

*Exploring Water Catchment  
June 17, 2009*

*Having been involved in planning, teaching and green building for many years, I often use my own home as a test site for new ideas, colors and technologies. I have experimented with solar lighting, rain chains, rain barrels, composting, mulching, nitrogen fixing plants for a class demonstration, bio swales and the list goes on. I even painted my front door red when experimenting with color for a thirty-foot wall in a science building. Both are still red.*

*Recently I have turned my attention to water. Water has historically been so plentiful and inexpensive that we have not put a lot of effort into the technology of capturing rainwater or reusing non-potable water on a large scale. Although there are examples of capturing water in manmade retention ponds for live stock and farming, the use of dual water systems in homes and the desalination of salt water for consumer use are still in the distant future. The cost of the technology and infrastructure has not yet “penciled out” as a viable business proposition in the United States.*

*With an increased consciousness of global warming and the advent of green building programs, nearly 70 in the United States to date, water has become red hot. Here in California, with almost six months of beautiful, sunny and rainless weather there is a renewed focus on drought tolerant landscaping, efficiency irrigation methods, low flow water fixtures and a changing attitude about the value of water. Water may soon be the new gold.*

*As we explore ways to use water more efficiently, capturing rainwater for non-potable uses is no longer something for the ultra liberal minded. At Mills College in Oakland, the new Natural Science Building captures rainwater from a roof gutter system that flows down an artful tiered waterfall into an above ground holding tank. What started in 2006 as a demonstration project to obtain a green building rating turned out to be a very practical water saving solution. The holding container is a recycled, 2000 gallon, Hellman’s mayonnaise tank and the water is successfully treated and pumped to the dual flush toilets and to the surrounding native landscape. Over 57,000 gallons of water are saved annually just from rain catchment and another*



**Mills College Natural Science Building  
Rain Catchment Fountain**

*280,000 gallons from the use of efficient fixtures. Karen Fiene, AIA, and Archie Held were the creative artists behind this reuse project and deserve high praise for their forward thinking.*

*The success of the science project spawned a second Mills project that also incorporates water*



*catchment in an artful display. The new Mills College Graduate School of Business, currently under construction, will collect rainwater from the roof that will dramatically fall 26 feet from a zinc butterfly roof to an iris pond before it is treated and reused. This water catchment feature was designed by Lafayette landscape architect, Ron Lutsko and BCJ Architects.*

*Mills College Graduate School of Business*

*While working on these projects, and as part of my experimental nature, a rain catchment system also landed in my backyard. Although not nearly as elaborate as the ones at Mills, a simple rain barrel now waters the nearby rose garden. Having experienced the joy and frugality of captured water to irrigate, it pains me to turn on the hose and pour drinking water on the ground. I can see that more experimenting is about to take place with a goal of eliminating the use of more domestic water in my garden.*



*Residential Rain Barrel*

*As many more products reach the market and water catchment becomes a reality in residential settings, consumers will find reasonably priced devices to boost water efficiency and capture water for reuse. Rain barrels have reappeared with the*

*advent of the drought and can be found at reasonable prices at your local hardware store. Some barrels have attachments that allow connection to multiple barrels increasing storage capacity as needed. Most containers under 100 gallons are easy to install. Containers large enough to supplement internal water use are also available and several local companies can assist homeowner in assessing size, materials needs as well as perform installation.*

*One word of caution for those shopping for the best price, take into account the location of your purchase. You could pay more in shipping than the actual price of the barrel. By shopping close to home, your purchase will not only save water but gasoline as well.*

*Another seed that I want to plant is that by asking or even demanding these products from suppliers you can increase their availability in the marketplace, possibly at lower prices. Remember that you, the consumer, drive the market place. What is your next project going to be?*

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