

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

## PRESIDENT'S MESSAGE

### Hello members:

It is with great sadness that I note this newsletter includes the memorial for former Chief Hydrologist Philip Cohen who passed away on January 18, 2022. Phil served as Chief Hydrologist from 1979 to 1994. The WRD experienced significant change and growth as a result of Phil's leadership. Early in his tenure he restructured the WRD National Research Program and clarified its interface with Regional Technical Specialists and the Districts. He also instituted use of the Research Grade Evaluation Guide (RGE) for NRP and District Scientists. RGE sets grade levels based on contributions to science rather than physical location or organizational tie. Many new programs were initiated during Phil's tenure including the National Water Summary, National Water Quality Assessment, Toxic Substances Hydrology, Nuclear Waste Hydrology, Acid Rain, and the introduction of satellite technology in the collection and distribution of hydrologic data, among others. Phil was genuinely interested in training and development opportunities for WRD employees. He will be sorely missed.

I want to thank the Regional Representatives for an outstanding job of recruiting student applicants. We had 14 Applications this year!! I also want to thank our National Ad Hoc Scholarship Committee [Kate Flynn (Board), Cathy Hill (Board), Robert Joseph (USGS Director, Office of Planning and Programming) and Robert Mason (USGS Extreme Hydrologic Events Coordinator and Delaware River Master)] for vetting the applicants. Six applicants were selected to receive scholarships totaling over \$9,600. Recipients will be presented their scholarships by the end of April or early May. Presentation pictures and write ups from the recipients will be in our August or November Newsletter.

This newsletter includes an interesting article about USGS assistance in developing a flood warning installation and operation program in the Zakarpattia Region, Ukraine.

This Newsletter contains the dates for the March 9-11, 2023, Biennial Reunion in Tucson, Arizona. The August Newsletter will contain the registration and more detailed information. Mark Anderson and his planning committee have developed a set of interesting field trips, informative activities, and social events. We hope that travel will be safe in March 2023, so make your travel arrangements soon. It will be over four years since our last reunion, and we want to make the Tucson reunion a great event.

We wish everyone a safe and happy Spring.

Bill

### Spam Email Alert

**Be aware that members of the USGS Retirees' Organization have been receiving spam email asking for money donations via gift cards. Under no circumstances would an Officer of our Organization be soliciting gift cards or requesting electronic money transfer by email.**

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## USGS RETIREES' REUNIONS 5 YEAR SCHEDULE

### **2023 USGS Retiree's Reunion Tucson, AZ**

As most of you are aware the planned reunion meeting for 2022, to be held in Tucson, AZ has been postponed. The Local Arrangements Committee (LAC) has worked with hotel and excursion vendors to reschedule for March 9-11, 2023. Watch for revised arrangements in subsequent quarterly newsletters.

### **2025 USGS Retirees' Reunion Tuscaloosa, AL**

The board members selected the Southeast Region for the 2025 reunion. The selection was made based on the news release outlining the completion of the new Hydrologic Instrumentation Facility in Tuscaloosa, AL (See below). We are looking for volunteers for the LAC. If you are interested in volunteering, please contact Ed Martin [edmartin.ga@gmail.com](mailto:edmartin.ga@gmail.com) . We would like to have the chairperson and committee members in place by **March 2023**

### **2027 USGS Retirees' Reunion Maryland, Virginia, Washington, D.C.**

The board members have selected the Northeast Region for the 2027 Reunion. As in the past, the logistics for requesting volunteers (i.e., chairperson and members) for the LAC needs to be in place at least 18 months prior to the reunion dates.

#### **USGS – National News Release (January 20, 2022)**

TUSCALOOSA, Ala. – The U.S. Geological Survey is partnering with the University of Alabama to construct a new Hydrologic Instrumentation Facility, a science and engineering facility that will support the agency's Water Enterprise observing networks and research.

