

Part 1: Jogging the memory lane

Interviewee: Dr Hugh Thorpe

Interviewer: Dr MS Srinivasan

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Those who were on the Waikato River Hydro tour at the last (2015) Hydrological Society annual conference would have had the pleasure of listening to Dr. Hugh Thorpe's commentary on the development of hydro dams in New Zealand. After listening to the wealth of knowledge that he had to offer, I decided to record Hugh's professional work over the last several decades. Hugh is one of the pioneering groundwater hydrologists in New Zealand. Few weeks ago, I spent couple of hours with Hugh talking about his various hydrological adventures and activities over decades. As one can expect, they were diverse, filled with anecdotes, and importantly, very forward-thinking for those times, I plan to summarise our conversation as a multi-part story for the Current readers. Here is the first part where Hugh talks about his early days in hydrology --

“During the summer of 1957-1958 I was a student with a scholarship from the old Ministry of Works and Development, and part of that was that they arranged summer work for us. I was based at Palmerston North, and was working with what was called in those days the North Island Hydraulic Survey party. They didn't even use the term *hydrology*. We ranged over the southern half of the North Island, as far as Taranaki on the west and Gisborne on the east, and for me as a student it was just a fun, fun time travelling around. And all we were doing was servicing instruments, changing charts, checking the gear, doing gaugings, all that sort of stuff. Very absolutely basic hydrology.”

“During that time, I was involved in the first, as far as I'm aware, collection of suspended sediment samples of New Zealand rivers, and that was on the Whanganui River, because that is quite a turbid river. On that particular case on the Whanganui, we did our gauging of a cableway, about 1,100 feet long. We did our sampling by attaching a milk bottle vertically

above the bomb. And into that milk bottle there was a rubber bung with a string on it. And this would be laughed at these days I think in terms of sediment collection, but that's what we did. So that we lowered the bomb into position and then we yanked on the string, pull the plug out and the water poured in and we got a turbid sample. And then it was my responsibility when we got back to the laboratory in Palmerston North to analyse these. Whether it meant anything I have no idea. It was very tedious work in the laboratory.”

“I went back to do my final year of engineering degree and realised that really water was what I was interested in, but what I was interested in was fluid mechanics. I did a masters in fluid mechanics with Professor Frank Henderson who wrote a famous textbook on open channel flow. And then I went to do some ordinary civil engineering work with the Ministry of Works, although I did get back into hydrology a bit because I was based here in Christchurch, and it was the era in the late 1950s when there was a big bridge replacement programme. All we had really in those days was Technical Memorandum 61, or TM61, an empirical means of estimating flood flows based on catchment area and whatever rainfall data existed. I did a number of bridge investigations on both the Waimakariri and on the Waiau Rivers. And some of the tributaries. But then I got a scholarship, I went off to Britain to do a Ph.D in fluid mechanics. Coming back at the beginning at 1964.”