
Whitegrove Primary	448	2	4,455	9.94	19
Uplands Primary	253	2	2,250	8.89	20
Holly Spring Infant	333	1	2,925	8.78	21
New Scotland Hill Primary	235	2	1,935	8.23	22
Owlsmoor Primary	572	2	3,690	6.45	23
Wooden Hill Primary	380	0	2,160	5.68	24
Meadow Vale Primary	604	2	2,715	4.49	25
Binfield Primary	417	Woodside	1,440	3.45	26
Wildridings Primary	436	2	285	0.65	27
Harmanswater Primary School	715	0	360	0.50	28
Wildmoor Heath School	214	4	0	0	29
Jennett's Park CE Primary	346	0	0	0	29
Sub Totals	**10,440**	**59**	**99,865**	**n/a**	**n/a**
Special Schools					
Kennel Lane	177	0	1,110	06.27	n/a
Sub Totals	**177**	**0**	**1,110**	**n/a**	**n/a**
Secondary Schools					
Edgbarrow	1,368	Woodside	14,025	10.25	1
Sandhurst	966	Recycling	8,520	8.54	2
Brakenhale	930	provide	4,665	5.01	3
Easthampstead Park	986	sacks	0	0	4
Garth Hill	820	For	0	0	4
Ranelagh	986	all	n/a	n/a	n/a
Sub Totals	**6,657**	**0**	**28,695**	n/a	n/a
Totals	**17,274**	**59**	**129,670**	n/a	n/a

PART SIX - TRANSPORT

6.1 Scope

a) The report focuses on the modes of transport by which children travel to school.

b) The Council has a duty to promote sustainable travel to school, as set out in the Education and Inspections Act 2006. We meet this duty by encouraging schools to implement School Travel Plans, offering support, advice and training where required and when requested, and by implementing infrastructure improvements which benefit sustainable travel.

6.2 Data

a) The graph below shows the trend for the percentage of children travelling to school by car over the last seven years. As you can see, while travel by car to primary schools continues to decrease, the percentage of children driven to secondary school has increased over the last few years. The data was collected from returns of the school census each January (data for January 2014 was unavailable).

6.3 How you can reduce the impact of car based travel at your school

a) Travel by pupils to and from school, during the school day for curriculum activities, after school for attending extra curricular activities, and staff travel, are all transport issues that a School Travel Plan can address.

b) Use the School Travel Plan process to review the transport choices made by pupils, parents and staff and introduce measures that promote and encourage more sustainable travel modes.

c) Monitor and review the targets and actions in your School Travel Plan on an annual basis.

