BREEAM 2018/Version 6 Wat 01 Water consumption: Water efficiency calculator for new office buildings

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Building type	Description of building type	Default occupancy	Default annual days/operation	Default daily hours of operation
Office	TCP Classification B1: Offices and workshop business (including those with a basic (category 1) laboratory area)	116.7	253	10

Main building activity areas	Description of activity area	Activity area present in building?	Net Floor Area (m^2)
Office - Office areas	Cellular or open plan office space, including staff kitchen where present/adjacent and reception areas. Exlcude meeting rooms, visitor waiting or circulation areas.	Yes	500
Office - Small workshop / laboratory space	Small scale workshop or category 1 laboratory area	Yes	900
Office - Staff canteen dining area	Seated dining areas that accompany a permanently staffed kitchen preparing food for consumption on the premises (excludes small un-staffed kitchen's used by office staff to re-heat food, make tea etc.)	No	
Office - Fitness suite/gym (with changing facility and showers)	A fitness suite or gym that is part of the office building/development and used by the building's employees only. The gym will have its own changing facility with showers.	Yes	

Water consumption - building microcomponent

WC component - all activity areas	units	Specification	Usage/person/day	Usage factor	Consumption (L/person/day)
WC - male (no urinals installed)	Effective flush volume (Litres)	6.00	4.00	1.00	12.00
WC - female	Effective flush volume (Litres)	6.00	4.00	1.00	12.00

Urinal component - all activity areas	units	Specification	No. of cisterns	Flushing frequency (flushes/hour)	Consumption (L/person/day)

	units	Specification	Usage/person/day	Usage factor	Consumption (L/person/day)

	units	Specification	Usage/person/day	Usage factor	Consumption (L/person/day)

	units	Specification	Usage/person/day	Usage factor	Consumption (L/person/day)
Taps components (personal hygiene) - all activity areas					
Wash hand basin taps	Flow rate (litres/min)	10.00	4.00	0.25	6.77
Shower use	Flow rate (litres/min)	12.00	0.154	5.60	10.35
Fixed use - vessel filling	Litres/person/day	-	-	-	1.63
Tap components (cleaning) - staff kitchenette					
Kitchen taps - kitchenette	Flow rate (litres/min)	10.00	1.00	0.67	4.54
Dishwasher	Litres/cycle	17.00	0.04	1.00	0.68
Tap components (cleaning and food preparation) - staff canteen food preparation area					

	Microcomponent consumption (L/person/day)
Total	47.96

Non potable water yield - greywater system

>	Has, or will, the greywater system be specified and installed in compliance with BS8525-1:2010 Greywater Systems - Part 1 Code of Practice	Please select

Greywater source (building components)	Greywater collected	Proportion of components collected from (%)	Greywater yield (L/person/day)

Greywater source (other components)	Typical greywater yield (litres)	Frequency of yield (days)	Greywater yield (litres/day)	Greywater yield (L/person/day)

	Greywater yield (L/person/day)
Total	0.00

Non potable water yield - rainwater system

>	Has, or will, the rainwater system be specified and installed in compliance with BS EN 16941-1:2018 Rainwater Harvesting Systems - Code of practice	Please select
	How has the storage capacity for the proposed system been calculated?	

Rainwater yield if basic approach:

Collection area (m2)	Rainfall (average mm/yr)	Hydraulic filter efficiency (%)	Yield co-efficient (%)	Annual rainwater yield (Litres)	Rainwater yield (L/person/day)

Rainwater yield if detailed:

Daily rainfall collection (litres)	Rainwater yield (L/person/day)

Non Potable Water Demand - Building Components

	Greywater and/or rainwater yield (L/person/day)
Total	

Component	Greywater and/or rainwater utilised for component	Proportion of components using greywater and/or rainwater yield (%)	Maximum permissible demand (L/person/day)
			Demand met by yield (L/person/day)
		Total	

Other permissible components

		Maximum permissible demand (L/day)
		Demand met by yield (L/person/day)
	Total	

	Greywater and/or rainwater demand met by yield (L/person/day)
Total	

Water consumption calculation results

	Litres/person/day	m^3/person/yr
Water consumption - modelled baseline performance benchmark (excludes fixed uses)	**46.33**	**11.72**
Microcomponent water consumption - modelled performance (excludes fixed uses)	**46.33**	**11.72**
Modelled water demand met via greywater and rainwater sources	**0.00**	**0.00**
If greywater/rainwater systems specified has the minimum % efficiency improvement for component specifications been met	**FALSE**	
Net modelled water consumption (excludes fixed uses)	**46.33**	**11.72**
Percentage improvement	**0.00%**	
Total Wat 01 BREEAM credits achieved	**0 credits**	
Total Wat 01 BREEAM Exemplary credits achieved	**Exemplary level not achieved**	
Key performance indicator - use of freshwater resource (includes fixed uses)	**47.96**	**12.14**

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Building type	Description of building type	Default occupancy	Default annual days/operation	Default daily hours of operation
Office	TCP Classification B1: Offices and workshop business (including those with a basic (category 1) laboratory area)	44.4	253	10

Main building activity areas	Description of activity area	Activity area present in building?	Net Floor Area (m^2)
Office - Office areas	Cellular or open plan office space, including staff kitchen where present/adjacent and reception areas. Exlcude meeting rooms, visitor waiting or circulation areas.	Yes	400
Office - Small workshop / laboratory space	Small scale workshop or category 1 laboratory area	No	
Office - Staff canteen dining area	Seated dining areas that accompany a permanently staffed kitchen preparing food for consumption on the premises (excludes small un-staffed kitchen's used by office staff to re-heat food, make tea etc.)	No	
Office - Fitness suite/gym (with changing facility and showers)	A fitness suite or gym that is part of the office building/development and used by the building's employees only. The gym will have its own changing facility with showers.	Yes	

Water consumption - building microcomponent

WC component - all activity areas	units	Specification	Usage/person/day	Usage factor	Consumption (L/person/day)
WC - male (no urinals installed)	Effective flush volume (Litres)	3.75	4.00	1.00	7.50
WC - female	Effective flush volume (Litres)	3.75	4.00	1.00	7.50

Urinal component - all activity areas	units	Specification	No. of cisterns	Flushing frequency (flushes/hour)	Consumption (L/person/day)

	units	Specification	Usage/person/day	Usage factor	Consumption (L/person/day)

	units	Specification	Usage/person/day	Usage factor	Consumption (L/person/day)

	units	Specification	Usage/person/day	Usage factor	Consumption (L/person/day)
Taps components (personal hygiene) - all activity areas					
Wash hand basin taps	Flow rate (litres/min)	5.00	4.00	0.25	3.39
Shower use	Flow rate (litres/min)	6.00	0.154	5.60	5.17
Fixed use - vessel filling	Litres/person/day	-	-	-	1.63
Tap components (cleaning) - staff kitchenette					
Kitchen taps - kitchenette	Flow rate (litres/min)	6.00	1.00	0.67	2.72
Dishwasher	Litres/cycle	12.00	0.04	1.00	0.48
Tap components (cleaning and food preparation) - staff canteen food preparation area					

	Microcomponent consumption (L/person/day)
Total	28.39

Non potable water yield - greywater system

Has, or will, the greywater system be specified and installed in compliance with BS8525-1:2010 Greywater Systems - Part 1 Code of Practice	No

Greywater source (building components)	Greywater collected	Proportion of components collected from (%)	Greywater yield (L/person/day)

Greywater source (other components)	Typical greywater yield (litres)	Frequency of yield (days)	Greywater yield (litres/day)	Greywater yield (L/person/day)

	Greywater yield (L/person/day)
Total	0.00

Non potable water yield - rainwater system

Has, or will, the rainwater system be specified and installed in compliance with BS EN 16941-1:2018 Rainwater Harvesting Systems - Code of practice	No

How has the storage capacity for the proposed system been calculated?	

Rainwater yield if basic approach:

Collection area (m2)	Rainfall (average mm/yr)	Hydraulic filter efficiency (%)	Yield co-efficient (%)	Annual rainwater yield (Litres)	Rainwater yield (L/person/day)

Rainwater yield if detailed:

Daily rainfall collection (litres)	Rainwater yield (L/person/day)

Non Potable Water Demand - Building Components

	Greywater and/or rainwater yield (L/person/day)
Total	

Component	Greywater and/or rainwater utilised for component	Proportion of components using greywater and/or rainwater yield (%)	Maximum permissible demand (L/person/day)

	Demand met by yield (L/person/day)
Total	

Other permissible components

	Maximum permissible demand (L/day)

	Demand met by yield (L/person/day)
Total	

	Greywater and/or rainwater demand met by yield (L/person/day)
Total	

Water consumption calculation results

	Litres/person/day	m^3/person/yr
Water consumption - modelled baseline performance benchmark (excludes fixed uses)	**46.33**	**11.72**
Microcomponent water consumption - modelled performance (excludes fixed uses)	**26.76**	**6.77**
Modelled water demand met via greywater and rainwater sources	**0.00**	**0.00**
If greywater/rainwater systems specified has the minimum % efficiency improvement for component specifications been met	**System not specified**	
Net modelled water consumption (excludes fixed uses)	**26.76**	**6.77**
Percentage improvement	**42.24%**	
Total Wat 01 BREEAM credits achieved	**3 credits**	
Total Wat 01 BREEAM Exemplary credits achieved	**Exemplary level not achieved**	
Key performance indicator - use of freshwater resource (includes fixed uses)	**28.39**	**7.18**

BREEAM 2018/Version 6 Wat 01 Water consumption: Water efficiency calculator for new office buildings

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Building type	Description of building type	Default occupancy	Default annual days/operation	Default daily hours of operation
Office	TCP Classification B1: Offices and workshop business (including those with a basic (category 1) laboratory area)	44.4	253	10

Main building activity areas	Description of activity area	Activity area present in building?	Net Floor Area (m^2)
Office - Office areas	Cellular or open plan office space, including staff kitchen where present/adjacent and reception areas. Exlcude meeting rooms, visitor waiting or circulation areas.	Yes	400
Office - Small workshop / laboratory space	Small scale workshop or category 1 laboratory area	No	
Office - Staff canteen dining area	Seated dining areas that accompany a permanently staffed kitchen preparing food for consumption on the premises (excludes small un-staffed kitchen's used by office staff to re-heat food, make tea etc.)	No	
Office - Fitness suite/gym (with changing facility and showers)	A fitness suite or gym that is part of the office building/development and used by the building's employees only. The gym will have its own changing facility with showers.	Yes	

Water consumption - building microcomponent

WC component - all activity areas	units	Specification	Usage/person/day	Usage factor	Consumption (L/person/day)
WC - male (no urinals installed)	Effective flush volume (Litres)	3.00	4.00	1.00	6.00
WC - female	Effective flush volume (Litres)	3.00	4.00	1.00	6.00

Urinal component - all activity areas	units	Specification	No. of cisterns	Flushing frequency (flushes/hour)	Consumption (L/person/day)

	units	Specification	Usage/person/day	Usage factor	Consumption (L/person/day)

	units	Specification	Usage/person/day	Usage factor	Consumption (L/person/day)

	units	Specification	Usage/person/day	Usage factor	Consumption (L/person/day)
Taps components (personal hygiene) - all activity areas					
Wash hand basin taps	Flow rate (litres/min)	3.00	4.00	0.25	2.03
Shower use	Flow rate (litres/min)	3.50	0.154	5.60	3.02
Fixed use - vessel filling	Litres/person/day	-	-	-	1.63
Tap components (cleaning) - staff kitchenette					
Kitchen taps - kitchenette	Flow rate (litres/min)	5.00	1.00	0.67	2.27
Dishwasher	Litres/cycle	10.00	0.04	1.00	0.40
Tap components (cleaning and food preparation) - staff canteen food preparation area					

	Microcomponent consumption (L/person/day)
Total	21.35

Non potable water yield - greywater system

Has, or will, the greywater system be specified and installed in compliance with BS8525-1:2010 Greywater Systems - Part 1 Code of Practice	No

