

National Officers:
James (Jim) E. Kircher, President
Alberto (Al) Condes, Vice President
Clarence (Andy) Anderson, Secretary
Cathy Hill, Treasurer
Richard (Dick) Engberg, Archivist

Regional Directors:
James (Jay) Kiesler, Northeast
Jeffrey (Jeff) T. Armbruster, Southeast
C.R. (Bob) Burchett, Central
E. James (Jim) Crompton, Western

Newsletter Staff:
Editor: Daniel (Dan) Fitzpatrick
Layout Editor: Merilee Bennett
NR: Dorothy Tepper
SR: Vivian Olcott
CR: James Bennett
WR: John Klein

Address:
WRD Retirees
P.O. Box 280
Herndon, VA 20172-0280
Phone (703) 648-5641
Web Page: <http://wrdretirees.org/>
Email: wrdretirees2014@gmail.com

USGS RETIREES

NEWSLETTER 175

May 2017

An organization of retirees of the U.S. Geological Survey, whose purpose is to keep its members in touch with each other and their former agency.

PRESIDENT'S MESSAGE

Hope this newsletter finds all of you doing well. I hope everyone is having a great year. We have a great group working on our next reunion in 2018 and Jeff Stoner has included a short writeup on what we know so far about that reunion in Minnesota. Thank you to all the volunteers helping put that together.

One of the things we decided at the last reunion was going completely electronic for the newsletter and directory unless you let us know you want a hard copy. We are short on volunteers to stuff envelopes for these mailings and they are costly as well. Please let Andy Anderson (wrdretirees2014@gmail.co) or me (jekircher73@gmail.com) know if you want to have a hard copy. We have heard from a few but it appears most of you are happy with an electronic copy.

This is also a reminder to all the state reps to stay in touch with the local office on a regular basis so that we can keep apprised of recent retirements, retirees and other activities. We don't get notifications like we used to. Thank you for all you do for the retirees.

I hope all of you are doing well and look forward to hearing from you. I am still hoping someone will give me some new ideas or even volunteer to help with the organization. A volunteer organization needs lots of volunteers. Please drop me an email or give me a call (303-638-3404) with any ideas you may have or if you are willing to help in any way.



NINETEENTH USGS RETIREES REUNION 2018
SAVE THE DATES

The next Reunion is set for September 13-15, 2018 in the Twin Cities area of Minnesota.

We have a signed agreement with the Crowne Plaza Aire Hotel for a reasonable guest room rate that will include breakfast. This hotel www.crowneplazaaire.com is conveniently located near the airport, Minnesota River Valley Wildlife Refuge, light rail to downtown Minneapolis, and the Mall of America. The agreement includes holding the reunion room rate for three nights prior to and after the reunion dates.

The committee members include a diverse group of volunteers from various states: Mark Have, Jim Stark, Don Hansen, and Linda Stoner (Minnesota), Gregg Wiche (North Dakota), Ken and Judy Lindskov (South Dakota), Marv Sherrill (Wisconsin), and Lee Case (Arizona).

So, mark your calendars and plan for a fun stay and regrouping in the land of 10,000 lakes, with the headwaters of the Mississippi River thrown in at no extra charge. As has been in the past, the 2018 February newsletter will include detailed information regarding the meeting agenda, field trips, and registration information. Also, watch for updates on the WRD website (<http://www.wrdretirees.org/reunions.html>) as the web page develops with more information about the reunion.

Feel free to contact the Local Arrangements Committee Chair, Jeff Stoner (J_stoner@comcast.net), if you have any questions.

MEETINGS & GATHERINGS

RETIREES' LUNCHEON – RESTON, VA February 6, 2017



Pierre Glynn is speaking about dynamic habitats, social interactions, and animal intelligence in Rocky Mountain National Park. How are our behaviors and habitats affected by our changing world? What are some implications for the adaptability of human societies and biotic communities?

RETIREES' LUNCHEON – RESTON, VA March 6, 2017



Bill Cannon spoke on the Sudbury, Ontario Meteorite Impact Crater: 55 years of rethinking a major extraterrestrial event. The impact occurred about 1.9 billion years ago. Toward the right side of the photo are some of the spouses who also attend the luncheons.

RETIREMENT PARTY
Sunset Lanai, Camp Smith Marine Corps Base
Hawaii
February 17, 2017



Members of the Hawaii WRD Retirees joined Ron Rickman's retirement party, to welcome Ron into our group. Ron retired from USGS Pacific Islands Water Science Center.

TEXAS RETIREES' LUNCHEON
Blanco, TX
March 15, 2017



The Texas WRD Retirees met for lunch in Blanco, Texas on March 15, 2017. We more than doubled our number of attendees. We usually have a turnout of three when we meet in Austin; in Blanco we had seven people show up. We enjoyed a nice visit and a good lunch. Our friend and colleague Willard Gibbons selected the cafe for us. After lunch Frank Wells and I went to Willard's home to see his new pool table. It looks great but something is wrong with it as I lost both games of 8-Ball that I attempted to play. Attached is a photo of our happy and good looking group. The group from left to right: Willard Gibbons, Frank Wells, Rea Wiruscheske, Paul Rhone, Bob Burchett, Virginia Sauer and Stan Sauer.

-contributed by Bob Burchett

WISCONSIN RETIREES' LUNCHEON
February 28, 2017



Starting from left around the table: Bill Krug (side of face), Tom Wittwer, Rick Grover, Warren Gebert, Dianne Maertz, Pat Stark, Jan Fuller, Dan Olson, Steve March, Nick Hanson, Gerry Goddard, Herb Garn (mostly hidden), Dale Cotter, Steve Fields, Dan Bauer, Bill Rose, Charlie Peters (photographer)

NEWS OF RETIREES

Colleen Babcock writes: Please apy to dues thru 2020 and the rest to the scholarship fund.

Denny Cline writes: Last May, Dorothy and I flew to Texas and drove to Galveston to see our granddaughter graduate from Texas medical school as a doctor. Dorothy and I drove to our daughter's home in Cannon Beach, OR for Thanksgiving and again for Presidents' Day weekend. We saw many of her family and our great-granddaughter who was 1 year old in January. She had just started walking on our first visit and was running on our second visit. Everyone enjoyed watching and playing with her.

Vince Giusti in Italy writes: I believe the enclosed check will carry me through 2019. Thanks for keeping us informed, no matter where we are.

George Gravlee writes: Dian and I continue to reside in Greenwood, SC, but are still traveling a good deal to build with Habitat for Humanity. In 2014, we reached our goal of helping to build a house in all 50 states, with North Dakota being our last state; Hawaii was the first state back in 1993. We have down sized our motor home to a 25 foot model and find that easier to drive since we aren't getting any younger. While on the road we visit our two children in Connecticut and Ohio and have now added visits to grandchildren, who are attending colleges in Washington, Ohio and Virginia.



Jo Ann Huffman writes: Curt and I continue to enjoy family, friends and some traveling. In August, we spent a week in South Carolina at the beach with my grandson, Deryk, his wife, Michelle, their children (4), and Michelle's family. Her parents rented a large beach house and we enjoyed sharing that time together. Our hiking group spent three days in Palisades, CO, where we enjoyed hiking on the Grand Mesa. Also, found time for some wine tasting and good food. I made two trips to Anna Maria Island, FL last year to visit friends. We went back for three weeks in March. I love our Colorado winters and never

thought I would be a snow bird, but the island keeps calling. Our stays are never quite long enough. **Nancy and Jim Bley** invited us to join them for a week in the Sonoma Valley, CA for more wine tasting, a day at Bodega Bay on the ocean, and just fun times together. Much of our time has been spent working on our summer cabin project south of Poncha Pass, CO. It was finally finished and we moved in last November, just in time to winterize and close down for the season. We are looking forward to good times there this summer. Our families are all doing well. They have busy lives and keep us busy too, trying to keep up.

Irwin Kantrowitz writes: I see that I'm in arrears for my dues so I'm sending a check to cover me through 2018 plus a self-assessed fine. I had a coronary event in September which resulted in bypass surgery. Worked hard at recovery and am now back to bicycling 35 miles two or three times a week and walking 3 miles on the other days. I missed my birthday ride of 79 miles this year but hope to do 80 (maybe kilometers) next year.