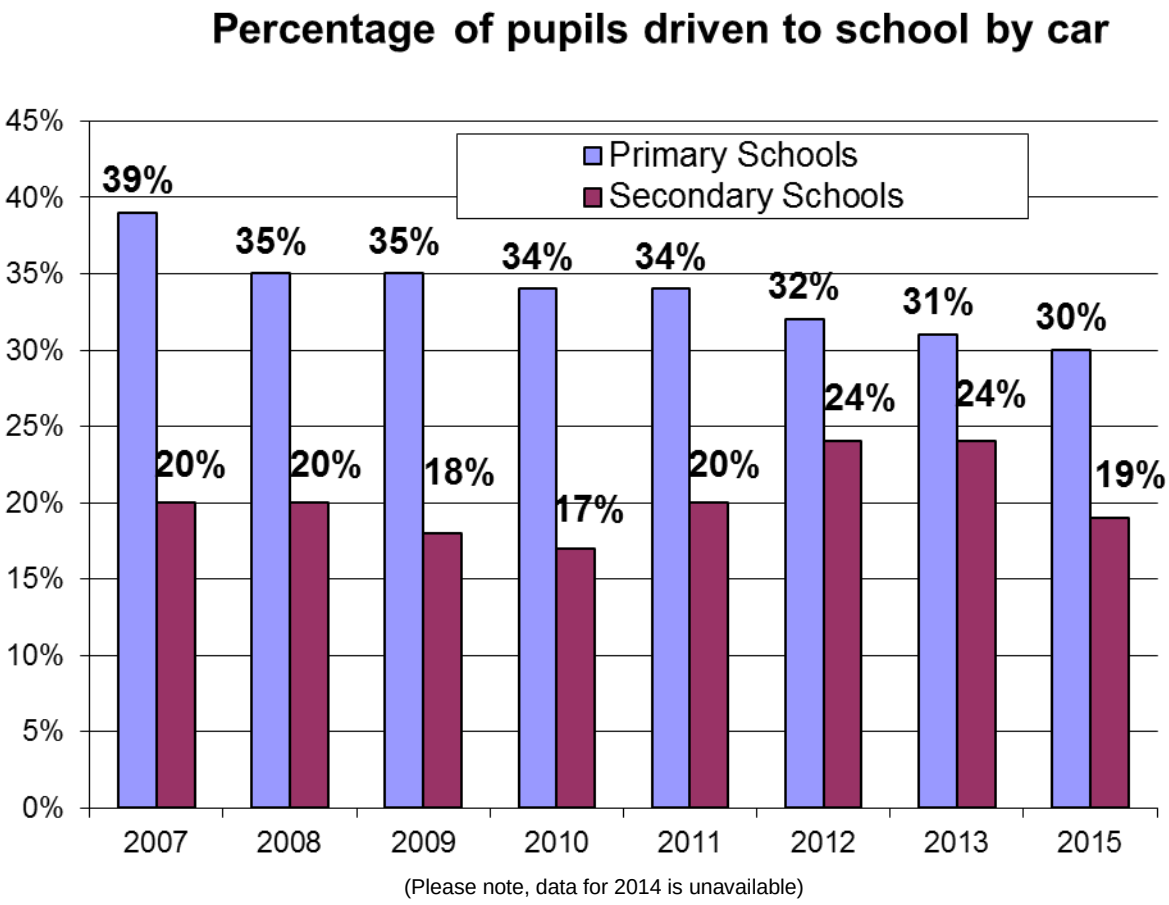
d) Engage with education and promotional activities organised by the Council.

e) Use transport and the impact of transport as a topic for curriculum work.

6.4 Contact

a) For further information contact:

Phillip Burke
Travel Plan Co-ordinator
Tel: 01344 351266
Email: phillip.burke@bracknell-forest.gov.uk



(Please note, data for 2014 is unavailable)

Staff and children at Wildmoor Heath Primary celebrate the opening of their new cycle shelters, funded by Bracknell Forest Council.

APPENDIX A

FORMULAE FOR ADJUSTING ENERGY CONSUMPTION DATA FOR AMBIENT TEMPERATURE

1. Conversion Factors as supplied by Defra

   a) Fuel Oil

   Kerosene -10.28 kWh/litre
   Gas Oil -10.80 kWh/litre

   b) Carbon Dioxide Emission Factors

Fuel Type	CO_2 Emission Factor ($kgCO_{2e}$/kWh)
Grid Electricity	0.5246
Natural Gas	0.1836
Fuel oil	0.2674
Wood pellets	0.03895

2. Corrections for ambient temperature (Ref: DfES Energy and Water Benchmarks for Maintained Schools in England 2002-03.)

   Differences in temperature across the country can affect the amount of fuel required for heating. The United Kingdom is divided into Degree Day (DD) Regions. In each region, for every day the temperature falls below 15.5 degrees Celsius the magnitude of the difference was recorded. These deviations are aggregated over the year. The current 20 year national average using this method is 1851.

   The following calculation was carried out on each school;

   (Fossil fuel consumption* 0.75*(1851/DD) + (Fossil fuel consumption*0.25),

   Where DD is the sum of the deviations below 15.5 degrees over a year and Fossil fuels are oil and gas consumption.