Greywater source (building components)	Greywater collected	Proportion of components collected from (%)	Greywater yield (L/person/day)

Greywater source (other components)	Typical greywater yield (litres)	Frequency of yield (days)	Greywater yield (litres/day)	Greywater yield (L/person/day)

	Greywater yield (L/person/day)
Total	0.00

Non potable water yield - rainwater system

Has, or will, the rainwater system be specified and installed in compliance with BS EN 16941-1:2018 Rainwater Harvesting Systems - Code of practice	Yes
How has the storage capacity for the proposed system been calculated?	BS EN 16941-1 'basic approach'

Rainwater yield if basic approach:

Collection area (m2)	Rainfall (average mm/yr)	Hydraulic filter efficiency (%)	Yield co-efficient (%)	Annual rainwater yield (Litres)	Rainwater yield (L/person/day)
400	860	80.00%	90.00%	247680	15.28

Rainwater yield if detailed:

Daily rainfall collection (litres)	Rainwater yield (L/person/day)

Non Potable Water Demand - Building Components

	Greywater and/or rainwater yield (L/person/day)
Total	15.28

Component	Greywater and/or rainwater utilised for component	Proportion of components using greywater and/or rainwater yield (%)	Maximum permissible demand (L/person/day)
WC flushing	Yes	30%	3.60

	Demand met by yield (L/person/day)
Total	3.60

Other permissible components

Are there other permissible components present which demand greywater and/or rainwater yield?	No

	Maximum permissible demand (L/day)
	519

Proportion of maximum permissible demand utilised by other permissible components (%)	

	Demand met by yield (L/person/day)
Total	0.00

	Greywater and/or rainwater demand met by yield (L/person/day)
Total	3.60

Water consumption calculation results

	Litres/person/day	m^3/person/yr
Water consumption - modelled baseline performance benchmark (excludes fixed uses)	46.33	11.72
Microcomponent water consumption - modelled performance (excludes fixed uses)	19.72	4.99
Modelled water demand met via greywater and rainwater sources	3.60	0.91
If greywater/rainwater systems specified has the minimum % efficiency improvement for component specifications been met	Yes	
Net modelled water consumption (excludes fixed uses)	16.12	4.08
Percentage improvement	65.21%	
Total Wat 01 BREEAM credits achieved	5 credits	
Total Wat 01 BREEAM Exemplary credits achieved	1 innovation credit achieved	
Key performance indicator - use of freshwater resource (includes fixed uses)	17.75	4.49

BREEAM 2018/Version 6 Wat 01 Water consumption: Water efficiency calculator for new office buildings

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Building type	Description of building type	Default occupancy	Default annual days/operation	Default daily hours of operation
Office	TCP Classification B1: Offices and workshop business (including those with a basic (category 1) laboratory area)	44.4	253	10

Main building activity areas	Description of activity area	Activity area present in building?	Net Floor Area (m^2)
Office - Office areas	Cellular or open plan office space, including staff kitchen where present/adjacent and reception areas. Exlcude meeting rooms, visitor waiting or circulation areas.	Yes	400
Office - Small workshop / laboratory space	Small scale workshop or category 1 laboratory area	No	
Office - Staff canteen dining area	Seated dining areas that accompany a permanently staffed kitchen preparing food for consumption on the premises (excludes small un-staffed kitchen's used by office staff to re-heat food, make tea etc.)	No	
Office - Fitness suite/gym (with changing facility and showers)	A fitness suite or gym that is part of the office building/development and used by the building's employees only. The gym will have its own changing facility with showers.	Yes	

Water consumption - building microcomponent

WC component - all activity areas	units	Specification	Usage/person/day	Usage factor	Consumption (L/person/day)
WC - male (no urinals installed)	Effective flush volume (Litres)	3.75	4.00	1.00	7.50
WC - female	Effective flush volume (Litres)	3.75	4.00	1.00	7.50

Urinal component - all activity areas	units	Specification	No. of cisterns	Flushing frequency (flushes/hour)	Consumption (L/person/day)

	units	Specification	Usage/person/day	Usage factor	Consumption (L/person/day)

	units	Specification	Usage/person/day	Usage factor	Consumption (L/person/day)

	units	Specification	Usage/person/day	Usage factor	Consumption (L/person/day)
Taps components (personal hygiene) - all activity areas					
Wash hand basin taps	Flow rate (litres/min)	5.00	4.00	0.25	3.39
Shower use	Flow rate (litres/min)	6.00	0.154	5.60	5.17
Fixed use - vessel filling	Litres/person/day	-	-	-	1.63
Tap components (cleaning) - staff kitchenette					
Kitchen taps - kitchenette	Flow rate (litres/min)	6.00	1.00	0.67	2.72
Dishwasher	Litres/cycle	12.00	0.04	1.00	0.48
Tap components (cleaning and food preparation) - staff canteen food preparation area					

	Microcomponent consumption (L/person/day)
Total	28.39

Non potable water yield - greywater system

> Has, or will, the greywater system be specified and installed in compliance with BS8525-1:2010 Greywater Systems - Part 1 Code of Practice: Please select

Greywater source (building components)	Greywater collected	Proportion of components collected from (%)	Greywater yield (L/person/day)

Greywater source (other components)	Typical greywater yield (litres)	Frequency of yield (days)	Greywater yield (litres/day)	Greywater yield (L/person/day)

	Greywater yield (L/person/day)
Total	0.00

Non potable water yield - rainwater system

> Has, or will, the rainwater system be specified and installed in compliance with BS EN 16941-1:2018 Rainwater Harvesting Systems - Code of practice: Please select

How has the storage capacity for the proposed system been calculated?

Rainwater yield if basic approach:

Collection area (m2)	Rainfall (average mm/yr)	Hydraulic filter efficiency (%)	Yield co-efficient (%)	Annual rainwater yield (Litres)	Rainwater yield (L/person/day)

Rainwater yield if detailed:

Daily rainfall collection (litres)	Rainwater yield (L/person/day)

Non Potable Water Demand - Building Components

	Greywater and/or rainwater yield (L/person/day)
Total	

Component	Greywater and/or rainwater utilised for component	Proportion of components using greywater and/or rainwater yield (%)	Maximum permissible demand (L/person/day)

	Demand met by yield (L/person/day)
Total	

Other permissible components

	Maximum permissible demand (L/day)

	Demand met by yield (L/person/day)
Total	

	Greywater and/or rainwater demand met by yield (L/person/day)
Total	

Water consumption calculation results

	Litres/person/day	m^3/person/yr
Water consumption - modelled baseline performance benchmark (excludes fixed uses)	**46.33**	**11.72**
Microcomponent water consumption - modelled performance (excludes fixed uses)	**26.76**	**6.77**
Modelled water demand met via greywater and rainwater sources	**0.00**	**0.00**
If greywater/rainwater systems specified has the minimum % efficiency improvement for component specifications been met	**Not applicable**	
Net modelled water consumption (excludes fixed uses)	**26.76**	**6.77**
Percentage improvement	**42.24%**	
Total Wat 01 BREEAM credits achieved	**3 credits**	
Total Wat 01 BREEAM Exemplary credits achieved	**Exemplary level not achieved**	
Key performance indicator - use of freshwater resource (includes fixed uses)	**28.39**	**7.18**

BREEAM 2018/Version 6.1 Wat 01 Water consumption: Water efficiency calculator for new education buildings

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Building type	Description of building type	Default building occupancy	Default annual days/operation	Default daily hours of operation
Education - pre-school or primary school	TCP Classification D1: non-residential pre-school and primary schools.	715	195	10

Main building activity areas	Description of activity area	Activity area present in building?	Net Floor Area (m^2)
Education - Classroom areas	Include basic classroom areas only. Exclude halls, specialist practical classrooms, i.e. ICT, and learning resource/library areas.	Yes	1364
Education - Staff office and adminstration areas	Cellular or open plan office space, including staff rooms and staff kitchen where present/adjacent and reception areas (including library reception desk areas if present). Exlcudes meeting rooms, visitor waiting or circulation areas and other such spaces not permanently occupied.	Yes	0
Education - Common room	Student common room.	Yes	0
Education - dining area	Seated dining areas that accompany a permanently staffed kitchen preparing food for consumption on the premises (excludes small un-staffed kitchen's used by staff to re-heat food, make tea etc.)	Yes	0
Education - Changing facilities with showers	Changing facility with showers to be used by pupils	No	

Water consumption - building microcomponent

WC component - all activity areas	units	Specification	Usage/person/day	Usage factor	Consumption (L/person/day)
WC - male (no urinals installed)	Effective flush volume (Litres)	3.75	2.10	1.00	3.94
WC - female	Effective flush volume (Litres)	3.75	2.10	1.00	3.94

Urinal component - all activity areas	units	Specification	No. of cisterns	Flushing frequency (flushes/hour)	Consumption (L/person/day)

	units	Specification	Usage/person/day	Usage factor	Consumption (L/person/day)

	units	Specification	Usage/person/day	Usage factor	Consumption (L/person/day)

	units	Specification	Usage/person/day	Usage factor	Consumption (L/person/day)
Taps components (personal hygiene) - all activity areas					
Wash hand basin taps	Flow rate (litres/min)	5.00	2.10	0.25	1.78
Shower use	Flow rate (litres/min)	6.00	0.001	5.60	0.05
Fixed use - vessel filling	Litres/person/day	-	-	-	1.98
Tap components (cleaning) - staff kitchenette					
Kitchen taps - kitchenette	Flow rate (litres/min)	6.00	0.0500	0.67	0.14
Dishwasher	Litres/cycle	12.00	0.0019	1.00	0.02
Tap components (cleaning and food preparation) - school canteen food preparation area					
Kitchen taps - pre-rinse nozzle	Flow rate (litres/min)	7.30	-	60.00	0.61
Dishwasher	Litres/rack	5.00	-	0.675	0.00
Waste disposal unit	Flow rate (litres/min)	0.00	-	30.00	0.00
Fixed use - food preparation	Litres/person/day	-	-	-	0.00
Fixed use - kitchen cleaning	Litres/person/day	-	-	-	0.00

	Microcomponent consumption (L/person/day)
Total	12.45

Non potable water yield - greywater system

Has, or will, the greywater system be specified and installed in compliance with BS8525-1:2010 Greywater Systems - Part 1 Code of Practice	No

Greywater source (building components)	Greywater Collected	Proportion of components collected from (%)	Greywater yield (L/person/day)

Greywater source (other components)	Typical greywater yield (litres)	Frequency of yield (days)	Greywater yield (litres/day)	Greywater yield (L/person/day)

	Greywater yield (L/person/day)
Total	0.00

Non potable water yield - rainwater system

Has, or will, the rainwater system be specified and installed in compliance with BS EN 16941-1:2018 Rainwater Harvesting Systems - Code of practice	No
How has the storage capacity for the proposed system been calculated?	