Bill Kirby writes: Many thanks for your efforts in producing the newsletter and directory, and other activities. My check is enclosed for dues 2015-2017.

Darwin Knochenmus writes: I'm sorry for being so delinquent with paying my dues. I want to continue as an active member. Thanks for all you do.

Jim Miller writes: Enclosed are my dues through 2017 and a little something for the scholarship fund. I am still working for Habitat for Humanity two or three days a week as a carpenter and I love it. The program is not a charity – homeowners pay an interest-free mortgage and we, as volunteers, help give them a hand up instead of a handout. This will be my 27th build season with Habitat and I have met hundreds of great volunteers, dozens of great homeowners, and have shaken hands with Jimmy Carter twice as a house leader

on two “Carter Builds.” I recommend that anyone interested contact their local Habitat affiliate to see where and how you can serve. The program can use help in numerous roles, not just “swinging a hammer.”

Fred Morris III writes: I would like to continue receiving the newsletter by snail-mail only. Do not remember how much dues are. Hope this check catches me up. (*P.S. Tell Andy, I said hello.*)

Daisie Oden writes: Happy New Year! I’m good to receive the newsletter and directory electronically and saving money. Blessings.

Mrs. Earl Smith (Elizabeth) writes: This is a small donation to the scholarship program, I don't know when I made the last donation. For friends old enough to remember in the Philadelphia and Spokane Offices, I am the widow of Earl Smith, I turned 96 years old in July last year and when questioned I reply "still alive and kicking".

Tim Smith writes: Today I want to tell you about “How I Was Fired by the Geological Survey.” Now that I have your attention, I'll tell you a funny story that happened to me when I first encountered the USGS. The year was 1960, and I was just completing my degree in physics at college in New York City. Like many seniors, I looked over the list of organizations that were recruiting that year, with a view to starting a career in science. I had long believed that my interest in science could also lead to a rewarding career.

Among those on the board was the U.S. Geological Survey, which turned out to be the WRD office in Albany. I knew the USGS mostly from the mapping quadrangles, which like others I bought, in my case to help find places for rock collecting. Looks like I got hooked on earth science early on, and to be honest I still have a lot of mineral specimens around the house, even a dinosaur footprint.

All my interviews went well, since I had good marks. When I was called back by the fellow who represented the USGS, he seemed very embarrassed. He told me that they were authorized to hire people who had a degree in engineering, but my degree was in physics. Thus, he could not offer me a position with USGS. This was my first acquaintance with bureaucracy in action, but as it turns out not the last.

So, I never did get that job. Instead I took a job as a structural dynamics engineer (ha ha) with an aerospace company in Baltimore and went off to design intercontinental ballistic missiles. Guess I really was a rocket scientist at one point. I did not encounter the USGS again until 1974, when I was finishing up my Ph.D. At that point I joined the Resource and Land Investigations (RALI) Program at the National Center in Reston. Note that this job was still not in WRD, so maybe I'll continue the story of my adventures with the Survey in a future issue.

I bet a lot of you have similar interesting stories. Why not send them in?

Jeff Stoner writes: My wife, Linda, and I are enjoying retirement in Minnesota where we have many opportunities to be with our two grandsons. We keep busy with travel and re-maintaining structures of our home and a relatively-new-to-us lake cabin in northwestern Wisconsin. I have been fading in and out of volunteer work. The most recent “fading out” was participation in a workgroup of the Minnesota Ground Water Association to prepare a white paper on Minnesota Groundwater Education Gaps. A desired outcome is for better use and management of the state’s groundwater through discussion and actions to improve groundwater education of students in primary and secondary systems. Let me know if you’d like to see this paper. I’d be interested in any feedback or perspective from your experiences. We hope to see many of you at the 2018 Retiree’s Reunion in Minnesota!

Please apply this to my dues for 2017 and 2018.

Andy, it was great to meet you in person at Nashville.

Gary Turney writes: Hello to everyone from Washington! My wife Sue and I have been busy enjoying retirement since 2010, so I thought it was about time I checked in. First, business - I've mailed a check to cover dues for 2017 and 2018, please put the rest towards the Hydrotech fund. And thanks for all you do with the newsletter, it's interesting to see what everyone is up to. Sue and I recently wrapped up our annual ski trip to Tahoe, Utah, and Colorado. We buy a Vail Epic Pass each year (any skiers will know about this) and are

fortunate to be able to hit the road and use it for all it's worth for about 6-7 weeks. Our two Pomeranians, Molly and Maggie, accompany us along the way, though they weren't real fans of the 5-foot snow drifts in Tahoe. This year's bonus got us a few days in Whistler BC too. We have kids in Boise so we get to see them along the way. Travel is our first love, so around the skiing we've spent a few springs in Greece, Italy, and most recently, in 2016, Spain. The Spain trip included walking the Camino de Santiago pilgrimage. Literally the trip of a lifetime! We walked the entire 500 miles, packing everything to boot! It's not exactly the Appalachian Trail, but is challenging in its own way. Met some wonderful people and saw countless churches and other medieval structures along the way. Our one concession to age was staying in private rooms each night - a hostel with 50-200+ pilgrims just didn't seem especially conducive to getting the sleep we both knew we needed. Finally, last year our youngest daughter moved to Fayetteville, NC, so we get to work in visits to her when we head to the east coast. This year's plans include a family reunion in Tampa, FL and after that who knows?

HUMOR OXYMORONS

It is good if a vacuum really sucks?

Why is the third hand called the second hand?

If a word is misspelled in the dictionary, how would you ever know?

If Webster wrote the dictionary, where did he find the words?

Why do we say something is out of whack? What is a whack?

Why does 'slow down' and 'slow up' mean the same thing?

Why do 'fat chance' and 'slim chance' mean the same thing?

Why do we sing 'Take me out to the ball game' when we are already there?

Why are they called 'stands' when they are made for sitting?

Why do we drive on a parkway and park in a driveway?

RETIREMENTS



Dick Bartz is retiring after 42+ years. Dick is a master's graduate of Miami University from the Institute of Environmental Sciences. He spent most his first 33+ years in public service working at the Ohio Department of Natural Resources. He was fortunate to have had excellent colleagues and leaders all who served as mentors and provided many unique opportunities in state government. Over his career, Dick had the opportunity to work on several different legislative initiatives: Coastal Management, Floodplain Management, Water Withdrawal, Water Diversion, and Great Lakes Compact. He also was given the opportunity to work on Great Lakes issues – Great Lakes Charter of 1985, Great Lakes Charter Annex of 2001, and the Great Lakes Compact agreement in 2005. He served as staff on several efforts in state government to improve interagency coordination and programs: Ohio Lake Erie Office, Governor's Blue Ribbon Task Force on Water Resources Planning and Development, Water Resources Planning and Management Implementation Committee, and the Ohio Water Resources Council's work groups. Dick held several management positions in ODNR: Administrator of the Water Resources Section of the Division of Water, Assistant Chief of the Division of Water, and Chief of the Division of Water from where he retired in 2007. In 2008 Dick began to work at USGS to assist the Ohio Water Science Center Director and staff in their coordination efforts with cooperators and water organizations. There, he served to help coordinate for USGS for nine years on Great Lakes, Ohio River, and Western Lake Erie issues. He also represented USGS at several different state, interstate, and international forums. In retirement, Dick hopes to continue to pursue good health, live life with his wife Annette, and give back some.

