

Water Conservation

AT VANDUSEN GARDEN

By Jill Cherry



Photo: Michael LeCroy

The underground water reservoir lies just west of the waterfall in the Sino-Himalayan Garden.

I overheard a comment at a recent garden event that the speaker had only started to think about water conservation as an issue for Vancouver as a result of learning about it at VanDusen Garden. Years of living on the 'wet' coast had led her to believe that this was an issue of concern for others to the south and east, but not really for us. My interest was two-fold. First, her surprise at finding out that conserving water is a growing and important issue for our area probably indicates that the public generally may not be aware. Secondly, I was delighted that she had learned of the issue from VanDusen Garden. This tells me that our conservation message is proving to be effective and that the Garden has the potential to make a significant contribution to conservation education.

In the March 2004 Bulletin I reported that the Vancouver Park Board was funding a study of water use at the Garden for the purpose of developing alternative strategies for reducing our dependence on the potable water supply. We now have that report, and it contains some really exciting possibilities that would allow VanDusen to not only practise sustainable water use but also to demonstrate it as an educational tool for greater public awareness and inspiration.

The Garden uses approximately 100,000 m³ of potable water annually. Of this amount about 60% is used for irrigation, with the balance consumed by facilities and water features. The report includes a redesign of the irrigation system

to increase its efficiency for better plant maintenance using less water. There are also site-specific recommendations for how the water in our lakes, streams and waterfalls could be recirculated.

Relative to alternative sources of water, the consultants first verified the structural integrity of the existing, on site, unutilized reservoir and determined that it has a capacity of 15,000 m³. The concept of directing stormwater from adjacent neighbourhoods into the Garden was found to be viable and relatively straightforward. The Shaughnessy development at the western end of the garden currently has separated sanitary and storm sewers, which could easily discharge water onto our site for storage in the reservoir. A filtering system could remove heavy oils and sediments, and the report suggests that a constructed wetland be installed at Forest Lake to further improve water quality. This wetland would be a demonstration of how stormwater can be cleaned through natural processes and would be a valuable interpretive tool for the Garden.

So far so good. However the challenge comes in the dry summer months, once the reservoir has been depleted, and there is no stormwater to replenish it. To solve this problem the consultants recommend we sink a well to tap into underground water, which would again be stored in the reservoir and used as necessary.

The report therefore recommends a combination of improvements. Now that we have a plan of action, it will be a question of implementation over time as funds permit. I expect that over the next few years we will make significant progress towards a more sustainable use of water at the Garden.

Jill Cherry is Director of VanDusen Garden