

# USGS RETIREES

NEWSLETTER No. 182

February 2019

*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.*

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## PRESIDENT'S MESSAGE

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### Dear Fellow USGS Retirees,

Happy New Year! As I write this, USGS offices are shut down and the good work that the USGS does for the nation is on hold. I hope that will be resolved quickly. In Minnesota, we are preparing for what the media claims may be a "Big Weather Storm." The 2018 reunion is history and we are beginning to plan for our 2020/21 reunion, which will be held in Arizona.

As the officers catch their breath after the reunion, we are planning for the future of the organization. Our reunion attendance was down as has been the trend. There also is a downward trend in our membership. During the reunion, we discussed doing a better job of attracting new members by telling recent retirees why they benefit from being members. We discussed reaching out to all former employees of "water programs" as well as those who worked in other areas of the USGS. We also agreed to make a greater effort of reaching out to newly-retired employees. We now have an Affiliate Member status and are piloting that effort in Minnesota. James Fallon is our first Affiliate Member! Affiliate Members are active employees who will work with our State Representatives by being our eyes and ears in each of the state offices. We expect to ask Affiliate Members to promote our organization, to let us know who is retiring, and sadly, who has passed. We also discussed our scholarship program. This is one of the most important things that we do. We have reinvigorated the program, and the process, and now are planning the process for next year. This year we presented five scholarships.

The officers are planning for the future in other ways. In order to preserve the history of the organization, we have a group of officers and members who are documenting files, pictures and videos that are housed in Reston. If you are interested and available to help in this effort, please let Dick Engberg know. We also are doing things to make life easier for future officers. We are completing a process of documenting the responsibilities of our officers and staff. We also are documenting processes to track membership and finances that help keep our organization running.

As always, I want to thank our officers and staff for all they do to support this organization. They include: Al Condes (vice president), Kate Flynn (secretary), Cathy Hill (treasurer), and Dick Engberg (archivist). Our Regional Directors include Jay Kiesler (Northeast), Ed Martin (Southeast), Ken Lindskov (Central) and Pete Anttila (West). Merilee Bennett helps so much with member tracking and with compiling and editing and preparing newsletters. Jeff Stoner, along with regional editors NR Editor (Vacant), John Clarke, Jim Bennett, and John Klein, have agreed to help with the editing processes of the newsletter. Tim Smith, a past president, helps keep us connected with Headquarters, with members, and with his history and experience in the evolution of the organization. Mark Anderson and Pete Anttila are beginning to plan for the next reunion. Herb Freiburger is helping us by reinvigorating the meritorious service-award process through the George Ferguson Award. Our organization is limited only by the number of volunteers involved and I know I have missed some who help keep our organization running. Please let us know if you would like to help. **We have work that needs to be done!**

**NOTE: Please reference the request at the bottom of page 8, related to updating your telephone directory information if needed.**

I hope you enjoy reading this newsletter. Thanks for your support of this organization. Please being to think about attending the next reunion.



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## NEWS OF RETIREES

**Scott Anderholm** writes: In October we had 24 attendees at our retirees' meeting and luncheon. We typically meet 4 times per year. Richard Lepp who has organized and coordinated the New Mexico retirees' meetings for many years asked for a volunteer to take over these duties. Steve Richey agreed to coordinate future meetings. *(reference Directory page 24 for Steve's information)*

**Lynne Fahlquist (PIO, Hydrologist) TX Water Science Center** writes: On October 7, retiree Evan Hornig's eldest son Andy passed away suddenly and unexpectedly from a head injury from a fall. Andy graduated magna cum laude from The University of Texas, Austin, TX with Bachelors' degrees in Math and Physics. He completed a Masters' and PhD degrees in Theoretical Physics at University of California at Berkeley, followed by post-docs at University of Washington and Los Alamos National Lab. [He] Andy was recently married and was working at a humanitarian organization in Golden, CO. A memorial service was held October 13, 2018 in Denver, CO. The family has established a memorial fund to honor Andy's legacy. For information about a memorial fund in Andrew Hornig's name, see <<https://www.gofundme.com/andrew-hornig-memorial-fund>>. More information about the service: <<https://interfaithfuneral.com/tribute/details/3595/Andrew-Hornig/obituary.html>> Contact Lynne Fahlquist if you would like more information at: [lfahlqst@usgs.gov](mailto:lfahlqst@usgs.gov) *(NOTE: If you wish to contact Andy's father directly the address information in the retirees' telephone directory is incorrect for Evan Hornig, please reference Directory Changes for most current address information.)*

**Kate Flynn** writes: 2018 was a busy year for me. Spent a snowy Christmas and New Years in Taylor Park, CO with my sister, Ginger and most of her family. Snow, Santa, and 4 & 5-year olds is always a recipe for a good time. Then 2 weeks in Bali for a wonderful tour focused on textiles; 12 women led by 2 retired Royal Canadian Mounted Police (members of the first class that let women into the RCMP.) We are aiming for a reunion trip in a couple of years. Portland, OR in May with my Mom for a cousin's wedding and fun family time. In June, Ginger and I took a 2000-mile road trip starting in Wichita with 6-year old Gwen; then on to Houston to pick up 6-year old Olivia and 5-year old Ben. After a few days in Houston we headed for Pecos, TX where oil and gas exploration puts white pickup trucks everywhere and makes mediocre hotels expensive. Carlsbad Caverns was a hit with the kids who were happy to spend 3 hours inside. Spent a few days with in Las Cruces with my Mom and my brother Mick and his wife Liz. Take your eyes off 3 kids and they will find the mud, even in arid New Mexico. On for dinner in Santa Fe with more family and then north to the Alligator Farm near Alamosa (the biggest hit of the trip) and on to Frisco for my nephew's wedding. In July joined college roommates for a week in Spokane, WA; with a side trips to Coeur d'Alene for an amazing Summer Theater production of Guys and Dolls and Lolo, MT for the hot springs. Then ten days in Ojai, CA with cousins for no reason other than being lazy; did get to see a wild fire flare up and, happily, get squelched with many, many fire trucks, helicopters dumping water, and planes dumping flame retardant (this was no more than 2-3 miles from where the fires had been in 2017.) Pretty exciting, but not what you want to watch over the back fence. Then back to Las Cruces in late August to celebrate Mom's 90th birthday. Minnesota in September for the Retiree's reunion (why weren't you there?) Back to Houston for Thanksgiving and the opportunity to meet 3-week old Isabelle, the newest member of the family. Finally, back to Las Cruces for Christmas with Mom, Mick, and Liz. Great time hiking and tamales for breakfast. Hoping to get in another road trip with the 3 kids this summer; they all think it would be a great idea.

**Mark Hardy** writes: Hello Folks! I guess that it's time that I admit what Cathy and I have been up to since my retirement in 2010. Life certainly hasn't been boring. We continue to live near Eagle, Idaho. We visit our kids frequently in the Bay area and Los Angeles, and we take those opportunities to do a lot of hiking in California, Nevada, and eastern Oregon. Since moving to Idaho in 1994, the deserts have become one of our primary attractions. In particular, desert lakes are a favorite destination. I still do quite a bit of photography, and these stark lake settings seem to get my creative juices flowing. I continue to pursue "fine-art" photography seriously, primarily monochrome prints. Although I continue to show prints several times each year, I have gotten too lazy to continue framing and hanging the large 30+ image shows. Cathy and I regularly do volunteer events to feed the needy, and Cathy (a retired high-school literature teacher and librarian) continues to encourage me to increase the number of books that I read instead of the large number of magazine articles that I used to consume. Ever-so-often we are fortunate enough to cross paths with WRD folks and other water-resource colleagues that I encountered during my career. I had never considered myself addiction prone, but I have fallen to the lure of pickleball, a game that is like tennis on a short court. I usually play 2 to 4 times per week. Although

I'm a duffer, it provides the right balance between precision control and outright aggression to keep me balanced. The occasional muscle pulls and other injuries make me feel like I'm accomplishing something...perhaps I'll get over that before it's too late. Thanks so much for the great work that the WRD Retirees group continues to do. I really value each Newsletter and Directory.

**Tom Herrett** writes: Enclosed is a check to cover back and future dues, plus some extra for the scholarship fund. I've been doing a little contract work with the Portland office helping on database cleanup. Lots of published historic data that needs to be pushed out to NWIS web.



**Rick Iwatsubo** writes: First of all, just wanted to thank USGS Retirees Officers and staff for all their hard work and dedication to the USGS Retirees Organization and Newsletter. Your efforts are greatly appreciated. Also, enclosed are my dues for the next two years plus a skosh for treasury. "Every Day Is Saturday" continues at my end of the world. All goes well, just getting older a slower. Though this past January (2018), I had my best tuna trip ever. I managed to catch 4 yellowfin tuna over 200 pounds (225, 225, 240, and a 257). I hooked another big fish, but unfortunately the hooked pulled free after battling it for an hour. Attached is the photo of the 257-yellowfin tuna.

**Barbara Kerans** writes: Enclosed please find my check for past, current and future dues. I'm still spending summers at the family cottage in Ontario, Canada. The drive from Colorado to Ontario across the 'heartland' instead of as a 'flyover' has been enlightening. I find something different every time. Do try the Spam Museum in Austin, MN. Thanks for keeping use informed with the newsletter.

**John Klein** writes: We are at our winter RV Park in south-central CA. We will probably sell our RV lot soon. As we have the last 4 summers we will return to Montana in early May, where we are now legal residents. We have been out of the Tucson house since May. Our new address at least for a while -- (*reference Directory Changes*).

**Hal Langford** writes: Enclosed is a check for two year's dues. I don't want to pay too far ahead as I am 93 years old today (11/14/18). I have attended local meetings and reunions of WRD Retirees since it started under George Ferguson. Keep up the good work!

**Ken and Marie Muir** writes: Enclose is our check covering Kenneth S. Muir's dues for three years. Out contact information remains the same. We prefer to have paper copies of the Newsletter and Retirees' Directory.

**Carolyn Norton** writes: Enclosed is my check to pay for two year's dues. The extra money is a small donation to be put towards the scholarship program. Thank You

**Chet Thomas** writes: Merry Christmas and Happy Holidays. Best wishes for a great new year. Keep up the good work. Enclosed is a check for one year's dues and the remainder to the scholarship program.

**Bob Ugland** writes: Enclosed are dues for three years. We enjoy reading the newsletter. My wife Carolyn and I also enjoy the monthly breakfast with other retirees in Lakewood, CO on the 3<sup>rd</sup> Thursday!

**Dues Received from last Newsletter:**

Jim Borchers  
Gil Bortleson  
Rick Fontaine  
Tom Reilly  
John Roberts  
Harold Seitz

## MEETINGS AND GATHERINGS

### CO District Breakfast Gathering Village Inn, Lakewood CO October 18, 2018



**L to R:** Carolyn Ugland, Jim Blakey, Paula Blakey, Judy Cornwell, Mary Kidd, Dave Lystrom, Larry Jones, Dick Tucker, Bob Ugland

### NATIONAL WATER QUALITY LABORATORY (NWQL) 1<sup>st</sup> Monday Luncheon – November 5, 2018 Arvada, CO



**L to R:** Jim Bennett, Merilee Bennett, Jim Blakey, Paula Blakey, Dave Erdmann, Gladys Erdmann, Juan Vasquez, Ann Watterson



**South Atlantic Water Science Center Retirees Luncheon  
Duluth, GA (Colden Coral)  
October 31, 2018**



**L to R:** Glen Faulkner, Eve Kuniansky, Jim Bettendorff, Mary Dunn, Ed Martin, Brian Hughes, Keith McFadden, and Mike Peck. (Brian McCallum is taking photo).