Built on the northern end of campus, the HIF will support training, repairs, and calibration for hydrological equipment that monitors streamflow, groundwater, water quality and other water resource features important to all Americans that rely on water. The HIF will support the greater USGS water-resource monitoring and evaluation mission with training and equipment necessary for the comprehensive scientific study of water availability, quality, and quantity. USGS expects the facility will support and encourage strong collaboration with other federal agencies located on campus.

"This partnership will ensure a world-class USGS facility for the testing and development of cutting edge USGS hydrologic instrumentation, which provides the backbone for our near-real time water monitoring and other research," said Don Cline, Associate Director for the USGS Water Mission Area. "This information enriches the lives of everyday Americans and is used nationwide by all types of end users, from water managers to recreational boaters, to make critical decisions."

Recognizing the need to replace the current facilities located at the National Aeronautics and Space Administration Stennis Space Center in Bay St. Louis, Mississippi, Congress appropriated \$38.5 million to replace the aging buildings with the requirement to collocate with complementary academic and federal partners. UA was selected as the site of the new HIF for the opportunities it provided to dovetail with other water-related research and development being conducted on campus, including the NOAA National Water Center.

The 95,000 square feet, two story facility will include a hydraulics lab, water quality labs, field testing facilities, environmental chambers, sensor innovation space, warehouse, training labs, network operations center and administrative offices. Unique features of the hydraulics lab will include a tilting flume and test basin for simulating river and stream processes, and a 350-foot-long tow tank and carriage which will provide a national water velocity standard for calibrating field instrumentation.

Construction is expected to begin in 2022, and the USGS plans to take occupancy in 2023.

**Editor's note:** The tragedies occurring in Ukraine may seem distant, but many have connections to her people making it a smaller world. I wish to thank the authors of this article who volunteered to write about their historical science support in surface water and the associated relationships they made with Ukrainians struggling with this war. Geological hazards support also was provided by USGS and that article may be forthcoming in the next issue.

## Tisa River Basin Hydrologic Data Collection Program in Zakarpattia Oblast, Ukraine Submitted by Gregg Wiche, USGS Emeritus scientist



### Background

During the late 1990s and early 2000s, the USGS was involved in several assistance programs in Ukraine funded by United States Agency for International Development (USAID). In addition to the upgrade of stream-gaging stations in the Tisa River area (this article), an assessment of landslide risk in the Carpathian Mountains was conducted, and support provided to other projects, such as the effort by the Environmental Research Institute of Michigan (ERIM) to install a satellite receiving station in Kyiv and establish the Ukrainian Land and Resource Management Center (ULRMC). Goals of the ULRMC were to promote the use of remote sensing and GIS technologies to aid in environmental and natural resource management. The center was active until the early 2010s and serves as a good model for future development. (submitted by Paul Hearn, USGS)

### Introduction

Floods are among the most frequent and costly natural disasters in terms of human hardship and economic loss. In the United States, about 90 percent of the damage caused by natural disasters is caused by floods and associated mud and debris flows. In Ukraine, two major floods (1998 and 2001) occurred in the Tisa River Basin (fig. 1A). A NOAA climate information project indicated “various media sources reported that at least 20,000 homes were flooded in about 200 villages in western Ukraine and northeastern Hungary. In Ukraine, more than 35,600 individuals were evacuated from the Zakarpattia region because heavy rains and melting snow caused rivers to overflow and dikes to burst around the Carpathian Mountains. More than 30 miles of highway and about 5 miles of railway were destroyed in Ukraine. Both floods caused several fatalities, damaged, or destroyed several thousand homes, destroyed bridges and roads, and created severe personal and economic hardship for the residents of Zakarpattia Oblast in western Ukraine (fig. 1).



**Figure 1--** Tisa River Basin is located between the Carpathian Mountains and the border with Romania, Hungary, and Slovakia. The Tisa River flows through Zakarpattia (labeled Zakarpatska on figure) Oblast in far southwest part of the country with tributaries flowing from the Carpathian Mountains.