Geoff Delin, Water Science Field Team Groundwater Specialist, retired on April 1, 2017 after 38 years with the USGS, preceded by two years with an engineering consulting firm. Geoff joined the USGS in 1979 as a hydrologic technician in the Minnesota District. As a technician, his duties included operating the District borehole geophysical logging unit, operating the District auger rig, collecting groundwater quality samples, and supervising contract drilling operations. After transitioning to a hydrologist position, Geoff was a project team member on the Upper Midwest RASA study. After completion of the RASA study, he served as a project chief for numerous investigations evaluating the groundwater quantity and quality of glacial and bedrock aquifers throughout the state. During these investigations, Geoff was one of the first USGS hydrologists to use the then "new" MODFLOW code and was mentored by one of its authors, Mike McDonald. His investigations also included evaluation of aquifer thermal energy storage with model simulations of heat transport using the HST3D code. Geoff also was a project chief for a Ground-Water Resources Program research project where the team members estimated groundwater recharge across the state of Minnesota using multiple methods, including development of a new regional regression recharge estimation method. Beginning in 1990, Geoff began working on Toxics Substances Hydrology research projects. From 1990-1996 he was a principle investigator for the Minnesota Management Systems Evaluation Area study. In addition to coordinating the research of other USGS personnel for this study, Geoff conducted research on the fate and transport of agricultural chemicals through unsaturated and saturated sand-plain deposits. From 1995-2008 he was site coordinator on the Bemidji crude-oil spill research project. In addition to his site coordination duties for this project, Geoff conducted collaborative research relating to the effects of recharge on oil dissolution, multiphase flow processes, and vapor-phase transport of volatile hydrocarbons through the contaminated glacial deposits. He continued to be involved in some research at this site to the present. He was groundwater specialist from 1994-2008, serving as a leader for groundwater related issues in the Minnesota Water Science Center. In 2008 Geoff and his wife Ruth moved to Denver where he served the final 9 years of his career as a groundwater specialist on the Water Science Field Team (WSFT) providing technical services to Water Science Center personnel in the Central part of the country. He was an instructor for the Groundwater Field Methods class as well as the Groundwater/Surface-Water Interaction Class. Geoff served on 48 technical groundwater/water-quality review teams during his service as a WSFT groundwater specialist and greatly enjoyed interacting with and helping USGS personnel. Throughout his career, Geoff authored or co-authored more than 70 peer-reviewed reports and gave presentations at more than 30 technical conferences. His duty to service and the technical support he's provided to Water Science Centers and the Water Mission Area has been very much appreciated and will be missed. We thank him for his service and wish him all the best in his retirement. Geoff plans on serving in an Emeritus capacity following retirement to complete some research for the Bemidji project as well as to help with some USGS training. In addition to

tackling many long-postponed projects around the house, Geoff and Ruth plan on doing some international travel, hiking and enjoying the Colorado Rocky Mountains, as well as spending more time with their children and grandchildren.



Marshall Gannett, research hydrologist and groundwater specialist in the Oregon Water Science Center, retired on April 28, 2017. Marshall's impressive career included leading regional studies that provided important groundwater science to local, state, and federal managers as they tackled complex water resource issues in the Willamette, Deschutes and Klamath Basins in Oregon. Marshall began his career with USGS shortly after earning his BS degree in Geology at Oregon State University. He spent the summer of 1980 as a USGS hydrologist working on geothermal studies on Mt. Hood in northwestern Oregon. After earning his MS at Portland State University in 1982, Marshall continued studying geothermal resources with a consulting firm and coauthoring several papers on

geothermal resources before taking a job as a hydrogeologist with the Oregon Water Resources Department in 1984. For the next 6 years, Marshall conducted studies of groundwater resources in Oregon, authoring papers on the hydrogeology in eastern Oregon. Impressed by the caliber of science (and comradery) at the USGS after taking some USGS training as a cooperator, Marshall applied for and was hired as a hydrologist at the Oregon (District) Water Science Center. He quickly showed his talents by authoring a professional paper on the geologic framework of the Willamette Basin as part of the USGS Regional Aquifer Studies Assessment program. Marshall went on to lead a comprehensive study to characterize and simulate the groundwater resources of the Deschutes Basin. Working with Mary Hill of the National Research Program (NRP), Marshall applied a new (at the time) version of the USGS groundwater model, MODFLOWP, to apply parameter estimation techniques during model calibration. He later helped teach the USGS Parameter Estimation and Uncertainty course. His work in the Deschutes Basin resulted in several USGS publications, a Geological Society of America field trip, and a chapter in an American Geophysical Union monograph in 2003. Later, Marshall coupled his Deschutes Basin model with a surface water model by applying the USGS GSFLOW model to the basin. In another major investigation, Marshall teamed up with Brian Wagner of NRP to characterize and simulate groundwater in the Klamath Basin, a complex and contentious basin where agricultural, tribal, and ecological interests in water were reaching crisis proportions. Marshall did an exceptional job of navigating the politics and personalities in the basin to focus on providing excellent science by working closely with stakeholders and representatives from federal and state agencies. During this time, he provided many presentations and field trips in the basin. His stellar science and ability to communicate technical information to the public created a demand for USGS to remain a key agency in the basin despite budget cuts and protests over water. From 2005-2015, more than 10 reports and articles were published summarizing the scientific understanding gained from the studies Marshall led in the Klamath Basin, including topics on isotope hydrology and using optimizing techniques to manage groundwater pumping. Marshall's passion for hydrology extended to understanding the occurrence and vulnerability of fens and springs, evapotranspiration from wetlands, effects of climate change on recharge and baseflow, and the interaction of surface water and groundwater. He has mentored many scientists in the USGS and advised graduate students. In 2007, Marshall received the USGS Superior Award, and was accepted in the USGS research program in 2010. This year Marshall was named the 2017 Outstanding Oregon Scientist by the Oregon Academy of Sciences, an honor traditionally bestowed on university scientists. This remarkable career required a passion and dedication to hydrology that is impressive. Equally impressive is Marshall's ability to work well with USGS colleagues and scientists in other agencies, his commitment to mentoring hydrologists in the Center and at universities, and most of all his humor and optimistic attitude in the workplace. We'll miss him greatly and are glad to know he'll be around as a volunteer as his completes a report and helps the Center with its ongoing studies.

Jim Kolva announced his retirement effective April 1, 2017, after 38 years of public service with the U.S. Geological Survey. Jim started his career on January 8, 1979, by joining the Field Office in New Philadelphia, OH, as a hydrologic technician. He quickly gained skill, becoming a top-notch streamgager. In 1984 he transferred to the Pennsylvania District and became Data Chief of the Malvern Field Office. There, Jim provided innovative leadership, mastered ADAPS and helped train others in its application, and expanded use of satellite telemetry. In 1992, Jim transferred to Salt Lake City, UT to become Chief of the Utah District Hydrologic Surveillance Section. In 2000, Jim joined the Office of Surface Water as the OSW Data Liaison, advocating at

headquarters for the needs and interests of the data programs. He also oversaw the OSW surface-water technical review process while improving both the content and timeliness of the review reports. He was instrumental in the formulation and design of the National Streamflow Information Program (NSIP), in the creation of the Commercial ADAPS Replacement Project (CARP), and the design and testing of the Aquarius software now being rolled-out to the Water Science Centers (WSCs). Throughout his career, Jim sought to help WSC hydrologists and hydrologic technicians improve network operations and data-collection techniques. He has done this principally by coordinating OSW- and Water Science Field Team (WSFT)-sponsored training courses and teaching many himself, including the week long GRSAT course concurrent with regional data conferences. Indeed, Jim spent most of the last several weeks teaching Aquarius in several WSCs around the country.

Dr. James W. LaBaugh retired on February 3, 2017. Jim joined the U.S. Geological Survey in 1978 as a National Research Council Postdoctoral Research Associate working with Tom Winter in the Office of the Regional Hydrologist, in Denver Colorado, and then as regular employee a year later. The importance of groundwater interaction on the hydrological and biogeochemical characteristics of reservoirs, lakes, and wetlands, in the context of the entire water balance for those systems, was the focus of the first part of his career, including studies of two reservoirs in Colorado, lakes in the Nebraska Sandhills, prairie pothole wetlands in North Dakota, lakes in Minnesota, and Mirror Lake, New Hampshire. He also assisted the Hawaii District by conducting a study of a reservoir on Guam. In 1995 he joined the Office of Groundwater in Reston assuming responsibilities related to groundwater surface-water interaction and water quality and geochemistry. As part of the work in the Office of Groundwater, he participated in the resource assessments of National Monuments proposed during the Clinton Administration, coauthored the USGS Techniques and Methods report “Field Techniques for Estimating Water Fluxes between Surface Water and Ground Water”, was a coauthor of the Science article “Flow and Storage in Groundwater Systems”, led the team that produced the Office of Science and Technology Policy report “Science and Technology to Support Freshwater Availability in the United States” during the second Bush administration, and was a member of the team that produced the plans for a National Water Census as part of the USGS 2007 Science Strategy effort, among other tasks. He coordinated technical reviews of the groundwater programs of Water Science Centers, leading 25 review teams, participating in another 22 review teams, visiting 31 states. He also was a participant in the 2012 and 2015 National Earth Observation Portfolio Assessment Task Forces regarding groundwater, making recommendations to the Office of Science and Technology Policy concerning the importance of observation baselines and future emphases for 5 and 10-year time periods regarding observation systems, such as groundwater observation networks. Having served during the administrations of 7 Presidents, 10 Secretaries of the Interior, 7 USGS Directors, 3 Chief Hydrologists, and 3 Associate Directors for Water, Jim has decided that it is time to make way for the next generation. His time now will be devoted to: finishing the restoration of his 1939 Ford Station Wagon, touring with his car club and model train club, attending more Washington Nationals baseball games, and relatives. He also will continue to be a USGS resource for a limited time as a volunteer for science.