**USGS Retirees' MD-DE-DC WSC  
Christmas Party  
December 13, 2018  
Baltimore, MD**



**Back Row (LtoR):** Jim Gerhart, Dan Phelan, Judy Denver (Del), Bob Shedlock, Shirley Hartsoe, Herb Freiburger  
**Front Row (LtoR):** Steve Curtin, Deb Bringman (Del)

**MT USGS Retirees  
Weekly Wednesday Morning Get Togethers  
Helena, MT**



**Seated (LtoR):** Chuck Parrett, Mark Gerl, Pat Ladd, Ron Shields, Kent Dodge, Jim Hull, Bob Omang, Jim Elliot, Andy Skerda, Steve Lynn (near), Norm Midtlyng (far), Mike Cannon

**Standing (LtoR):** John Lambing, Bill Stotts

Greetings from the hinterlands of Montana: While Montana is a small USGS District-err, ah, I mean Water Science Center, we have a very large and active bunch of retirees. This is a weekly gathering, mind you, and our crowd size varies from about 4 to over a dozen. In addition to these mornings solve-the-problems-of -the-world meetings, a smaller group often gathers on Wednesday or Friday afternoons to solve more problems while sipping some liquids other than coffee. It's not all fun and games with this group, though, because twice a year we gather together to clean up a 2-3 mile stretch of interstate highway near Helena. The clean-up activity was started about 20 years ago by Dave Hansen (before he was even a retiree), and the moniker used to aptly identify the clean-up crew is "USGS Old Timers". While we Montana USGS retirees are "Old Timers", we try hard to stay in touch with one another and keep our "old-timer" backs and legs active!

**-Chuck Parrett**

**NE USGS Retirees  
Village Inn, Lincoln, NE  
November 13, 2018**



Greetings from the USGS Nebraska Retirees group. Pictured **L to R:** Lou Quinn, Mary Jo Schlotfeld, Judy Boohar, Joanne Engel, Glenn Engel, Robert Swanson, Abe Chen.



**NC USGS RETIREES  
Spouses and Friends Fall Luncheon  
Raleigh, NC  
November 1, 2018**



**First Row (L to R):** Nancy Garrett, Nancy Coble, Charlotte Lloyd, Kay Naugle, Shirley Lea, Doug Harned, Rose Mary Lunsford  
**Second Row (L to R):** Gary Garrett, Ron Coble, Bruce Lloyd, Jeanne Robbins, Rose Pinnix, Charles Daniel, Nelson Williams

**NM USGS RETIREES  
October 2018**



**Seated (LtoR):** Aurora Lepp, Elsie Sanchez, Barbara Henson, Dolores Borland, Tere Sanchez  
**Standing (LtoR):** Richard Lepp, Pat Soule, Kathy Richey, Steve Richey, Rodger Ferreira, Pat Borland, David Ortiz, Doug Macada, Rick Sanchez, Jack Veenhuis

**RESTON-HERNDON RETIREES  
LUNCHEON  
January 7, 2019**



The talk was by Harry McWreath, entitled "Cuba Libre," with slides of his recent trip to Cuba. Attendees were from water resources and geology.

**Old Model A Ford that the Geologic Division scientists used in the 1930s**



Model A Ford coupe, 1930, in the USGS main lobby, Reston, VA  
<https://soundwaves.usgs.gov/2004/01/staff3.html>

**ANNUAL UPDATE REQUEST -- RETIREES' TELEPHONE DIRECTORY  
REQUESTS SHOULD BE RECEIVED BY APRIL 26, 2019**

The Retirees' organization publishes an updated Members' Directory every May (we were a few months late in 2018.) The directory is available in print or electronic format. Please take a minute to review the 2018 Directory; if your information or that of others you may be aware of require change, please let us know. Send update information to WRD Retirees, P.O. Box 280, Herndon, VA 20172-0280 or email it to [wrdretirees2014@gmail.com](mailto:wrdretirees2014@gmail.com).



## RETIREMENTS

**Dave Berger** retired on January 3, 2019 after more than 35 years with the USGS. Dave began his career with the Survey in 1981, as a Hydrologic Technician at the Nevada Water Science Center. Over the years he worked his way up through positions including Hydrologist (1985-2003), Chief of the Northern Nevada Hydrologic Studies Section (2003-2014) and then Associate Center Director (2014-2016). In 2016, he stepped into his current role as Center Director. Having worked for the Nevada Water Science Center for so long, Dave has an incredible understanding of the hydrology of the state, in depth familiarity with the water issues, and excellent relationships with the key stakeholders and partners. He leveraged that with a strong academic and science background (BS in Geophysics and MS Hydrology/Hydrogeology from the Mackay School of Mines, University of Nevada, Reno, NV) to become a well-respected and impactful leader, both within USGS and throughout the State. He has led the Center extremely well, and we will all miss him greatly. Dave has been married for 38 years to his wife Dawn and they have two grown children. His plans for retirement include traveling, increasing his and Dawn's volunteer activities, and living off the grid in their log cabin high in the eastern Sierra. Rumor has it that there might also be a new bicycle in his near future. *(Jill Frankforter has graciously agreed to step in as acting Center Director while we recruit for Dave's replacement. Jill is the Deputy Director of the USGS Wyoming-Montana Water Science Center. She has been in that role since 2015, working with staff to expand and enhance the Center's scientific research and data collection capabilities. Prior to this, she was the Center's Chief of the Water-Quality Unit and one of the Center's water-quality specialists. Jill joined the USGS's Nebraska Water Science Center in 1990 while attending the University of Nebraska-Lincoln. She has a background in water quality and stream ecology, focusing on nutrient effects on aquatic ecosystems, and was lead ecologist on the Central Nebraska Basin's National Water-Quality Program study area. She earned a Bachelor of Science-Biology in 1992 and a Master of Science-Natural Resources (Aquatic Ecology) in 2005. Jill has lived in Helena, MT since 2010. She is married (Gary) and has two children—Levi (23) and Sydney (20). Jill's 120-day detail will start on January 6th. We greatly appreciate her willingness to lead the Center during this transition time and look forward to having her as part of the Pacific Region team.)*

**-Adrienne N. Bartlewitz, Chief of Staff, Water Mission Area, Reston, VA**



**John Karl (JK) Böhlke** Senior Scientist, transitioned to Scientist Emeritus status in August 2018 after 35 years of service to USGS as a Geologist and Hydrologist conducting research in geochemistry, geochronology, hydrogeology, water-rock interaction, and contaminant transport. JK received a B.S. in Geology from the University of Michigan and a M.S. in Marine Geology from the Rosenstiel School of Marine and Atmospheric Sciences (weathering processes in the oceanic crust) before joining the USGS in 1978 as a Geologist in the Mineral Resources Program in Menlo Park. He left to obtain a Ph.D. in Geology and Geophysics from the University of California at Berkeley (geochemistry of hydrothermal ore deposits) and held a post-doctoral position at Argonne National Laboratory in Chicago before re-joining the Mineral Resources

Program in Reston. JK joined the USGS National Research Program of the Water Resources Division in 1991, where he led a research project in Isotope Hydrology and Biogeochemistry. Additional government service included brief stints with the Post Office and Soil Conservation Service. In *Western Mineral Resources Branch*, JK studied origins of metal ore deposits, including a comprehensive study of hydrothermal “orogenic gold-quartz vein mineralization” in the California Mother Lode, focusing first on regional geology and geochronology, then local water-rock reactions as controls of fluid chemistry and ore deposition. At *Argonne National Laboratory*, he participated in studies of geothermal systems in Yellowstone National Park (radium sources and geochronology) and the Philippines (origin of methane-hydrogen gas seeps). He also worked with colleagues in the U.C. Berkeley Physics Department to develop a microanalytical technique for halogens and noble gas isotopes in mineral fluid inclusions and explored its potential for resolving fluid sources, solute sources, and mineral deposition processes in ancient hydrothermal systems. In *Eastern Mineral Resources Branch*, JK continued the fluid inclusion research while also conducting isotopic analyses and geochemical modeling of water-rock interactions in metal-rich mid-ocean ridge hot spring systems. In the *National Research Program*, JK conducted multi-disciplinary research on processes affecting quantity and quality of water resources. His contributions included development of stable isotope analytical methods; isotopic tracer techniques for quantifying transport and transformation of biogeochemically reactive solutes; environmental tracer approaches for groundwater dating and flow-path analysis; plus numerous integrated hydrogeologic field studies, all intended to improve understanding of sources, movement, reaction, and fate of water and dissolved constituents through the hydrologic cycle. Many of his early studies combined lab analyses and field work at selected locations across the US to improve characterization of natural and anthropogenic nitrogen sources, and to explore hydrogeologic controls on the history, fate, and future of nitrogen contamination in groundwater under the influence of varying geology, climate, and land use. These studies demonstrated the importance of resolving groundwater residence times and biogeochemical gradients for predicting aquifer and watershed responses to land use change in diverse settings. Subsequent studies also included measuring and modeling nitrogen-oxygen-carbon cycling and ecosystem metabolism associated with groundwater/surface water interactions in streams, wetlands, and lakes; isotopic characterization of natural and anthropogenic perchlorate; stable-isotope fractionation during biodegradation of inorganic and organic contaminants; and brackish groundwater resources of the US. Throughout his career, JK collaborated

extensively with students, postdocs, and other scientists throughout USGS and in academia, national laboratories, and other national and international agencies. He contributed to more than 200 publications, including review articles and book chapters on selected topics ranging from hydrothermal geochemistry and ore deposits to groundwater resources and contaminants. He taught national and international training classes in Isotope Hydrology and Groundwater Dating, and he served on numerous committees and panels, recently including the USGS Water Science Strategy Planning Team, USGS Innovation Center Advisory Group, USGS Council of Senior Science Advisors, and Chesapeake Bay Scientific and Technical Advisory Committee. He was a Member of the IUPAC Commission on Isotopic Abundances and Atomic Weights and various subcommittees related to atomic weight determinations and educational products. He received Superior and Meritorious Service Awards from USGS/DOI and three Project of the Year awards from the Department of Defense (SERDP, ESTCP), and he is a Fellow of the Geological Society of America. JK is pleased to have had opportunities to change venues, perspectives, and research focus over the years, and he is extremely grateful to colleagues and supervisors who have helped to make it all interesting and rewarding. He is not done yet, however, and he looks forward to continuing collaboration on various studies in progress. His retirement plans also include sailing and other off-the-grid activities with his wife Brenda.



**Steve Brady** retired on January 3, 2019 after 37+ years of service as a computer scientist extraordinaire. Steve began his exceptional career in April 9, 1980 as a hydrologic aid in Salina, KS, transferred to Rolla, Missouri in 1983 as a hydrologist, and eventual return to Lawrence, KS in 1991 as Computer Scientist. Steve's career is a time capsule of the advancement of computing in USGS and his excellent technical contributions to the water resources program. Steve is always on the leading edge of computer science in USGS, starting in Kansas working with Harris Minicomputers that served as the prototype for the DIS-1 procurement of a distributed minicomputer system manufactured by Prime Computer. Steve's substantial contributions

included the development of the first electronic mail system (EDOC) for use within USGS, team member for the DIS-II procurement for UNIX minicomputer and desktops, computer Systems Administrator in Missouri and Kansas, Project Chief of Administrative Information System (AIS), participating member of numerous committees and technical groups, development and support for WaterWatch, WaterQualityWatch, National Real-Time Water Quality (NRTWQ), and most recently the centralization of National Water Information Systems (NWIS) legacy applications. We thank Steve for his many contributions and friendship through the years and wish him well in his retirement career. We plan to have Steve return part time to assist with completion of the NWIS centralization project (provided we can get the waiver approved) and help mentor and complete transition of his duties. Steve plans to have lots of fun in his retirement traveling, continued avid trail running, his many house and farm projects, hunting big game and birds whenever he can and spending time with his extended family as much as possible.



