

## All water supply systems are rainwater systems! Is there enough rainfall in Dripping Springs?

This is one of the tools TerraScena used to evaluate the sustainability of a building-scale rainwater harvesting system. The results model 26 years of historic rainfalls from the Dripping Springs weather station and illustrate rainwater as a viable home water source. Review the details of this historic rainfall model

Parameter	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999
Total rainfall - inches	42.63	20.19	32.19	31.07	56.70	45.22	45.22	36.43	26.92	22.55	52.24	47.79	21.49
Total makeup demand - gallons	0	0	0	0	0	0	0	0	0	0	0	0	0
Demand provided by rainwater	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Total overflow (lost supply) - gallons	31,802	0	23,166	5,814	83,844	55,674	55,854	32,166	16,722	0	58,995	63,288	10,224
Portion of rainfall lost	28%	0%	27%	7%	55%	46%	46%	33%	23%	0%	42%	49%	18%

  

Parameter	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
Total rainfall - inches	41.16	38.89	44.25	21.73	51.60	22.54	28.40	43.58	17.81	35.32	39.55	17.71	26.03
Total makeup demand - gallons	0	0	0	0	0	0	0	0	0	4,000	0	10,000	0
Demand provided by rainwater	100%	100%	100%	100%	100%	100%	100%	100%	100%	94%	100%	85%	100%
Total overflow (lost supply) - gallons	25,821	38,763	53,235	5,166	64,710	4,545	1,764	55,683	0	4,936	52,830	0	0
Portion of rainfall lost	23%	37%	45%	9%	47%	8%	2%	48%	0%	5%	50%	0%	0%

Model data compiled by David Venhuizen, P.E., Planning & Engineering for Texas Water Board Study

### The data illustrates a natural supply of rainwater to meet usage needs with a rainwater harvesting system for Dripping Springs area:

- Assumptions above include a 4-person household with interior water use at 45 gallons/person/day
- Cistern capacity = 35,000 gallons & Roof print (collection area) = 4,500 sq. ft.
- Note: In 2010 a year before low rainfall over 52,000 gallons were *lost supply* due to overflow as per this model- extra 5,000 capture potential
- Yes! Readily attainable projection; some rainwater harvesters use only 35-40 gal/person/day.
- Backup water supply if required is readily available at typically \$100 / delivery of 2000 gallons
- Adjustments to this model will vary depending on your individual circumstances, family size and usage.
- Variables include spacing of rainfalls, wind speeds, temperatures, roof angles, intensity of rainfall, gutter and tank capacity.



**A Resource Conscious Community | Dripping Springs, TX**