Jim Morris, Director of the USGS MI-OH Water Science Center, retired from the USGS on December 31, 2016 with 38 years of public service. Jim’s career in public service has been diverse and highly accomplished. After 3 years in the US Army, Jim was hired as an intern in the Floodplain Management Program with the Ohio Department of Natural Resources in 1978. While at the ODNR, he also worked in the Dam Safety Program and continued his education pursuing graduate courses in engineering. In 1986, Jim accepted a position in Arizona as the lead on their State Floodplain Management Program. While in Arizona, Jim began his career-long pursuit of refining his management skills and seeking to improve the programs he worked on. In 1992, Jim returned to the Ohio Department of Natural Resources as Chief of the Division of Water. During his time as Chief, Jim and his wife

Jean were instrumental in developing the Project Wet curriculum on the national level and establishing the program in Ohio. While at ODNR he subsequently served as Chief of the Office of Outdoor Recreation Services, Deputy Director of the ODNR, and once again as the Chief of Water. In 2003, Jim joined the U.S. Geological Survey as District Chief of the USGS Ohio District, which soon became the Ohio Water Science Center. He brought with him his continuing interest in strategic planning, improving organizational performance, and a strong commitment to science. While serving as Center Director, Jim was tasked to be acting Director of the Great

Lakes Science Center. He had returned to Columbus only briefly, before accepting another new role as acting Director for the newly formed Michigan-Ohio Water Science Center, which eventually evolved into a permanent position. While serving as the Director, several new large-scale initiatives began such as the Great Lakes Beach Health Initiative. In cooperation with and funding from the State of Ohio along with USEPA Great Lakes Restoration Initiative, the Ohio Center reinitiated its water-quality monitoring program in Ohio growing from 1 to 16 water-quality monitoring sites. Jim always emphasized developing relationships with peers and cooperators in Ohio participating in various groups in Ohio and the Great Lakes as well as the 'breakfast meetings' with primary state water division chiefs. For those who know Jim, we know that he will not be still. Jim will be able to spend more time with his wife, Jean, his six children and his three grandchildren. He has several home projects that he wants to do. Jim has been a Deacon in the Catholic Church since 2005 and looks forward to be able to devote the time to that calling as it needs. As always, he will continue to teach – Project Management. He and Jean hope to travel some, especially to Alaska to visit one of his sons.



Helaine Markewich's work with the USGS started while in graduate school and working for the Idaho Bureau of Mines and Geology (IBMG). The IBMG had a contract with the USGS to take high-angle oblique stereo air photographs of extremely steep terrain in the mountains and canyons of Idaho and Wyoming. After grad school, she was employed by the USGS in Denver on a National Research Council Fellowship studying the glacial story of the southeastern Absaroka Mountains in northwestern Wyoming. Then, onto the eastern U.S., as a research geologist, with what is now the Eastern Geology and Paleoclimate Science Center in Reston, VA. Her research was funded by the Nuclear Regulatory

Commission and focused on determining the long-term landscape stability of the Atlantic Coastal Plain and Piedmont. Through the years, her research has evolved into the study of late Cenozoic evolution of the Piedmont and Coastal Plain landscapes in the eastern U.S., especially in Georgia and the Lower Mississippi Valley. Helaine is thankful that for most of her time with the USGS, Atlanta has been home. The Southeastern Region, Georgia District/Water Science Center and now the South Atlantic Water Science Center, have been and continue to be gracious hosts. She loves both what she does and where she lives! Helaine is MOST grateful and pleased that the USGS is allowing her to continue her passion for studying landscape evolution in Emeritus status



Michael Peck joined the U.S. Geological Survey in September 1983 as a student working toward a B.S. degree in geology from Georgia State University. Four months later, after earning his degree in geology, he started his full-time employment with the USGS by being assigned to the Groundwater Information and Project Support Unit in the Georgia office. Michael spent the majority of his 33 years of service assisting with and leading groundwater investigations in Georgia. These investigations assessed the geology and ground water resources in the crystalline rock aquifers of northern Georgia and the sedimentary aquifers of the Georgia Coastal Plain. These projects ranged from the installation of core holes for

the Panola Mountain Project in 1985 (ongoing study) to conducting well drilling, aquifer tests, borehole geophysical logging, and water quality sampling for the multi-year Coastal Sound Science Initiative (CSSI). Michael's contribution to the CSSI also included logging test wells located 7 – 15 miles out on the Atlantic Continental Shelf off the coasts of Georgia and South Carolina. In the 1990's, Michael moved into supervising and running the Groundwater Information and Project Support Unit in the Georgia office. As head of that unit, he provided supervision and coordination of personal for hydrologic data collection activities needed for the statewide groundwater-level and quality monitoring networks and for various hydrologic investigations. Michael's contribution to the current understanding of Georgia's geology and ground water resources is documented in 55 publications he either authored or co-authored. Michael also shared his knowledge through numerous presentations at conferences throughout his career. In retirement, Michael plans to travel and spend time doing what he loves most, hiking, collecting fossils and mineral specimens, and exploring caves.

Kevin Richards is retiring after 34+ years with the Federal government. "In the beginning, I started as a hydrologic technician in the Independence Missouri field office in April 1987." Kevin came to the USGS after 4 years in the US Air Force performing wiretaps at Air Force bases all over Europe followed by some indecision on the meaning of life which lead to a degree from Northeast Missouri State University. "Terry Perkins interviewed

me for a vacant hydro tech position in the Independence, MO Field Office, was offered the job and as they say, the rest is history! A little-known fact, Terry told me one of the big reasons he selected me was I looked like I could pick up a 200-pound sounding weight! I was fortunate to start in the Independence office and was mentored and developed by great people such as Terry Perkins and Dale Blevins. I even would work with a young Andy Ziegler who at the time was a student for Dale Blevins in the one-person studies office. From the beginning, it was a blur, measuring floods on the MO and its tributaries, followed by a severe drought that had us doing daily discharge measurements on the Missouri River at a few sites, to becoming the QW Tech for the field office. I was also fortunate that the one-person studies, now augmented by a full-time Andy Ziegler, provided me an opportunity to work on projects from coal mine reclamation, macropore infiltration at an ARS research site, to a mixing zone study on the Missouri River where we injected rhodamine dye into the river and made the national news. This experience allowed me to move to Wisconsin in 1993 as the lead tech for the Western Lakes Michigan NAWQA study working for Jim Setmire, followed by Herb Garn and then Charlie Peters. The NAWQA Program was a great way to start to interact with scientists and techs from around the country, and I was offered the opportunity to train new NAWQA SW QW Staff in 8 study units and was fortunate to have supervisors that encouraged and nourished my professional development. I soon converted to the scientist series, became a project chief, then QW Specialist, QW Team Leader, and eventually the Associate Director for Data. All along I worked with great people and could really cut my teeth with first class scientists and techs both within Wisconsin and Illinois but also with NRP projects in other parts of the Midwest. As Charlie Peters (WI WSC Director) was pulled into temporary full-time roles within the MWR, I was offered some extended acting Center Director gigs in Wisconsin which whetted my appetite for my own Water Science Center. Fortunately, an opening came up for the Iowa WSC Director and after speaking with Kathi I put my name into the hat and was selected as the new CD starting in December 2010. Again, I was fortunate that the MWR Senior Leadership with Leon Carl was supportive and encouraged additional growth. So, I could expand my rolodex further and participate on Mission Area Review Teams, Acting Roles as Science Advisor and most of all had the pleasure of being the Acting Director at UMESC. This introduced me to another new group of great staff even though they made the mistake of not being hydrologists! One of the greatest achievements of my career was working with great USGS people from around the country and making connections that have lasted my entire career. It has been a pleasure and an honor to work for the USGS and being part of our USGS family around the country and world! For someone looking for an interim job at the time until teaching positions opened; this career, which I think of as a calling, has been something I will always cherish."