**Deborah "Deb" Bringman** retired on January 31, 2019 after 32 years of service with the USGS. She spent her entire USGS career working as a hydrologic technician in the Dover, Delaware Office of the Maryland-Delaware-DC Water Science Center. She also worked as a technician with the U S Forest Service in 1984-85 in Bethel, ME. Deb graduated from Slippery Rock University in Pennsylvania in 1984 with a BS in Environmental Education/Environmental Science. Deb had the opportunity to get involved in many aspects of both field and office work in surface water, groundwater and quality of water. As she grew in her career, it was clear that she would excel the most in the groundwater and the groundwater quality disciplines in both the data program and in project support. She was considered the office expert in water-quality field techniques and as such trained and mentored team members in that aspect of the work. She continually stressed the importance of integrity in performing sound sampling techniques and that any deviations from prescribed techniques were unacceptable.

In the Delaware Office, Deb coordinated the lab, office and field operations for several large sampling events. Deb had direct input with National-level scientists at USGS Headquarters on the development of new field techniques. Deb and her husband, Fred, plan on remaining in Delaware and they plan on numerous visits with their two college-aged daughters and possibly some travel of their own may be on the horizon. Deb, very soon, intends to pursue one of the things that has been on her bucket list for several years. Delaware has several State Parks. One of them is called Fort Delaware State Park, the site of a Civil War prison built in 1863. It is located on an island in the Delaware Bay off the Northeastern Coast of Delaware and is only accessible by a Ferry boat from a Delaware community called Delaware City. The park has decided to begin a series of "living history enactments" of what happened at the site during the time of the Civil War. Deb, hopefully, will be part of the team of actors (portrayers) who will emulate the people who worked there in 1863. Also, she will be dressed in the costumes of the time. We wish Deb all the best in her endeavor and a happy and healthful retirement to her and her family.

**Jim Cornwall**, retired on November 9, 2018 after 30-plus years in federal service, Jim is moving to the ranks of the retired. It is a pleasure to recognize Jim's significant contributions and outstanding service throughout his years in service to the Water Mission Area. In 1983, Jim graduated from the University of Washington with a degree in Geology. He was commissioned as a Second Lieutenant in the Air Force and sent to Keesler Air Force Base in Biloxi, Mississippi, for training

in Communication Electronics. While in training, Jim met and married his classmate Suzanne, and qualified for further training as a computer programmer. In 1984, Jim was assigned to Offutt AFB in Nebraska as a programmer and operations officer supporting the Air Force Global Weather Central (AFGWC) computer complex. While there, Jim's team ensured the system maintained an uptime rate exceeding 99.8% and provided continuous support of national objectives, making modifications and upgrades to operating system and communications code. Jim also worked as part of a major project to enhance the AFGWC communications capability with a new high-speed front-end computer with enhanced security, serving as the project liaison with the AFGWC command structure and Operations. In 1991, Jim was deployed to the 1984th Communications Squadron at Kunsan Air Base, South Korea. In his one-year tour, Jim served as the Plans and Programs Officer and Chief of Operations, providing telephone and computer services not only to the 8th Fighter Wing on base but to the several thousand personnel living on base, and ensuring the base was capable of fulfilling its wartime mission requirements at a moment's notice. In 1992, Jim returned stateside, assigned to the US Strategic Command's J6 division. Under J6, Jim was responsible for the support, operations, and security of the IBM 360 mainframe computer system of the Joint Strategic Target Planning Staff. Jim led a team of military and contractor personnel in keeping this highly secure system operating at peak efficiency in support of the nation's nuclear war planning requirements. In 1995, Jim departed the Air Force and began a break in his federal service, returning to the University of Nebraska-Lincoln to complete a Masters' Degree in Hydrogeology. Looking to the future, however, Jim began working for the Nebraska District office in 1997 as a student, digitizing maps into Arc/Info coverages to be used in groundwater/surface water modeling. This soon evolved into programming, rewriting old soil moisture software into the Deep Percolation Irrigation Requirements Model published in 2002. Eventually Jim began working, still as a student, for the NWIS office as a programmer on the Automated Data Analysis Program (ADAPS). After graduation, Jim officially rejoined federal service in 2001 as a member of the NWIS Design and Development Unit. As a member of the ADAPS team, Jim worked closely with other programmers, project managers, and the user community around the country to ensure that software updates performed properly and met the needs of the users. Jim's military background helped push an increasing awareness of security and data integrity within ADAPS, leading to implementation of the "Data Aging" concept across the entire suite of software. Jim continued working with ADAPS and other software within NWIS, eventually becoming the ADAPS team leader and Technical Lead. He worked on many projects and collaborative teams spanning the Water Mission Area, including conversion of NWIS to the Oracle database, the Commercial ADAPS Replacement Project (CARP), the National Aggregated Database (NATDB), and the ongoing NWIS Centralization project. In 2018, Jim became the Acting NWIS Product Owner, overseeing the day-to-day operations and support for NWIS as well as the Centralization project which will consolidate 45 aging database servers onto a new hardware and software platform and serve as a bridge to future upgrades. Jim is looking forward to a life at an easier pace where he can devote time to his photography, making driftwood art, and fishing from his kayak. While Jim's career path has taken him to see many different sights compared to most in the USGS, he has always been dedicated to serving the public and the country, in good company with the finest traditions of both the military and civilian sectors. We thank Jim for his 30 years of dedicated and exemplary service to the U.S. Geological Survey and wish him all the best in his retirement.



**Joseph Holomuzki** retired on November 1, 2018 as the Chief of the Hydro-Ecological Interactions Branch of the USGS Water Mission Area Earth System Processes Division, Menlo Park, CA. He oversaw the USGS's research and development on important water-resources topics such as lake and estuarine systems, wetlands, the relationships between water and land use, water quality, and contaminant transport and fate. The Branch has 50 highly-skilled scientists studying topics such as estuarine and river ecology, fate and transport of contaminants and pathogens, contaminant biogeochemistry and bioavailability, groundwater and surface water exchange in watersheds, climate and cryospheric change, and biological and microbiological processes that affect water quality and

ecosystem health. His research focused on community dynamics in riverine and wetland ecosystems in New Zealand and the United States (mainly the Laurentian Great Lakes region and northern California). In New Zealand, he studied how flooding and species interactions (typically predation by fishes and competition for benthic algae) regulate populations of freshwater macroinvertebrates. His research in Ohio centered on how invasive plants alter food web structure and ecosystem function in Lake Erie coastal wetlands. He has worked with the Ohio Department of Natural Resources to provide baseline data on practical economic strategies to limit expansion of *Phragmites australis* (common reed) and to restore biodiversity in reed-dominated wetlands. He has published more than 60 peer-reviewed research papers and book chapters, served on review panels or reviewed proposals for the National Science Foundation and Sea Grant, reviewed manuscripts for 30 different journals, and served on the editorial board for *Copeia* (1994–1998) and for the *Journal of the North American Benthological Society* (J-NABS; now titled *Freshwater Science*) (2001–2004). His professional-society service has centered mainly on operations of the Society for Freshwater Science (SFS) (formerly known as the North American Benthological Society [NABS]), where he served as President from 2011 to 2012. Prior to coming to the USGS, he was in academia, where he was honored with several teaching awards, including the Ohio State University Alumni Award for Distinguished Teaching in 2011.





**Paul Hsieh** retired on November 1, 2018 --*The following information on Paul's retirement was derived from the web-site <https://www.usgs.gov/staff-profiles>:*

#### **Education**

Ph.D., 1983, University of Arizona, Hydrology and Water Resources  
M.S., 1979, University of Arizona, Hydrology and Water Resources  
B.S.E., 1977, Princeton University, Civil Engineering

#### **Professional Experience**

**U.S. Geological Survey, Menlo Park, CA, 1983 to 2018.** Research Hydrologist. Conduct research on fluid flow and solute transport in fractured rocks, hydraulic and tracer testing, computer simulation and visualization, groundwater resources in bedrock terrain, poroelasticity analysis of fluid-stress interaction and subsurface deformation, induced seismicity from fluid injection. **Special assignments.** 2010: Served on the Government science team for the Deepwater Horizon oil spill response. 2005 to 2007: Served as lead scientist to develop the groundwater model of the Spokane Valley-Rathdrum Prairie Aquifer in Washington and Idaho.

**U.S. Geological Survey, Tucson, AZ, 1978 to 1983.** Worked part time as hydrologist while attending graduate school at University of Arizona. Conducted research on hydraulic testing in fractured rocks.

**U.S. Geological Survey, Reston, VA, 1977 to 1978.** Hydrologist. Conducted research on earthquakes triggered by increase of fluid pressure.

**Adjunct Professor, Department of Geological and Environmental Sciences, Stanford University, 1989 to 2004.** Taught graduate-level courses "Role of Fluid in Geologic Processes" and "Hydraulic and Tracer Tests for Ground-Water Resource Evaluation."

Paul authored or coauthored more than 82 peer-reviewed publications about his USGS research particularly related to fractured-rock hydrology and related processes. One of his most visible efforts included technical assessment of flow rate estimates for the Deepwater Horizon/Macondo well oil spill. See the web site for detailed listing of Paul's incredible publications output.

#### **Awards and Honors**

American Geophysical Union Ambassador Award, 2014

Elected Fellow of the American Geophysical Union, 2014

National Ground Water Association John Hem Award for Excellence in Science & Engineering, 2012

Service to America Medal - 2011 Federal Employee of the Year

U.S. Geological Survey - Director's Award, For Exemplary Service to the Nation, 2010 Deepwater Horizon Oil Spill Response

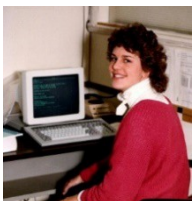
Department of the Interior - Distinguish Service Award, 2008

Elected Fellow of the Geological Society of America, 2005

Department of the Interior - Meritorious Service Award, 2000

Association of Ground Water Scientists and Engineers, Henry Darcy Distinguished Lecturer, 1995

**Brian Hughes** retired in early January 2019. He began his career with the U.S. Geological Survey in the Maryland District in 1987 working on a groundwater contamination study at Aberdeen Proving Ground. He later became the project chief for the J-Field study; according to Brian his biggest accomplishment during this period was avoiding getting blown-up by chemical and high-explosive munitions. In 1993 Brian transferred to the South Carolina District to become the National Water Quality Assessments (NAWQA) Study Unit Chief for the Santee River Basin and Coastal Drainages. In 2000 Brian moved to Atlanta and the Georgia District where he served as the project chief for several large interdisciplinary and multi team member projects. These included the NAWQA Apalachicola-Chattahoochee-Flint Basin Study Unit; the Flint River Water Availability Thrust Program – an interdisciplinary (Geology, Water, Ecosystems, and Mapping) study to develop ecological flow relations; the Southeast Regional Assessment Project to study effects of climate change in the southeast including land-use change, vegetation change, sea-level rise; to determine effects on aquatic ecosystems in the ACF Basin.; and lastly the Apalachicola-Chattahoochee-Flint Focus Area Study of the National Water Census to improve predictions of stream flow and effects on aquatic ecosystem from changes in water use. Brian concluding his career from 2015 to 2018 serving as the Studies Chief for Modeling and Geospatial Analysis Unit of the South Atlantic Water Science Center.



