

Water Audit Report

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Report Ref: Water Plus
Site Name: Chancellor Halls
Site Contact: Brett Harris
Report Prepared By: Neil Stoddard
Date: 14th June 2018



DVS
Dart Valley Systems
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Section 1: Background

Your site has been selected to participate in a Water Efficiency Programme to reduce water consumption and prevent any future wastage while maintaining optimum hygiene levels.

The surveyor has completed the survey audit and gathered as much detail as is necessary to enable us to evaluate the financial and technical viability for the implementation of water saving devices.

Dart Valley Systems have compiled this report highlighting the benefits of each recommended product or solution clearly identifying the savings in both water volume and monetary terms. In addition to this all DVS products are listed with the Enhanced Capital Allowance Scheme (ECA). This scheme allows businesses to write off the whole cost of the equipment against taxable profits in the year of purchase.

Should you require any further information from us, please do not hesitate to contact:-

Neil Stoddard
Business Development Manager UK Water Utility Companies
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Section 2: Site Information

Site Details

Site Name and Address:

Mulberry House
City Campus
Infirmary Walk
Worcester
WR1 3AS

Surveyor Details: Dart Valley Systems Ltd
Surveyor Name: Neil Stoddard
Audit Date: 14th June 2018

Water Meter Details

Meter Serial No. - 14KD048899
Meter Size - Not seen
Meter Reading 1 - Access not given
Date of Reading - 14/06/2018
Meter Reading 2 - Access not given
Date of Reading - 14/06/2018
Meter Location - 80 yds from main entrance on Infirmary Walk

Contact Details

Contact Name: Brett Harris
Contact Tel. No.: 01905 542617
Contact Position: Finance
Contact Email: b.harris@worc.ac.uk

Occupancy Levels and Site Information

No. of Male Staff per Day: 40
No. of Female Staff per Day: 37
No. of Visitors per Day: 2
Hours per Day: 9
Days per Week: 5
Weeks Per Annum: 50
Hours per Annum: 2250
Swimming Pool: No
Kitchen/Canteen: Yes
Lauderette: No



Section 3: Summary of Water Use

From our water efficiency audit we ascertained the various points of water consumption and the consumption characteristics by manual observation, measuring the flow rates using flow cups and timing the duration of any constant water flow .

WC FLUSHING:

No. of Male Toilets:	77
Avg size male cstrn:	7.00 ltrs
No. of Female Toilets:	
Avg size female cstrn:	ltrs

URINAL:

No. uncontrolled Ctrns:	
Avg. no of flushes /hour:	
Avg. LPM(ltrs/min):	
No. controlled Ctrns:	
Avg FPH(flushes/hour):	
Avg. flush volume (ltrs):	

TAPS:

No. of hot taps:	91
Avg. hot flow rate:	10 ltrs/min
No. of cold taps:	91
Avg. cold flow rate:	8 ltrs/min

SHOWERS:

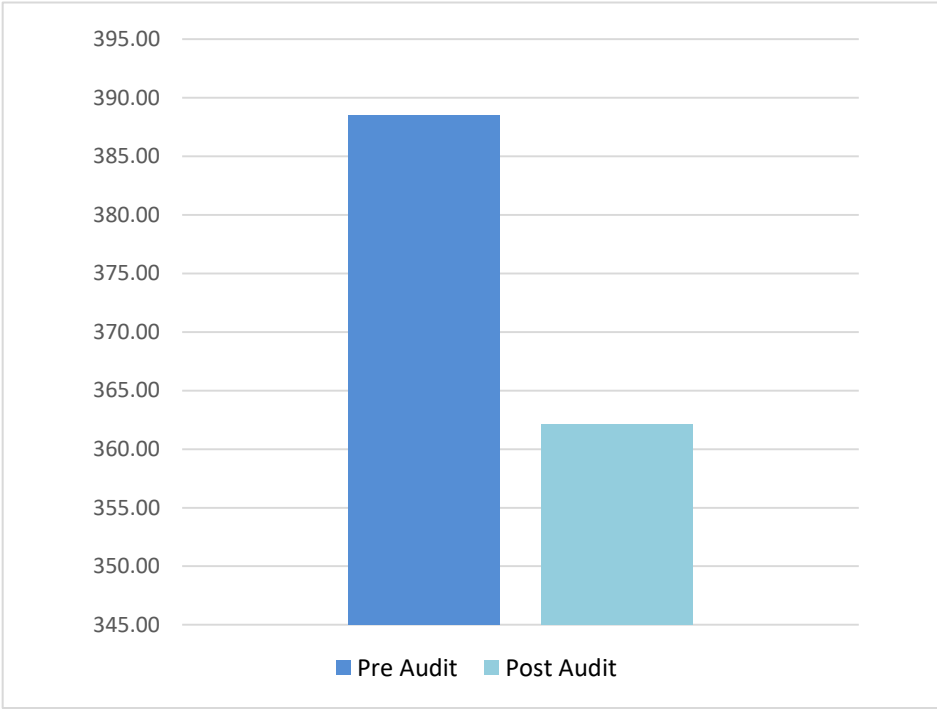
No. of wall mounted:	
No. of handheld:	76
Avg. flow rate (LPM):	9

