

Water savings calculator for direct feed rainwater harvesting system

Average 4 person household

Activity	Average weekly use	litres per activity	weekly water usage (litres)	monthly water usage (litres)	flow rate (l/min)	pump usage (hours)	power usage (kW)	Kilowatt Hours (kWh)	Electricity cost (p/kWh) *	Monthly cost (£)
Flushing toilets	140.00	6.00	840.00	3640.00	8.00	7.58	0.56	4.25	11.93	0.51
Washing machine	4.00	65.00	260.00	1126.67	15.00	1.25	0.60	0.75	11.93	0.09
Garden watering	0.50	540.00	270.00	1170.00	40.00	0.49	0.75	0.37	11.93	0.04
Car wash	0.50	400.00	200.00	866.67	40.00	0.36	0.75	0.27	11.93	0.03
<u>Total monthly usage</u>				<u>6803.33 litres</u>		<u>Total monthly running cost</u>				<u>£0.67</u>

unit cost per litre of water** 0.182p = £0.00182

unit cost per litre of discharged water *** 0.196p = £0.00196

cost of water if mains water used rather than recycled water £12.38

cost to discharge mains water if rainwater not used instead £13.33

Monthly Savings per household	£25.04
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Yearly savings per household	£300.53
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Pay back period	6.49 years
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* electricity unit price from UKenergy.co.uk

** weighted average water unit price from ofwat.gov.uk

*** weighted average water discharge unit price from ofwat.gov.uk