Rainwater yield if basic approach:

Collection area (m2)	Rainfall (average mm/yr)	Hydraulic filter efficiency (%)	Yield co-efficient (%)	Annual rainwater yield (Litres)	Rainwater yield (L/person/day)

Rainwater yield if detailed:

Daily rainfall collection (litres)	Rainwater yield (L/person/day)

Non potable water demand - building components

	Greywater and/or rainwater yield (L/person/day)
Total	

Component	Greywater and/or rainwater utilised for component	Proportion of components using greywater and/or rainwater yield (%)	Maximum permissible demand (L/person/day)
			Demand met by yield (L/person/day)
		Total	

Other permissible components

			Maximum permissible demand (L/day)
			Demand met by yield (L/person/day)
		Total	

	Greywater and/or rainwater demand met by yield (L/person/day)
Total	

Water consumption calculation results

	Litres/person/day	m^3/person/yr
Water consumption - modelled baseline performance benchmark (excludes fixed uses)	**18.09**	**3.53**
Microcomponent Water consumption - modelled performance (excludes fixed uses)	**10.47**	**2.04**
Modelled water demand met via greywater and rainwater sources	**0.00**	**0.00**
If greywater/rainwater systems specified has the minimum % efficiency improvement for component specifications been met	**System not specified**	
Net modelled water consumption (excludes fixed uses)	**10.47**	**2.04**
Percentage improvement	**42.10%**	
Total Wat 01 BREEAM credits achieved	**3 credits**	
Total Wat 01 BREEAM Exemplary credits achieved	**Exemplary level not achieved**	
Key performance indicator - use of freshwater resource (includes fixed uses)	**12.45**	**2.43**

BREEAM 2018/Version 6.1 Wat 01 Water consumption: Water efficiency calculator for new education buildings

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Building type	Description of building type	Default building occupancy	Default annual days/operation	Default daily hours of operation
Education - pre-school or primary school	TCP Classification D1: non-residential pre-school and primary schools.	715	195	10

Main building activity areas	Description of activity area	Activity area present in building?	Net Floor Area (m^2)
Education - Classroom areas	Include basic classroom areas only. Exclude halls, specialist practical classrooms, i.e. ICT, and learning resource/library areas.	Yes	1364
Education - Staff office and adminstration areas	Cellular or open plan office space, including staff rooms and staff kitchen where present/adjacent and reception areas (including library reception desk areas if present). Exlcudes meeting rooms, visitor waiting or circulation areas and other such spaces not permanently occupied.	Yes	0
Education - Common room	Student common room.	Yes	0
Education - dining area	Seated dining areas that accompany a permanently staffed kitchen preparing food for consumption on the premises (excludes small un-staffed kitchen's used by staff to re-heat food, make tea etc.)	Yes	0
Education - Changing facilities with showers	Changing facility with showers to be used by pupils	No	

Water consumption - building microcomponent

WC component - all activity areas	units	Specification	Usage/person/day	Usage factor	Consumption (L/person/day)
WC - male (no urinals installed)	Effective flush volume (Litres)	3.00	2.10	1.00	3.15
WC - female	Effective flush volume (Litres)	3.00	2.10	1.00	3.15

Urinal component - all activity areas	units	Specification	No. of cisterns	Flushing frequency (flushes/hour)	Consumption (L/person/day)

	units	Specification	Usage/person/day	Usage factor	Consumption (L/person/day)

	units	Specification	Usage/person/day	Usage factor	Consumption (L/person/day)

	units	Specification	Usage/person/day	Usage factor	Consumption (L/person/day)
Taps components (personal hygiene) - all activity areas					
Wash hand basin taps	Flow rate (litres/min)	3.00	2.10	0.25	1.07
Shower use	Flow rate (litres/min)	3.50	0.001	5.60	0.03
Fixed use - vessel filling	Litres/person/day	-	-	-	1.98
Tap components (cleaning) - staff kitchenette					
Kitchen taps - kitchenette	Flow rate (litres/min)	5.00	0.0500	0.67	0.11
Dishwasher	Litres/cycle	10.00	0.0019	1.00	0.02
Tap components (cleaning and food preparation) - school canteen food preparation area					
Kitchen taps - pre-rinse nozzle	Flow rate (litres/min)	6.00	-	60.00	0.50
Dishwasher	Litres/rack	3.00	-	0.675	0.00
Waste disposal unit	Flow rate (litres/min)	0.00	-	30.00	0.00
Fixed use - food preparation	Litres/person/day	-	-	-	0.00
Fixed use - kitchen cleaning	Litres/person/day	-	-	-	0.00

	Microcomponent consumption (L/person/day)
Total	10.01

Non potable water yield - greywater system

Has, or will, the greywater system be specified and installed in compliance with BS8525-1:2010 Greywater Systems - Part 1 Code of Practice	No

Greywater source (building components)	Greywater Collected	Proportion of components collected from (%)	Greywater yield (L/person/day)

Greywater source (other components)	Typical greywater yield (litres)	Frequency of yield (days)	Greywater yield (litres/day)	Greywater yield (L/person/day)

	Greywater yield (L/person/day)
Total	0.00

Non potable water yield - rainwater system

Has, or will, the rainwater system be specified and installed in compliance with BS EN 16941-1:2018 Rainwater Harvesting Systems - Code of practice	Yes

How has the storage capacity for the proposed system been calculated?	BS EN 16941-1 'basic approach'

Rainwater yield if basic approach:

Collection area (m2)	Rainfall (average mm/yr)	Hydraulic filter efficiency (%)	Yield co-efficient (%)	Annual rainwater yield (Litres)	Rainwater yield (L/person/day)
1364	860	80.00%	90.00%	844589	3.24

Rainwater yield if detailed:

Daily rainfall collection (litres)	Rainwater yield (L/person/day)

Non potable water demand - building components

	Greywater and/or rainwater yield (L/person/day)
Total	3.24

Component	Greywater and/or rainwater utilised for component	Proportion of components using greywater and/or rainwater yield (%)	Maximum permissible demand (L/person/day)
WC flushing	Yes	27%	1.70

	Demand met by yield (L/person/day)
Total	1.70

Other permissible components

Are there other permissible components present which demand greywater and/or rainwater yield?	No

	Maximum permissible demand (L/day)
	1098
Proportion of maximum permissible demand utilised by other permissible components (%)	

	Demand met by yield (L/person/day)
Total	0.00

	Greywater and/or rainwater demand met by yield (L/person/day)
Total	1.70

Water consumption calculation results

	Litres/person/day	m^3/person/yr
Water consumption - modelled baseline performance benchmark (excludes fixed uses)	18.09	3.53
Microcomponent Water consumption - modelled performance (excludes fixed uses)	8.03	1.57
Modelled water demand met via greywater and rainwater sources	1.70	0.33
If greywater/rainwater systems specified has the minimum % efficiency improvement for component specifications been met	Yes	
Net modelled water consumption (excludes fixed uses)	6.33	1.23
Percentage improvement	65.00%	
Total Wat 01 BREEAM credits achieved	5 credits	
Total Wat 01 BREEAM Exemplary credits achieved	1 innovation credit achieved	
Key performance indicator - use of freshwater resource (includes fixed uses)	8.31	1.62

BREEAM 2018/Version 6.1 Wat 01 Water consumption: Water efficiency calculator for new education buildings

BREEAM UK delivered by bre

Building type	Description of building type	Default building occupancy	Default annual days/operation	Default daily hours of operation
Education - pre-school or primary school	TCP Classification D1: non-residential pre-school and primary schools.	715	195	10

Main building activity areas	Description of activity area	Activity area present in building?	Net Floor Area (m^2)
Education - Classroom areas	Include basic classroom areas only. Exclude halls, specialist practical classrooms, i.e. ICT, and learning resource/library areas.	Yes	1364
Education - Staff office and adminstration areas	Cellular or open plan office space, including staff rooms and staff kitchen where present/adjacent and reception areas (including library reception desk areas if present). Exlcudes meeting rooms, visitor waiting or circulation areas and other such spaces not permanently occupied.	Yes	0
Education - Common room	Student common room.	Yes	0
Education - dining area	Seated dining areas that accompany a permanently staffed kitchen preparing food for consumption on the premises (excludes small un-staffed kitchen's used by staff to re-heat food, make tea etc.)	Yes	0
Education - Changing facilities with showers	Changing facility with showers to be used by pupils	No	

Water consumption - building microcomponent

WC component - all activity areas	units	Specification	Usage/person/day	Usage factor	Consumption (L/person/day)
WC - male (no urinals installed)	Effective flush volume (Litres)	6.00	2.10	1.00	6.30
WC - female	Effective flush volume (Litres)	6.00	2.10	1.00	6.30

Urinal component - all activity areas	units	Specification	No. of cisterns	Flushing frequency (flushes/hour)	Consumption (L/person/day)

	units	Specification	Usage/person/day	Usage factor	Consumption (L/person/day)

	units	Specification	Usage/person/day	Usage factor	Consumption (L/person/day)

	units	Specification	Usage/person/day	Usage factor	Consumption (L/person/day)
Taps components (personal hygiene) - all activity areas					
Wash hand basin taps	Flow rate (litres/min)	10.00	2.10	0.25	3.55
Shower use	Flow rate (litres/min)	12.00	0.001	5.60	0.09
Fixed use - vessel filling	Litres/person/day	-	-	-	1.98
Tap components (cleaning) - staff kitchenette					
Kitchen taps - kitchenette	Flow rate (litres/min)	10.00	0.0500	0.67	0.23
Dishwasher	Litres/cycle	17.00	0.0019	1.00	0.03
Tap components (cleaning and food preparation) - school canteen food preparation area					
Kitchen taps - pre-rinse nozzle	Flow rate (litres/min)	10.30	-	60.00	0.86
Dishwasher	Litres/rack	8.00	-	0.675	0.00
Waste disposal unit	Flow rate (litres/min)	17.00	-	30.00	0.71
Fixed use - food preparation	Litres/person/day	-	-	-	0.00
Fixed use - kitchen cleaning	Litres/person/day	-	-	-	0.00

	Microcomponent consumption (L/person/day)
Total	20.07

Non potable water yield - greywater system

Has, or will, the greywater system be specified and installed in compliance with BS8525-1:2010 Greywater Systems - Part 1 Code of Practice	No

Greywater source (building components)	Greywater Collected	Proportion of components collected from (%)	Greywater yield (L/person/day)

Greywater source (other components)	Typical greywater yield (litres)	Frequency of yield (days)	Greywater yield (litres/day)	Greywater yield (L/person/day)

	Greywater yield (L/person/day)
Total	0.00

Non potable water yield - rainwater system

Has, or will, the rainwater system be specified and installed in compliance with BS EN 16941-1:2018 Rainwater Harvesting Systems - Code of practice	No
How has the storage capacity for the proposed system been calculated?	

Rainwater yield if basic approach:

Collection area (m2)	Rainfall (average mm/yr)	Hydraulic filter efficiency (%)	Yield co-efficient (%)	Annual rainwater yield (Litres)	Rainwater yield (L/person/day)

Rainwater yield if detailed:

Daily rainfall collection (litres)	Rainwater yield (L/person/day)

Non potable water demand - building components

	Greywater and/or rainwater yield (L/person/day)
Total	

Component	Greywater and/or rainwater utilised for component	Proportion of components using greywater and/or rainwater yield (%)	Maximum permissible demand (L/person/day)
			Demand met by yield (L/person/day)
		Total	

Other permissible components

			Maximum permissible demand (L/day)
			Demand met by yield (L/person/day)
		Total	

	Greywater and/or rainwater demand met by yield (L/person/day)
Total	

Water consumption calculation results

	Litres/person/day	m^3/person/yr
Water consumption - modelled baseline performance benchmark (excludes fixed uses)	**18.09**	**3.53**
Microcomponent Water consumption - modelled performance (excludes fixed uses)	**18.09**	**3.53**
Modelled water demand met via greywater and rainwater sources	**0.00**	**0.00**
If greywater/rainwater systems specified has the minimum % efficiency improvement for component specifications been met	**System not specified**	
Net modelled water consumption (excludes fixed uses)	**18.09**	**3.53**
Percentage improvement	**0.00%**	
Total Wat 01 BREEAM credits achieved	**0 credits**	
Total Wat 01 BREEAM Exemplary credits achieved	**Exemplary level not achieved**	
Key performance indicator - use of freshwater resource (includes fixed uses)	**20.07**	**3.91**

BREEAM 2018/Version 6.1 Wat 01 Water consumption: Water efficiency calculator for new education buildings

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Building type	Description of building type	Default building occupancy	Default annual days/operation	Default daily hours of operation
Education - secondary school or academy	TCP Classification D1: non-residential secondary schools, academies and all-age range schools	1360	195	10

Main building activity areas	Description of activity area	Activity area present in building?	Net Floor Area (m^2)
Education - Classroom areas	Include basic classroom areas only. Exclude halls, specialist practical classrooms, i.e. ICT, and learning resource/library areas.	Yes	2556
Education - Staff office and adminstration areas	Cellular or open plan office space, including staff rooms and staff kitchen where present/adjacent and reception areas (including library reception desk areas if present). Exlcudes meeting rooms, visitor waiting or circulation areas and other such spaces not permanently occupied.	Yes	0
Education - Common room	Student common room.	Yes	0
Education - dining area	Seated dining areas that accompany a permanently staffed kitchen preparing food for consumption on the premises (excludes small un-staffed kitchen's used by staff to re-heat food, make tea etc.)	No	
Education - Changing facilities with showers	Changing facility with showers to be used by pupils	Yes	