Facilities information:

Days open per week:	5
Opening Hours:	9
Amount of days open per year:	250

Section 4: Water Consumption Analysis (Pre/Post)

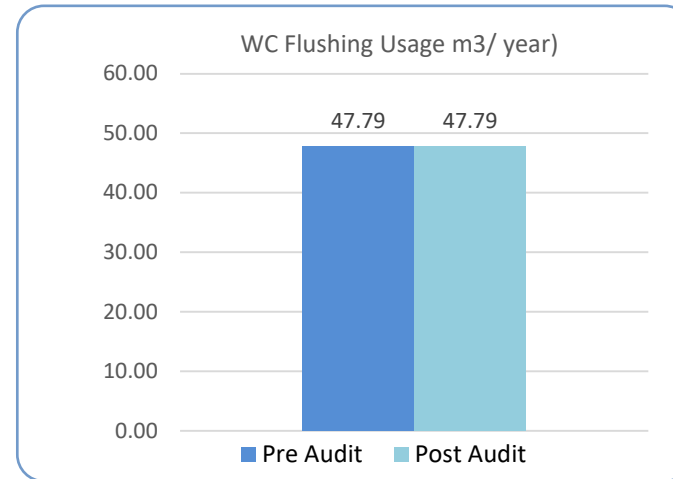
Your Approximate Existing m3 Water Consumption is:	388.47
Your Approximate m3 Water Consumption To Be:	362.14
Your Potential m3 Water Annual Saving :	26.33
Your Potential m3 Water Annual Saving Percentage :	7%



Section 5: Water Consumption Analysis (Per Product)

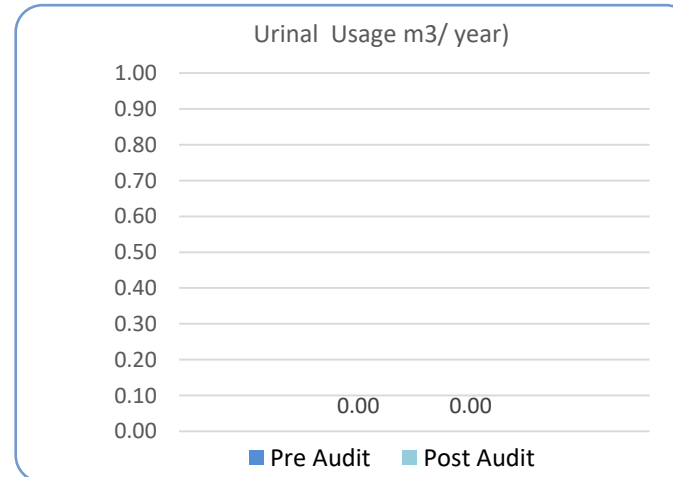
WC FLUSHING USAGE (m3/YEAR):

Pre Audit - Male:	47.79	
Pre Audit - Female:		
Total Pre Audit:	47.79	
Total Post Audit:	47.79	
Total Savings:		
Percentage Savings:		%
Payback Period (months):		



URINAL USAGE (m3/YEAR):

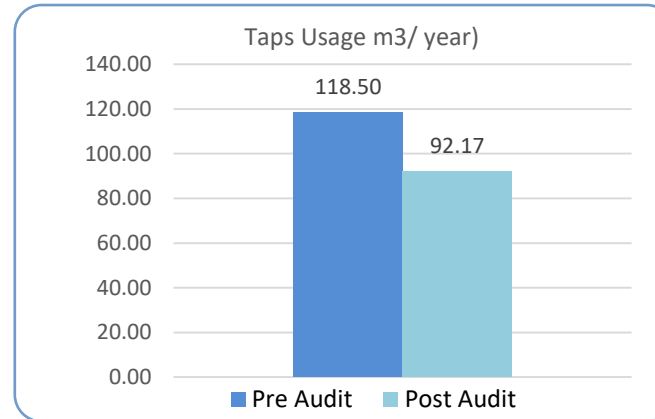
Pre audit - Controlled:		
Pre audit - Uncontrolled:		
Total Pre Audit:		
Total Post Audit:		
Total Savings:		
Percentage Savings:	#DIV/0!	%
Payback Period (months):		