## Tisa River Location and USGS Roles

From 1998 until 2002, the (USAID) provided technical assistance, such as snowmelt runoff modeling and GIS (geographic information system) mapping, to the Ukrainian Land and Resource Management Center (ULRMC) for flood management in Zakarpattia Oblast, Ukraine. As part of this assistance a USGS team of experts in flood and landslide hazard assessments traveled to Ukraine in May 2001 and worked with counterparts in ULRMC and other Ukrainian agencies.

The objectives of the visit were:

- 1) Discuss current concerns of the Ukraine for flood and landslide hazards,
- 2) Interact with Ukrainian earth scientists and GIS computer scientists to determine their level of capabilities,
- 3) Visit representative hazard areas in central and western Ukraine,
- 4) Offer consultation in developing enhanced capabilities in hazard and risk assessment, and
- 5) If appropriate, develop a strategy for future collaboration between the USGS and the ULRMC.

The USGS team consisted of:

- 1) Randall Updike, Chief Scientist, Geologic Hazards Team, Golden, CO. Geologic multi-hazard processes, mapping, and assessment. Mission team leader.
- 2) William Savage, Senior Landslide Engineer, Geologic Hazards Team, Golden, CO. Mathematical modeling of landslides, landslide hazards and risk evaluation
- 3) Jonathan Godt, Research Geomorphologist and Geographic Information Systems (GIS) Specialist, Geologic Hazards Team, Golden, CO. Surface Processes Analysis and GIS applications to quantitative hazard mapping.
- 4) Gregg Wiche, District Chief, WRD, Bismarck, ND. Hydrologic modelling, flood hazard mapping, streamgaging, and analysis.

The USGS team observations indicated:

- 1) Landslides are too massive and widespread to only be caused by logging or agricultural practices,
- 2) Land, houses, and population are at substantial risk because the earthflows can accelerate during wet cycles,
- 3) Debris flow deposits were the result of rapidly moving highly destructive slurries of water and sediment (silt to boulders that can bury and destroy structures and their inhabitants,
- 4) Floods of 1998 and 2001 were remarkable events caused by extended periods of heavy precipitation including rain on rapidly melting snow in the Carpathian Mountains, and
- 5) A rudimentary network of stream gages existed in the region, but the stations:
  - a. may have been inoperable during the 1998 and 2001 floods,
  - b. are susceptible to being destroyed during floods,
  - c. do not have water levels or discharge measured during the floods.

Also, the hydrologic technicians in charge of operating the stations and observers did not have equipment to measure medium to high streamflows. Predicting flood levels were limited to theoretical ratings having no measured high flows since the break-up of the Soviet Union. Communication between monitoring stations (precipitation and streamflow) and decision makers relied on human operators of telephone or telex making the system unreliable during emergency situations.

After the USGS team completed the field trip to the flood prone and landslide areas in Zakarpattia, the team returned to Kyiv and made presentations to ULRC scientists, Ukrainian agency staff, and Embassy staff outlining the USGS capabilities in hazards monitoring and assessment. Gregg described how the USGS real-time streamflow data can be used to forecast and manage floods and improve public safety. He also described how USGS streamflow data could be used to:

- Delineate flood plains,
- Design reservoirs,
- Manage releases of treated water,
- Determine highway bridge and culvert sizes,
- Design, operate, and maintain navigation facilities, and
- Administer compacts and resolve conflicts on international rivers.

## Hydrologic Data Collected

A main objective of the ULRMC is to provide data and information to local, regional, and national government authorities for the understanding and management of environmental risks, for natural resources stewardship, and for hazardous situation planning and response. Thus, after the USGS team returned from the May 2001 field reconnaissance trip, the decision was made that the missions of USAID, the USGS, and the ULRMC were a logical fit for assisting in the improvement of a flood monitoring system in the Tisa River Basin in Ukraine.

