Eulogy for Brian Leonard McGRATH, PSM. BE, BSc, FIEAust, CPEng(Ret).

Brian Leonard McGrath Bom 23rd February 1937 Died 4th August 2016

Trying to give justice to the life between these bland dates is not a simple task. Dad was an Engineer, Dad was a Family man, Dad enjoyed sports and travel, and Dad was a strong contributor to the local community. I'll briefly touch on each of these areas in an attempt to paint you a portrait of my father.

Firstly, Dad the Engineer

Dad attended primary school at St Joachim's Convent School followed by high school at St Joseph's College Gregory Terrace. In Year 10 he had decided to quit school and seek employment, it took a call from the school Principal to dissuade him from that course. This proved to be a wise decision, with Dad achieving 13th place in the Year 12 state rankings, and subsequently the offer of a choice of scholarships at Uni. He was interested in maths and science, perhaps influenced by his Industrial Chemist father Len and school teacher mother Maureen. He chose to accept a State Government Fellowship with the Coordinator General's Department to study engineering.

Dad had fond memories of his university days. Dad drove his fellow students on field trips in his cloth-hood Standard 8 and they played a lot of 500, even to the extent of surreptitiously playing through lectures. His thesis was in soil mechanics, and one of his first jobs on graduation was to undertake soil testing for the design of grain silos in Warra and Macalister.

Following his degree, Dad started work with the Coordinator General's Department, with his first major project the Barron River Hydro-electric Project.

One of the structures Dad designed in this project was the access bridge to the site. If you drive up the gorge from Cairns, walk across this bridge, and look down, you'll see that the

footings for the bridge are off-centre. The Minister opening the power station apparently thought the eccentric footings were a construction error, and Dad had to do some hurried explanations of forces and moments to reassure the Minister that the eccentric piers were really a design feature.

Dad analysed the two surge tank supply tunnel for the hydropower station using a computer program. This may sound a relatively simple task, but there was not a single computer in Queensland at the time. The University of Sydney had this new-fangled machine called SILLIAC, one of the first computers built in the Southern Hemisphere.

SILLIAC was the size of a double decker bus, contained 2800 vacuum tubes and accepted input via punched paper tape. Dad wrote the surge analysis program in binary and ran it on SILLIAC. This was almost certainly the first computer program written in Queensland. Following the success of this exercise, Brian advised the Committee which had been set up to purchase the first computer for Queensland in 1962.

In his early career Dad developed an intense interest in Coastal Engineering. He worked on a range of coastal projects including dredging for the Port of Brisbane, installation of navigational aids in Moreton Bay and organization of hydrographic surveying systems. He assisted in drafting the legislation for the Queensland Beach Protection Authority, and was appointed Engineer to this body at its inception.

In 1969 Dad went to the Netherlands to work with the Delft Laboratory on investigations into coastal erosion at the Gold Coast beaches. These landmark investigations provided the blueprint for a range of works to address the severe erosion being experienced at the Gold Coast.

In addition to enjoying the European experience and solving the coastal erosion issue, Mum and Dad found time to have their first child. me.

Returning from the Netherlands, Dad and the Beach Protection Authority moved to the Department of Harbours and Marine. Dad was later appointed to a new branch dealing with the provision of facilities for small craft, such as harbours, jetties, boat ramps and navigation channels.

After a promotion, Dad oversaw a range of major coastal projects including new coal ports at Abbot Point and Dalrymple Bay and the Townsville Fishermen's Marina. Later Dad was appointed Director of Engineering Services for Harbours and Marine, and in 1991 Dad retired from the public service, after a career spanning 36 years.

Late in his career Dad had the pleasure of supervising the production of a comprehensive history of the Harbours and Marine Department, the resultant book being one of the symbols brought forward earlier.

Dad has been a long term supporter of Engineers Australia, which he joined in 1957. Dad served on a wide range of committees, including as Chair of Queensland Division. He was a foundation member of the Engineers Australia National Committee on Coastal and Ocean Engineering. Over the past decade he has been active on the Engineering Heritage Panel, organizing the recognition of engineering heritage sites around Queensland. He was known for his work ethic, humility and professionalism in undertaking these volunteer activities.

In acknowledgement of his long career serving the public good, Dad was gratified to be awarded the Public Service Medal in the Australia Day Honours list in 1992.

Next, Dad, the Family Man

Dad was the eldest of four children, his sisters Lyn, Libby and Maureen are here today. His parents, Len and Maureen, had a long and successful marriage, providing a strong template for family life.

Dad married Mum in 1968, a union of Catholic and Anglican, of city and country. Dad loved the beach, Mum loved the bush. An unlikely, but successful union, lasting nearly the golden 50 years.

Soon enough, I, John, and Julie arrived on the scene. As luck would have it, two of Dad's sisters, and Mum's brother, also started families at about the same time. This happy coincidence led to John, Julie and I having a number of cousins our own age. A range of family events – the big family Christmases, camping holidays around Queensland, and

working holidays in the bush, were thus undertaken with families similar to ours. It provided an idyllic childhood, one from which I have many happy memories.