Water consumption - building microcomponent

WC component - all activity areas	units	Specification	Usage/person/day	Usage factor	Consumption (L/person/day)
WC - male (no urinals installed)	Effective flush volume (Litres)	3.75	2.13	1.00	3.99
WC - female	Effective flush volume (Litres)	3.75	2.10	1.00	3.94

Urinal component - all activity areas	units	Specification	No. of cisterns	Flushing frequency (flushes/hour)	Consumption (L/person/day)

	units	Specification	Usage/person/day	Usage factor	Consumption (L/person/day)

	units	Specification	Usage/person/day	Usage factor	Consumption (L/person/day)

	units	Specification	Usage/person/day	Usage factor	Consumption (L/person/day)
Taps components (personal hygiene) - all activity areas					
Wash hand basin taps	Flow rate (litres/min)	5.00	2.13	0.25	1.80
Shower use	Flow rate (litres/min)	6.00	0.400	1.20	2.88
Fixed use - vessel filling	Litres/person/day	-	-	-	2.09
Tap components (cleaning) - staff kitchenette					
Kitchen taps - kitchenette	Flow rate (litres/min)	6.00	0.0600	0.67	0.16
Dishwasher	Litres/cycle	12.00	0.0026	1.00	0.03
Tap components (cleaning and food preparation) - school canteen food preparation area					
Fixed use - food preparation		-		-	0.00
Fixed use - kitchen cleaning		-		-	0.00

	Microcomponent consumption (L/person/day)
Total	15.22

Non potable water yield - greywater system

Has, or will, the greywater system be specified and installed in compliance with BS8525-1:2010 Greywater Systems - Part 1 Code of Practice	No

Greywater source (building components)	Greywater Collected	Proportion of components collected from (%)	Greywater yield (L/person/day)

Greywater source (other components)	Typical greywater yield (litres)	Frequency of yield (days)	Greywater yield (litres/day)	Greywater yield (L/person/day)

	Greywater yield (L/person/day)
Total	0.00

Non potable water yield - rainwater system

Has, or will, the rainwater system be specified and installed in compliance with BS EN 16941-1:2018 Rainwater Harvesting Systems - Code of practice	No
How has the storage capacity for the proposed system been calculated?	

Rainwater yield if basic approach:

Collection area (m2)	Rainfall (average mm/yr)	Hydraulic filter efficiency (%)	Yield co-efficient (%)	Annual rainwater yield (Litres)	Rainwater yield (L/person/day)

Rainwater yield if detailed:

Daily rainfall collection (litres)	Rainwater yield (L/person/day)

Non potable water demand - building components

	Greywater and/or rainwater yield (L/person/day)
Total	

Component	Greywater and/or rainwater utilised for component	Proportion of components using greywater and/or rainwater yield (%)	Maximum permissible demand (L/person/day)
			Demand met by yield (L/person/day)
		Total	

Other permissible components

			Maximum permissible demand (L/day)
			Demand met by yield (L/person/day)
		Total	

	Greywater and/or rainwater demand met by yield (L/person/day)
Total	

Water consumption calculation results

	Litres/person/day	m^3/person/yr
Water consumption - modelled baseline performance benchmark (excludes fixed uses)	**23.20**	**4.52**
Microcomponent Water consumption - modelled performance (excludes fixed uses)	**13.13**	**2.56**
Modelled water demand met via greywater and rainwater sources	**0.00**	**0.00**
If greywater/rainwater systems specified has the minimum % efficiency improvement for component specifications been met	**System not specified**	
Net modelled water consumption (excludes fixed uses)	**13.13**	**2.56**
Percentage improvement	**43.40%**	
Total Wat 01 BREEAM credits achieved	**3 credits**	
Total Wat 01 BREEAM Exemplary credits achieved	**Exemplary level not achieved**	
Key performance indicator - use of freshwater resource (includes fixed uses)	**15.22**	**2.97**

BREEAM 2018/Version 6.1 Wat 01 Water consumption: Water efficiency calculator for new education buildings

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Building type	Description of building type	Default building occupancy	Default annual days/operation	Default daily hours of operation
Education - secondary school or academy	TCP Classification D1: non-residential secondary schools, academies and all-age range schools	1360	195	10

Main building activity areas	Description of activity area	Activity area present in building?	Net Floor Area (m^2)
Education - Classroom areas	Include basic classroom areas only. Exclude halls, specialist practical classrooms, i.e. ICT, and learning resource/library areas.	Yes	2556
Education - Staff office and adminstration areas	Cellular or open plan office space, including staff rooms and staff kitchen where present/adjacent and reception areas (including library reception desk areas if present). Exlcudes meeting rooms, visitor waiting or circulation areas and other such spaces not permanently occupied.	Yes	0
Education - Common room	Student common room.	Yes	0
Education - dining area	Seated dining areas that accompany a permanently staffed kitchen preparing food for consumption on the premises (excludes small un-staffed kitchen's used by staff to re-heat food, make tea etc.)	No	
Education - Changing facilities with showers	Changing facility with showers to be used by pupils	Yes	

Water consumption - building microcomponent

WC component - all activity areas	units	Specification	Usage/person/day	Usage factor	Consumption (L/person/day)
WC - male (no urinals installed)	Effective flush volume (Litres)	3.00	2.13	1.00	3.20
WC - female	Effective flush volume (Litres)	3.00	2.10	1.00	3.15

Urinal component - all activity areas	units	Specification	No. of cisterns	Flushing frequency (flushes/hour)	Consumption (L/person/day)

	units	Specification	Usage/person/day	Usage factor	Consumption (L/person/day)

	units	Specification	Usage/person/day	Usage factor	Consumption (L/person/day)

	units	Specification	Usage/person/day	Usage factor	Consumption (L/person/day)
Taps components (personal hygiene) - all activity areas					
Wash hand basin taps	Flow rate (litres/min)	3.00	2.13	0.25	1.08
Shower use	Flow rate (litres/min)	3.50	0.400	1.20	1.68
Fixed use - vessel filling	Litres/person/day	-	-	-	2.09
Tap components (cleaning) - staff kitchenette					
Kitchen taps - kitchenette	Flow rate (litres/min)	5.00	0.0600	0.67	0.14
Dishwasher	Litres/cycle	10.00	0.0026	1.00	0.03
Tap components (cleaning and food preparation) - school canteen food preparation area					
Fixed use - food preparation		-		-	0.00
Fixed use - kitchen cleaning		-		-	0.00

	Microcomponent consumption (L/person/day)
Total	11.68

Non potable water yield - greywater system

Has, or will, the greywater system be specified and installed in compliance with BS8525-1:2010 Greywater Systems - Part 1 Code of Practice	No

Greywater source (building components)	Greywater Collected	Proportion of components collected from (%)	Greywater yield (L/person/day)

Greywater source (other components)	Typical greywater yield (litres)	Frequency of yield (days)	Greywater yield (litres/day)	Greywater yield (L/person/day)

	Greywater yield (L/person/day)
Total	0.00

Non potable water yield - rainwater system

Has, or will, the rainwater system be specified and installed in compliance with BS EN 16941-1:2018 Rainwater Harvesting Systems - Code of practice	Yes

How has the storage capacity for the proposed system been calculated?	BS EN 16941-1 'basic approach'

Rainwater yield if basic approach:

Collection area (m2)	Rainfall (average mm/yr)	Hydraulic filter efficiency (%)	Yield co-efficient (%)	Annual rainwater yield (Litres)	Rainwater yield (L/person/day)
2556	860	80.00%	90.00%	1582675	3.19

Rainwater yield if detailed:

Daily rainfall collection (litres)	Rainwater yield (L/person/day)

Non potable water demand - building components

	Greywater and/or rainwater yield (L/person/day)
Total	3.19

Component	Greywater and/or rainwater utilised for component	Proportion of components using greywater and/or rainwater yield (%)	Maximum permissible demand (L/person/day)
WC flushing	Yes	24%	1.52

	Demand met by yield (L/person/day)
Total	1.52

Other permissible components

Are there other permissible components present which demand greywater and/or rainwater yield?	No

	Maximum permissible demand (L/day)
	2265

Proportion of maximum permissible demand utilised by other permissible components (%)	

	Demand met by yield (L/person/day)
Total	0.00

	Greywater and/or rainwater demand met by yield (L/person/day)
Total	1.52

Water consumption calculation results

	Litres/person/day	m^3/person/yr
Water consumption - modelled baseline performance benchmark (excludes fixed uses)	23.20	4.52
Microcomponent Water consumption - modelled performance (excludes fixed uses)	9.59	1.87
Modelled water demand met via greywater and rainwater sources	1.52	0.30
If greywater/rainwater systems specified has the minimum % efficiency improvement for component specifications been met	Yes	
Net modelled water consumption (excludes fixed uses)	8.07	1.57
Percentage improvement	65.22%	
Total Wat 01 BREEAM credits achieved	5 credits	
Total Wat 01 BREEAM Exemplary credits achieved	1 innovation credit achieved	
Key performance indicator - use of freshwater resource (includes fixed uses)	10.16	1.98

BREEAM 2018/Version 6.1 Wat 01 Water consumption: Water efficiency calculator for new education buildings

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Building type	Description of building type	Default building occupancy	Default annual days/operation	Default daily hours of operation
Education - secondary school or academy	TCP Classification D1: non-residential secondary schools, academies and all-age range schools	1360	195	10

Main building activity areas	Description of activity area	Activity area present in building?	Net Floor Area (m^2)
Education - Classroom areas	Include basic classroom areas only. Exclude halls, specialist practical classrooms, i.e. ICT, and learning resource/library areas.	Yes	2556
Education - Staff office and adminstration areas	Cellular or open plan office space, including staff rooms and staff kitchen where present/adjacent and reception areas (including library reception desk areas if present). Exlcudes meeting rooms, visitor waiting or circulation areas and other such spaces not permanently occupied.	Yes	0
Education - Common room	Student common room.	Yes	0
Education - dining area	Seated dining areas that accompany a permanently staffed kitchen preparing food for consumption on the premises (excludes small un-staffed kitchen's used by staff to re-heat food, make tea etc.)	Yes	0
Education - Changing facilities with showers	Changing facility with showers to be used by pupils	Yes	

Water consumption - building microcomponent

WC component - all activity areas	units	Specification	Usage/person/day	Usage factor	Consumption (L/person/day)
WC - male (no urinals installed)	Effective flush volume (Litres)	6.00	2.13	1.00	6.39
WC - female	Effective flush volume (Litres)	6.00	2.10	1.00	6.30

Urinal component - all activity areas	units	Specification	No. of cisterns	Flushing frequency (flushes/hour)	Consumption (L/person/day)

	units	Specification	Usage/person/day	Usage factor	Consumption (L/person/day)

	units	Specification	Usage/person/day	Usage factor	Consumption (L/person/day)

	units	Specification	Usage/person/day	Usage factor	Consumption (L/person/day)
Taps components (personal hygiene) - all activity areas					
Wash hand basin taps	Flow rate (litres/min)	10.00	2.13	0.25	3.61
Shower use	Flow rate (litres/min)	12.00	0.400	1.20	5.76
Fixed use - vessel filling	Litres/person/day	-	-	-	2.09
Tap components (cleaning) - staff kitchenette					
Kitchen taps - kitchenette	Flow rate (litres/min)	10.00	0.0600	0.67	0.27
Dishwasher	Litres/cycle	17.00	0.0026	1.00	0.04
Tap components (cleaning and food preparation) - school canteen food preparation area					
Kitchen taps - pre-rinse nozzle	Flow rate (litres/min)	10.30	-	60.00	0.45
Dishwasher	Litres/rack	8.00	-	0.675	0.00
Waste disposal unit	Flow rate (litres/min)	17.00	-	30.00	0.38
Fixed use - food preparation	Litres/person/day	-	-	-	0.00
Fixed use - kitchen cleaning	Litres/person/day	-	-	-	0.00

	Microcomponent consumption (L/person/day)
Total	25.29

Non potable water yield - greywater system

Has, or will, the greywater system be specified and installed in compliance with BS8525-1:2010 Greywater Systems - Part 1 Code of Practice	No

Greywater source (building components)	Greywater Collected	Proportion of components collected from (%)	Greywater yield (L/person/day)

Greywater source (other components)	Typical greywater yield (litres)	Frequency of yield (days)	Greywater yield (litres/day)	Greywater yield (L/person/day)

	Greywater yield (L/person/day)
Total	0.00

Non potable water yield - rainwater system

Has, or will, the rainwater system be specified and installed in compliance with BS EN 16941-1:2018 Rainwater Harvesting Systems - Code of practice	No
How has the storage capacity for the proposed system been calculated?	

