

Finding enough water for the Butchart Gardens

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Many of you have certainly heard of the beautiful Butchart Gardens in Victoria B.C. As you can imagine, when I visit a place like that I want to see more than just the flowers. So, David Clarke gave me a tour of the hidden side of the gardens: where their water comes from. What may surprise you as much as it did me is that although Vancouver is almost classified as a rain forest, parts of Vancouver Island, where Victoria is located, is almost a desert and has very little rain fall. So the reality is that rain alone will not keep these gardens green and red and blue and every other colour. As you can see in the second photo, everything needs watering part of the time. The trick is to realize that there is almost as much parking lot and walkway as there is green spaces, and when it does rain it often rains hard and much of the rain just runs off into the creeks, rather than into the ground. So if all the run-off could be recuperated and stored, it could last during dry spells, reducing or eliminating the need for tapping into underground wells or piping water from someplace else. So now the parking lots are carefully slopped to drain into the creeks, and the natural creeks are carefully maintained. Where they used to dump into the sea, there is now a series of catch basins that trap floating debris on the top and serve as an initial settling pond for soil. That makes for the very dirty looking third photo. From there, the water is pumped up into a series of reservoirs, each one allowing for more settlement as well as storage between rainfalls. The last pond is continuously aerated, to keep life in the water, before it is pumped into the high water tanks. From there, it flows back through the hoses that water and irrigate those beautiful gardens. Essentially, they are working very hard to cause water, that fell on parking lots, to fall, some time later, on growing areas. That about doubles the effective rainfall and gives great control over how much water is there. This system has almost totally supplanted the need for outside water in the Butchart Gardens. Many homeowners have similar water savings by using one or more rain barrels connected to the roof downspouts. I am told that 1 inch of rainfall on a thousand square foot roof will give you 600 gallons of water. That can water a lot of garden when the rain is not falling

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