   Degree Days for the Thames Valley Area.

Year	Degree Days
2014/15	1,870
2013/14	2,002
2012/13	2,498
2011/12	1,819
2010/11	2,189
2009/10	2,006
2008/09	1,921
2007/08	1,653
2006/07	1,463
2005/06	1,869
2004/05	1,703
2003/04	1,740

   Effectively, 2012/13 was the coldest year over the last ten years.

APPENDIX B

THE WHOLE SCHOOL APPROACH

PROVIDED BY THE CARBON TRUST

The Whole School Approach produced by the Carbon Trust is a guide which outlines an approach to energy management involving pupils, teachers and other staff. By motivating staff and pupils through lessons, as well as providing practical advice on how to go about saving energy, a whole school approach to energy management can reduce the school's carbon footprint and provide long-term benefits for the school, its people and the environment.

The School Sector Overview (CTV019) introduces schools to the main energy saving opportunities that can be found in the majority of schools and demonstrates how simple actions save energy, cut costs and enhance the learning environment.

A sample energy policy for schools is shown in Appendix C

APPENDIX C

Sample Energy Management Policy Statement

……School is committed to the responsible management of energy and water.

By efficient management of these resources the school aims to minimise expenditure and environmental impact while maintaining health and safety standards and an acceptable comfort level for staff, pupils and other building users.

Targets

Target energy/water performance is as follows:

	Current Performance (last school year)	Target Performance (current school year)	Target % Reduction
Electricity kWh/m²/annum			
Gas kWh/m²/annum			
Oil kWh/m²/annum			
Water m³/pupil/annum			

Strategy

This policy statement will be implemented through a ten point plan:

1. Responsibility

The overall responsibility lies with the Headteacher, …….. Day-to-day energy management responsibilities lie with ……..working in conjunction with the policy and direction set by the School Energy Team.

Policy, strategy and targets for energy management will be the responsibility of the School Energy Team which currently consists of:

……. - Head/Deputy
……. - Caretaker/Site Manager
……. - Bursar/Administrator
……. - Teacher
……. - Governor
……. - Pupil

The School Energy Team will meet quarterly to review progress, plan initiatives and prepare an annual energy report for submission to the Board of Governors. This will supplement the Schools Annual Environmental Management Report sent to all schools by Admissions and Property.

Teachers will have a responsibility to set a good example to pupils who can also make a significant contribution to end-use energy efficiency.

Energy efficiency advice for schools is available from the Council's Energy Manager, Steven Milne, on 01344 351518, e-mail steven.milne@bracknell-forest.gov.uk

2. Energy Selection and Purchase

Energy purchase is currently undertaken by Bracknell Forest Council through a framework contract administered by Buying Solutions (formerly the Office of Government Commerce). The Council's Energy Management Team will check invoices monthly against meter readings for gas, electricity and water.

3. Investment in Energy Efficiency

The school aims to invest in energy saving schemes of less than £1,000 with paybacks of less than three years. Savings achieved by good housekeeping measures will be reinvested in energy efficiency projects.

Where available, grants will be sought to improve energy efficiency, including the Council's invest-to-save scheme for projects meeting the qualifying criteria.

4. Design

Energy efficiency will be taken into account at the design of new building projects and any refurbishment in accordance with the Local Development Framework and current building standards.

Energy efficiency will be considered in the purchase of all new equipment, e.g. computers, catering equipment, in accordance with Government Buying Standards per Council Procurement Policy.

5. Energy Information

Electricity, gas and water consumption will be monitored monthly using Systems Link energy management software. Abnormal consumption will be investigated and corrective action taken. Each year realistic energy reduction targets will be set and monitored regularly. Targets will be set relative to past performance and DCSF quartile performance benchmarks shown in the Bracknell Forest Schools Annual Environmental Management Report.