Rainwater yield if basic approach:

Collection area (m2)	Rainfall (average mm/yr)	Hydraulic filter efficiency (%)	Yield co-efficient (%)	Annual rainwater yield (Litres)	Rainwater yield (L/person/day)

Rainwater yield if detailed:

Daily rainfall collection (litres)	Rainwater yield (L/person/day)

Non potable water demand - building components

	Greywater and/or rainwater yield (L/person/day)
Total	

Component	Greywater and/or rainwater utilised for component	Proportion of components using greywater and/or rainwater yield (%)	Maximum permissible demand (L/person/day)
			Demand met by yield (L/person/day)
		Total	

Other permissible components

			Maximum permissible demand (L/day)
			Demand met by yield (L/person/day)
		Total	

	Greywater and/or rainwater demand met by yield (L/person/day)
Total	

Water consumption calculation results

	Litres/person/day	m^3/person/yr
Water consumption - modelled baseline performance benchmark (excludes fixed uses)	**23.20**	**4.52**
Microcomponent Water consumption - modelled performance (excludes fixed uses)	**23.20**	**4.52**
Modelled water demand met via greywater and rainwater sources	**0.00**	**0.00**
If greywater/rainwater systems specified has the minimum % efficiency improvement for component specifications been met	**System not specified**	
Net modelled water consumption (excludes fixed uses)	**23.20**	**4.52**
Percentage improvement	**0.00%**	
Total Wat 01 BREEAM credits achieved	**0 credits**	
Total Wat 01 BREEAM Exemplary credits achieved	**Exemplary level not achieved**	
Key performance indicator - use of freshwater resource (includes fixed uses)	**25.29**	**4.93**

BREEAM 2018/Version 6 Wat 01 Water consumption: Water efficiency calculator for new office buildings

BREEAM UK delivered by bre

Building type	Description of building type	Default occupancy	Default annual days/operation	Default daily hours of operation
Office	TCP Classification B1: Offices and workshop business (including those with a basic (category 1) laboratory area)	974.044	253	10

Main building activity areas	Description of activity area	Activity area present in building?	Net Floor Area (m^2)
Office - Office areas	Cellular or open plan office space, including staff kitchen where present/adjacent and reception areas. Exlcude meeting rooms, visitor waiting or circulation areas.	Yes	500
Office - Small workshop / laboratory space	Small scale workshop or category 1 laboratory area	Yes	13508
Office - Staff canteen dining area	Seated dining areas that accompany a permanently staffed kitchen preparing food for consumption on the premises (excludes small un-staffed kitchen's used by office staff to re-heat food, make tea etc.)	No	
Office - Fitness suite/gym (with changing facility and showers)	A fitness suite or gym that is part of the office building/development and used by the building's employees only. The gym will have its own changing facility with showers.	Yes	

Water consumption - building microcomponent

WC component - all activity areas	units	Specification	Usage/person/day	Usage factor	Consumption (L/person/day)
WC - male (no urinals installed)	Effective flush volume (Litres)	3.75	4.00	1.00	7.50
WC - female	Effective flush volume (Litres)	3.75	4.00	1.00	7.50

Urinal component - all activity areas	units	Specification	No. of cisterns	Flushing frequency (flushes/hour)	Consumption (L/person/day)

	units	Specification	Usage/person/day	Usage factor	Consumption (L/person/day)

	units	Specification	Usage/person/day	Usage factor	Consumption (L/person/day)

	units	Specification	Usage/person/day	Usage factor	Consumption (L/person/day)
Taps components (personal hygiene) - all activity areas					
Wash hand basin taps	Flow rate (litres/min)	5.00	4.00	0.25	3.39
Shower use	Flow rate (litres/min)	6.00	0.154	5.60	5.17
Fixed use - vessel filling	Litres/person/day	-	-	-	1.63
Tap components (cleaning) - staff kitchenette					
Kitchen taps - kitchenette	Flow rate (litres/min)	6.00	1.00	0.67	2.72
Dishwasher	Litres/cycle	12.00	0.04	1.00	0.48
Tap components (cleaning and food preparation) - staff canteen food preparation area					

	Microcomponent consumption (L/person/day)
Total	28.39

Non potable water yield - greywater system

Has, or will, the greywater system be specified and installed in compliance with BS8525-1:2010 Greywater Systems - Part 1 Code of Practice	No

Greywater source (building components)	Greywater collected	Proportion of components collected from (%)	Greywater yield (L/person/day)

Greywater source (other components)	Typical greywater yield (litres)	Frequency of yield (days)	Greywater yield (litres/day)	Greywater yield (L/person/day)

	Greywater yield (L/person/day)
Total	0.00

Non potable water yield - rainwater system

Has, or will, the rainwater system be specified and installed in compliance with BS EN 16941-1:2018 Rainwater Harvesting Systems - Code of practice	No

How has the storage capacity for the proposed system been calculated?	

Rainwater yield if basic approach:

Collection area (m2)	Rainfall (average mm/yr)	Hydraulic filter efficiency (%)	Yield co-efficient (%)	Annual rainwater yield (Litres)	Rainwater yield (L/person/day)

Rainwater yield if detailed:

Daily rainfall collection (litres)	Rainwater yield (L/person/day)

Non Potable Water Demand - Building Components

	Greywater and/or rainwater yield (L/person/day)
Total	

Component	Greywater and/or rainwater utilised for component	Proportion of components using greywater and/or rainwater yield (%)	Maximum permissible demand (L/person/day)

	Demand met by yield (L/person/day)
Total	

Other permissible components

	Maximum permissible demand (L/day)

	Demand met by yield (L/person/day)
Total	

	Greywater and/or rainwater demand met by yield (L/person/day)
Total	

Water consumption calculation results

	Litres/person/day	m^3/person/yr
Water consumption - modelled baseline performance benchmark (excludes fixed uses)	**46.33**	**11.72**
Microcomponent water consumption - modelled performance (excludes fixed uses)	**26.76**	**6.77**
Modelled water demand met via greywater and rainwater sources	**0.00**	**0.00**
If greywater/rainwater systems specified has the minimum % efficiency improvement for component specifications been met	**System not specified**	
Net modelled water consumption (excludes fixed uses)	**26.76**	**6.77**
Percentage improvement	**42.24%**	
Total Wat 01 BREEAM credits achieved	**3 credits**	
Total Wat 01 BREEAM Exemplary credits achieved	**Exemplary level not achieved**	
Key performance indicator - use of freshwater resource (includes fixed uses)	**28.39**	**7.18**

BREEAM 2018/Version 6 Wat 01 Water consumption: Water efficiency calculator for new office buildings

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Building type	Description of building type	Default occupancy	Default annual days/operation	Default daily hours of operation
Office	TCP Classification B1: Offices and workshop business (including those with a basic (category 1) laboratory area)	974.044	253	10

Main building activity areas	Description of activity area	Activity area present in building?	Net Floor Area (m^2)
Office - Office areas	Cellular or open plan office space, including staff kitchen where present/adjacent and reception areas. Exlcude meeting rooms, visitor waiting or circulation areas.	Yes	500
Office - Small workshop / laboratory space	Small scale workshop or category 1 laboratory area	Yes	13508
Office - Staff canteen dining area	Seated dining areas that accompany a permanently staffed kitchen preparing food for consumption on the premises (excludes small un-staffed kitchen's used by office staff to re-heat food, make tea etc.)	No	
Office - Fitness suite/gym (with changing facility and showers)	A fitness suite or gym that is part of the office building/development and used by the building's employees only. The gym will have its own changing facility with showers.	Yes	

Water consumption - building microcomponent

WC component - all activity areas	units	Specification	Usage/person/day	Usage factor	Consumption (L/person/day)
WC - male (no urinals installed)	Effective flush volume (Litres)	3.00	4.00	1.00	6.00
WC - female	Effective flush volume (Litres)	3.00	4.00	1.00	6.00

Urinal component - all activity areas	units	Specification	No. of cisterns	Flushing frequency (flushes/hour)	Consumption (L/person/day)

	units	Specification	Usage/person/day	Usage factor	Consumption (L/person/day)

	units	Specification	Usage/person/day	Usage factor	Consumption (L/person/day)

	units	Specification	Usage/person/day	Usage factor	Consumption (L/person/day)
Taps components (personal hygiene) - all activity areas					
Wash hand basin taps	Flow rate (litres/min)	3.00	4.00	0.25	2.03
Shower use	Flow rate (litres/min)	3.50	0.154	5.60	3.02
Fixed use - vessel filling	Litres/person/day	-	-	-	1.63
Tap components (cleaning) - staff kitchenette					
Kitchen taps - kitchenette	Flow rate (litres/min)	5.00	1.00	0.67	2.27
Dishwasher	Litres/cycle	10.00	0.04	1.00	0.40
Tap components (cleaning and food preparation) - staff canteen food preparation area					

	Microcomponent consumption (L/person/day)
Total	21.35

Non potable water yield - greywater system

Has, or will, the greywater system be specified and installed in compliance with BS8525-1:2010 Greywater Systems - Part 1 Code of Practice	No

Greywater source (building components)	Greywater collected	Proportion of components collected from (%)	Greywater yield (L/person/day)

Greywater source (other components)	Typical greywater yield (litres)	Frequency of yield (days)	Greywater yield (litres/day)	Greywater yield (L/person/day)

	Greywater yield (L/person/day)
Total	0.00

Non potable water yield - rainwater system

Has, or will, the rainwater system be specified and installed in compliance with BS EN 16941-1:2018 Rainwater Harvesting Systems - Code of practice	Yes
How has the storage capacity for the proposed system been calculated?	BS EN 16941-1 'basic approach'

Rainwater yield if basic approach:

Collection area (m2)	Rainfall (average mm/yr)	Hydraulic filter efficiency (%)	Yield co-efficient (%)	Annual rainwater yield (Litres)	Rainwater yield (L/person/day)
14008	860	80.00%	90.00%	8673754	24.40

Rainwater yield if detailed:

Daily rainfall collection (litres)	Rainwater yield (L/person/day)

Non Potable Water Demand - Building Components

	Greywater and/or rainwater yield (L/person/day)
Total	24.40

Component	Greywater and/or rainwater utilised for component	Proportion of components using greywater and/or rainwater yield (%)	Maximum permissible demand (L/person/day)
WC flushing	Yes	30%	3.60

	Demand met by yield (L/person/day)
Total	3.60

Other permissible components

Are there other permissible components present which demand greywater and/or rainwater yield?	No

	Maximum permissible demand (L/day)
	20257

Proportion of maximum permissible demand utilised by other permissible components (%)	

	Demand met by yield (L/person/day)
Total	0.00

	Greywater and/or rainwater demand met by yield (L/person/day)
Total	3.60

Water consumption calculation results

	Litres/person/day	m^3/person/yr
Water consumption - modelled baseline performance benchmark (excludes fixed uses)	46.33	11.72
Microcomponent water consumption - modelled performance (excludes fixed uses)	19.72	4.99
Modelled water demand met via greywater and rainwater sources	3.60	0.91
If greywater/rainwater systems specified has the minimum % efficiency improvement for component specifications been met	Yes	
Net modelled water consumption (excludes fixed uses)	16.12	4.08
Percentage improvement	65.21%	
Total Wat 01 BREEAM credits achieved	5 credits	
Total Wat 01 BREEAM Exemplary credits achieved	1 innovation credit achieved	
Key performance indicator - use of freshwater resource (includes fixed uses)	17.75	4.49