In time we kids grew up. John and I chose engineering, and there is no denying that the strong example provided by Dad, not to mention his practical mathematical genes, had a lot of influence on that. Julie somehow resisted the pressure and chose science, but after graduation and spending months locked up in a tiny lab operating on crayfish, wanted a job where she could meet interesting people. She chose the police, so fulfilled that wish.

I married Ruth, and the Grahams were welcomed into the extended McGrath family. Julie married Trader, which brought the Schmidts into the fold. Before too long grandchildren started to appear. Six grandchildren in total. 3 city girls and 3 country boys. There's symmetry there, certainly not the only influence our parents have had on our own families.

Dad had some trouble in coming to terms with John's relationships, but, over time, he did come to terms with this, accepting John's partner Steve into the family.

In preparing this address I asked each of the grandchildren for a happy memory associated with Grandpa. The answers I received provide you with a kaleidoscope image of what Grandpa was to his grandchildren. They remembered: Grandpa coming to a birthday party dressed as a garden bug; Collecting eggs with Grandpa from the chook pen; Playing cricket and chasey with Grandpa in the backyard; Climbing the pole in Grandpa's house; Catching their first fish with Grandpa; Grandpa's really good jokes; and Grandpa just being a great Grandpa. Not much I can add to that.

Next, Dad the Sportsman

Dad enjoyed his sport, both playing and watching. As Cox of the Gregory Terrace Second Four he calculated the stroke rate and best course to win the Novice Fours in the University of Queensland 1954 Regatta. He was an avid squash player, and later on tennis and golf became passions. He enjoyed cricket, he was often the scorer or umpire for my junior cricket matches, and in later years we enjoyed watching cricket at the Gabba.

But his favourite sport was fishing. Despite being completely allergic to all seafood, and spending his working life in coastal engineering, Dad's relaxation activity of choice was to go fishing at the beach.

In the early days the family holidayed at Noosa, before the purchase of the lots at Tin Can Bay made that the destination of choice. Many in the extended family have enjoyed a relaxing break at Tin Can Bay. Miss K, a boat Dad built with his father, sits in the garage for trips out into the bay, or Dad would drive to Teewah Beach for some beach fishing. But more often than not Dad would simply wade out into the high tide in front of Toolara, catching a feed of whiting or flathead in the thigh deep water.

School fishing club trips were a semi-annual occurrence at Gregory Terrace, with Dad's expertise helping us kids to score well in the fishing competition. For a number of years the Fraser fishing trip was a milestone, a week of camping and fishing with relatives and friends chasing the tailor schools. In later years it was deep sea fishing - I still have a few fish in the freezer from the last trip. The fish were not always cooperative, but the fresh air, company and memories were always good.

Next, Dad the Traveler

Dad enjoyed travel and he was an expert at organizing trips. As a family we visited many of the National Parks around Queensland over the years. We were members of the Toyota Landcruiser Club, combining four wheel driving with many of these camping trips. Dad enjoyed creating a record of these excursions, in the early days it was home slide shows, in later years Dad created photo diaries of his travels.

After retirement Dad took this expertise to the Royal Geographical Society of Queensland, where he was a key part of the organization for a number of expeditions. I'll just highlight one, the Pungalina Scientific Study. The Pungalina Seven Emus Sanctuary is a 3000 square km nature reserve in the remote north-east corner of the Northern Territory. Over a period of a month some 60 odd scientists from all over the world came to study the unique flora, fauna and geology of this remote location. Dad was the site manager for this expedition, with overall responsibility for all site logistics, including accommodation, camp supplies, cooking, waste management and health and safety.

There is more than one use for toilet paper in the bush. There was an accident on this trip, a severe eye injury, and Dad organized for the Flying Doctor to come in at midnight to pick up the injured party. He organized 6 volunteers with diesel soaked toilet rolls around the runway, the rolls were lit simultaneously to guide the plane in to the remote airstrip. Dad applied his professionalism to everything he did, he could always be relied on to manage day to day logistics or to deal with an emergency.

Last but not least, Dad's involvement in the Local Community

Dad was an active member of the Holy Family Parish for over 40 years. All three of us kids went to the primary school here at Holy Family, and Mum and Dad were very active in supporting the school. This involvement has continued in the years since, with Dad filling a host of roles including a stint as President of the Parish Council, and for the last decade or so he coordinated the mowing detail for the parish. Dad attended mass here nearly every Sunday, and he made life-long friends in the Holy Family community, many of whom are here today.

In conclusion, while we are all saddened by his passing, Queensland is a better place for his having lived. Dad's engineering legacy endures. You can see Dad in the grain silos at Warra, the hydropower station in the Barron Gorge, the beautiful beaches at the Gold Coast, and in numerous ports and harbours all around the state. You can see Dad in his three children and six grandchildren. You can see Dad in all of you who were influenced by his guidance, professionalism and friendship.

Thank-you Dad.

Eulogy given at the Requiem Mass for Brian Leonard McGrath
Held at Holy Family Catholic Church, Indooroopilly, 16 August 2016
By his son, Toby McGrath

http://www.abc.net.au/radionational/programs/scienceshow/silliac---australias-first-supercomputer-built-50/3384532

^{*} http://www.rgsq.org.au/2012Punga