Larger schools will also be able to use their Display Energy Certificate to compare their energy use to national averages and to see how energy use has changed from the previous year. Consideration should be given to the energy saving measures recommended in the associated Advisory Report.

6. Maintenance

Energy conversion plant, distribution systems and energy using equipment will be correctly maintained to avoid energy and water wastage.

7. Awareness

The school will adopt a Whole School Approach involving everyone associated with the school.

Regular awareness initiatives for staff and pupils will emphasise the cost and environmental benefits of saving energy and water and how to avoid waste. Energy saving information will be provided to catering and cleaning staff. Staff and pupils will also be provided with information on how to save energy at home.

Energy Co-ordinators will be appointed with checklists for good housekeeping initiatives.

8. Curriculum

The National Curriculum will be reviewed annually, using literature from Teachernet to ensure that the energy element is built into syllabi at appropriate levels.

9. Reporting

An annual energy performance report will be prepared by the School Energy Team. This will be submitted to the Board of Governors and a summary will be incorporated into the school annual report and school development plan.

10. Policy Review Mechanism

This policy will be reviewed and updated annually by the School Energy Team and included in the annual report.

APPENDIX D

UNIT RATES AND STANDING CHARGES FOR WATER AND SEWERAGE

UNIT RATES

SOUTH EAST WATER

Pence/cubic metre		
Year	Water	Sewage
2003-04	56.73	43.69
2004-05	58.01	43.85
2005-06	69.46	46.30
2006-07	74.41	47.49
2007-08	79.96	48.57
2008-09	82.37	51.93
2009-10	84.68	55.76
2010-11	90.72	53.35
2011-12	100.44	59.00
2012-13	100.76	64.73
2013-14	115.00	70.41
2014-15	116.9	74.82

VEOLIA WATER

Pence/cubic metre		
Year	Water	Sewage
2003-04	60.04	43.69
2004-05	61.56	43.85
2005-06	75.33	46.30
2006-07	80.60	47.49
2007-08	84.10	48.57
2008-09	87.52	51.93
2009-10	91.22	55.76
2010-11	901.01	53.35
2011-12	94.97	59.00

AFFINITY WATER LIMITED
(Replaced Veolia as water supplier for Ascot/ Cranbourne/ Winkfield area)

Pence/cubic metre		
Year	Water	Sewage
2012-13	97.63	64.73
2013-14	99.48	70.41
2014-15	100.47	74.82

STANDING CHARGES (for 12 months)

SOUTH EAST WATER

Pipe Size	2007/08		2008/09		2009/10		2010/11		2011/12		2012/13		2013/14		2014/15	
(mm)	Water	Sewage	Water	Sewage	Water	Sewage	Water	Sewage	Water	Sewage	Water	Sewage	Water	Sewage	Water	Sewerage
15	£15.00	£42.00	£17.03	£45.00	£18.00	£47.00	£21.00	£46.00	£21.00	£48.00	£21.00	£52.00	£21.60	£56.00	£24.00	£58.12
20	£15.00	£95.00	£17.03	£101.00	£18.00	£106.00	£33.60	£104.00	£36.00	£108.00	£36.00	£117.00	£36.00	£126.00	£39.00	£131.00
25	£15.00	£168.00	£17.03	£180.00	£18.00	£188.00	£40.20	£184.00	£42.00	£192.00	£42.00	£208.00	£42.00	£224.00	£45.00	£232.00
30	£120.00	£263.00	£120.00	£281.00	£120.00	£294.00	£48.00	£288.00	£51.00	£299.00	£51.00	£326.00	£51.00	£347.00	£54.00	£356.00
40	£170.00	£378.00	£170.00	£405.00	£170.00	£423.00	£58.20	£414.00	£63.00	£402.00	£63.00	£436.00	£63.00	£466.00	£66.00	£477.00
50	£300.00	£672.00	£300.00	£726.00	£300.00	£752.00	£178.20	£736.00	£192.00	£658.00	£192.00	£718.00	£192.00	£771.00	£201.00	£785.00