**Allison Kunze** retired on December 31, 2018 after 38 years with the USGS in Ohio. Allison says she is grateful to have been in the right place at the right time to start working with the Ohio District and also grateful for all of the wonderful people who have helped her find opportunities along the way. Like many of us, Allison started as a student, right out of high school and worked while earning her degree in geology from Miami University. Being new and inexpensive gave her a chance to work with scientists in all areas of the office—surface-water, groundwater, water-quality and any other task needed (even keypunching,

washing dishes, and organizing reports), eventually graduating to a variety of interesting studies as a support person. After graduation Allison worked on several projects investigating the effects of coal mining on surface water and groundwater. Travelling throughout southeast Ohio and meeting colleagues in other agencies as well as some colorful locals was inspiring. Allison worked in partnership with the Ohio Department of Transportation for the next 17 years investigating the effects of highway-deicing chemicals on shallow aquifers around Ohio. Projects rarely last that long anymore. She also spent many years as part of the Federal Women's Program collaborating with others in the Northeastern Region and working directly for the Chief Hydrologist. In 1992 Allison became a supervisor of the Water-Quality Section. Eventually that section grew to include biology, microbiology, and ecology, chemical quality. She has enjoyed hiring and mentoring many other students and employees over the years and is proud that most of them have stayed with the USGS and accomplished some very impressive things. Allison will be keeping busy working on her family genealogy, volunteering at the CHA animal shelter and working on home projects that have been piling up. Travel is on the list as well eventually.

**Please keep in touch** by emailing her at [allison@kunze.com](mailto:allison@kunze.com)



**Kathy Long** retired after 20 years with the USGS. She began her career as a GS 1, Step 1, working for the Associate Chief Hydrologist for Operations. Prior to joining USGS she had owned and operated her own sewing factory, making flight jackets for the Air Force, so GS 1, Step 1 was a big step down! With the abolishment of the Office of Operations she moved over to the Northeast Region where she continued to make herself indispensable to several people, including the Director's Office, where she helped develop and populate various excel spreadsheets. After leaving the Northeast Region Kathy went to the Office of Water Information, gradually working her way up to the position of a "Management and Program Analyst," a position she held until she retired. In that capacity she was responsible for records and property management for Water, as well as putting together the mandatory "request to hold a conference" packages for DOI's approval. Additionally, Kathy was the Retirees' point of contact within

Water, and she helped us immensely for the last few years. Although Kathy will be missed by Water, the Retirees' welcome her to their ranks!



**Roger M. Moberg, Jr.** retired on December 31, 2018 after a long career of dedicated service with the U.S. Geological Survey (USGS). Roger began his career in 1988 working in the USGS Virginia District, Water Resources Division in Charlottesville, VA as a hydrologic technician after graduating from Mississippi State. In 1997 Roger transferred to the USGS Virginia District, Water Resources Division in Richmond, VA. Over the last 30 years, Roger has been an integral part of the Investigative Studies Section, collecting a myriad of surface-

water, groundwater, geochemical, seismic, age-dating, borehole-geophysical, gravity and hydraulic data across Virginia. Because of his broad knowledge of all these types of data collection he has also been a valuable resource to many other hydrologic technicians and hydrologists (including me) during his career. His dedication to collecting the highest quality data was unrivaled. His influence on data in the Virginia and West Virginia Water Science Center will be felt for many years to come, through the equipment that will continue to collect high-quality data and the hydrologists and technicians that he mentored. His recent work has focused on the refurbishment of two counterweighted pipe extensometers in the Cities of Franklin and Suffolk, and the construction of a new 1,960-ft counterweighted pipe extensometer at the Hampton Roads Sanitation District Treatment Plant in Suffolk, VA, to monitor the impact of a project to inject water into the Potomac aquifer. During his tenure with the USGS, he assisted with or was the lead on dozens of projects and contributed to many publications, including at least 6 where he was the lead or a contributing author. The outstanding quality of Roger's work has produced foundational data that have advanced the knowledge of the water-resources of the Commonwealth of Virginia, earned him the respect of his colleagues, and reflects his dedication to the goals of the USGS and to the Department of the Interior.



**David L. Nelms** retired on December 31, 2018 after a long career of dedicated service with the U.S. Geological Survey (USGS). Dave began his career in 1984 working in the USGS Virginia District, Water Resources Division in Richmond, Virginia as a hydrologic technician after graduating with a Geology degree from Virginia Tech. One year later Dave became a hydrologist and worked on developing a hydrogeologic framework for the Defense General Supply Center. Over the last 34 years he has studied a variety of groundwater-flow systems across the Commonwealth of Virginia and the Eastern United States and mentored many a hydrologist, including me. His studies have dealt with fractured-rock and karst aquifers, groundwater/surface-water relations, age dating, aquifer

susceptibility, groundwater contamination, hydroseismicity and land subsidence. His recent work has focused on the refurbishment of two counterweighted pipe extensometers in the Cities of Franklin and Suffolk, and the construction of a new 1,960-ft counterweighted pipe extensometer at the Hampton Roads Sanitation District Treatment Plant in Suffolk, Virginia, to monitor the impact of a project to inject water into the Potomac aquifer. He has also been the Groundwater Specialist in Virginia for the past 16 years. Dave was the 2004 Federal recipient of the Virginia Erchul Environmental Leadership Award which recognizes an individual for their significant efforts to better our environment over their lifetime or

career. He is the principal author of the *Hydrogeology of Virginia* chapter in *The Geology of Virginia* volume recently published by the Virginia Museum of Natural History. During his tenure with USGS he has been a lead or contributing author on more than 70 publications. The outstanding quality of Dave's work and his ability to collaborate across the Bureau has earned him the respect of his colleagues and reflects his dedication to the goals of the USGS and to the Department of the Interior. Dave's home-spun advice and insight was always spot-on and contributed to why he was able to gain the trust and respect of his collaborators, peers, and his superiors.

**Mark Nilles** retired on November 30, 2018, completing 34 years, 8 months of federal service. Mark began his federal career in 1982 as a seasonal hydrologic technician with the USDA-Forest Service, sampling surface water in the Bighorn National Forest, WY and later supporting hydrologic research projects in the Fraser Experimental Forest, CO. Mark graduated from Colorado State University in Fort Collins, married his wife Nora, and in 1986 took a job as a hydrologist, forecasting river flows with NOAA-National Weather Service in New Orleans, LA. In 1990, Mark and Nora returned to Colorado, and Mark joined the USGS as Project Chief for the quality assurance project for the inter-agency National Atmospheric Deposition Program (NADP). In 1997 Mark joined the Office of Water Quality and became the USGS Program Manager for NADP. In this position, Mark has been responsible for funding, expanding, and improving operations of NADP monitoring sites and atmospheric deposition research. In this role he spearheaded the modernization of the NADP instrumentation infrastructure at all sites. From late 2017 through early 2018, Mark and his colleagues successfully guided the NADP through a difficult transition to its new home at the University of Wisconsin. Mark also led the USGS – National Park Service Water Quality Partnership from 2007 to date. His leadership in the partnership during this time period delivered over \$24M of support to 188 USGS assessment projects to help guide NPS policy and management actions aimed at protecting and improving water quality in National Parks. Mark was also the Program Manager for the Hydrologic Benchmark Network from 2003 through the successful integration in 2016 of these 50+ year record water quality sites into the National Water Quality Network. Mark is staying in Arvada, CO and can be contacted at [Mark.Nilles@gmail.com](mailto:Mark.Nilles@gmail.com).



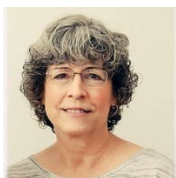
**Mary Ann Thomas** retired on December 31, 2018 after 25 years as a USGS hydrologist. She began her USGS career in 1993 at the Water Science Center in Charleston, WV. In 1995, she transferred to the Water Science Center in Columbus, OH, where she had the opportunity to work on a variety of groundwater-quality investigations, including multiple NAWQA studies, multiple studies of arsenic in groundwater, and most recently, an investigation of the isotopic characteristics of naturally-occurring methane in groundwater. Prior to working for the USGS, she was a geologist for a major oil company in New Orleans, LA from 1981-84, and a hydrologist at the North Carolina Dept. of Natural Resources in Raleigh, NC in 1985. Her educational background is in geology; she earned a PhD from Kent State University in 1993, and an M.S. from the University of South Carolina in 1981. Mary Ann is very grateful to have had an opportunity to be part of the USGS. After a rewarding and challenging career, she's looking forward to the next phase of her life. After that, please keep in touch by emailing her at [981maryann@gmail.com](mailto:981maryann@gmail.com)

**Donald 'Don' Vroblesky** retired on November 30, 2018 from the USGS after 42 years of government service. Don has had a fun career with the USGS, starting in Maryland as a groundwater modeler and ending up in Charleston, SC, as RGE scientist. He has many scientific publications, multiple patents, and has invented many techniques for studying contaminated groundwater. He invented the passive diffusion bag (PDB) sampler, which is now widely used worldwide to passively sample contaminated wells at a substantially lower cost than traditional methods and is one of the USGS' most successful patents. He was the first to use tree-ring chemistry to deduce the history of groundwater contamination, and the inventor of the now widespread technique of phytoscreening using trees to map subsurface contamination. He invented techniques to map contamination-discharge zones into surface-water bodies, including analysis of methane bubbles and the use of various types of passive samplers. He used those samplers in a variety of applications, including deducing the specific underwater rock fracture that was the primary discharge path of contamination to a stream. A later well tapping that fracture was able to successfully intercept the plume, resulting in successful remediation of the once-contaminated stream. He invented a technique to sample hydrogen in bottom sediment of streams to deduce the redox state, and using hydrogen analyses, he was the first to deduce the rapidity of redox-zone dynamics in a groundwater petroleum plume. He invented, patented, and utilized a permanent bottom-sediment screened interval for surface-water bodies that could be microsampled from the shore to monitor changes over time, in the discharge of groundwater contamination to surface water bodies. He discovered that shallow wells, like lakes, can seasonally turn over, resulting in thermal mixing that can produce false dissolved oxygen, redox and contamination readings on both pumped and passive sampling techniques, and patented a device to mitigate the negative effect on sampling. His inventions and findings have saved the groundwater industry and the government millions of dollars. Among several awards throughout his career, he recently was awarded the DOI Distinguished Service Award, which is the highest award in the Dept. of Interior. He spent the last 8 years working on classified or sensitive projects for the Dept. of Defense. He plans to continue as scientist emeritus with the USGS after retirement. We celebrated Don's retirement in January.



