

## **Do You Know That Our Forests Impact Our Water Supply? I Didn't**

Dear Editor,

Although I looked into the issues and maybe signed some petitions, I never really got involved in the various campaigns on Bowen since my arrival in 2008. That changed when I heard about the Waterscapes document and water towers at the July 10 Muni Hall Meeting. I realized there was something different about this one.

Five days later, I found myself hesitatingly raising a pinkie at a community meeting indicating I was volunteering to assist a steering committee with their legal research. As a patent attorney who was trained to constantly describe the difference between this invention and that subject matter, my instinct guided me to start pointing out the differences between the forestry descriptions in FSP #643, which had been prepared for mainland forests, and Bowen's small island forest. I started asking questions about these differences, which I presumed existed.

Bob Turner described why Howe Sound Islands have thin soil, compared to the mainland forests, and Will Husby taught me about the role that the trees, soil, and cracks in the bedrock underneath, play in water collection and retention. Prior to this discussion, I had no idea that our forests were critical to our water supply! I would like to share this information with your readers:

- A small island in Howe Sound gets all of its water from rainfall.
- The forested hills & mountains on these small islands such as Mt. Gardner, Mt. Collins are giant water towers, that collect and store water year-round. They are part of "water batteries" for the islands; we draw the water during the dry months and the system re-charges it during the rainy months.
- The "water battery" has surface water systems (e.g., streams, lakes & reservoirs) and ground water systems (water that seeps into cracks in the bedrock, sand & gravel). Watersheds are areas collecting water from primarily surface water systems, but also can include water from ground water systems such as springs.
- The forests & forest soil are necessary to capture water when it rains, so it can flow into streams and infiltrate downward into the ground water system, where it is stored underground for use throughout the year. This is how it works:
  - The forest canopy breaks up the downpour of rain so the water sprinkles onto the soil, helping it to be taken up by the soil.

- The forest soil acts as a sponge retaining the water long enough for it to seep into streams and infiltrate the cracks in the bedrock underground.
- The soil-sponge on the Howe Sound islands is relatively thin because glaciers scraped the surfaces 10,000 years ago.
- The roots of the forest trees hold the thin soil-sponge in place. This is especially important on the steep slopes.
- When forests are logged and the roots die, the soil is easily eroded away.
- Loss of forest soil-sponge through erosion will damage the surface water system, by clogging streams, and filling lakes and reservoirs.
- Loss of forest soil-sponge will damage the ground water system by preventing the water from soaking into the cracks in the bedrock.
- Without the forests & soil, there is less water for the people who live on the island.

These are the facts on which I based my decision to join this campaign and I believe they are worthy for everyone to at least consider learning more about the fundamental issues involved. As our population grows, we increase the demand on the “water battery,” and thereby increase the need to keep the forests of the island healthy and intact. In my opinion, since most of our community lives around the outer edge of the island, we require the central forests to remain undisturbed so the system can recharge during the rainy seasons.

Finally, I am seeking to gather information from all perspectives on the impact of large and small logging projects on our water supply, and am welcome to receiving information at [MSwainDIF@gmail.com](mailto:MSwainDIF@gmail.com).

Sincerely,  
Margaret Swain, Ph.D., LLB.