BREEAM 2018/Version 6 Wat 01 Water consumption: Water efficiency calculator for new office buildings

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Building type	Description of building type	Default occupancy	Default annual days/operation	Default daily hours of operation
Office	TCP Classification B1: Offices and workshop business (including those with a basic (category 1) laboratory area)	974.044	253	10

Main building activity areas	Description of activity area	Activity area present in building?	Net Floor Area (m^2)
Office - Office areas	Cellular or open plan office space, including staff kitchen where present/adjacent and reception areas. Exlcude meeting rooms, visitor waiting or circulation areas.	Yes	500
Office - Small workshop / laboratory space	Small scale workshop or category 1 laboratory area	Yes	13508
Office - Staff canteen dining area	Seated dining areas that accompany a permanently staffed kitchen preparing food for consumption on the premises (excludes small un-staffed kitchen's used by office staff to re-heat food, make tea etc.)	No	
Office - Fitness suite/gym (with changing facility and showers)	A fitness suite or gym that is part of the office building/development and used by the building's employees only. The gym will have its own changing facility with showers.	Yes	

Water consumption - building microcomponent

WC component - all activity areas	units	Specification	Usage/person/day	Usage factor	Consumption (L/person/day)
WC - male (no urinals installed)	Effective flush volume (Litres)	6.00	4.00	1.00	12.00
WC - female	Effective flush volume (Litres)	6.00	4.00	1.00	12.00

Urinal component - all activity areas	units	Specification	No. of cisterns	Flushing frequency (flushes/hour)	Consumption (L/person/day)

	units	Specification	Usage/person/day	Usage factor	Consumption (L/person/day)

	units	Specification	Usage/person/day	Usage factor	Consumption (L/person/day)

	units	Specification	Usage/person/day	Usage factor	Consumption (L/person/day)
Taps components (personal hygiene) - all activity areas					
Wash hand basin taps	Flow rate (litres/min)	10.00	4.00	0.25	6.77
Shower use	Flow rate (litres/min)	12.00	0.154	5.60	10.35
Fixed use - vessel filling	Litres/person/day	-	-	-	1.63
Tap components (cleaning) - staff kitchenette					
Kitchen taps - kitchenette	Flow rate (litres/min)	10.00	1.00	0.67	4.54
Dishwasher	Litres/cycle	17.00	0.04	1.00	0.68
Tap components (cleaning and food preparation) - staff canteen food preparation area					

	Microcomponent consumption (L/person/day)
Total	47.96

Non potable water yield - greywater system

> Has, or will, the greywater system be specified and installed in compliance with BS8525-1:2010 Greywater Systems - Part 1 Code of Practice: Please select

Greywater source (building components)	Greywater collected	Proportion of components collected from (%)	Greywater yield (L/person/day)

Greywater source (other components)	Typical greywater yield (litres)	Frequency of yield (days)	Greywater yield (litres/day)	Greywater yield (L/person/day)

	Greywater yield (L/person/day)
Total	0.00

Non potable water yield - rainwater system

> Has, or will, the rainwater system be specified and installed in compliance with BS EN 16941-1:2018 Rainwater Harvesting Systems - Code of practice: Please select

How has the storage capacity for the proposed system been calculated?

Rainwater yield if basic approach:

Collection area (m2)	Rainfall (average mm/yr)	Hydraulic filter efficiency (%)	Yield co-efficient (%)	Annual rainwater yield (Litres)	Rainwater yield (L/person/day)

Rainwater yield if detailed:

Daily rainfall collection (litres)	Rainwater yield (L/person/day)

Non Potable Water Demand - Building Components

	Greywater and/or rainwater yield (L/person/day)
Total	

Component	Greywater and/or rainwater utilised for component	Proportion of components using greywater and/or rainwater yield (%)	Maximum permissible demand (L/person/day)
			Demand met by yield (L/person/day)
		Total	

Other permissible components

		Maximum permissible demand (L/day)
		Demand met by yield (L/person/day)
	Total	

	Greywater and/or rainwater demand met by yield (L/person/day)
Total	

Water consumption calculation results

	Litres/person/day	m^3/person/yr
Water consumption - modelled baseline performance benchmark (excludes fixed uses)	**46.33**	**11.72**
Microcomponent water consumption - modelled performance (excludes fixed uses)	**46.33**	**11.72**
Modelled water demand met via greywater and rainwater sources	**0.00**	**0.00**
If greywater/rainwater systems specified has the minimum % efficiency improvement for component specifications been met	**FALSE**	
Net modelled water consumption (excludes fixed uses)	**46.33**	**11.72**
Percentage improvement	**0.00%**	
Total Wat 01 BREEAM credits achieved	**0 credits**	
Total Wat 01 BREEAM Exemplary credits achieved	**Exemplary level not achieved**	
Key performance indicator - use of freshwater resource (includes fixed uses)	**47.96**	**12.14**

BREEAM 2018/Version 6.1 Wat 01 Water consumption: Water efficiency calculator for new industrial buildings

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Building type	Description of building type	Default occupancy	Default annual days/operation	Default daily hours of operation
Industrial - typical business hours of operation	TCP Classification B2 to B8: general and specialist industrial and warehouse and storage units operating 24 hours a day 7 days a week.	128.03	253	10

Main building activity areas	Description of activity area	Activity area present in building?	Net Floor Area (m^2)
Industrial - process area	Main process based operational/manufacturing/workshop area	Yes	5050
Industrial - Laboratory area	Large or small category 1 laboratory area.	No	
Industrial - Warehouse storage	Permanently or intermittently occupied warehouse storage areas.	No	
Industrial - Office areas	Cellular or open plan office space, including staff kitchen where present/adjacent and reception areas. Exlcude meeting rooms, visitor waiting or circulation areas.	Yes	150
Industrial - Staff canteen dining area	Seated dining areas that accompany a permanently staffed kitchen preparing food for consumption on the premises (excludes small un-staffed kitchen's used by office staff to re-heat food, make tea etc.)	No	
Industrial - Fitness suite/gym (with changing facility and showers)	A fitness suite or gym that is part of the office building/development and used by the building's employees only. The gym will have its own changing facility with showers.	Yes	

Water consumption - building microcomponent

WC component - all activity areas	units	Specification	Usage/person/day	Usage factor	Consumption (L/person/day)
WC - male (no urinals installed)	Effective flush volume (Litres)	3.75	4.00	1.00	7.50
WC - female	Effective flush volume (Litres)	3.75	4.00	1.00	7.50

Urinal component - all activity areas	units	Specification	No. of cisterns	Flushing frequency (flushes/hour)	Consumption (L/person/day)

	units	Specification	Usage/person/day	Usage factor	Consumption (L/person/day)

	units	Specification	Usage/person/day	Usage factor	Consumption (L/person/day)

	Units	Specification	Usage/person/day	Usage factor	Consumption (L/person/day)
Taps components (personal hygiene) - all activity areas					
Wash hand basin taps	Flow rate (litres/min)	5.00	4.00	0.25	3.39
Shower use	Flow rate (litres/min)	6.00	0.154	5.60	5.17
Fixed use - vessel filling	Litres/person/day	-	-	-	1.63
Tap components (cleaning) - staff kitchenette					
Kitchen taps - kitchenette	Flow rate (litres/min)	6.00	1.00	0.67	2.72
Dishwasher	Litres/cycle	12.00	0.04	1.00	0.48
Tap components (cleaning and food preparation) - staff canteen food preparation area					

	Microcomponent consumption (L/person/day)
Total	37.20

Non potable water yield - greywater system

Has, or will, the greywater system be specified and installed in compliance with BS8525-1:2010 Greywater Systems - Part 1 Code of Practice	No

Greywater source (building components)	Greywater Collected	Proportion of components collected from (%)	Greywater yield (L/person/day)

Greywater source (other components)	Typical greywater yield (litres)	Frequency of yield (days)	Greywater yield (litres/day)	Greywater yield (L/person/day)

	Greywater yield (L/person/day)
Total	0.00

Non potable water yield - rainwater system

Has, or will, the rainwater system be specified and installed in compliance with BS EN 16941-1:2018 Rainwater Harvesting Systems - Code of practice	Yes

How has the storage capacity for the proposed system been calculated?	BS EN 16941-1 'basic approach'

Rainwater yield if basic approach:

Collection area (m2)	Rainfall (average mm/yr)	Hydraulic filter efficiency (%)	Yield co-efficient (%)	Annual rainwater yield (Litres)	Rainwater yield (L/person/day)
5200	860	70.00%	90.00%	2817360	60.29

Rainwater yield if detailed:

Daily rainfall collection (litres)	Rainwater yield (L/person/day)

Non potable water demand - building components

	Greywater and/or rainwater yield (L/person/day)
Total	60.29

Component	Greywater and/or rainwater utilised for component	Proportion of components using greywater and/or rainwater yield (%)	Maximum permissible demand (L/person/day)
WC flushing	Yes	17%	2.55

	Demand met by yield (L/person/day)
Total	2.55

Other permissible components

Are there other permissible components present which demand greywater and/or rainwater yield?	No
	Maximum permissible demand (L/day)
	7392
Proportion of maximum permissible demand utilised by other permissible components (%)	
	Demand met by yield (L/person/day)
Total	0.00

	Greywater and/or rainwater demand met by yield (L/person/day)
Total	2.55

Water consumption calculation results

	Litres/person/day	m^3/person/yr
Water consumption - modelled baseline performance benchmark (excludes fixed uses)	**55.15**	**13.95**
Microcomponent Water consumption - modelled performance (excludes fixed uses)	**35.57**	**9.00**
Modelled water demand met via greywater and rainwater sources	**2.55**	**0.65**
If greywater/rainwater systems specified has the minimum % efficiency improvement for component specifications been met	**Not applicable**	
Net modelled water consumption (excludes fixed uses)	**34.67**	**8.77**
Percentage improvement	**40.11%**	
Total Wat 01 BREEAM credits achieved	**3 credits**	
Total Wat 01 BREEAM Exemplary credits achieved	**Exemplary level not achieved**	
Key performance indicator - use of freshwater resource (includes fixed uses)	**34.65**	**8.77**

BREEAM 2018/Version 6.1 Wat 01 Water consumption: Water efficiency calculator for new industrial buildings

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Building type	Description of building type	Default occupancy	Default annual days/operation	Default daily hours of operation
Industrial - typical business hours of operation	TCP Classification B2 to B8: general and specialist industrial and warehouse and storage units operating 24 hours a day 7 days a week.	128.03	253	10

Main building activity areas	Description of activity area	Activity area present in building?	Net Floor Area (m^2)
Industrial - process area	Main process based operational/manufacturing/workshop area	Yes	5050
Industrial - Laboratory area	Large or small category 1 laboratory area.	No	
Industrial - Warehouse storage	Permanently or intermittently occupied warehouse storage areas.	No	
Industrial - Office areas	Cellular or open plan office space, including staff kitchen where present/adjacent and reception areas. Exlcude meeting rooms, visitor waiting or circulation areas.	Yes	150
Industrial - Staff canteen dining area	Seated dining areas that accompany a permanently staffed kitchen preparing food for consumption on the premises (excludes small un-staffed kitchen's used by office staff to re-heat food, make tea etc.)	No	
Industrial - Fitness suite/gym (with changing facility and showers)	A fitness suite or gym that is part of the office building/development and used by the building's employees only. The gym will have its own changing facility with showers.	Yes	

Water consumption - building microcomponent

WC component - all activity areas	units	Specification	Usage/person/day	Usage factor	Consumption (L/person/day)
WC - male (no urinals installed)	Effective flush volume (Litres)	3.00	4.00	1.00	6.00
WC - female	Effective flush volume (Litres)	3.00	4.00	1.00	6.00