## MEMORIALS

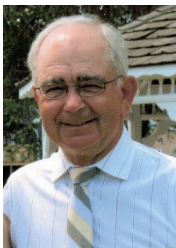
**Thomas D. Bullen**, a Research Hydrologist with the National Research Program (NRP), Water Mission Area of the USGS, passed away on September 7, 2018 after a valiant battle with Glioblastoma Multiform. Tom was a distinguished scientist who had a career full of scientific contributions and countless services to his colleagues and the geochemistry community. Tom received his B.A. (1972) and M.A. (1978) from Dartmouth College, New Hampshire. He obtained his PhD in Geology from the University of California, Santa Cruz in 1986. Tom joined the U.S. Geological Survey in Menlo Park, California in January 1987, initially in the Branch of Igneous and Geothermal Processes (GD), to conduct isotopic investigation of igneous rocks from the Lassen region of the Cascade Range. He quickly moved to the NRP, collaborating with Art White's team and continued as a research Hydrologist until his death at the tender age of 67 years. A scientist emeritus since 2014, Tom remained extremely active in research and collaborations. Tom's primary research focused on the use of metal and metalloid isotopes (e.g., Cr, Fe, Ca, B, Se and Te stable isotopes and Sr radiogenic isotopes) and water chemistry to understand hydrologic and biogeochemical processes at scales ranging from mineral-water interfaces to water flow paths in watersheds and regional aquifers. He developed and refined methods to determine the isotopic composition of metals and metalloids in water, rocks, and other natural materials, using thermal ionization mass spectrometry (TIMS) and multi-collector inductively coupled plasma mass spectrometry (MC-ICP-MS). Tom developed isotopic methodologies that are used to improve understanding of water-rock interactions in natural and contaminated systems and to advance environmental science. In many cases, Tom's isotopic data and his interpretations of the observed isotopic variations were among the first reported in the literature. Furthermore, Tom had long-standing interests in the science of small watersheds, large aquifers, contaminant transport and fate, human health, and biogeochemical tracing techniques in general. His latest research studies were focused on developing novel metal stable isotope tracing techniques to understand hydro pedological processes in forested watersheds and to determine the sources, transport mechanisms, and fates of metals deposited on those watersheds as dust. Tom collaborated with many colleagues and students from national and international institutions. His clean isotope laboratory in Menlo Park provided high quality isotope measurements of the metals and metalloids for the USGS (NRP and California and other Water Science Centers) and outside investigators through collaborative interactions. He was particularly strong in the conceptualization, development, and execution of interdisciplinary studies that utilize isotope tracers in novel ways to address a variety of scientific issues. Since 2008, Tom had an ongoing collaboration with scientists from the BRGM, Orléans, France, where he worked on the development of a technique to determine the oxygen isotope composition of chromate. Furthermore, Tom served on PhD committees where he shared his knowledge and experience with graduate students from many national and international universities. Tom was particularly strong in the quality and number of his publications. He authored and co-authored more than 100 peer reviewed journal and conference papers. He was invited to write overview chapters for books and to coordinate syntheses on the topic. One publication (Bullen, T.D., 2011, Stable Isotopes of Transition and Post-Transition Metals as Tracers in Environmental Studies in Baskaran, M., ed., Handbook of Environmental Isotope Geochemistry, Springer-Verlag, p. 177-204) is the first such article that encompasses this new field of biogeochemical research. More recently he authored a major chapter for the 2nd edition of the Treatise on Geochemistry (Bullen, T.D., 2014, Metal stable isotopes in hydrology and weathering). From Leadership Our Organization Tools and Tasks A-Z Index My Profile Tom was very active at AGU, GSA, and other major science organizations. In the geochemical community, however he is best known for his hard work and commitment during his six-year post as the IAGC Secretary. Tom served with energy and enthusiasm during a critical time for the IAGC. Furthermore, Tom was instrumental in helping organize many AIG meetings, including leading AIG IV in Monterey, CA, June 2001. Tom was extremely active at WRI meetings, and he was the senior editor of the proceedings of WRI-12 (Kunming, China) in 2007 and did more than his share of reviewing numerous manuscripts. Tom received the IAGC the Harmon Distinguished Service Award in 2015 in appreciation of his endless contributions. To his many friends and colleagues at the USGS and around the world Tom will always be known for his commitment to science and his ever-friendly and positive nature. The USGS and the geochemistry community at-large mourn his passing at such a young age.



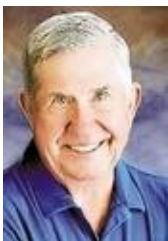
**Debra L. Emerson, 67, (wife of USGS retiree Doug Emerson)** passed away on October 28, 2018 in Bismarck, ND. Debra was born on October 3, 1951. A memorial service was held on November 5, 2018, at McCabe United Methodist Church, Bismarck, ND. Further arrangements are pending with Eastgate Funeral Service, Bismarck, ND.



**Mike Fahy, 70**, passed away unexpectedly Oct. 28, 2018, at his home in Evergreen, CO. A retired geologist and geophysicist, Mike had lived in Evergreen for more than 37 years. He worked for both the U.S. Bureau of Reclamation and the U.S. Geological Survey on a variety of projects over the course of a long career in Denver, CO. He enjoyed his many friends in the mountains and kept busy in his spare time helping with local water issues. He leaves behind his wife Juli, two adoring dogs, and a great many friends scattered across the country and the foothills. **(NOTE: Mike appears to have worked in the Geologic Division, but his name appeared on several scientific papers in conjunction with the Yucca Mtn. Project.)**



**Gary C. Huffman, age 81**, passed away on January 5, 2019. Gary was born on November 10, 1937. He graduated from Haslett High School in 1955 and spent the next two years serving in the U.S. Army as an anti-aircraft specialist. Gary and his high school sweetheart, June Marr, were married nearly 62 years and raised three children. After leaving the Army, Gary worked for the USGS for 38 years. Gary was a family man above all else and enjoyed spending time with his children, grandchildren and great-granddaughter. Gary was an active man who enjoyed bowling, golfing, biking, and walking. Surviving to cherish his memory are his wife, June, two sons and a daughter, three grandchildren, and one great-granddaughter. Gary was preceded in death by his parents, Philip and Leota Huffman and brothers-in-laws. A memorial service was held on January 10, 2019 at Gorsline Runciman Funeral Homes, East Lansing, MI.



**Jerry D. Larson, 74**, of Albuquerque, NM passed away on November 6, 2018 while on a sailing vacation in Fiji with his family. Jerry was born in Cheyenne, WY and grew up in Salida, CO. He received his degree in Geology from the University of Nevada, Las Vegas, NV. In 1967, Jerry married Eileen DeBuse in Denver, CO. He spent his entire career in Hydrology with the U.S. Geological Survey, Water Resources Division starting as a college student and finishing as a Certified Professional Geologist. His career took him and his family from Denver, CO to Las Vegas, NV, Fairfax and Richmond, VA and lastly to Albuquerque, NM where he retired in 2000. After retirement Jerry started his own business Larson Environmental Inc. which kept him and his son Scott busy sampling water in the mountains around Silverton, CO. Jerry thoroughly enjoyed his 'last' retirement job at Sandia Peak Tram as one of the gatehouse attendants. It gave him pleasure meeting and greeting visitors from around the world. It is serendipitous that he spent his last days on a sailboat named "Wanderlust" as travel was certainly a joy for him. Jerry was preceded in death by his son Scott in 2012 and his parents William and Ruth Larson. He is survived by his wife of 51 years, a daughter, two grandsons and one granddaughter, and a sister. A memorial celebration was held on December 15, 2018 at Sandiago's Grill at the base of the Sandia Peak Tram.

**Thomas J. McFate III, 68**, died peacefully from Alzheimer's on October 5, 2018 in Sarasota, FL. Tom was born on October 8, 1949 in New Castle, PA to Dr. Thomas J. McFate, Jr and Elizabeth M. McFate. He graduated from Penn State University, College of Earth and Mineral Science in 1972 with a degree in Geography. Tom became a resident of Northern Virginia and served with the Department of the Interior for 27 years as a Cartographer with the U.S. Geological Survey. He moved to Sarasota, FL in 1999 to enjoy an early and active retirement. Throughout his life, Tom was a dedicated volunteer to a variety of non-profit organizations. He was active in church life at his Methodist churches in VA & FL. Tom loved sacred music and was a proud descendent of Ira D. Sankey, the mid-19<sup>th</sup> century composer & hymnist. Tom frequently participated in United Methodist Volunteers in Mission (VIM) trips putting his faith to work helping those affected by floods or hurricanes. He was an accomplished map maker and hobbyist inventor who appreciated travel, photography, presenting travelogues, historic boat model-making, 1940's music, bicycling, boating, and history. He received national notoriety for his research and archival contributions to the historic 1,099 miles Route 301 highway. Tom is survived by his sister, a nephew and a niece, and his special friend Patricia Anderson. A funeral service was October 17, 2018 at St. John's United Methodist Church, Sarasota, FL.



**Lorna Kay (Ward) Nelson, 74, (wife of USGS retiree Gordon Nelson)** died December 4, 2018, as a result of a progressive neurodegenerative disease. She was born in Osceola, WI, on the July 4, 1944, and she celebrated every Fourth of July thereafter with unmatched enthusiasm, even after she learned at an early age that all those celebrations were not entirely for her. She was the first of four children born to Robert and Lila (Erickson) Ward of Dresser, WI. She graduated from Amery High School and the University of Wisconsin, Madison, with a Bachelor of Science in Nursing. After one year as a public health nurse in Minneapolis, she married Gordon Nelson in 1967 and moved with him to Fairbanks, AK, where he was stationed in the U.S. Army. Their two daughters were born in Alaska. In 1978 the family moved to Anchorage, AK, and Lorna became a stay-at-home mom while also earning her elementary-school teaching credentials. In 1986 she accepted a job as school nurse in the Anchorage School District. For the last eleven years before retirement, she was both school nurse and assistant principal at Lake Otis Elementary School. She loved the outdoors, served 35 years on the National Ski Patrol, and was an avid hiker. She was a member of Hillside Hikers in Anchorage and hiked with friends in Alaska, Utah, Colorado, Ireland, England, Austria, and Norway. She completely changed the décor of her home for every holiday (be the holiday ever so minor) and turned the basement of her home into a storage warehouse. She loved fishing the Kenai River where she caught sockeye and king salmon near their cabin. Lorna was a wonderful friend to many and especially to her friends in Central Lutheran Church, Wednesday Night Knitters, and PEO. She is survived by her loving mother of Amery, WI, by her husband Gordon, two daughters and two grandchildren. Funeral services were held on December 8, 2018 at First Lutheran Church in Amery, WI. A private family interment will take place, at a later date in Anchorage, AK.



**Raynard Jackson (Jack) Pickering, 89**, of Arlington, VA passed away October 29, 2018. Jack was born in Goshen, IN. He attended Indiana University where he received a BA (summa cum laude) and an MS both in geology. He then attended Stanford University where he earned a Ph.D. in Geology. He spent another year at Stanford doing research as a National Science Foundation Postdoctoral Fellow. Jack worked as a geologist and hydrologist in many locations around the country for private companies and the federal government. The family lived in New Jersey, Utah, Ohio and Tennessee before landing in Arlington, VA where Jack went to work for the USGS. He worked for 33 years for the USGS before his retirement. When I first met Jack in the early 1980's he was serving as Chief of the Water Quality

Branch of WRD. He was brilliant, unassuming, one of the nicest people I've ever met. His research was recognized throughout the USGS and the scientific community in general. While at Indiana University, he met and married Joyce Holt. Jack and Joyce were married for more than 50 years before Joyce passed away in 2005. Jack and Joyce loved travel. At the WRD Retirees luncheons in Herndon, VA, Jack used to tell me about the many trips to exotic locations that he and Joyce had visited, and even after he lost Joyce, he continued to travel. They also enjoyed sailing. After a few trips to San Francisco, they bought a 27-foot Bristol sailboat. For 25 years they spent many weekends on their sailboat. Jack donated the sailboat after Joyce's passing. Music was another love of Jack's. He was raised in a musical family and he and his siblings played various instruments. He also sang. While living in Virginia, he sang in as many as three different groups at the same time including the choir at his church in Arlington. Jack is survived by his three children, Pamela, of Whidbey Island, WA; Nancy, of Alexandria, VA; and Michael, Denver, CO and more recently Arlington, VA as well as several grandchildren. He is also survived by his sister, Carolyn Garman, of Cincinnati, OH.