Dave Stannard is retiring after 37 years with the USGS. Dave began his career in 1975 with the University of Nebraska Water Resources Center, exploring artificial recharge of ground water. In 1979, he was hired by Ed Weeks into the Unsaturated Zone Field Studies project within the National Research Program of the USGS. For several years, he contributed to field studies involving unsaturated flow and developed inexpensive tensiometers to measure negative pressures in soil water. In the early 1980s, he began investigations into evapotranspiration (ET) under the mentoring of Hal Weaver (and Ed Weeks), characterizing annual ET at groundwater discharge sites near the Nevada Test Site and in the San Luis Valley, CO. He then participated in several interagency experiments to quantify land-surface atmosphere exchange, including FIFE, Monsoon '90, Washita '92, and BOREAS. Other ET projects along the way included the Turkey Creek watershed study (with the Colorado District and Jefferson County, CO), measurement of ET from a domestic leach-field, and measurement of ET from Upper Klamath Lake and surrounding wetlands in Oregon. Dave also published a theoretical study providing the first analytical description of the source area contributing to Bowen-ratio measurements of ET. He authored or co-authored 41 publications on ET and the unsaturated zone. Dave looks forward to retirement with his wife, Linda, at their home in Evergreen, CO. Like most retirees, he'll start chipping away at projects on their property that were put off over the years, but plans to leave plenty of time for recreation, including hiking, back-country skiing, camping, exploring the West, and disc golf.



Caryl Wipperfurth began her career with the USGS in April 1984 as a computer operator on a Prime mainframe with the National Mapping Division at the Mid-Continent Mapping Center in Rolla, Missouri. From that position, she moved to cartographic aid in January 1988, also in Rolla. In November of 1988, she moved to Madison, Wisconsin, and accepted the position of cartographic technician in the Water Resources Division (WRD) Office of the Chief Hydrologist, Wisconsin District. After some post-graduate classes and some excellent mentoring by Wendy Danchuk (retired), Caryl became a cartographer

with the Cartographic and Publication Program—the CAPP. In 1994, she moved south to the warmer climates of Georgia and in January 1996 became a Publication Graphics Specialist in the WRD Georgia District office. Caryl remained in Norcross, having undergone realignments that placed her first in the Regional Geospatial Information Office in 2005, then in the Enterprise Publishing Program in 2008, and finally in the Office of Communication and Publishing in 2011. Caryl’s career has gone full circle as she cut her teeth cartographically on the Ground-Water Atlas of the United States (coordinated by Jim Miller) and in recent years worked on several volumes of the Principal Aquifers of the United States for the National Water-Quality Assessment Program, which used some of the illustrations from the previous 25-year-old publications. During her career, she worked on countless formal series publications, conference presentations, and posters, as well as high-profile reports for the Agency for Toxic Substances and Disease Registry, U.S. Department of Health and Human Services. One of Caryl’s proudest achievements is coauthoring the “Standards for U.S. Geological Survey Page-Size Illustrations,” a book that has substantially affected the quality of illustrations created by USGS authors and illustrators. Caryl plans to do some volunteer work and see many of the world’s sites, starting with hiking the Inca Trail to Machu Picchu with her two children; they get to drag her to the top if she can’t make it!

MEMORIALS



Elaine (nee: McNabb) Brennan, 92, passed away on March 24, 2017, Lakewood, CO. She was born on October 6, 1924, in St. Paul, MN. Elaine was a homemaker, a volunteer and a faithful Catholic. She was a wonderful wife, mother and friend to all who knew her. She was preceded in death by her husband, Robert Brennan a WRD retiree, to whom she was married for 69 years. Elaine was the last survivor of her siblings. Elaine is survived by her four daughters; by 14 grandchildren; and, was blessed to see her family extended to include 21 great grandchildren. Mass of Christian Burial was held on March 31, 2017 at the Spirit of Christ Catholic Community Church, Arvada, CO. Entombment was at the Madonna Mausoleum at Mount Olivet Cemetery, Wheat Ridge, CO.



Timothy A. Cohn, 59, statistical hydrologist and expert on flood frequency analysis, water quality estimation, and hydrologic trends, died at his home in Reston, VA on February 20, 2017 surrounded by his loved ones, a few days before his 60th birthday. Tim was born in Boston, MA on February 26, 1957 the son of Alfred B. Cohn and Barbara P. Norfleet. He grew up in Cambridge, MA and attending the Shady Hill School and the Commonwealth School. Tim joined USGS in 1986 as a member of the Branch of Systems Analysis; having been hired by Bob Hirsch after completing his Ph.D. in water resources systems engineering at Cornell University, Ithaca, NY. His impact on the work of the Branch was

immediate as, within a few months, he convinced his colleagues to abandon the practice of writing manuscripts (including equations) by hand and to purchase the original Mac Plus desktops with an early version of Microsoft Word (with an equation editor). This was several years before word processors became commonplace in USGS. Soon thereafter, he connected all Macs in the Branch together creating one of the first Local Area Networks in USGS for sharing data and information. Tim's early research focused on how to estimate the probability of very large floods, especially in cases where the information comes from both streamgages and proxies, such as historical, geological or botanical evidence. This work ultimately led to the development of the Expected Moments Algorithm (EMA), an improved approach to estimating the moments of the log-Pearson Type III frequency distribution. It also became the basis for many of the revisions contained in the proposed national guidelines for determining flood flow frequency (Bulletin 17C). A second major area of Tim's research involved the estimation of water-quality constituent loads based on limited data. His significant contribution was in using adjusted maximum likelihood estimation to derive a nearly unbiased estimate of instantaneous load, as well as in assessing the uncertainty associated with such estimates. The technique he developed (LOADEST) is now an integral part of the toolbox used by nearly every water-quality scientist in the U.S. Later in his career, Tim became increasingly interested in trend analysis. While noting that trend magnitude could be determined with little ambiguity, he recognized that statistical significance was much less certain because significance depends critically on the null hypothesis. Tim demonstrated that trend tests that fail to consider long-term persistence (LTP), a characteristic of most geophysical data, greatly overstate the statistical significance of observed trends when LTP is present. To address this problem, he developed the Adjusted Likelihood Ratio Test (ALRT), a much more accurate test of trend in the presence of LTP, and nearly as powerful as the commonly used ordinary least squares regression procedure when applied to processes with little or no persistence. Tim was also a regular instructor at several of the statistics training courses offered at the USGS National Training Center. His ability to simplify complex concepts, coupled with his enthusiasm and humor, expanded the statistical competence of hundreds of USGS researchers over the years while making the subject matter a joy to use. In addition to working in the Branch of Systems Analysis, Tim served as an AGU Congressional Science Fellow in the office of Senator Bill Bradley, as the USGS Science Advisor for Hazards in the Director's Office and, finally, in the Office of Surface Water. Perhaps most significantly, Tim was a thoughtful, compassionate, and brutally honest colleague. He was, in the truest sense, a gentleman scholar. His passion for science and learning was infectious, and his encouragement and support stimulated those with whom he worked always to do better. His impact on the discipline of hydrology, and on those who practice it, will be lasting; and the lives of those with whom he worked will forever be enriched. Tim is survived by his wife Sarah, a son and a daughter, his mother, two brothers, and two nephews and a niece.

