

DSM2UG *people*

Being a Kid, Raising Great Kids, Playing with Grandkids

I grew up in southern California, living in a tract house in Saugus (near Magic Mountain). The main road was San Francisquito Canyon, downstream from the infamous Saint Francis Dam (failed in 1928) and one of the LADWP hydropower plants along the LA Aqueduct. I hiked along the LA

aqueduct pipe on the ridge behind our house and watched giant pipe transport vehicles lay the pipeline from Castaic Lake to San Fernando Valley (for Delta water). So maybe that was why I ended up in water resources!

My family (four kids) would go to Knott's Berry Farm and Disneyland (I was 3 when it opened) each summer; my friends and I would build small versions of the caves, tree forts, railroad trestles, swinging bridges and water ponds, just like Tom Sawyer's Island. This was my first experience with scale models. My Dad helped me build an HO model railroad – it was mounted on ropes and pulleys from the ceiling so we could raise it to save space in our play room. This was my first experience with engineering.

My life through high school was completely normal except that I skipped 2nd grade (I can't spell) and 6th grade (I missed building a California Mission

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Russ at home on his birthday this year with two of his youngest grandchildren.

model). I learned to drive in my Dad's MGA (British sports car), and I drove off to college at UC Santa Cruz in my brown Mustang when I was just 16. I lived with my grandmother and worked summers at the Santa Cruz Lumber Company store, loading pickups. Each summer my family had visited my grandparent's cabin in Ben Lomond, playing along the creek and hiking in the redwoods. We now own half of my grandfather's land and often stay in my uncle's cabin and relax in our two-story deck (built inside a "redwood ring" with 12 trees), ride our 400-ft long zip line, hike along the logging roads (my kids ride dirt-bikes), or watch our grandkids play in the creek.

I transferred to UC Irvine because I was interested in civil and environmental engineering; so I switched

from being a “banana slug” to an “anteater”. I was greatly influenced by watching the Undersea World of Jacques Cousteau, and thought I wanted to help protect our ocean resources. It was 1970, we had just landed on the Moon (and completed Clifton Court Forebay), but I thought I should study to become a steward (wise user and caretaker) of our most important natural resource – water. I used a side-rule for all of my homework, but there was a new thing in the computer-engineering department – a room full of terminals connected to the IBM mainframe. You could type lines of code and watch simple graphics. Most jobs were submitted on card decks and the results were printed on computer paper (no memory). I enjoyed living in the dorms at UC Irvine and met my future wife, Judy, at Christian student activities (Bible studies and worship groups).

I graduated in 1972 with a draft lottery number of 65- ready for Vietnam. But at my physical exam they found I had sugar in my urine (diabetes) and told me to see a doctor. I went to MIT for a Master’s Degree in Ocean Engineering after all, to study breakwaters, submersibles and oil platforms; my research project was underwater welding (seriously) which was my introduction to heat transfer (I’m still working on water temperature models).

Judy and I were married in July 1974 in West Covina and our honeymoon was a month-long camping trip up the coast to Vancouver B.C. and across the country to Boston MA in a Volkswagen van. Judy and I began our married life as “advisors” in one of the undergraduate dorms at MIT, which had become co-ed for the first time; we went on many day-trips and dinner adventures around Boston with students and held study breaks every Tuesday



Five of Russ’ grandkids with their new cowboy hats and boots last Christmas

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Russ just landing after first ride on our 400-foot long zip-line in the Santa Cruz Redwoods

night. We travelled around the east coast to see the colonial and revolutionary war historical sites, sometimes with students. The van engine needed rebuilding, so I took out the engine and rebuilt it in the dorm hallway, with some help from the mechanical engineers. I had switched to water resources in Civil Engineering and worked on a research project evaluating the colonization rate of marine organisms on sampling plates within the thermal plume of Millstone nuclear power plant; I never knew what they might have done if there was an effect. This was my first research in coastal

zone monitoring; I hoped I was following Jacques Cousteau to high adventure, but our analysis was done with punched cards and statistical indices.

My advisor thought I should try applying for a graduate research grant with the US Army Corps of Engineers at Waterways Experiment Station (hydraulic model laboratory) in Vicksburg, MS where he was a consultant on reservoir stratification projects. After finishing my courses, we moved in a station wagon with a trailer made from a pickup to Vicksburg, camping and visiting historic sites on the way. I was working with a group of people developing computer models (instead of hydraulic models) to study reservoirs, rivers and estuaries (places the USACE built things). I was applying their

new reservoir models (CE-QUAL-1 and -2) to match water quality data from a reservoir in Iowa – was it more like a river or a lake? After a year we lived in Davis (HEC) for a month to learn to use the WQRRS model that HEC had developed as a combined reservoir-river model. We expected that every reservoir and every river in America would soon each have model, with data to provide the inputs and calibrate the coefficients; I am surprised that 40 years later we haven't quite finished this task. We moved back to write my thesis and lived in my advisor's Victorian house (fully restored) in Lexington for 6 months while he was on sabbatical in Vienna.