During the summer of 2001 USGS team members worked with colleagues at USAID and ULRMC largely through email and a few conferences by telephone to describe and discuss how USGS real-time stream gages could be purchased, shipped, installed, and operated in Ukraine. The decision was made to collect water level, water temperature, air temperature, and precipitation at six gages on the Tisa River and its tributaries. Challenging factors needed to be addressed centered on logistics such as:

- 1) Who would select the locations and construct the streamgage shelters?
- 2) Determine how real-time data would be transmitted and received,
- 3) Determine all the steps and permissions required to transport, install, and transmit data from Ukraine, and
- 4) Determine what Ukrainian government ministry operates the gages, train staff, and embrace the technology

In August 2002, a USGS team traveled to Ukraine to work with our Ukrainian colleagues conducting stream gage site selection. The team also attended several meetings with Ukrainian agencies and local politicians. One of the major concerns by some staff in Ukrainian agencies was the decision of the USGS to recommend gage data transmission by satellite instead of by radio. The USGS team defended the USGS position that satellite transmission is preferable to the costly construction of radio-transmission infrastructure and that the money saved by not erecting radio towers can be used to purchase more satellite-transmitting gages.

After 13 months of discussion about stream-gage installation, transmission, and operation, and the field trip to Ukraine in October 2002, USAID funded the USGS to work with ULRMC and the State Water Management Committee (SWMC) of Ukraine to install six real-time stream-gage stations and assist two communities in flood mapping. Much of the delay occurred because the partners in the program needed approval from the Security of Service of Ukraine (SBU) to install Sutron data collection platforms. The SBU was concerned that the frequencies used by Sutron DCP's may overlap with frequencies used by the SBU and state secrets could be at risk. The SBU's structure and operations are like its predecessor, the KGB.

Finally, in June 2003, a USGS team worked with ULRMC and SWMC staff to install flood-warning gages on the Latoritsa River at Svalyava and at Pidpolozzya. Ideally, existing water-level recording sites and gage houses in the Tisa River Basin would have been the preferred locations (fig. 2). However, most of the sites selected required construction of a gage house and orifice lines to the river. All the sites were designed to house equipment that measures and transmits data for water-level, air-temperature, water-temperature, and precipitation.



**Figure 2**—Tibery Bauman (URLMC) technical representative in western Ukraine describes the Latoritsa River at Svalyava gage site he constructed before the USGS team traveled in Ukraine to install the real-time data stream gage instruments here and at Pidpolozzya.

Four additional gages were installed in 2005 at:

- 1) Kosivska River near Kosiv Polyana,
- 2) Lyuta River near Chornoholova,
- 3) Tisa River near Velyky Bychkiv, and
- 4) Uzh River near Velykyy Bereznyy.

## Data Transition and Streamgage Operation and Maintenance

We used a pressure transducer or mechanical float to measure water level connected hydraulically to the nearby river. The river water level is transmitted to the data-collection platform (DCP) in the gage house that transmits the data to the European Organization for the Exploration of Meteorological Satellites (EUMETSAT) Meteosat satellite, which in turn transmits the data to the primary ground station in Fucino, Italy. The data then are routed to Darmstadt, Germany, and distributed to users or retransmitted to the satellite for users to receive directly with a reception station. The USGS received the data from the Ukraine flood warning gages and served the data on the USGS site for use by Ukrainian water-resource agencies. Real-time hydrologic information for all stations instrumented as part of the Ukrainian program are no longer available on the USGS site. A satellite receiver was installed however, at the SWMC offices in Uzhgorod. The receiver allows direct reception of all hydrologic data collected at the gaging stations.

After the initial stream gage installation trip in May 2003, the USGS team returned in November to host 10-day hydrologic data collection workshop for SWMC and ULRMC staff. The delegation received extensive classroom and field instructions on programming and maintenance of DCPs and streamflow measurement techniques. Based on USGS team discussions with SWMC and ULRMC staff, the six flood warning stream gages installed would provide a good base network for collection of real-time water level information in Zakarpattia. Improvement in flood warning and forecasting however, depended on:

- 1) Routine visits to stream gages for service and to measure streamflow at all stages, especially mid to high flows (**figs. 3-6**),
- 2) Developing a program to assemble discharge measurements and develop high-flow discharge ratings, and
- 3) Developing a program to compute and publish daily values of streamflow.