-by Harry Lins



Charles E. Cornelius, 88, of Oak Park Heights, MN, passed away peacefully on January 1, 2017, in St. Paul, MN. Charley was born November 29, 1928, in Rosholt, SD. He graduated from Rosholt High School in 1946 and attended South Dakota State University in Brookings, SD. He began his career with the USGS in 1949 with the Topographic (Topo) Division out of Rolla, MO. After serving in the Army from July 1954 to July 1956, he returned to Topo. With a lot of traveling and map-making under his belt, Charley opted for an opportunity to transfer to WRD. His WRD career began in Grand Forks, ND in 1958 working as a hydrologic technician in surface water. In 1968, he transferred to the Minnesota District and worked in

the St. Paul office. In 1972, Charley moved to Montevideo, MN where he took charge of the newly established Field Office. He managed the Montevideo Field Office until he retired in 1991. His annual records were always done in a timely manner, and the support he gave projects was superb. In 2008 Charley and Darleen, his wife of 63 years, moved to Oak Park Heights, MN, where they were closer to their two daughters and their families. Charley enjoyed spending time with his grandchildren, time at the cabin in Park Rapids, MN, winters in Destin, FL, hunting, fishing, golfing, and his many friends and family. He received his pilot's license in high school and had a lifelong love of airplanes and flying. He is survived by wife, Darleen; two daughters, three grandchildren, a brother and sister, and many nieces and nephews. He is preceded in death by a daughter, parents Oscar and Mayme Cornelius, and two brothers. Service of Remembrance was held on January 9, 2017, at St. Andrew's Lutheran Church, Mahtomedi, MN. Private interment was at Bethania Cemetery in Rosholt, SD.

James (Jim) Dee Craig, 76, of Baldwin City, KS passed away peacefully at his home surrounded by his wife and daughters on Monday, April 18, 2016. He was born October 6, 1939 in Topeka, KS, the son of William N. Craig and Bessie (Thompson) Craig. Jim grew up in Silver Lake, KS and graduated in 1957. He joined the Kansas National Guard in January of 1957 and served with the Military Police until February of 1965. He also attended Washburn University in Topeka, KS. He was united in marriage to Janet George on February 14, 1960 at the Methodist Church in Neosho Falls, KS. They shared over fifty-six years of married life together. They lived in Silver Lake until 1970 when they moved to Baldwin City, KS. Jim worked as a Hydrologic Technician for the U.S. Geological Survey for thirty-five years before retiring in 1994. During his career with the government, he worked on assignments in several states and in Puerto Rico, St. Croix, St. Thomas, St. John and at Rocky Mountain Arsenal in Denver, CO. He was a member of the Baldwin First United Methodist Church; Baldwin City Friends of the Library; Citizen Potawatomi Nation; Masonic Lodge #50 AF&AM, Silver Lake, where he received his fifty-year pin and certificate in August of 2012; WRD Retirees; and National Association of Retired Federal Employees. In addition to his family and home, he loved fishing, woodworking, gardening, sports and spending time outdoors. Jim had a positive outlook on life and a genuine sense of humor. He was preceded in death by his parents, and a brother and a sister. Jim is survived by his wife, Janet of Baldwin City, KS, three daughters, and a grandson.



Rufus T. Getzen, 72, died Saturday, April 1, 2017 at his sister's home. Rufus was born April 11, 1944 in Columbia, SC, a son of the late Rufus W. Getzen and the late Sarah C. (nee: Thomas) Getzen. He was a graduate of Lower Richlands High School in Hopkins, SC. Following high school graduation, he earned a Bachelor of Arts in Religion with a Minor in Physics from Wake Forest University in 1965. He earned a Master's of Science in Geology from the University of South Carolina and then in 1972, a PhD in Geology with a specialty in ground water hydrology from the University of Illinois-Urbana, Champaign, IL. Rufus worked for more than 30 years with the United States Geological Survey Water

Resources Division Research in New York, Washington, DC, Palo Alto, CA and Yucca Mountain, NV prior to his retirement in 1997. Following retirement, he and his wife returned to Washington, DC until her retirement. In 2005, Rufus and Beverley purchased a home in Wadesboro, NC to be near Rufus' family. Family was a very important part of his life and the move to Wadesboro would be necessary to be of help to his beloved brother, Phil and brother-in-law, Larry as they were battling cancer, and to be involved in the care for his mother. Rufus and Beverley made themselves right at home in Wadesboro and soon would become involved in various civic organizations. He was a member of Wadesboro Civitan Club, Anson County Writer's Club, Anson County Arts Council, Anson Historical Society and Hampton B. Allen Library. One of Rufus' passions was the youth of Anson County. He was involved to help with youth literacy and a contributor to youth successes in Anson County. He was instrumental in forming the Junior Civitan Club and was involved with the Robotics Team at Anson New

Tech School. He was supportive of scholarships through the Wadesboro Civitan Club and South Piedmont Community College. He was a writer of poetry in his college years and his works were published in the college literary magazines as John Q. Gilterhopper. He most recently won First Place from Anson County Writer's Club for his poem entitled Cyrus, written for one of his dearly loved cats. He was a licensed private air plane pilot, having flown around the United States in private planes and was a former SCCA Racing Champion in 1997. Surviving are his wife of 48 and a half years, Beverley B. Getzen; his sister and brother; his brother-in-law; his sister-in-law; and his many nephews and nieces, and their families. Funeral services were held on April 5, 2017 in the Chapel of Leavitt Funeral Home, Wadesboro, NC.

Since Rufus was not a member of the retirees' organization, his wife Beverly has asked if anyone would like to contact her, she can be reached by cell phone (704) 465-791, landline is (704) 694-7022. Her address is P.O. Box 202, Wadesboro, NC 28170.



Thomas L. 'Tom' Huntzinger, 69, passed away on January 27, 2017 at the University of Kansas Hospital, Kansas City, KS. He was diagnosed with leukemia about 3 months ago, and was going through some intensive treatments in Kansas City and doing well, but complications from an infection took a toll. Tom was born April 25, 1947, in Flagler, CO, the son of Ivan and Mamie (Kyle) Huntzinger. He graduated from Colorado State University with a Master's Degree in Agricultural Engineering. He married Patty L. Basler on February 2, 1974, in Choctaw, OK. Tom was a USGS hydrologist, District Chief in Kansas, and NAWQA Chief for the Central Nebraska NAWQA. After retiring from USGS in 1997, Tom worked with Kansas Department of Agriculture, Division of Water Resources in the State Engineer's office and after leaving DWR was involved in many water resources areas including the upper Wakarusa WRAPS project. More recently, he was a private consultant working with Kansas Alliance for Wetlands and Streams (KAWS), which coordinates the watershed restoration and protection efforts for Clinton reservoir. He was a passionate environmentalist. Tom was a force of energy and loved his work in water resources. He was a member of numerous organizations, including the American Society of Professional Engineers, Sierra Club and Friends of the KAW. He was president of the local chapter of the National Active and Retired Federal Employees Associations. He enjoyed sailing, kayaking, painting and gardening, and he was an avid bicyclist. He adored his four grandchildren and shared a love for KU Soccer with his oldest granddaughter. Tom is survived by his wife, two daughters, a brother and four grandchildren. Memorial services were held on February 3, 2017, at Warren-McElwain Mortuary in Lawrence, KS. A private family burial will be held later.

-Many thanks to Betty Scribner and Linda Carswell for letting us know.

Kenneth B. 'Ken' Niles, 92, passed away on January 6, 2017. Ken was the husband of **retiree Dot Niles**. Ken was born on April 7, 1924. He proudly served his country for 20 years, both in the U.S. Marine Corp and the U.S. Air Force. While in the service he was involved in both WWII and the Korean War. He is survived by his wife, two daughters and son-in laws, and two grandchildren.



Vivienne Perkins passed away on March 4, 2017. She was the wife of **John McLean** who retired from WRD in 1994. He was the Groundwater Specialist for the Central Region, Denver, CO. Services were held March 17, 2017 at the Reformed Church of Elizabeth, Elizabeth, CO.



