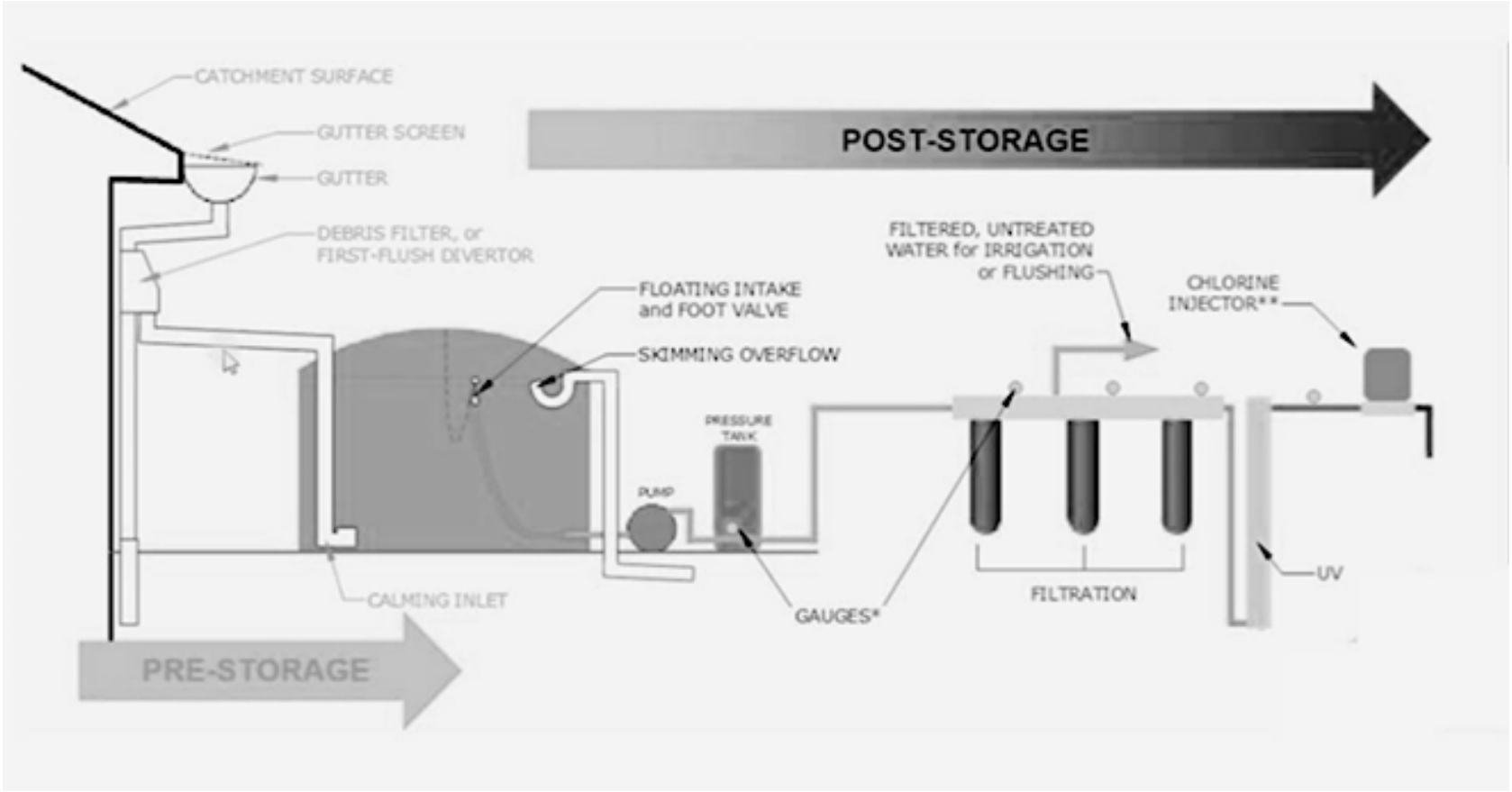

Components of a Rainwater Harvesting System

Pre-Storage Roof – preferably metal. Should be cleaned regularly (once per year is normal) Gutter covers Gutters Rain Leaders Debris Trap (clean several times per year) First Flush Diverter (pipe sized to reject 1st 0.5 mm rain; Use for bypass during pollen season) Banjo Filters (metal screens after FFD) Basket filters (if gravity fill) Transfer Tank (40 gal or so) with small transfer pump controlled by level switches)	**Storage** Cistern (plastic or concrete) Air bubbler (optional) Intake valve (floating is preferred, or intake mounted a few inches above cistern bottom) Overflow (should be same diameter as input line) **Post Storage** Pump and pressure tank Tall filters with replaceable media – 20 and 5 microns (change media every 6 months or so) Ultra-Violet disinfection (standard) 2nd disinfection if required (chlorination ??)

Location: Gabriola Island Weather Station (1981-2006 stats)
Property: Typical location

Collection Area #1: 1500 sq. ft.
Collection Area #2:
Collection Area #3:
Total 1500 sq. ft.

Unbalanced

Max Storage Cap (gal): 7,500 (3 US 3000 gal cisterns)
Usage per day: 70 (317 l per day)
Assumed Rainfall Leve: Avg (gal)
Enter 10% : 20% : 30%: 50%: Max : Avg :Min
Volume Units: gal (Choose one of gal or litre (Imp. Gal.))

Month	Indoor Useage gal/mon	Outdoor Useage gal/mon	Assumed Rainfall inches	mm	Assumed Collection Efficiency	Rainfall Collected gal/mon	Alternate Supply gal/mon	Storage Volume gal/mon
Start								0
October	2,170	0	3.4	86.1	75%	1984	0	**0**
November	2,100	0	6.2	156.9	85%	4096	0	**1996**