**Figure 3**--Misha measuring Latoritsa River at Pidpolozzya and Sasha taking notes. The hydrologic observers had no other equipment to measure the rivers above wading stage.



**Figure 4**-- Stream-gaging equipment used by old Soviet Union (less than about 30 lb. weight).

**Figure 5**--USGS team providing ADCP training SWMC staff. USAID provided USGS the funds to advance the field data collection methods.



**Figure 6**--SWMC staff learning to work up ADCP streamflow measurement.

Vladimir Chipak, Director of Ukrainian State Committee for Water Management, in Zakarpattia Oblast summarized the value of the USGS assistance in a letter to Verne Schneider stating:

*It should be mentioned that the installed stream gages and the receiving antenna are the most up-to-date hydrometeorological facilities not only for Zakarpattia, but for all Ukraine as well. The Centre for Emergency Informing under Zakarpattia Oblast Water Management Committee widely uses the data coming from installed satellite stream gages, especially in flood periods: this provides the Oblvodhosp specialists with more possibilities to analyze and forecast flood situations and prevent water- hazardous effects. Timely and accurate information on precipitations and river flow parameters is vitally important for compiling hydrometeorological forecasts and rendering, based on them, administrative decisions necessary for population and property flood protection.*

### Long-Term Friendships

USGS establishment of flood-warning gages in the Ukraine evolved into much more than just field reconnaissance, installation, and training. The USGS team attended ribbon cuttings and thank you gatherings on each trip (figs. 7-9). Long-lasting friendships developed with Victor Chipak, the Bauman and Luhman families. My wife (Sandra) and I along with Janine and Kevin Vining (retired USGS hydrologist) had personal vacations in Ukraine and spent 4 days in Kyiv with the Luhmann family. Then traveled with Eric Luhmann to Zakarpattia to see historic sites in western Ukraine and visit with Victor Chipak and the Bauman family.

Finally, the success of the flood warning installation program was largely due to the dedication and expertise of USGS hydrologic technicians Steve Norbeck (deceased), Kevin Guttormson, and Bill Damschen.



**Figure 7**--Ribbon cutting for USGS flood warning gage installed at the Latorista River at Svalyava Ukraine. Carlos Pasqual, U.S. Ambassador to Ukraine, many water-resource professionals from Ukrainian Ministries, and school children are in attendance. Water-level data are transmitted from gage to European satellite, transferred to USGS NWIS system and displayed in real time on the WEB.

**Figure 8**--Kevin Guttormson (left), lead hydrologic technician, Grand Rapids, MN); Ivan Ivanovich (dark suit holding drink), mayor of Svalyava, and Gregg Wiche, talking with Ambassador Pasqual (other beard) at luncheon following the ribbon cutting. Note: In 2009, Carlos Pasqual became the U.S. ambassador to Mexico.



**Figure 9**--Tyberiy Bauman, Kevin Guttormson, Bill Damschen, and Gregg Wiche, at the home of Sasha and Misha (hydropost observers at the Latoritsa River at Pidpolozzya)

During one of the early trips to Ukraine we visited the orphanage that Natasha Bauman works at and found that a donation at Christmas can make a big difference for the children (fig. 10). The orphanage newsletter summarizes how a USGS flood warning installation program can lead to long-term relationships and a future of hope if we work together:

### ***Well-fair and Charity - Two Wings***

*For many years, with the assistance of the resident of Svalyava city, Ukraine, Tiberij Bauman, US citizens Eric and Oksana Luhmann, Annapolis, Maryland; Gregg and Sandra Wiche, Kevin and Janine Vining, Bismarck, North Dakota: have been helping babies that are growing in the Regional Children's Home. Years passed, but good relationships, heartfelt actions, constant readiness to help our children remain unchanged.*

*The 2019 year is also the year of hope and faith in a better future, at the beginning of which we transferred your support in form of gifts to our babies: nutrition for babies, feeding bottles, hygiene products, comfortable slippers, and lots of fruits.*