**-Richard A. Engberg, Archivist, USGS Retirees**



**Virginia Sauer, 81, (wife of USGS Retiree Stanley Sauer)** passed away peacefully on November 8, 2018. Virginia was born December 20, 1936 to Armand and Anita Koennecke in Cave Creek, TX. She graduated from Fredericksburg High School in 1954, where she was active on the Pep Squad and was the Football Sweetheart, known for her beautiful and sweet smile. Virginia married her high school sweetheart, Stanley Sauer, on September 7, 1957 at Holy Ghost Lutheran Church in Fredericksburg, TX. They began their life together in Lubbock, TX as Stanley began his studies at Texas Tech. She was an exceptionally supportive, loving wife to Stanley throughout many years of academic studies and multiple career moves throughout the United States. Virginia and Stanley recently celebrated 61 years of marriage.

She was a devoted mother to their three daughters, always focused on their care and upbringing. She was active with the women's ministries as well as the Cheer and Care Committees in every church she attended and loved to cheer on her beloved San Antonio Spurs. Virginia is survived by her husband, Stanley Sauer of Fredericksburg, and their three daughters and their spouses, as well as twelve grandchildren and seven great grandchildren. Virginia was preceded in death by her parents and siblings. Visitation was held on November 12, 2018 at Schaetter's Funeral Home, Fredericksburg, TX; and, a 'Celebration of Life' service was held at Zion Lutheran Church, Fredericksburg, TX on November 13, 2018. Interment is at St. Peter Lutheran Church Cemetery, Doss, TX. Grandsons Nathan, Scott and Dmitry Searle, Brett and Paul Burns and Reed Bartley will serve as pallbearers.

**John C. Scott, 92**, of Coosada, AL passed away unexpectedly at his residence Wednesday October 3, 2018. John grew up in Idler, AL and was a World War II Army veteran. He earned a BS degree in Geology from the University of Alabama. John began his career with the U.S. Geological Survey for the Ground Water Branch in Alabama. During this period, he was the one-man field office for the Ground Water Branch in Montgomery, and later Geneva, AL. After the reorganization of the Branches and the creation of the Water Resources Division (1965-1966 in Alabama) John was assigned to the Montgomery Sub-District Office where he spent the remainder of his career. John wrote several reports on the groundwater resources of south Alabama and was considered by his colleagues to be the leading expert on the groundwater resources of the area. In addition, John wrote the Alabama District article in 'A History of the Water Resource Division, USGS, Volume VIII, 1979-1994.' One of John's colleagues, **Leroy Pearman, wrote this about John:** *"I moved to the Montgomery Office from Atlanta in 1986 and truly appreciated the welcoming reception that John gave me. He always was a gentleman and conducted himself in a professional and respectful manner. John will always be remembered by me for his humor and wit and his never-ending supply of "stories". He enjoyed life and demonstrated that with his treatment of his co-workers with his caring attitude for them and their families."* John retired in 1995 as the Sub-District Chief of the Montgomery, AL, office with more than 40 years of service to the USGS. After retirement, John served as the USGS Retirees Organization Alabama state contact for many years until his passing. A memorial service was held on October 11, 2018 at St. Michael's and All Angels Episcopal Church, Millbrook, AL with Rev. Mark Waldo officiating. John is survived by his wife of 60+ years Kim, their son, and a sister. He was preceded in death by his parents James and Lucy Austin Scott, and several brothers and a sister.





**James Floyd “Jim” Turner, Jr., 85**, passed away on October 27, 2018 at St. Vincent's Hospital in Birmingham, AL. He was a native of Anson County, formerly resided in Tampa, FL, Raleigh, NC, and Pinehurst, NC, and was a resident of Vestavia Hills, AL at the time of his death. He was born November 8, 1932 in Anson County, NC a son of the late James Floyd Turner, Sr. and the late Laura Mae Gray Turner. He graduated from Wadesboro High School and in 1952 enlisted in the United States Air Force. He was a recipient of the National Defense Service Medal, Army Occupation Medal (Germany), and Good Conduct Medal, and was honorably discharged in July 1956 as a Staff Sergeant. In 1961, he graduated from North Carolina State University with a Bachelor of Science in Applied Mathematics. He worked for 36 years with the United States Geological Survey and retired

as the North Carolina District Chief in February of 1995. He was awarded a Citation for Meritorious Service for his outstanding contributions to the Survey in the field of surface-water hydrology, modeling, science programs, and employee development by the Secretary of the Interior. He was also cited for being an advocate for the advancement of women and minorities and was noted for recruiting and providing technical support for African-American colleges and universities in North Carolina. He was the Founder and Past President of North Carolina Water Resources Association, a member of the North Carolina Water Resources Institute, and a member of the Albemarle-Pamlico Estuarine Study Technical Committee. In addition to his parents, Jim was preceded in death by his wife, Peggy Burns Turner, and his brother and sisters. Surviving are his two sons, and his seven grandsons. He is also survived by his nieces and nephews and their families. Funeral services were held on November 3, 2018 in the Chapel of Leavitt Funeral Home followed by internment in Anson Memorial Park in Wadesboro, NC.

**A colleague of Jim's, Jerad Bales, writes:** *“I always will be grateful to Jim Turner for two reasons. Jim hired me more or less sight-unseen, when I gave him a cold-call from the University of Texas, where I was finishing my Ph.D. My research was in estuarine transport, and Jim wanted to start an estuary program in North Carolina. Together, we had great success in that arena. Later, Jim also was responsible for bringing Callie Oblinger from Ohio to NC, and we later married, so I also owe Jim for that. Jim assembled a great team in NC. Among those who Jim brought to NC were future national leaders, including Chief of the Office of Groundwater (Bill Cunningham), Chief of the Office of Surface Water (Robert Mason), Northeast Regional Hydrologist (Cathy Hill), NE and SE Water Quality Specialist (Callie), and Chief Scientist for Water (me). The NC district/center had its highest level of funding under Jim, and I don't think that funding has been surpassed in the last 20 years. After a lot of work, Jim also was able to move the office from outdated space in the Raleigh post office to more suitable space in west Raleigh. The NC office remains in that space. Jim cared for his staff, mentored them, and worked tirelessly to advance their interests and those of the USGS.”*

**Another colleague, Cathy Hill writes:** *“I worked with Jim when he was the District Chief in NC. He was a pleasure to work with. It was not unusual to hear Jim yelling near my door “Hill, what are you going to do about that?” Of course, my answer was “I don't know Turner, what are you going to do about it?” Then we would figure something out. About 7 people who worked for Jim in the NC District, including myself, went on to hold significant positions of authority at USGS headquarters, which is certainly a testament to his leadership-mentoring capabilities. He will be missed.*



**Raymond ‘Ray’ M. Turner, 91**, passed away on December 9, 2018 after suffering a stroke in a Tucson, AZ assisted living facility. Ray was born in Salt Lake City, UT on February 25, 1927. Ray received a B.S. in botany, University of Utah, 1948. PhD. in botany and soils, Washington State College, 1954. Ray married Jeanne Brunner in 1949. His career began as an Instructor and assistant professor, Agronomy and Range Management Department, U. of Arizona, 1954-56, and an Assistant professor, Botany Department, 1956-1962. He was a USGS research botanist there from 1962 until officially retiring in 1989. Turner popularized the use of repeat photography to uncover and illustrate vegetation shifts. Typically, he employed photos from the

late 19th century, the middle-to-late 20th century and beyond. “His legacy is both time and space,” said Julio Betancourt, a former Desert Laboratory co-director and now a scientist emeritus for the USGS in Reston, VA. “A lot of people do work at a particular place. He did it over decades. He did it everywhere.” He was adjunct and emeritus professor, U. of Arizona Geosciences Department, 1977 until his death; and, a private researcher and author, since 1989. He was a Board member of the Malpais Borderlands Group and the Animas Foundation. Ray is survived by daughter Teresa Hadley, sons Justin and Martin Turner, four grandchildren and two sisters. Services will be held in the spring, “when the blue palo verdes bloom,” his family says; details to be announced.

An article at Tucson.com regarding Ray's achievements can be found by clicking on this url: [https://tucson.com/news/local/ray-turner-ecological-pioneer-of-the-sonoran-desert-dies-at/article\\_2ea2e34a-804b-588b-ae9e-f0cbb0696301.html](https://tucson.com/news/local/ray-turner-ecological-pioneer-of-the-sonoran-desert-dies-at/article_2ea2e34a-804b-588b-ae9e-f0cbb0696301.html)



**Jane H. Wallace, 92**, passed peacefully on December 3, 2018. She had been in failing health for a couple of months, primarily with congestive heart failure. She was mentally competent and as opinionated as always up until the last week before she died.

She was born on August 12, 1926 in Fort Worth, TX. She planned to be a chemist but changed her mind when she took a course in gemology and loved it. Jane received degrees in Geology from Smith and Bryn Mawr Colleges. The faculty at Bryn Mawr knew Vince McKelvey, a USGS senior research scientist in charge of uranium exploration after WWII. They gave Jane an excellent recommendation and she was hired on the spot in 1952 as a GS-7 Geologist.

She began her career as the Chief of Trace Elements, working with Uranium and Thorium, and coordinating USGS' activities with the Atomic Energy Commission. In 1954 she was selected to serve as the Geologic Assistant to Dr. Nolan, the Assistant Director of USGS. Dr. Nolan asked Jane to draw the illustrations for the geology of Eureka, NV. Jane said she and Tom Cheney's wife, and 2 kids went out to Nevada and camped, with Dr. Cheney's wife doing the cooking and Jane doing the mapping. Jane also did geologic mapping in Arizona, mapping the Paulden and Prescott quads with Medora Krieger.

From that point on she never left the Director's Office. Jane served as assistant to 6 USGS Directors: Nolan, Pecora, McKelvey, Menard, Peck, and Eaton. Jane called Director Nolan "Tommy Two Shoes." Apparently, he came to work on at least one occasion wearing two different shoes. Jane said he was the smartest person she ever worked for. In 1969 Jane was made Special Assistant to the Director, a position she held until she retired in 1997.

Jane took on many special long-term assignments. Director Pecora asked Jane to write an Honor award, which she did, and the requests just kept coming. She was soon put on the USGS Awards Committee, which she took over, then the DOI Awards Committee.

Under Director McKelvey Jane became the Bureau Ethics Counselor, a new position created after a 1975 GAO report found 22 percent of USGS employees held forbidden interests in lands and minerals. Jane took this job seriously, as anyone who wandered into her DOI office knew by looking at her bookshelves. They sagged with directories of Moody's, Standard and Poor's, and oil industries. Jane was quoted as saying "Just finding out all the changes in corporate ownership from year to year is fascinating, if you like tedium. And I love tedium." Jane stopped driving when she was 30, so took the bus more than 3 hours daily. As she said "I'd sit at the back of the bus with a stack of envelopes 14 feet high containing the forms people have to sign saying they don't have anything they shouldn't. I'd just slice those letters open and see who had what. Then I'd go home and sit at my old-fashioned Royal typewriter and write letters: Dear So and So: You've got to get rid of it!" And Jane had to do the same herself when she inherited Exxon and Texaco stock. She unloaded it quickly, right after what she called "El Crasheroo."

Jane served the Combined Federal Campaign (CFC) as Chair of its Technical Review Committee, reviewing applications from charities wishing to participate, for over 10 years. She was on the Executive Committee of the National Capital Area (CFC) for many years.