December	2,170	0	5.5	140.7	85%	3673	0	**3499**
January	2,170	0	5.8	146.8	85%	3831	0	**5160**
February	1,960	0	3.8	95.9	85%	2504	0	**5703**
March	2,170	0	3.6	92.1	85%	2403	0	**5937**
April	2,100	0	2.5	62.7	50%	963	0	**4800**
May	2,170	0	1.9	47.7	65%	953	0	**3582**
June	2,100	0	1.7	43.1	75%	992	0	**2474**
July	2,170	0	1.0	24.5	65%	489	0	**793**
August	2,170	0	1.0	26.6	65%	530	0	**0**
September	2,100	0	1.3	33.9	75%	782	0	**0**
TOTAL	**25,550**	**0**	**37.7**			**23,198**	**0**	**-2,352** Surplus
Demand	**25,550**			**Supply**		**23,198**		Supply

Balanced

Max Storage Cap (gal): 7,500 (3 US 3000 gal cisterns)
Usage per day: 60 (272 l per day)
Assumed Rainfall Leve: Avg (gal)
Enter 10% : 20% : 30%: 50%: Max : Avg :Min
Volume Units: gal (Choose one of gal or litre (Imp. Gal.))

Month	Indoor Useage gal/mon	Outdoor Useage gal/mon	Assumed Rainfall inches	mm	Assumed Collection Efficiency	Rainfall Collected gal/mon	Alternate Supply gal/mon	Storage Volume gal/mon
Start								0
October	1,860	0	3.4	86.1	75%	1984	0	**124**
November	1,800	0	6.2	156.9	85%	4096	0	**2420**
December	1,860	0	5.5	140.7	85%	3673	0	**4233**
January	1,860	0	5.8	146.8	85%	3831	0	**6204**
February	1,680	0	3.8	95.9	85%	2504	0	**7027**
March	1,860	0	3.6	92.1	85%	2403	0	**7500**
April	1,800	0	2.5	62.7	50%	963	0	**6663**
May	1,860	0	1.9	47.7	65%	953	0	**5756**
June	1,800	0	1.7	43.1	75%	992	0	**4947**
July	1,860	0	1.0	24.5	65%	489	0	**3576**
August	1,860	0	1.0	26.6	65%	530	0	**2246**
September	1,800	0	1.3	33.9	75%	782	0	**1228**
TOTAL	**21,900**	**0**	**37.7**			**23,198**	**0**	**1,298** Surplus
Demand	**21,900**			**Supply**		**23,198**		Supply