*By giving help, you donate not only material values, you also donating a little piece of yourself to little boys and girls of our Children House who need care and attention every day. After all, doing good - is so beautiful! It's so beautiful when babies smiling when their eyes shining from captivity and happiness. We sincerely THANK YOU for your understanding and support. Let the New Year bring you many pleasant events, harmony, prosperity, successes in the field of work and all sorts of things in life.*

*Unlimited happiness to you in the New Year! Peace and happiness to your homes! Let the future give you hope!*

*And let your dreams come true!*

*Sincerely, the team and babies of the Regional Children's House*

**Figure 10**--Tyberiy and Natasha Bauman, staff, and children showing Christmas gifts (new slippers, oranges, and chocolate treats) at the orphanage in Pidpolozzya.



## RETIREMENTS

**Owen R. Bayham**, retired in 2021 after 33 years in Arizona Water Science Center.



On April 9, 2022, **Bruce Gungle** retired from service to the USGS. Bruce specifically asked that I not write the “normal” announcement with a catalog of achievements. A bit of context is useful, however. Bruce started with the USGS in 1999 as a SCEP hydrology student trainee. In 2001 he was converted to a permanent employee. He also had lots of earlier experiences, such as teaching English in Japan, but what I know best of Bruce is from USGS. Mostly from when both Bruce and I started, we worked alongside one another on the San Pedro River as part of the Upper San Pedro Partnership. That Partnership has relied heavily on USGS for data, publications, and expert input; Bruce took over primary

representation of USGS to the Partnership around 2008 and has done an outstanding job in that capacity. He continued to collect data and published key papers and reports that help resource managers evaluate progress toward groundwater sustainability in the Upper San Pedro basin. He also served the Center as a supervisor and acted more than once as the Studies Chief for extended periods. Bruce always brings knowledge to the table with an unassuming amiability that makes him both an excellent communicator and just plain enjoyable to be around. Bruce also has some personality quirks that make him particularly adept at field work in the arid and hot deserts of the Southwest – specifically his affinity for extreme sports of the hot variety. Most notable among those is the [Badwater Ultramarathon](#), an annual run (death run?) in Death Valley in July, which Bruce ran - repeatedly. Part of Bruce’s “training” included donning sweatshirts and opening his office window on Tucson’s hottest days. Most people didn’t stick around Bruce’s office for long in the summer so maybe it was also a ploy for peace and quiet. It worked. Bruce is a desert rat to the core. The slightest change in temperature affects Bruce as if he’s part reptile. He also worked training directly into his field work, an example being a time he was in Tooele Valley near Salt Lake City running some Transient Electromagnetic (TEM) surveys. Each TEM survey consists of laying out a large square of wire on the ground, often 100 m per side, and then marking each corner of the square with a GPS the location is known. Bruce was training for a race so he decided he might as well run the perimeter of each of the squares while holding a GPS that was tracking. He must have run 20 miles by the end of the day and got some serious training. He also ran in a pattern such that the GPS track spelled “USGS” so yeah, awesome team spirit! No doubt there are plenty of entertaining stories about Bruce, but there’s one that makes me smile whenever I see a truck with orange flashing rooftop warning lights. Bruce was collecting microgravity data in the San Pedro basin on a road with a narrow shoulder; he didn’t have any traffic cones, so he set a bright orange cooler behind the truck for safety. Of course, he forgot about it and took off but remembered quickly and went back to get it. As he arrived, a couple of guys were throwing the cooler into the back of their truck and driving off. Bruce flipped on his orange lights to catch their attention and they quickly and sheepishly pulled over and returned the cooler. Moral of the story – don’t mess with Bruce’s cooler! I know from talking with San Pedro Partnership members, that he will be missed there, and he certainly will be missed at the Arizona Water Science Center and at the USGS. Happy trails Bruce, don’t stray too far!

*-James Leenhouts, Center Director, USGS Arizona Water Science Center*

After over 40 years of service, **Steve Kalkhoff** retired on December 31, 2021.