My first job after finishing my PhD in 1978 was at the Tennessee Valley Authority Engineering Laboratory in Norris TN, near Knoxville. This was in the town that had been constructed for the workers building Norris Dam starting in 1936; the stone houses for the married engineers still provide nice homes along the winding roads – what a beautiful place for the hydraulics lab. Several of us would run during lunch through the woods around town. My project was to analyze the hourly water temperature that were being collected in the reservoirs, upstream and downstream of the steam and nuclear power plant; we were monitoring the thermal effects on fish, and was developing hourly water temperature models and producing color graphs on an early HP color pen printer. I was part of the transition from hydraulic models and hand measurements to computer calculations and remote monitoring. I'm still working with hourly water temperature models and producing lots of color graphs. I was working on a simple 2-D box model for reservoirs (35 in TVA)- with the idea to show the measured data and the calculated flows, temperatures, DO, turbidity and algae together – always data plus model results.

This is still my basic approach, "work with data in the mornings and use models only in the afternoon".

We had our first son, Jeremy, in Vicksburg, and two more sons, Gabriel and Noah in Knoxville. We were fascinated with Victorian houses, and decided we would buy one to fix up while we lived in it with our small boys. So I had two jobs, temperatures and reservoir modeling in the day and patching lath and plaster walls, and wallpaper and painting at night. It was a giant two-story house with way too many things to repair; we never finished the remodeling, but moved to Cookeville to teach hydrology advise graduate students in water quality modeling at Tennessee Tech. I enjoyed my years there working with students on several research projects (reservoirs and water quality). Our daughter, Meadow, was born in Cookeville, and we had some happy years raising four kids in the wooded hills of Tennessee. I even had a pickup truck for a couple of years. We

bought a big blue Dodge van to travel around in (before minivans) and we had several camping trips and summer vacations in our van. When we left Tennessee for Sacramento in 1989, we loaded two large U-Haul trucks and the van and drove with my parents help across the country again. We had enjoyed our years living and traveling in the east and south but we were very happy to return to California and our families (cousins to play with).

Our life in Sacramento has been great fun. We bought a house in Carmichael (out of the floodplain in the Arcade Creek watershed) and our kids went to Del Campo high school. During their school years our boys were in scouts, on baseball and soccer teams, while Meadow was in 4-H (horses) and in ballet dancing classes. We went to church as a family and Judy and I taught Sunday school classes when our kids were in school; Judy and I still teach classes at our church, but our kids are going to other churches. I particularly enjoy teaching about God's

Russ and Judy
visiting Yosemite
(Glacier Point)
with half dome
in background
(just before it
slipped)



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creation- the beautiful and glorious natural world that isn't natural at all. As a hydrologist, one of my favorite passages in the Bible is found in Isaiah 55: 9-11 "For as the heavens are higher than the earth, so are my ways higher than your ways and my thoughts than your thoughts; and as the rain and the snow come down from heaven and do not return to it without watering the earth and making it bud and flourish so that it yields seed for the sower and bread for the eater, so is my word that goes forth from my mouth, it will not return to me empty but will accomplish what I desire and achieve the purpose for which I sent it." Our kids went to summer camp at Hume Lake in Kings Canyon National Park. Judy and I would often camp along the Kings River while our kids were at camp; we enjoyed walking along the river or through the Sequoia groves and meadows where John Muir once roamed. We have been to most of the western National Parks and scenic wonders in California. "Your Love O Lord reaches to the heavens, your faithfulness to the skies, your righteousness is like the mighty mountains, your justice like the great deep sea" Psalm 36:5-6.

Russ likes to ride on old steam railroads, like this lumber train near Yosemite

I enjoy reading historical-fiction thrillers, with adventures in far-away places and long-ago events. Clive Cussler, for example, combines ocean adventures with historical and scientific stories. I also read lots of "boring" books about water development projects; I have recently read several books about the railroads, tunnels and dams in the Sierra Nevada, like the SCE Big Creek project on the San Joaquin, the Yosemite Railroad on the Merced, the Hetch-Hetchy railroad, tunnels and dam on the Tuolumne, and other dams and aqueducts on California Rivers. I am always ready to ride steam railroads. This summer we were in Yosemite (at Wawona) and rode on the Yosemite Mountain Sugar Pine railroad, and stayed at Shaver Lake and visited the Big Creek project reservoirs (they are almost empty); we even made it to Edison Lake (what a road).