Section 5: Water Consumption Analysis (Per Product)

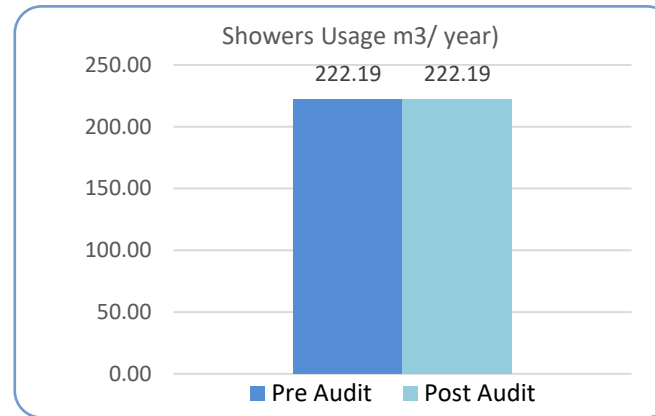
TAPS USAGE (m3/YEAR):

Pre Audit - Hot	29.63	
Pre Audit - Cold	88.88	
Total Pre Audit:	118.50	
Total Post Audit:	92.17	
Total Savings:	26.33	
Percentage Savings:	22.22	%
Payback Period (months):	291.1	



SHOWERS USAGE (m3/YEAR):

Pre Audit - Wall Mounted:		
Pre Audit - Handheld	222.19	
Total Pre Audit:	222.19	
Total Post Audit:	222.19	
Total Savings:		
Percentage Savings:		%
Payback Period (months):		



Section 6: Recommendations

The water saving devices below are inclusive of both supply and installation costs and where DVS install and commission the products, a full **FIVE** year on site guarantee is included (conditions apply). Please note all costs assume operative water isolation within the washroom - any extra remedial works relating to the non-compliance of this will be charged at the hourly rate or part thereof.

	PRODUCT DESCRIPTION	CODE	QUANTITY	COST	TOTAL COST
WC'S	Sensor Flush Valve (Battery)	WC03-052		£317.01	
	Dudley Turbo 88	WC00-000		£54.00	
	Save-a-Flush Bag	WC00-004		£8.83	
	Service	WC00-000		£24.00	
URINALS	Service (not including Solenoid Valve)	UC00-000		£66.00	
	Flushmatic Battery	UC01-001		£238.41	
	Flushmatic 230v Mains	UC01-014		£270.18	
	Flushmatic Battery DL	UC01-018		£262.23	
	Flushmatic 230v Mains DL	UC01-024		£258.96	
TAPS	Aquarius A45 (incl 1 Stn Tap Kit)	AT03-011		£321.94	
	Push Tap comp (qty)	MT00-001		£67.57	
	Restrictaflow Valve	AC17-039	91	£18.67	£1,698.97
	Outlet aerator FEMALE (5 lpm)	AT00-013		£9.40	
	Outlet aerator MALE (5 lpm)	AT00-013		£9.40	
	Re-time (qty)	AT00-000		£6.00	
SHOWERS	High Sec Wall Mounted Fixed	SH07-040		£90.78	
	ABS White (Antimicrobial)	SH07-091		£70.05	
	Showerhead, rail & Hose Kit	SH00-019		£133.62	
	WM Push Tap Auto Close	MT00-010		£79.57	
	Franke Aqua 754 (6 lpm)	Aqua754		£72.37	
				Total:	£1,698.97

Section 7: Overall Savings and Payback Period

Pre-Audit Water Usage (m3/year):	388.47
Post-Audit Water Usage (m3/year):	362.14
Pre-Audit Water Costs (£):	£1,033.34
Post-Audit Water Costs (£):	£963.29
Avg. Cost of Water (per m3):	£2.66
Total cost of recommendations (£):	£1,698.97
Total Cost Savings per annum (£):	£70.05
Payback Periods (months):	291.1

The figures are based on the information collated during the survey and any inaccuracies provided on the day may affect any predicted water savings. The assumptions are based upon average usage taken from various water research establishments over a number years of study and are used for indicative purposes only.



Section 8: Other Site Information

This building is the part of the student accommodation.

There are two types of accommodation 1) Standard 2) Wheelchair User. Both have the same fixtures and fittings within the washroom.

At the time of the survey, only a handful of rooms were accessible due to occupants still in residence.

Information from the onsite Technician referenced all accommodation was mirrored (only the wheelchair access rooms had wet rooms.)





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