**Steve’s Career Summary:** Steve started his career as a Hydrologist in the Jackson, Mississippi office collecting water samples and preparing reports for waste assimilation studies. As a Project Chief, Steve led studies of brine contamination in surface and groundwater in Mississippi. In September of 1986, Steve joined the Iowa City, Iowa office and became the project chief of a study assessing the impact of changing land use practices on water quality in an area of karst topography in Iowa. In 1994, Steve was named the Chief of the Eastern Iowa Basins for the USGS NAWQA program, and since then his work has expanded to local, regional, and National studies that have benefited from his coordination and participation. The research has spanned a broad range of topics including agricultural impacts on water resources, trends in nutrients and pesticide concentrations and transport, relation between stream water quality and biological communities, and the occurrence of perchlorate in surface and groundwater. His vast knowledge in the water resources field has led to invitations and participation in regional and National groups including the Central Region Integrated Science program, Iowa DNR Aquatic Life Nutrient Criteria Technical Advisory committee, and the Heinz Center team reporting on the State of the Nation’s water resources. Steve is a fabulous mentor to USGS staff and the go-to

person for knowledge and research ideas for colleagues within and outside the USGS. He has been an avid supporter of the need for monitoring data to promote good stewardship – making sure we help land and water managers know they are doing the best to care for their resources. Steve’s attitude toward the greater good of the science and outstanding quality of his work has earned him the respect of his colleagues and reflects his dedication to USGS goals over the years and he is one of the nicest people you will ever meet. Steve plans to volunteer for the USGS after retirement. He also has plans to spend time on woodworking projects, fishing, spending more time with his family, and helping several local nonprofit organizations.

**-Timothy Straub, Supervisory Hydrologist, Central Midwest Water Science Center, Urbana, IL**



**George Ozuna** retired after 40+ years with the USGS. Fortunately, he is going to continue to work part-time on some of our Leader Development Program and other training. Please help me congratulate George on his very distinguished career. Please see the summary of his career he has provided below. His contact information also is listed below if you would like to reach out to him. Thanks, Tim

**-Tim H. Raines, P.E., Director, OK-TX WSC, Fort Worth, TX**

**[Edited to fit in Retirees’ Newsletter]** “I started with the USGS as a student in 1977 as a GS-3 Hydrologic Aid this appointment was financially supported by the USGS Minority Participation in Earth Science program. Upon graduation from the University of Texas at San Antonio in 1980, I was hired as a part-time temporary GS-5 Hydrologic Technician. I ran a field trip in the Texas Hill Country and in those days most all the sites ran on counterweights, pulleys, wind up clocks, and floats. In order to service a gage all you needed was a screwdriver, bailing wire, and chewing gum. By 1983, I was a GS-7 Hydro Tech and I was offered a GS-5 Hydrologist position in Austin, Texas, in May of 1984. I was temporarily assigned to the San Antonio Subdistrict office and was permanently re-assigned to the Subdistrict in February of 1985. I was a team member for a project collecting and analyzing geologic and hydrologic data on the Edwards aquifer. Upon receiving a promotion to GS-7 in 1985, I became the project chief of the Installation Restoration Program (IRP) at Kelly Air Force Base, TX. I was the lead author of the report about the IRP. During this project I received a promotion to GS-9 in August of 1987. I became project chief of "Geological Investigations" at Randolph AFB and Lackland AFB, Texas. During these projects I was promoted to GS-11 in 1988. Beginning in April 1988 I was project chief on a ground-water quality investigation. In 1991, I became the San Antonio Investigations Chief. In 1992, I was selected as the San Antonio Subdistrict Chief. In period of about 10 years this office grew to 30+ employees and a program of about \$4.2 million. The office was very progressive having a dedicated GIS technician, publication editor, and IT Specialist support on staff. Additional opportunities and passions included outreach efforts to the area’s predominantly Hispanic community and provided a link between the USGS and San Antonio. I had the opportunity to provide educational lectures to the area schools and communities and student mentorship programs. My involvement in diversity efforts lead me to serve as a member of the original Headquarters Ethnic Minority Advisory Committee and actively on the USGS Bureau Outreach and Recruitment Team. As this USGS representative, I served on the committee that prepared the Department of the Interior’s Hispanic Association of Colleges and Universities (HACU) Memorandum of Understanding. Because of my efforts on these programs in 2006 I was awarded the DOI’s Manuel Lujan, Jr., Champions Award.