VEOLIA WATER

Pipe Size	2007/08		2008/09		2009/10		2010/11		2011/12	
(mm)	Water	Sewage	Water	Sewage	Water	Sewage	Water	Sewage	Water	Sewage
15	£26.00	£43.00	£27.00	£45.00	£28.20	£47.00	£28.08	£46.00	£29.28	£48.00
20	£26.00	£97.00	£27.00	£101.00	£28.20	£106.00	£28.08	£104.00	£29.28	£108.00
25	£26.00	£172.00	£27.00	£180.00	£28.20	£188.00	£28.08	£184.00	£29.28	£192.00
30	£105.00	£269.00	£109.00	£281.00	£114.00	£294.00	£114.00	£288.00	£119.00	£299.00
40	£176.00	£387.00	£182.00	£405.00	£189.00	£423.00	£189.00	£414.00	£197.00	£402.00
50	£204.00	£688.00	£212.00	£726.00	£221.00	£752.00	£220.00	£736.00	£229.00	£658.00

AFFINITY WATER LIMITED

Pipe Size	2012/13		2013/14		2014/15	
(mm)	Water	Sewage	Water	Sewage	Water	Sewerage
15	£30.00	£52.00	£30.15	£56.00	£30.40	£58.12
20	£30.00	£117.00	£30.15	£126.00	£30.40	£131.00
25	£30.00	£208.00	£30.15	£224.00	£30.40	£232.00
30	£122.00	£326.00	£122.28	£347.00	£124.00	£356.00
40	£203.00	£436.00	£203.40	£466.00	£205.00	£477.00
50	£234.00	£718.00	£234.60	£771.00	£237.00	£785.00

All companies are using Thames Water for Sewerage

APPENDIX E

USE OF SYSTEMS-LINK ENERGY & WATER MONITORING

Site	Using Systems-Link		Reason for Not submitting Water Readings
	Energy 14/15	Water 14/15	
Ascot Heath Infant School	Y	N	.
Ascot Heath Junior School	Y	N	Only one water read taken
Binfield CE Primary (VA)	Y	N	
Birch Hill Primary School	Y	Y	
College Town Infant School	Y	N	Only one water read taken
College Town Junior School	Y	N	
Cranbourne Primary School	Y	Y	
Crown Wood Primary School	Y	N	
Crowthorne CE Primary School	N	N	No reads taken by school
Fox Hill Primary School	Y	Y	
Great Hollands Primary School	Y	N	
Harmans Water Primary School	N	N	No reads taken by school
Holly Spring Infant School	Y	N	
Holly Spring Junior School	Y	N	
Jennett's Park CE Primary (VA)	Y	N	
Meadow Vale Primary School	Y	N	
New Scotland Hill Primary School	Y	N	
Owlsmoor Primary School	Y	N	
Pines School (The)	Y	N	Not enough water reads for complete year
Sandy Lane Primary School	N	N	No reads taken by school
St Joseph's Catholic Primary (VA)	Y	N	
St Margaret Clitherow Catholic Primary (VA)	Y	Y	
St Michael's CE Primary, Easthampstead (VA)	Y	N	
St Michael's CE Primary, Sandhurst (VA)	Y	N	
Uplands Primary School	Y	N	
Warfield CE Primary School	Y	N	
Whitegrove Primary School	Y	N	
Wildmoor Heath Primary School	Y	N	
Wildridings Primary School	Y	N	
Winkfield St Mary's CE Primary School	Y	N	
Wooden Hill Primary School	Y	N	
Special Schools			
Kennel Lane School	Y	N	
Secondary Schools			
Brakenhale	Y	Y	
Easthampstead Park	Y	N	
Edgbarrow	Y	Y	
Garth Hill College	Y	N	
Ranelagh CE School (VA)	N	N	No reads taken by school
Sandhurst (Includes Sports Cent.)	Y	Y	