Jane is perhaps best known for promoting women and minorities. She played a dynamic role in advancing promotions and training opportunities for women and minorities in the Bureau. She tracked pertinent data relentlessly, detailing the status of women in the USGS, the Minority Participants in Earth Science Program, and Honor Awards given. Her reports, written between 1977 and 1996, brought together several indices against which to evaluate the changing status of women and minorities in the USGS. Data included the overall number of men and women in the various occupational categories, promotion rates, monetary awards, and recognition by Honor Awards. Her work tracking and presenting this data was directly responsible for promoting women and minorities throughout USGS.

**Cathy "La Mesa" Hill:** My favorite Jane story, which you have probably all heard, involved Dallas Peck. He was rather intimidated by Jane. I was in his DOI office once when he asked me to ask Jane to do something. She was in the office on the other side of

the open area where Marge Lanier sat. So, I went into Jane's office to ask her, and next thing I knew Dallas was standing behind me listening in!! Jane spotted him and called him out on it, so he sheepishly joined in the conversation. Jack Fischer added: And Cathy is right. Dallas was very careful around her. Doyle even more so.

**Marge Lanier:** I recall Jane receiving a Blue Envelope from Personnel. It was an invitation to an LGBT event, either at USGS or DOI. Jane looked at me and said "Marge, do you think I'm gay??!!". I told her I honestly hadn't thought about it one way or the other. That's when Jane told me the story of her engagement to a geologist, which she broke off early in her career. She said, "I know I'm not very good looking, so he must be after me for my money." I think she was kidding, but you never know!

**Jack Fischer:** Nuts. Jane was such a large personality, brusk and intimidating.....until you “passed the test.” Then witty, fun to be around and, if you listened closely, warm. We haven’t been together for 25 years or so and still I feel like a light has gone out. Rest in Peace.

**Gayle Sisler:** I was so sad to see this email. Jane was a brilliant scientist. Her love for the Ethics Program and the Historically Black Colleges and Universities (HBCU) Program was highly regarded in the Department of Interior. Also, I would be truly remiss if I didn’t mention her continual effort (& success) to capture data on Women in the Science field. I will miss hearing her voice calling me by the nickname she gave me, which was Lefty (yes...I was left handed). I was never Gayle...always Lefty. RIP my Jane!!! You made a mark in my life (& in so many others)! God has another angel.

**Bonnie “McGarcia” McGregor:** Hi Cathy—Thanks for sharing the sad news about Jane. She is someone I thought of often. She was a strong personality and she was always there to help me, answering questions and keeping me out of trouble with the Department. An amazing lady. Only those of us who knew her can appreciate the tremendous impact she had on people and organizations. Gone home and now at peace.

**Bob Hirsch:** Cathy: thanks for sending this message. Jane was a very bright spot in my career and I always looked forward to my visits with her and enjoyed her good counsel when I worked downtown.

**Linda Stanley:** Thanks so much for sharing news of Jane’s passing. She was one of my most favorite people at the USGS. I considered her a very valuable mentor especially on how to navigate that organization with success. Her sense of humor was special, and I loved the stories she could tell about life at USGS. She will be missed. It is too bad that she would not let us help celebrate her birthday a few years back; I would have loved visiting with her again. Her dirt digging adventures in New England during the summer months were such wonderful tales of doing what she loved best. I think if the group of folks who have received news of Jane’s passing ever got together, the stories that could be told would be endless and hilarious. May Jane rest in peace.

**Barb “RioGrande” Ryan:** Geez. So sad. I just mentioned her yesterday in a message to Gayle Sisler about the controversies with Zinke at Interior, saying that Jane would be having a fit if she were still at Interior.

**Merilee Bennett:** Thought I would jump in here and share a memory of Jane – when I was in Reston 1976-78, she would always make Director McKelvey a vest to wear (she knitted them) – he used to come down to our Christmas party and one year wore one that was a Christmas theme. The memory always makes me smile.

**Jim Devine:** I support what Bob Hirsch said about you. You were there for Jane when she needed it the most. I thank you on behalf of the entire USGS community. I don’t recall her having a nickname for me, and that’s probably a good thing. I really liked her and was in awe of her innate intelligence. She was truly one of a kind (the good kind).

**Gail Wendt:** Cathy - Bravo! You’ve done a wonderful job in capturing Jane’s true spirit. What a true treasure she was to USGS and to many of us who, as Jack said, “passed the test.” At least I like to think that I had done that in Jane’s eyes. Always felt that her watchful eye was there for me. Cleaning out her apartment must have been fascinating...

**Rich Williams:** I recollect many things (positive and fascinating) about Jane but two things stand out to me. First, she was a very strong advocate for women in science. Normally, she did so in a non-public way.... she never wanted to be a loud or strident voice, but I participated in meetings with Dallas Peck and other senior staff where outreach to various communities was discussed and Jane in her way would work her magic on behalf of women scientists. Second (from her perch at Main Interior), for a long time she reviewed all packages (emanating in HR) destined for Water & Science and Office of the Secretary and if she had an issue or observation, she would always call me to discuss (since my branch prepared virtually all staffing packages headed downtown). If Jane called about a package in front of her, I listened. She was astute as to the direction winds were blowing at DOI and had the ear of people like Margie Carpenter in Water and Science, and she had a good perspective on how to proceed when packages headed to Main Interior. For me...these two items always stood out for me when it came to Jane. I’m saddened to hear that she has passed. I felt soooooo fortunate to have Jane and Marge at DOI...they always had my back.



**Humbert “Zap” Zappia, 56,** of Rock Hall, MD passed away at his home on October 9, 2018. He was born on July 6, 1962 in Charleston, WV. Zap was the son of the late Albert Zappia and Doris Zappia of Logan, WV. He graduated from Logan High School and later received his Bachelors’ and Masters’ Degrees in Biology from Marshall University in Huntington, WV. He served in the Army National Guard and was honorably discharged in 1985. Zap was hired by the U.S. Geological Survey (USGS) in 1991 to be the biologist on the Potomac River Basin study unit of the National Water Quality Assessment Program (NAWQA), headquartered in the MD-DE-DC District in Towson, MD. On the Potomac study, Zap led the biological components of the study, including benthic macroinvertebrate surveys, fish and algal community surveys, and fish and clam tissue

analysis. As the only full-fledged working biologist in the District, Zap willingly taught other members of the Potomac NAWQA team and the District the basics of biological sampling and analysis. In 1996, at the end of the first phase of the Potomac NAWQA study, Zap transferred to the Alabama District in Montgomery, AL to serve as the biologist on the Mobile River Basin NAWQA study unit, which was gearing up for its first phase. In 2001, Zap left the USGS and returned to West Virginia to work for many years as an epidemiologist for the West Virginia state government. Zap’s final employment was as a Public Health Advisor with the Centers for Disease Control (CDC), where he was the head of the Mid-Atlantic Region at the time of his death. On the personal side, Zap enjoyed fishing, hiking, birding, and WWII history. In 1996, he married Sandra Marie



Bullinger of Arbutus, MD. In addition to his wife Sandy and his mother Doris, Zap is survived by two sons, Michael and Joseph Zappia, a daughter, Marie Zappia, and a brother, Harold Zappia. A memorial service to remember the life of Humbert Zappia was held on October 19, 2018 in Charleston, WV. Zap only spent about a decade of his career with the USGS, but in that time he touched the lives of many co-workers in the Maryland and Alabama Districts, as well as the tight-knit group of NAWQA biologists nationwide. He had an engaging and refreshing personality, and an unmistakable enthusiasm for his work. He will be missed by many.

**-By Jim Gerhart and Herb Freiburger**

### **A Jim Bohn Memory**

By Jim Daniel

I was saddened to read in the recent Newsletter about Jim Bohn's passing. Jim and I became friends over 50 years ago when we were both in Sacramento in WRD. But, at my age, I guess I just must realize that my generation continues to fade away. Following is an anecdote about an experience shared by Jim and me those decades ago.

The year is 1961. By summer, a full-blown crisis between the Soviet Union and the United States had developed surrounding Berlin. Numerous Army Reserve units were called to active duty to free up Regular Army forces to be deployed to Europe 'just in case.' Jim Bohn was a young engineer in the Sacramento, California Subdistrict Office who was assigned to one of those reserve units being recalled. His unit was being recalled and prepared for at least one-year temporary duty in Granite City, IL (can't think of a higher priority assignment needed to defend our country). He was a recent hire and this recall was certainly going to put a kink in his career, not to mention that it would disrupt his family life with a wife and children.

I was an Engineering Technician, GS-6, in the Merced Field Office under Sacramento. I had made arrangements to transfer to the Sacramento Office in order to attend Sacramento State College full time and work WAE. As it happens, I was in an Army Reserve unit in Merced which was not affected by the recall. However, upon actual transfer in the early summer, I was reassigned to the same Reserve unit in Sacramento as Jim's and was therefore included in the recall. What a 'revolting development' (a favorite quote in the 'Life of Riley' radio program starring William Bendix – Google it)!

What to do?!? Well, I researched the Army regulations and found that I could apply for a 'critical occupation' exemption. So, I applied to 6<sup>th</sup> Army Headquarters in San Francisco for just such an action. I included the reasoning that I was an Engineering Technician in the Water Resources Division of the USGS. There were only a few hundred of us nationwide whose job it was to quantify the Nation's water resources. No college or university at the time had a program (then – not like today) to train the likes of such technicians. Water was a critical national resource and my recall would be detrimental to this effort. My request was formally supported by WRD. Somewhat to my surprise, the Army bought that stuff! I received an order by almost return mail which directed me to DISREGARD any order to active duty and that I was being transferred to the Inactive Reserve.

Of course, Jim Bohn was really interested in my machinations. But poor Jim couldn't make the same arguments because colleges and universities turned out engineers by the thousands. He was stuck! He was destined to spend a year in Granite City. He did. When he returned to Sacramento, he and his family became good friends with me and my family. Jim never did understand how the Army could classify a technician as critical and not do the same for an engineer. I always told him with good humor that they just recognized what was important. This is just another instance that allows me to be so proud of my 7 years as a tech before I became an engineer/hydrologist.

A few years later, Vietnam became a hot issue. At that time, the USGS understandably stopped supporting requests such as the above. So, it happens that I was in the right place at the right time. Jim was in the wrong place at the wrong time. As someone once said, "Karma is a bitch!"

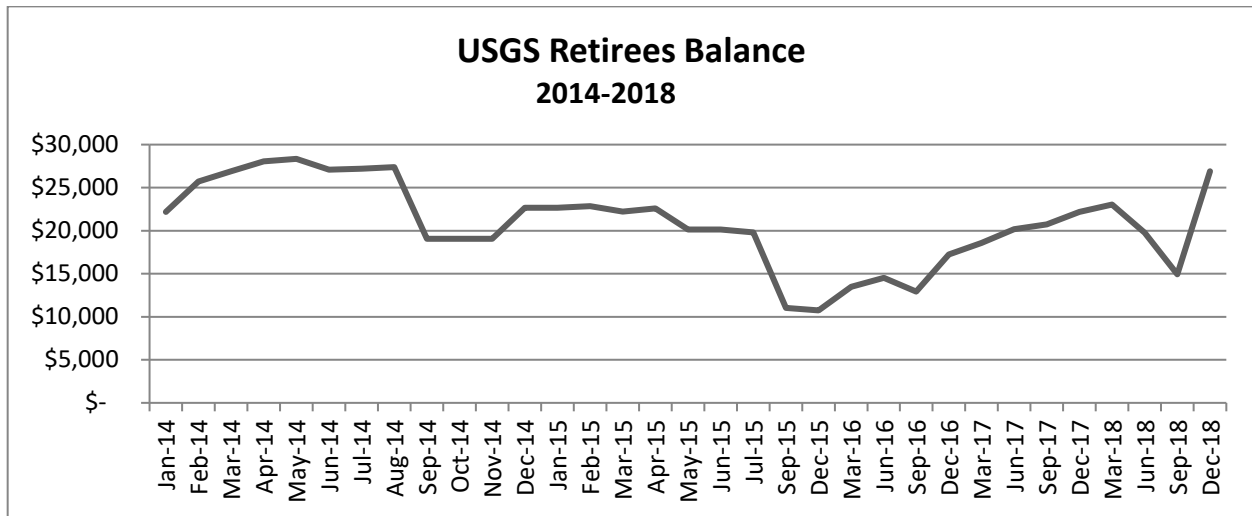
**(NOTE: Jim Bohn's memorial was reflected in newsletter NL179 -- May2018)**

## TREASURER'S REPORT, FOURTH QUARTER 2018

Treasurer Cathy Hill reports the organization had \$26,914 at the end of the fourth quarter, December 31, 2018. The only expense this quarter was the annual fee for the newsletter software.