Timothy G. Rowe, 61, passed away on February 7, 2017. Tim was born in Iron Mountain, MI on November 4, 1955 and moved with his family to Placerville, CA, at age 12. He attended El Dorado High School, University of Southern California, and California State University, Sacramento, CA. He spent the majority of his career as a hydrologist for the United States Geological Survey, serving five years in Alaska before relocating to Carson City, NV in 1986. He retired in 2012 and began working for the Nevada Department of Transportation doing bicycle and pedestrian safety. Throughout his career, he gave scores of talks, sat on innumerable committees, and published many reports; but what he was most proud of was his community outreach and mentoring of younger colleagues. Tim was well known as a leader in the community. At the time of his passing, he was the Bicycle Advocacy Coordinator for Alta Alpina Cycling Club; in Boy Scouts, he was Assistant Scout Master for Troop 33 and Order of the Arrow, and Pinenut District Finance Chair. He also sat on the Board of the USC Northern Nevada Alumni Club and was active in the Douglas High School Music Boosters. Tim was a certified instructor for the League of American Bicyclists and a race official for the United States Cycling Federation. He had served previously as President of Alta Alpina, Coordinator of the Death Ride Tour of the California Alps, Chair of the Nevada Bicycle and Pedestrian Advisory Board, and Chair of the Lake Tahoe Bicycle Coalition. Generally, if there was anything cycling- or scout-related going on, you'd find Tim there. Tim was the recipient of numerous awards in recognition of his professional accomplishments and community service, including the Wendell McCurry Excellence in Water Quality Award, the Nevada Bicycle Excellence Activist/Supporter Award, and the Boy Scouts' Nevada Area Council Pinenut District Award of Merit. Tim was passionate about everything and he had many varied interests: foremost were his family, friends, bicycling, and scouts; also travel, camping, hiking, craft beer, football, USC, cycling advocacy, race officiating, teaching bike safety, volunteering/coordinating events of all kinds, photography, politics, amateur radio, lighthouses, trains, music, movies, rocks, gardening, and National Parks—just to name a few! But above all, his greatest passion was people: he considered everyone he met a newfound friend. He made friends wherever he went, and kept in touch with a vast network of family, friends, and colleagues worldwide. His focus was always on the positive and he frequently encouraged others with a kind word, his ready smile, or a friendly hug. Tim passed away at home, unexpectedly. He is survived by his wife, Harriet "Hank" Cummings, a brother, two daughters, a son Christopher, and a grandson; as well as a large extended family of relatives and friends who will miss him deeply. In addition to his children, Tim's greatest legacy is that the world he left behind is a better place, because of him. His passion for life energized not just himself, but everyone whose life he touched, and there were many. A celebration of Tim's life was held on April 9, 2017, at the Carson City Community Center, Carson City, NV.

Memorial to Charles G. "Skip" Cunningham 1940–2017

Charles G. Cunningham, known to all as "Skip," was an internationally recognized economic geologist specializing in the genesis of volcanic-hosted ore deposits. In addition to distinguishing himself as a scientist with the U.S. Geological Survey (USGS), Skip was universally esteemed by his colleagues and friends—a true gentleman and scholar.

Skip passed away on January 2, 2017. Born on December 5, 1940, he was the son of Robert and Mildred Heydt. He is survived by his beloved wife of 48 years, Cheryl; his daughters, Wendy Littman and Betsy Cunningham; and four grandchildren. Although Parkinson's disease had progressively eroded his motor functions, Skip never lost his technical acumen, keen wit, mirthful worldview, and wonderful spirit.

Skip left high school in his senior year to enlist in the United States Coast Guard, with which he served for 4½ years and received his GED. Upon leaving the military, he earned an Associate's Degree from Norwalk Community College; a B.A. in Geology/Physics from Amherst College; an M.S. in Geology/Chemistry from the University of Colorado; and, in 1973, a Ph.D. in Geology/Chemistry from Stanford University. He taught at Syracuse University in 1974, where students voted him the "best geology professor."

Skip joined the USGS Geologic Division in Lakewood, CO, in 1974. Thus, began a remarkable 33-year career researching mineral deposits in volcanic and subvolcanic environments. To help unravel the mysteries of ore genesis and mineral-resource evaluation, he combined his love of fieldwork with lab techniques, including fluid-inclusion geothermometry and geobarometry, and light-stable isotopes. He published over 150 papers and maps on ore deposits of the western United States and the Circum-Pacific region.

One of Skip's professional foci was the Marysvale, UT, volcanic field. An outstanding collaborator, Skip integrated geologic, geochemical, isotopic, and geochronologic approaches to develop a process-based genetic model of the evolution of a hypogene hydrothermal plume to supergene destruction of the deposits.

Another of Skip's foci was mineral deposits in South America. He played a pivotal role in the formation and execution of the Inter-American Development Bank Project in Bolivia, Chile, and Peru. He was the first to postulate that the world's largest silver deposit had formed in a volcanic dome at Potosi, Bolivia. This led Skip and his colleagues to develop a genetic model for the formation of volcanic-dome mineral deposits used by exploration companies worldwide today.

Skip's work on paleothermal anomalies also has resulted in improved mineral-exploration strategies. At Rico, Colorado, he documented a major anomaly, which led to the discovery of a 1-km-deep, world-class molybdenum deposit. By documenting the thermal anomaly surrounding the Bingham Canyon porphyry copper deposit, he also recognized that deposit's genetic link to two Carlin-type gold deposits located at a depth of 7 km. Skip deduced that these deposits formed from acidic, potassium-rich waters mixing with late-stage, reduced, gold-arsenic bearing solutions at the sedimentary-volcanic-rock interface of a crater lake.

In addition to being an outstanding geologist, Skip contributed to his profession as the Deputy Chief of the USGS Office of Mineral Resources, and Coordinator for the Development of Assessment Techniques Program; secretary and member of the Board of Directors of the Economic Geology Publishing Co. for 18 years; a member of the Research Committee of the Society of Economic Geologists; and a member of the editorial board of *Ore Geology Reviews* for 7 years.

Skip's outstanding contributions resulted in many awards, including the Department of the Interior's prestigious Distinguished Service Award "*in recognition of his exceptional contributions to the USGS and the international community in the field of economic geology*," and the Government of Japan Science and Technology Agency Research Award for Foreign Specialists. He was elected Honorary Visiting Professor on the Science Faculty, National University of San Luis, Argentina.

His outstanding professional contributions notwithstanding, we would have missed the essence of Skip had we not shared the following: We have all met outstanding geologists, but here also was a giant of a person. Skip was that rare individual who made all around him not only better scientists, but better *people*.

Skip's work will stand the test of time. His spirit will live forever in those he touched.

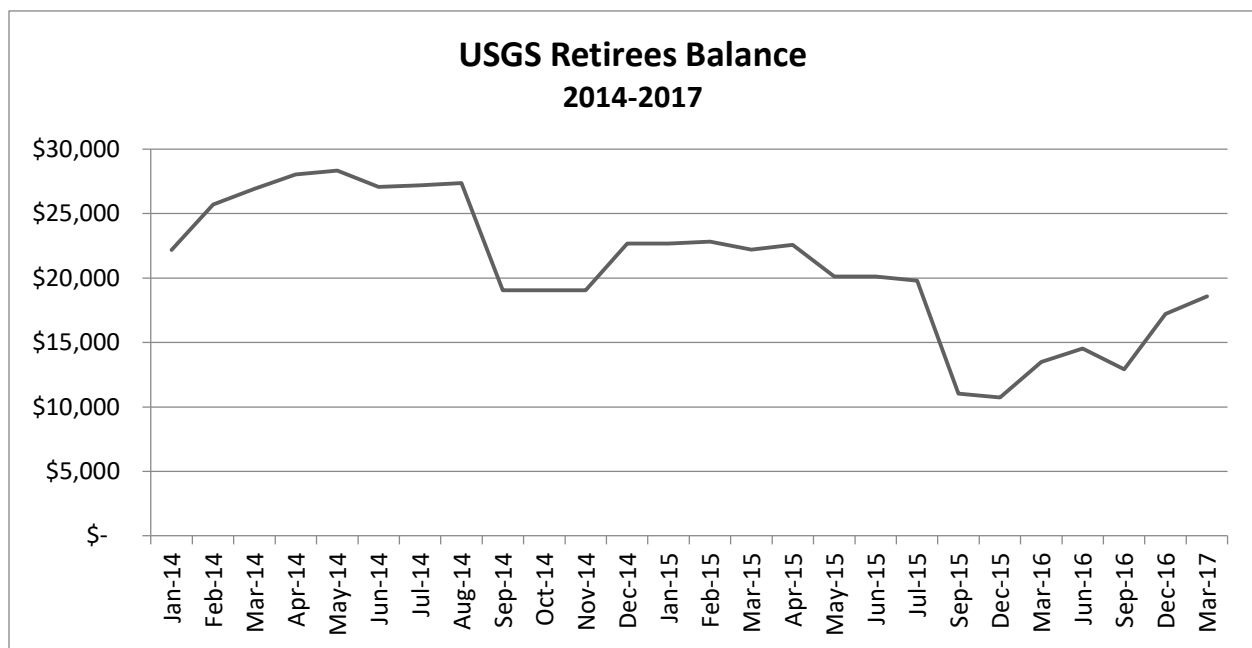
**-DANIEL O. HAYBA, USGS, Reston, Virginia 20192; ROBERT O. RYE, CHARLES H. THORMAN,
W. DAVID MENZIE II, JOSEPH A. BRISKEY, JR., JOHN H. DEYOUNG, JR., JOHN R. GRAY,
AND PETER D. ROWLEY, USGS (ret.)**

TREASURER'S REPORT, FIRST QUARTER 2017

Treasurer Cathy Hill reports that this organization had \$18,572 in its coffers at the end of the second quarter, March 31, 2017. I'm pleased to report 2016 taxes have been successfully taken care of, for those that might be worrying about such things.