We always have birthday parties for everyone in the family; since we have four kids with spouses and nine grandkids, and relatives nearby, I estimate that we have about 25 parties each year (usually pizza



and always cake and ice cream). We have a list of about 10 different birthday songs that we always sing. We are likely to have a party every other weekend. We have a few other fun habits – we always go to the Strauss Festival in Elk Grove (open air dancing with orchestra); Meadow was in the Polka dancers group one year. And we always go to the State Fair and often to the County Fair to see the animals, since we don't live on a farm but wish we did. I always get a corn on the cobb on a stick, and this year I bought a carved wooden sign that says "Delta Dreaming" for my office door. We often go up to South Lake Tahoe because Judy's sister lives there; we like visiting the historic sites and walking to different lakes and water falls and meadows (nothing too strenuous).

We have had some great trips in recent years. Our first trip with passports was to France for a three week trip after Meadow spent her junior year studying abroad in Paris. We were in Paris for a week and then traveled in a loop through parts of France and Switzerland in a rental car; this was really fun since Meadow could communicate and help navigate through the beautiful countryside. Our next big trip was to Brazzaville (Congo) to visit with our son Jeremy and his wife Sara and their first son, Peregrine. They had lived in France for a year learning French because that is the government language in the Republic of Congo. They work on a team that is helping local translators from five languages translate parts of the Bible. This includes writing these languages for the first time (alphabet, grammar, and dictionary) and checking that the basic meaning of the Bible stories and promises are accurately described in these languages. Jeremy's part is creating videos with the spoken and written words on a series of picture backgrounds; not quite movies,



but requiring lots of computer skills. The most likely media will be cell phone apps, since everyone in Africa has one. You can read more about this Bible translation project on their website: <http://illuminatingtheword.com/>

Visiting Brazzaville for two weeks with them was quite an experience; seeing a developing nation's capital was just like the TV news, with very poor people living in very primitive conditions. While there I helped Jeremy build an octagonal fort (two levels) and a swing frame for the kids living in their center (walled office and apartment buildings) – using a rotary saw to make some complex joints. We went with them to a small resort on the coast (Point Noir) where we were the only families staying – very relaxing, and Judy and I stopped in Paris for a week on the way home, since Air France is the major airline (one flight each day) to Brazzaville.

Two years ago we went on a two-week River Cruise from Amsterdam to Vienna, traveling to a new city

Russ at an old bridge over a canal Lock in Amsterdam at the start of his River Cruise

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Russ with wife Judy and four kids and spouses and nine grandchildren- last year in Apple Hill

each night along the Rhine, Main, and Danube Rivers. This was a totally luxurious way to travel and I really enjoyed seeing these rivers and the locks and dams with hydropower generation and bridges and ports; these rivers really are packed with transport boats, barges and cruise boats. Each day there was another historic town to visit, and we spent 3 days in Amsterdam and 3 days in Vienna. What a perfect blend of hydraulic engineering and historical sites, music and exploration. To read and see more, look at my travel blog: riverroaming@blogspot.com. Last year, for our fortieth anniversary, we returned to Boston and visited many of the historic colonial sites, ate seafood and Italian food and walked on the streets of Old Boston, and then drove up the coast of Maine and New Brunswick, across to Nova Scotia and Prince Edward Island, and to Quebec City and Montreal. We stayed in historic inns and old hotels, saw many interesting places, several historic villages (restored), and rode ferries and scenic boat tours in Quebec and Montreal. Travelling to historic sites

and natural wonders (rivers) is certainly one of my favorite things to do.

But why would we travel when most of our grandkids live right here in Sacramento? This is definitely my favorite part of my life these last eight years. I enjoy playing with each of them, on the floor with wooden trains, cars or dolls. I like taking them on wagon rides around the neighborhood – how many kids can you fit into one wagon? We walk to the park and play on the swings and slides and climbing equipment. As the kids get older we have gone camping and hiking and ride the zip-line and play in our creek together. We have sleep-overs together; we had six of them over last month for one night. Being a grandpa is a lot easier than being a Dad or Mom – since you can send them home at night or when they get fussy. I love every moment I have with any of them – nine breathing air and at least one more coming soon.

I have always enjoyed attending technical meetings and workshops- in various cities around the country. When I was at TVA I regularly attended ASCE hydraulic engineering conferences – often travelling with my family and vacationing the week before or after. We also had annual meetings with TVA, USACE and USBR reservoir modeling groups. In California I have worked on Delta projects like Delta Wetlands or SDIP and have attended every IEP meeting since 1990 (at Asilomar or Lodi or Folsom) to learn more about the fish. And I have attended all of the CWEMF annual meetings and lots of workshops. I enjoy listening to what others are doing and considering new ideas or approaches to hydrology and water quality and fish habitat analysis. This is why I try to attend the DSM2 group meetings. Asking questions seems a natural way to learn more.