Special thanks for contributions above dues to Herb Freiburger and Carolyn Norton. Many thanks for your generosity.

We would like to thank the USGS Reston Camera Club for donating \$606 to our Scholarship Fund. Additionally, 2 anonymous donations totaling \$4,105 were made to our Scholarship Fund. We are very appreciative of these donations! Thank you!



## NOVEMBER NEWSLETTER ENVELOP MAILING (the stuffing of the envelopes)

A big thank you should be given to those volunteers who donate their time to the mailing out of the quarterly hard copy newsletters.



**L to R:** Al Condes, Mick Yurewicz, John Gray, Tim Smith, Mary Jo Baedecker, Lenny Konikow, Dick Engberg, Kate Flynn, Debbie McLean.

**Not shown:** Cathy Hill, who took the picture. We rarely have that much help. It was great!!

## GEOGRAPHY MATTERS

**Editor's note:** Traditionally, our Newsletter articles have focused on water resources. As our organization evolves, we want to expand the scope to include all USGS activities. The following articles were written by Randy Olsen revised from what he submitted to the Geography newsletter. If our readers like this type of news, we plan to continue with this series.

**About the author:** *Randy Olson was Geometronics Branch Chief, Western Mapping Center 1982-1984; Deputy Ass't Division Chief for Research (NMD) 1988; Ass't. Division Chief for Production Management (NMD) 1989; Chief, Rocky Mountain Mapping Center 1990-2000; Acting Central Region Hydrologist (WRD) 1999; Central Region Science Coordinator 2000-2006. He retired from USGS in 2006 after 39 years of service.*

It is hard to believe that I have been retired for 12 years. Even so, I still find it interesting to see what's going on at USGS and the state of earth science. Every now and then I peruse the USGS website – there is so much on the website, yet I find it challenging to get a big picture of the current state of earth science – mapping, hydrology, geology, and biology. Budget challenges, reorganizations, and government shutdowns have continued since the 1990's.

In this first series of articles, I plan to relate the current state of earth science at USGS to the 80's and 90's as they were known to those of us that have retired between then and now. I have focused this article on organizational structure before I delve into individual (mostly mapping) topics in future articles. My rationale is that I needed to know how USGS has evolved organizationally so that I know who to interview for current information.

At the Bureau level, recall that we had three major programs organized into Divisions: National Mapping; Geologic; and Water Resources. In the 1990's, the Reinventing Government Initiative resulted in the National Biological Service (NBS), formed from biological science primarily from the research arms of Fish & Wildlife Service and the National Park Service. In the late 1990's, NBS was reorganized into the USGS as the Biological Resources Division. Around the same time, the Director was concerned that the separate Divisions with budget and program controlled by Headquarters was an organizing principle that some believed discouraged regional initiatives and integrated multi-disciplinary science. Initially, Regional Directors for the Western, Central, and Eastern Regions were created without budget and line authority, and, in the year 2000, each Division did a minor reorganization to create regional discipline executives and science coordinators to work with the Regional Directors in a matrix management structure. On a personal note, I was caught up in this reorganization by my position being abolished and having to choose between a directed reassignment to be the Western Region Geographer in either Menlo Park or Seattle, early retirement, or find another position without having to relocate. I was fortunate that the new Central Region Director offered me a position as Central Region Science Coordinator, which I did for six interesting years. I enjoyed trying to promote integrated science initiatives, but without budget or line authority it was kind of like herding cats. I retired in 2006, and shortly after that, budget challenges, downsizing, and reorganizations continued, ultimately resulting in the current structure that has seven Associate Directors for science programs and seven Regional Directors for groups of States. Some programs are national programs that report directly to the offices of the Associate Directors, and many of the Science Centers distributed across the country report directly to the Regional Directors. Budgets and staffing are negotiated in a matrix management fashion.

**Old National Mapping Division (NMD):** Most of what used to be the National Mapping Division is now in a mission and budget Associate Directorship called Core Science Systems. One of the programs is called the National Geospatial Program (NGP). It is responsible for the National Geospatial Technical Operations Center (NGTOC) which provides a variety of topographic map products and services in addition to updating and enhancing map data including elevation data, hydrographic data, boundaries, transportation, structures, and geographic names. Most of the NGTOC staff reside in two major facilities in Rolla and Denver. Geospatial data and print-on-demand topographic maps are available through the *National Map* USGS website. Part of the original National Mapping Program was the Land Remote Sensing program, now part of a mission Associate Directorship called Land Resources. This mission area includes the EROS Data Center, land change science, land remote sensing, and climate research and development. National Land Cover Data is available over a 25-year time frame for applications that can benefit from studies of land cover change over time. Another part of the original National Mapping Program was geographic research and applications, which evolved in the recent reorganizations as geographic science centers – initially Western, Rocky Mountain, and Eastern. Their funding comes primarily from the Land Resources Program, but they report to the Regional Directors. The Western Center has researchers in Menlo Park, Seattle, Portland, Flagstaff, and Tucson and reports to the Pacific Regional Director. The Rocky Mountain Center only lasted a few years and was reorganized into the Climate R&D Team that used to be Earth Surface Dynamics in the old Geologic Division. The Eastern Center has researchers in Reston and reports to the Southeastern Regional Director. It has been downsizing and has a dubious future largely because of budget cuts to climate-related research.

**Old Water Resources Division (WRD):** Most of what used to be the WRD is now in a mission and budget Associate Directorship called Water Resources. This includes programs such as ground water, the National Research Program, the National Water Quality Program, water availability, and the State-based Water Science Centers. Toxics hydrology is under



another directorship called Environmental Health. The Powell Center for analysis and synthesis is in another directorship called Core Science Systems. Some of these organizations report nationally, and some to the Regional Directors.

Old Geologic Division (GD): Pretty much split up – the libraries, the National Geologic Mapping Program, and the rock and ice core labs are under the Core Science Systems directorship. Energy and minerals are under the Energy and Minerals directorship. Climate R&D (the old Earth Surface Dynamics) are under the Land Resources directorship. All hazards-related programs are under the Natural Hazards directorship – includes coastal & marine, earthquakes, geomagnetism, landslides, and volcanoes. Like the others, some report nationally and some report regionally.

Old Biological Resources Division (BRD): Also split up – analysis and synthesis are in Core Science Systems, contaminants biology is in Environmental Health, climate change and wildlife are in Land Resources, and most of the rest are in Ecosystems – includes Coop Research Units, energy & wildlife, environments, fish and wildlife disease, fisheries, invasive species, wildlife, and status & trends. Like the others, some are national programs, and some report regionally.

I hope this article brings you up to date on the current USGS organizational scheme of things. In the next few articles I plan to focus on specific mapping products, starting with the legacy of topographic maps, historical and current, and how to get them. Then I will venture off into other data sets probably starting with hydrography and elevation.

### NEW MEMBERS

**Bohlke, John Karl 'JK' (18) (Brenda)** – P.O. Box 1344, Great Falls, VA 22066, (w) 703-648-6325, [jkbohlke@usgs.gov](mailto:jkbohlke@usgs.gov) or [jkbohlke@gmail.com](mailto:jkbohlke@gmail.com)

**Cornwall, James F. 'Jim' (18) (Suzanne J.)** – 4124 29<sup>th</sup> Ave. NW, Gig Harbor, WA 98335-1730, (c) 402-680-4134, 253-514-8765, [roxndox@gmail.com](mailto:roxndox@gmail.com)

**Long, Katherine M. 'Kathy' (18)** – 10063 Kimberly Court, Warrenton, VA 20186, (c) 703-997-5555, [irterrific@comcast.net](mailto:irterrific@comcast.net)

**Richey, Steve F. (13) (Katherine Mondragon)** – 8220 Fairmont Dr. NW, Albuquerque, NM 87120, (c) 505-452-6707, [sfrichey@gmail.com](mailto:sfrichey@gmail.com)

**See, Randy (14)** – 3194 Williamsburg Rd., Ann Arbor, MI 48108, (c) 970-901-9984, [rbseemail@gmail.com](mailto:rbseemail@gmail.com)

**Thomas, Mary Ann (18)** – 981 Highland Dr., Columbus, OH 43220, (h) 614-442-8694, (c) 614-420-6040, [981maryann@gmail.com](mailto:981maryann@gmail.com)

**Treece Jr., Maurice W. 'Rick' (17) (Lisa)** – 500 Towne Lake Dr., Montgomery, AL 36117, (c) 334-207-5311, [mwtreece@aol.com](mailto:mwtreece@aol.com)

### DIRECTORY CHANGES

**Bader, John S. (94) (Diane)** – 916-525-7285 – phone

**Bartlett, William P. 'Bill' (13) (Liz)** – (h) 207-218-1006, (c) 207-249-5301 – phone nos.

**Blanchard, Steve (11) (Julia)** – 21 Hillcrest, Pembroke Wood, Passage West, County Cork, Ireland T12HYE0 – addr  
**Emerson, Debra L. (SP)** – *passed away October 28, 2018 (spouse of Douglas Emerson)*

**Horning, Charles E. 'Evan' (10) (Tina)** – 208 Bowery Loop, Langley, WA 98260-8683 – addr

**Kennedy, Vance C. (84)** – 3900 Dale Rd. Apt. 127, Modesto, CA 95356 -- addr

**Klein, John (06) (Joyce)** – P O Box 1645, West Yellowstone, MT 59758 – addr

**Larson, Jerry D. (00)** – *passed November 6, 2018, change information in directory*

**Larson, Mrs. Jerry D. (Kim) (W)** – reflect new information in first line of address

**Martin, Peter 'Pete' (12) (Leslie)** – 1353 Plum St., San Diego, CA 92106, (c) 619-719-3058, [pmartin4@mac.com](mailto:pmartin4@mac.com) – addr  
phone

**Nelson, Lorna K. (SP)** – *passed away December 4, 2018 (spouse of Gordon Nelson)*

**Pickering Jackson 'Jack' (94)** – *passed away October 29, 2018*

**Romasko, Luanne P. (09) (Harry)** – ***received request to discontinue membership***

**Sauer, Virginia (SP)** – *passed away November 8, 2018 (spouse of Stanley Sauer)*

**Scott, John C. (95)** – *passed away October 3, 2018, change information in directory*

**Scott, Mrs. John C. (Kim) (W)** – reflect new information in first line of address

**Turner, James F. 'Jim' (95)** – *passed away October 27, 2018*

### LOCAL MEETINGS AND GATHERINGS

#### Central Region

Albuquerque

lunch

4 times a year

Steve F. Richey

505-452-6707