Special thanks for contributions above dues go to several retirees, including:

Jerad Bales (who might have contributed such a large amount by mistake since he didn't know how much dues were ;), Robert James, Ray Hoffman, Jimmy Pond, and Colleen Babcock. The Bank thanks you!



NEW MEMBERS

Clemens, John M. (17) P. O. Box 95, Tacoma, WA 98401 (c) 253-677-5867, jclemens@harbornet.com
Crawford, Charles (16) (Teresa) 1865 Cherry Tree Rd., Avon, IN 46123 (h) 317-272-8269, (c) 317-418-5855
Gorman, Joseph (16) (Cathy) 126 East Orchard Ave., Council Bluffs, IA 51503 (h) 712-328-3220, (c) 712-355-1028
LaBaugh, James (Jim), (17) 8405 Stonewall Dr., Vienna, VA 22180-6858 703-573-9285, jlabaugh@verizon.net
Meunier, Tony (17) (Betsy) 1109 Morningwood Lane, Great Falls, VA 22066-1609, 703-648-4575, tmeunier@usgs.gov
Peck, Michael F. (17) 1546 Summerford Ct., Dunwoopy, GA 30338, 770-364-1895, peckmf@gmail.com
Richards, Kevin D. (17) (Kathi) 2155 Leslie Dr., Coralville, IA 52241, (h) 319-337-3818, (c) 608-807-7195, krichards1958@q.com

DIRECTORY CHANGES

Barker, Rene (01) (Edy E) P. O. Box 553, Dripping Springs, TX 78620-9200, 512-736-3158, rockwhacker@yahoo.com – addr phone email
Bettendorf, James (06) (Ruth) 2511 Robinson Rd. NE, Marietta, GA 30068, 770-490-2452 – addr phone
Buono, Tony (03) (Arlene) (h) 321 775-3018 and (c) 321 507-5631 – phone nos.
Driver, Nancy (10) 303-905-2988, phone
Hill, Catherine L. 'Cathy' (06) (Paul Hearn) 9705 Waterfront Drive, Manassas, VA 20111 – addr
Moreland, Kay (W) (Joe) 272 N Cleveland St, Orange, CA 92866, 714-328-3255, joemorelandjm@gmail.com – addr phone email
Smith, Barry S. (06) Delete wife's name (Mary), divorced
Smith, Mrs. Earl L. (W) (Elizabeth) 500 W Hendrickson Rd. #5029, Sequim, WA 98382
Smith, Ethan T. (00) (Ellendale) etsmithsiri@gmail.com - email
Turnipseed, D. Phil (15) (Cindy) phil.turnipseed@gmail.com – email
Wylie, Robert W. (95) (Madalyn) 35103 Ada Ave., Zephyrhills, FL 33541

NEW AFFILIATES

Mason, Robert, Robert R., Jr. (17) (Heather) 1302 Benicia Lane, Herndon, VA 20170, (h) 707-939-1119, rrbrickmason@gmail.com
Rogers, Kimberly (Kim) Stubbs (17) 4313 Marigold Ct., Woodbridge, VA 22192, 703-590-5829, ksrogers13@aol.com

LITTLE COLORADO RIVER MEMORIES

By Al Condes

Recently I read in the National Geographic that as a way for tourists to access the Grand Canyon, the construction of a tramway from the rim of the Little Colorado River at its mouth, where it joins the Colorado River, to the base of the Grand Canyon was under consideration.

This brought back memories of the summer of 1957 when I worked out of the Flagstaff office mainly servicing the streamflow gaging stations and chasing floods on the Little Colorado River and its tributaries.

The accessing of the gaging station on the Little Colorado River near Cameron which was the closest station to the River joining the Colorado River, was a hair raising experience. The canyon of the Little Colorado River on the south side had sheer cliffs over 1,000 feet in height. This side of the canyon was not far from the highway and could be driven to, but there was no way to hike down to the river from this side. On the north side of the canyon the slope of the canyon was less steep and a switch back hiking path could be built to access the river. The problem was the canyon at this point could not be reached by vehicle during periods of flow because of the washes that would have to be crossed prevented access.

A crossing cableway was built across the Little Colorado River Canyon. The cableway was 800 feet across and 1,000 feet above the river below. The sag in the cableway was well over 20 feet. There was a wood sit-down cable car used for the crossing. You would sit in the cable car and pull the car back to release it from the anchor hook, put your head down, and let the car fly down the steep slope of the cableway. With a cable car puller in hand on your lap, you sat ready to hook on to the cable and start pulling. Because of the steep slope of the cableway the car sped down the slope of the sag at a very high rate and continued up the other side of the sag for about three-quarters of the cableway. The trick was to get the cablecar puller working before the motion of the car stopped and to continue pulling up till you reached the anchor on the other side.

When you reached the other side, dry mouthed, you had to hike down the switch back path for what seemed like a mile. If there was flow in the river, you crossed the river using the measuring cableway near the river, and walked up a path that had been cut into the cliff side of the canyon to check the gage upstream from the measuring cableway. You then returned to measure the flow off the cableway.

Once done with the work of measuring the flow and insuring that the gage was operating properly, you now faced the task of walking back out of the canyon and crossing the dreaded cableway again.

I often wondered what would have happened if I had dropped the cable car puller and been stuck at middle of the span 1,000 feet above the river. There was no way I could have pulled my way up the slope of the sag without a puller. In those days we didn't have cell phones and I would at times be gone for 3 days chasing floods without reporting in to the office. So no one would have thought of looking for me for days.

I'm sure others have more exciting stories but I wanted to share mine.

**JOHN WESLEY POWELL BUST
DIRECTOR OF THE U.S. GEOLOGICAL SURVEY (USGS) 1881-1894
USGS National Center (Main Entrance)
Reston, VA**



Director Powell proposed policies for development of the arid West that were noted for accurate evaluation of conditions.

Short biography on the USGS's home page:

https://www2.usgs.gov/blogs/features/usgs_top_story/john-wesley-powell-explorer-geologist-geographer/

NARFE NEWS: From the National Active and Retired Federal Employees Association

<http://www.narfe.org/home/articles.cfm?ID=4173>

NARFE President Richard G. Thissen made remarks at a press conference on the introduction of H.R. 1251, the CPI-E Act of 2017, hosted by the bill sponsor, Congressman John Garamendi, D-CA-3.

While the CPI-E Act of 2017 amends a complex calculation, it provides a rather simple improvement, rooted in common sense. What this bill says to seniors is that your cost-of-living adjustment will more accurately reflect your cost of living. That's it! It's that simple! It's so simple, in fact, that many of your colleagues may not get it.

The good news is that this bill offers that simple fix, and is an equitable improvement for the millions of seniors relying on their earned Social Security benefits and millions of federal and military retirees who have served their country both in and out of uniform.

HUMOR -- SENIOR DRIVING

As a senior citizen was driving down the motorway, his car phone rang.
Answering, he heard his wife's voice urgently warning him,
"Vernon, I just heard on the news that there's a car going the wrong way on M25.
Please be careful!"
"Hell," said Vernon, "It's not just one car.. It's hundreds of them!"