Urinal component - all activity areas	units	Specification	No. of cisterns	Flushing frequency (flushes/hour)	Consumption (L/person/day)

	units	Specification	Usage/person/day	Usage factor	Consumption (L/person/day)

	units	Specification	Usage/person/day	Usage factor	Consumption (L/person/day)

	Units	Specification	Usage/person/day	Usage factor	Consumption (L/person/day)
Taps components (personal hygiene) - all activity areas					
Wash hand basin taps	Flow rate (litres/min)	3.00	4.00	0.25	2.03
Shower use	Flow rate (litres/min)	3.50	0.154	5.60	3.02
Fixed use - vessel filling	Litres/person/day	-	-	-	1.63
Tap components (cleaning) - staff kitchenette					
Kitchen taps - kitchenette	Flow rate (litres/min)	5.00	1.00	0.67	2.27
Dishwasher	Litres/cycle	10.00	0.04	1.00	0.40
Tap components (cleaning and food preparation) - staff canteen food preparation area					

	Microcomponent consumption (L/person/day)
Total	30.16

Non potable water yield - greywater system

Has, or will, the greywater system be specified and installed in compliance with BS8525-1:2010 Greywater Systems - Part 1 Code of Practice	No

Greywater source (building components)	Greywater Collected	Proportion of components collected from (%)	Greywater yield (L/person/day)

Greywater source (other components)	Typical greywater yield (litres)	Frequency of yield (days)	Greywater yield (litres/day)	Greywater yield (L/person/day)

	Greywater yield (L/person/day)
Total	0.00

Non potable water yield - rainwater system

Has, or will, the rainwater system be specified and installed in compliance with BS EN 16941-1:2018 Rainwater Harvesting Systems - Code of practice	Yes

How has the storage capacity for the proposed system been calculated?	BS EN 16941-1 'basic approach'

Rainwater yield if basic approach:

Collection area (m2)	Rainfall (average mm/yr)	Hydraulic filter efficiency (%)	Yield co-efficient (%)	Annual rainwater yield (Litres)	Rainwater yield (L/person/day)
5200	860	80.00%	90.00%	3219840	68.90

Rainwater yield if detailed:

Daily rainfall collection (litres)	Rainwater yield (L/person/day)

Non potable water demand - building components

	Greywater and/or rainwater yield (L/person/day)
Total	68.90

Component	Greywater and/or rainwater utilised for component	Proportion of components using greywater and/or rainwater yield (%)	Maximum permissible demand (L/person/day)
WC flushing	Yes	77%	9.24

	Demand met by yield (L/person/day)
Total	9.24

Other permissible components

Are there other permissible components present which demand greywater and/or rainwater yield?	No

	Maximum permissible demand (L/day)
	7638
Proportion of maximum permissible demand utilised by other permissible components (%)	

	Demand met by yield (L/person/day)
Total	0.00

	Greywater and/or rainwater demand met by yield (L/person/day)
Total	9.24

Water consumption calculation results

	Litres/person/day	m^3/person/yr
Water consumption - modelled baseline performance benchmark (excludes fixed uses)	55.15	13.95
Microcomponent Water consumption - modelled performance (excludes fixed uses)	28.53	7.22
Modelled water demand met via greywater and rainwater sources	9.24	2.34
If greywater/rainwater systems specified has the minimum % efficiency improvement for component specifications been met	Yes	
Net modelled water consumption (excludes fixed uses)	19.29	4.88
Percentage improvement	65.02%	
Total Wat 01 BREEAM credits achieved	5 credits	
Total Wat 01 BREEAM Exemplary credits achieved	1 innovation credit achieved	
Key performance indicator - use of freshwater resource (includes fixed uses)	20.92	5.29

BREEAM 2018/Version 6.1 Wat 01 Water consumption: Water efficiency calculator for new industrial buildings

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Building type	Description of building type	Default occupancy	Default annual days/operation	Default daily hours of operation
Industrial - typical business hours of operation	TCP Classification B2 to B8: general and specialist industrial and warehouse and storage units operating 24 hours a day 7 days a week.	128.03	253	10

Main building activity areas	Description of activity area	Activity area present in building?	Net Floor Area (m^2)
Industrial - process area	Main process based operational/manufacturing/workshop area	Yes	5050
Industrial - Laboratory area	Large or small category 1 laboratory area.	No	
Industrial - Warehouse storage	Permanently or intermittently occupied warehouse storage areas.	No	
Industrial - Office areas	Cellular or open plan office space, including staff kitchen where present/adjacent and reception areas. Exlcude meeting rooms, visitor waiting or circulation areas.	Yes	150
Industrial - Staff canteen dining area	Seated dining areas that accompany a permanently staffed kitchen preparing food for consumption on the premises (excludes small un-staffed kitchen's used by office staff to re-heat food, make tea etc.)	No	
Industrial - Fitness suite/gym (with changing facility and showers)	A fitness suite or gym that is part of the office building/development and used by the building's employees only. The gym will have its own changing facility with showers.	Yes	

Water consumption - building microcomponent

WC component - all activity areas	units	Specification	Usage/person/day	Usage factor	Consumption (L/person/day)
WC - male (no urinals installed)	Effective flush volume (Litres)	6.00	4.00	1.00	12.00
WC - female	Effective flush volume (Litres)	6.00	4.00	1.00	12.00

Urinal component - all activity areas	units	Specification	No. of cisterns	Flushing frequency (flushes/hour)	Consumption (L/person/day)

	units	Specification	Usage/person/day	Usage factor	Consumption (L/person/day)

	units	Specification	Usage/person/day	Usage factor	Consumption (L/person/day)

	Units	Specification	Usage/person/day	Usage factor	Consumption (L/person/day)
Taps components (personal hygiene) - all activity areas					
Wash hand basin taps	Flow rate (litres/min)	10.00	4.00	0.25	6.77
Shower use	Flow rate (litres/min)	12.00	0.154	5.60	10.35
Fixed use - vessel filling	Litres/person/day	-	-	-	1.63
Tap components (cleaning) - staff kitchenette					
Kitchen taps - kitchenette	Flow rate (litres/min)	10.00	1.00	0.67	4.54
Dishwasher	Litres/cycle	17.00	0.04	1.00	0.68
Tap components (cleaning and food preparation) - staff canteen food preparation area					

	Microcomponent consumption (L/person/day)
Total	56.78

Non potable water yield - greywater system

>	Has, or will, the greywater system be specified and installed in compliance with BS8525-1:2010 Greywater Systems - Part 1 Code of Practice	Please select

Greywater source (building components)		Greywater Collected	Proportion of components collected from (%)	Greywater yield (L/person/day)
Greywater source (other components)	Typical greywater yield (litres)	Frequency of yield (days)	Greywater yield (litres/day)	Greywater yield (L/person/day)

	Greywater yield (L/person/day)
Total	0.00

Non potable water yield - rainwater system

Has, or will, the rainwater system be specified and installed in compliance with BS EN 16941-1:2018 Rainwater Harvesting Systems - Code of practice	No

How has the storage capacity for the proposed system been calculated?	

Rainwater yield if basic approach:

Collection area (m2)	Rainfall (average mm/yr)	Hydraulic filter efficiency (%)	Yield co-efficient (%)	Annual rainwater yield (Litres)	Rainwater yield (L/person/day)

Rainwater yield if detailed:

Daily rainfall collection (litres)	Rainwater yield (L/person/day)

Non potable water demand - building components

	Greywater and/or rainwater yield (L/person/day)
Total	

Component	Greywater and/or rainwater utilised for component	Proportion of components using greywater and/or rainwater yield (%)	Maximum permissible demand (L/person/day)

	Demand met by yield (L/person/day)
Total	

Other permissible components

		Maximum permissible demand (L/day)
		Demand met by yield (L/person/day)
Total		

	Greywater and/or rainwater demand met by yield (L/person/day)
Total	

Water consumption calculation results

	Litres/person/day	m^3/person/yr
Water consumption - modelled baseline performance benchmark (excludes fixed uses)	**55.15**	**13.95**
Microcomponent Water consumption - modelled performance (excludes fixed uses)	**55.15**	**13.95**
Modelled water demand met via greywater and rainwater sources	**0.00**	**0.00**
If greywater/rainwater systems specified has the minimum % efficiency improvement for component specifications been met	**FALSE**	
Net modelled water consumption (excludes fixed uses)	**55.15**	**13.95**
Percentage improvement	**0.00%**	
Total Wat 01 BREEAM credits achieved	**0 credits**	
Total Wat 01 BREEAM Exemplary credits achieved	**Exemplary level not achieved**	
Key performance indicator - use of freshwater resource (includes fixed uses)	**56.78**	**14.36**

BREEAM 2018/Version 6.1 Wat 01 Water consumption: Water efficiency calculator for new industrial buildings

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Building type	Description of building type	Default occupancy	Default annual days/operation	Default daily hours of operation
Industrial - typical business hours of operation	TCP Classification B2 to B8: general and specialist industrial and warehouse and storage units operating 24 hours a day 7 days a week.	104.34	253	10

Main building activity areas	Description of activity area	Activity area present in building?	Net Floor Area (m^2)
Industrial - process area	Main process based operational/manufacturing/workshop area	No	
Industrial - Laboratory area	Large or small category 1 laboratory area.	No	
Industrial - Warehouse storage	Permanently or intermittently occupied warehouse storage areas.	Yes	6900
Industrial - Office areas	Cellular or open plan office space, including staff kitchen where present/adjacent and reception areas. Exlcude meeting rooms, visitor waiting or circulation areas.	Yes	300
Industrial - Staff canteen dining area	Seated dining areas that accompany a permanently staffed kitchen preparing food for consumption on the premises (excludes small un-staffed kitchen's used by office staff to re-heat food, make tea etc.)	No	
Industrial - Fitness suite/gym (with changing facility and showers)	A fitness suite or gym that is part of the office building/development and used by the building's employees only. The gym will have its own changing facility with showers.	Yes	

Water consumption - building microcomponent

WC component - all activity areas	units	Specification	Usage/person/day	Usage factor	Consumption (L/person/day)
WC - male (no urinals installed)	Effective flush volume (Litres)	3.75	4.00	1.00	7.50
WC - female	Effective flush volume (Litres)	3.75	4.00	1.00	7.50

Urinal component - all activity areas	units	Specification	No. of cisterns	Flushing frequency (flushes/hour)	Consumption (L/person/day)

	units	Specification	Usage/person/day	Usage factor	Consumption (L/person/day)

	units	Specification	Usage/person/day	Usage factor	Consumption (L/person/day)

	Units	Specification	Usage/person/day	Usage factor	Consumption (L/person/day)
Taps components (personal hygiene) - all activity areas					
Wash hand basin taps	Flow rate (litres/min)	5.00	4.00	0.25	3.39
Shower use	Flow rate (litres/min)	6.00	0.154	5.60	5.17
Fixed use - vessel filling	Litres/person/day	-	-	-	1.63
Tap components (cleaning) - staff kitchenette					
Kitchen taps - kitchenette	Flow rate (litres/min)	6.00	1.00	0.67	2.72
Dishwasher	Litres/cycle	12.00	0.04	1.00	0.48
Tap components (cleaning and food preparation) - staff canteen food preparation area					

	Microcomponent consumption (L/person/day)
Total	39.20

Non potable water yield - greywater system

Has, or will, the greywater system be specified and installed in compliance with BS8525-1:2010 Greywater Systems - Part 1 Code of Practice	No

Greywater source (building components)	Greywater Collected	Proportion of components collected from (%)	Greywater yield (L/person/day)

Greywater source (other components)	Typical greywater yield (litres)	Frequency of yield (days)	Greywater yield (litres/day)	Greywater yield (L/person/day)

	Greywater yield (L/person/day)
Total	0.00

Non potable water yield - rainwater system

Has, or will, the rainwater system be specified and installed in compliance with BS EN 16941-1:2018 Rainwater Harvesting Systems - Code of practice	Yes

How has the storage capacity for the proposed system been calculated?	BS EN 16941-1 'basic approach'

Rainwater yield if basic approach:

Collection area (m2)	Rainfall (average mm/yr)	Hydraulic filter efficiency (%)	Yield co-efficient (%)	Annual rainwater yield (Litres)	Rainwater yield (L/person/day)
7200	860	70.00%	90.00%	3900960	102.43

Rainwater yield if detailed:

Daily rainfall collection (litres)	Rainwater yield (L/person/day)

Non potable water demand - building components

	Greywater and/or rainwater yield (L/person/day)
Total	102.43

Component	Greywater and/or rainwater utilised for component	Proportion of components using greywater and/or rainwater yield (%)	Maximum permissible demand (L/person/day)
WC flushing	Yes	22%	3.30

	Demand met by yield (L/person/day)
Total	3.30

Other permissible components

Are there other permissible components present which demand greywater and/or rainwater yield?	No

	Maximum permissible demand (L/day)
	10343
Proportion of maximum permissible demand utilised by other permissible components (%)	

	Demand met by yield (L/person/day)
Total	0.00

	Greywater and/or rainwater demand met by yield (L/person/day)
Total	3.30

Water consumption calculation results

	Litres/person/day	m^3/person/yr
Water consumption - modelled baseline performance benchmark (excludes fixed uses)	**57.15**	**14.46**
Microcomponent Water consumption - modelled performance (excludes fixed uses)	**37.57**	**9.51**
Modelled water demand met via greywater and rainwater sources	**3.30**	**0.83**
If greywater/rainwater systems specified has the minimum % efficiency improvement for component specifications been met	**Not applicable**	
Net modelled water consumption (excludes fixed uses)	**36.44**	**9.22**
Percentage improvement	**40.02%**	
Total Wat 01 BREEAM credits achieved	**3 credits**	
Total Wat 01 BREEAM Exemplary credits achieved	**Exemplary level not achieved**	
Key performance indicator - use of freshwater resource (includes fixed uses)	**35.90**	**9.08**

BREEAM 2018/Version 6.1 Wat 01 Water consumption: Water efficiency calculator for new industrial buildings

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Building type	Description of building type	Default occupancy	Default annual days/operation	Default daily hours of operation
Industrial - typical business hours of operation	TCP Classification B2 to B8: general and specialist industrial and warehouse and storage units operating 24 hours a day 7 days a week.	104.34	253	10

Main building activity areas	Description of activity area	Activity area present in building?	Net Floor Area (m^2)
Industrial - process area	Main process based operational/manufacturing/workshop area	No	
Industrial - Laboratory area	Large or small category 1 laboratory area.	No	
Industrial - Warehouse storage	Permanently or intermittently occupied warehouse storage areas.	Yes	6900
Industrial - Office areas	Cellular or open plan office space, including staff kitchen where present/adjacent and reception areas. Exlcude meeting rooms, visitor waiting or circulation areas.	Yes	300
Industrial - Staff canteen dining area	Seated dining areas that accompany a permanently staffed kitchen preparing food for consumption on the premises (excludes small un-staffed kitchen's used by office staff to re-heat food, make tea etc.)	No	
Industrial - Fitness suite/gym (with changing facility and showers)	A fitness suite or gym that is part of the office building/development and used by the building's employees only. The gym will have its own changing facility with showers.	Yes	

Water consumption - building microcomponent

WC component - all activity areas	units	Specification	Usage/person/day	Usage factor	Consumption (L/person/day)
WC - male (no urinals installed)	Effective flush volume (Litres)	3.00	4.00	1.00	6.00
WC - female	Effective flush volume (Litres)	3.00	4.00	1.00	6.00

Urinal component - all activity areas	units	Specification	No. of cisterns	Flushing frequency (flushes/hour)	Consumption (L/person/day)

	units	Specification	Usage/person/day	Usage factor	Consumption (L/person/day)

	units	Specification	Usage/person/day	Usage factor	Consumption (L/person/day)

	Units	Specification	Usage/person/day	Usage factor	Consumption (L/person/day)
Taps components (personal hygiene) - all activity areas					
Wash hand basin taps	Flow rate (litres/min)	3.00	4.00	0.25	2.03
Shower use	Flow rate (litres/min)	3.50	0.154	5.60	3.02
Fixed use - vessel filling	Litres/person/day	-	-	-	1.63
Tap components (cleaning) - staff kitchenette					
Kitchen taps - kitchenette	Flow rate (litres/min)	5.00	1.00	0.67	2.27
Dishwasher	Litres/cycle	10.00	0.04	1.00	0.40
Tap components (cleaning and food preparation) - staff canteen food preparation area					

	Microcomponent consumption (L/person/day)
Total	32.16

Non potable water yield - greywater system

Has, or will, the greywater system be specified and installed in compliance with BS8525-1:2010 Greywater Systems - Part 1 Code of Practice	No

Greywater source (building components)	Greywater Collected	Proportion of components collected from (%)	Greywater yield (L/person/day)

Greywater source (other components)	Typical greywater yield (litres)	Frequency of yield (days)	Greywater yield (litres/day)	Greywater yield (L/person/day)

	Greywater yield (L/person/day)
Total	0.00

Non potable water yield - rainwater system

Has, or will, the rainwater system be specified and installed in compliance with BS EN 16941-1:2018 Rainwater Harvesting Systems - Code of practice	Yes

How has the storage capacity for the proposed system been calculated?	BS EN 16941-1 'basic approach'

Rainwater yield if basic approach:

Collection area (m2)	Rainfall (average mm/yr)	Hydraulic filter efficiency (%)	Yield co-efficient (%)	Annual rainwater yield (Litres)	Rainwater yield (L/person/day)
7200	860	80.00%	90.00%	4458240	117.06

Rainwater yield if detailed:

Daily rainfall collection (litres)	Rainwater yield (L/person/day)

Non potable water demand - building components

	Greywater and/or rainwater yield (L/person/day)
Total	117.06

Component	Greywater and/or rainwater utilised for component	Proportion of components using greywater and/or rainwater yield (%)	Maximum permissible demand (L/person/day)
WC flushing	Yes	88%	10.56

	Demand met by yield (L/person/day)
Total	10.56

Other permissible components

Are there other permissible components present which demand greywater and/or rainwater yield?	No
	Maximum permissible demand (L/day)
	11113
Proportion of maximum permissible demand utilised by other permissible components (%)	
	Demand met by yield (L/person/day)
Total	0.00

	Greywater and/or rainwater demand met by yield (L/person/day)
Total	10.56

Water consumption calculation results

	Litres/person/day	m^3/person/yr
Water consumption - modelled baseline performance benchmark (excludes fixed uses)	57.15	14.46
Microcomponent Water consumption - modelled performance (excludes fixed uses)	30.53	7.72
Modelled water demand met via greywater and rainwater sources	10.56	2.67
If greywater/rainwater systems specified has the minimum % efficiency improvement for component specifications been met	Yes	
Net modelled water consumption (excludes fixed uses)	19.97	5.05
Percentage improvement	65.05%	
Total Wat 01 BREEAM credits achieved	5 credits	
Total Wat 01 BREEAM Exemplary credits achieved	1 innovation credit achieved	
Key performance indicator - use of freshwater resource (includes fixed uses)	21.60	5.46

BREEAM 2018/Version 6.1 Wat 01 Water consumption: Water efficiency calculator for new industrial buildings

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Building type	Description of building type	Default occupancy	Default annual days/operation	Default daily hours of operation
Industrial - typical business hours of operation	TCP Classification B2 to B8: general and specialist industrial and warehouse and storage units operating 24 hours a day 7 days a week.	104.34	253	10

Main building activity areas	Description of activity area	Activity area present in building?	Net Floor Area (m^2)
Industrial - process area	Main process based operational/manufacturing/workshop area	No	
Industrial - Laboratory area	Large or small category 1 laboratory area.	No	
Industrial - Warehouse storage	Permanently or intermittently occupied warehouse storage areas.	Yes	6900
Industrial - Office areas	Cellular or open plan office space, including staff kitchen where present/adjacent and reception areas. Exlcude meeting rooms, visitor waiting or circulation areas.	Yes	300
Industrial - Staff canteen dining area	Seated dining areas that accompany a permanently staffed kitchen preparing food for consumption on the premises (excludes small un-staffed kitchen's used by office staff to re-heat food, make tea etc.)	No	
Industrial - Fitness suite/gym (with changing facility and showers)	A fitness suite or gym that is part of the office building/development and used by the building's employees only. The gym will have its own changing facility with showers.	Yes	

Water consumption - building microcomponent

WC component - all activity areas	units	Specification	Usage/person/day	Usage factor	Consumption (L/person/day)
WC - male (no urinals installed)	Effective flush volume (Litres)	6.00	4.00	1.00	12.00
WC - female	Effective flush volume (Litres)	6.00	4.00	1.00	12.00

Urinal component - all activity areas	units	Specification	No. of cisterns	Flushing frequency (flushes/hour)	Consumption (L/person/day)

	units	Specification	Usage/person/day	Usage factor	Consumption (L/person/day)

	units	Specification	Usage/person/day	Usage factor	Consumption (L/person/day)

	Units	Specification	Usage/person/day	Usage factor	Consumption (L/person/day)
Taps components (personal hygiene) - all activity areas					
Wash hand basin taps	Flow rate (litres/min)	10.00	4.00	0.25	6.77
Shower use	Flow rate (litres/min)	12.00	0.154	5.60	10.35
Fixed use - vessel filling	Litres/person/day	-	-	-	1.63
Tap components (cleaning) - staff kitchenette					
Kitchen taps - kitchenette	Flow rate (litres/min)	10.00	1.00	0.67	4.54
Dishwasher	Litres/cycle	17.00	0.04	1.00	0.68
Tap components (cleaning and food preparation) - staff canteen food preparation area					

	Microcomponent consumption (L/person/day)
Total	58.78

Non potable water yield - greywater system

>	Has, or will, the greywater system be specified and installed in compliance with BS8525-1:2010 Greywater Systems - Part 1 Code of Practice	Please select

Greywater source (building components)	Greywater Collected	Proportion of components collected from (%)	Greywater yield (L/person/day)

Greywater source (other components)	Typical greywater yield (litres)	Frequency of yield (days)	Greywater yield (litres/day)	Greywater yield (L/person/day)

	Greywater yield (L/person/day)
Total	0.00

Non potable water yield - rainwater system

>	Has, or will, the rainwater system be specified and installed in compliance with BS EN 16941-1:2018 Rainwater Harvesting Systems - Code of practice	Please select

How has the storage capacity for the proposed system been calculated?	

Rainwater yield if basic approach:

Collection area (m2)	Rainfall (average mm/yr)	Hydraulic filter efficiency (%)	Yield co-efficient (%)	Annual rainwater yield (Litres)	Rainwater yield (L/person/day)

Rainwater yield if detailed:

Daily rainfall collection (litres)	Rainwater yield (L/person/day)

Non potable water demand - building components

	Greywater and/or rainwater yield (L/person/day)
Total	

Component	Greywater and/or rainwater utilised for component	Proportion of components using greywater and/or rainwater yield (%)	Maximum permissible demand (L/person/day)

	Demand met by yield (L/person/day)
Total	

Other permissible components

		Maximum permissible demand (L/day)
		Demand met by yield (L/person/day)
Total		

	Greywater and/or rainwater demand met by yield (L/person/day)
Total	

Water consumption calculation results

	Litres/person/day	m^3/person/yr
Water consumption - modelled baseline performance benchmark (excludes fixed uses)	**57.15**	**14.46**
Microcomponent Water consumption - modelled performance (excludes fixed uses)	**57.15**	**14.46**
Modelled water demand met via greywater and rainwater sources	**0.00**	**0.00**
If greywater/rainwater systems specified has the minimum % efficiency improvement for component specifications been met	**FALSE**	
Net modelled water consumption (excludes fixed uses)	**57.15**	**14.46**
Percentage improvement	**0.00%**	
Total Wat 01 BREEAM credits achieved	**0 credits**	
Total Wat 01 BREEAM Exemplary credits achieved	**Exemplary level not achieved**	
Key performance indicator - use of freshwater resource (includes fixed uses)	**58.78**	**14.87**