[https://www.doi.gov/sites/doi.gov/files/archive/news/archive/06\\_News\\_Releases/061016c.html](https://www.doi.gov/sites/doi.gov/files/archive/news/archive/06_News_Releases/061016c.html)

In 1993, one of my most outstanding moments in my career was the opportunity to present our science about the Edwards aquifer to then Chief Hydrologist, Phillip Cohen, then next to the USGS Director, Dallas Peck, and finally to the Secretary of the Interior, Bruce Babbitt, at his office. I was able to share this moment with my friend and colleague, Peter Bush, South-Central NAQWA Chief. After serving 17 years as office chief for San Antonio in 2009 I was promoted Deputy Director for the USGS Texas Water Science Center. Working closely with the Water Science Director, Bob Joseph, I was able to focus on program development for the Center. During this time in order to codify the program success that I had in San Antonio, Bob and the Leadership Team allowed me to develop the 3 program management training modules that cover Program Development, Proposal Preparation, and Project Management. The Modules have been offered several times here in the Center. As word spread on this training and I was able to offer this training to 10 other Water Science Centers, other science programs, and committees throughout the USGS. In January 2013 I took on a new position as Senior Program Manager. In order to introduce TXWSC staff to what it takes to be a leader, the Leadership Team offered me the opportunity to develop the “Texas Leader Development” program to unlock the untapped leader potential inside our employees and channeling this effectively which in turn would surely improve the Center’s performance. We are now in the fifth offering here in the OTWSC and is being offered into other

Water Science Centers. Because of the program's success, I was recognized with the 2018 Excellence in Leadership Award. <https://www.usgs.gov/human-capital/recipients-2018-excellence-leadership-award> Finally, with input from my former Data Chief who is now Center Director for the OTWSC, Tim Raines, I serve as Senior Science Advisor for Program and Employee Development. In this position I'm on the leadership and project review teams, Leader Development Program (LDP) Coordinator, and Program Management Training Developer. These efforts assist employees to understand the importance of USGS science to our future leaders. **Cheers, I had a great run!** Thxs, George"



After 30 years with the USGS, **Todd Schmitt** is hanging up his waders on January 30, 2022. After serving his country with the U.S. Navy, Todd attended Spokane Community College from 1990-1992. In 1992, he started with the USGS Ecology Program in Spokane, WA before transferring to the St. Paul Field Office, in Minnesota to become a Hydrologic Technician. Todd helped with the transition to the Mounds View Field Office in Minneapolis metro area. In 2002, Todd and his wife, Tammy, along with their daughter Lauren (Haley was not born yet), made the move to Helena, MT where he was heavily involved in water quality data collection in addition to Helena Field Office operations. Todd is known for his personality. Todd has an amazing knack for construction and was always willing to lend a helping hand. Todd was a master boat operator as well as being able to do anything with a forklift...and we mean anything! When you got in the truck with Todd for a field trip, you knew you would always have many laughs. He ran a tight, organized field trip, and his vast amount of expertise in just about everything will be missed...along with the occasional trip to Happs! Join all of us in the Wyoming-Montana Water Science Center in wishing Todd the happiest and most fulfilling of retirements. He will be missed. Todd plans on enjoying retirement by fishing and visiting his kids (maybe grandkids in the future!). Congratulations Todd!!

*-John Kilpatrick. U.S. Geological Survey, Wyoming-Montana Water Science Center*



**David Soong** retired on January 31, 2022. David joined the USGS in July 2000 as part of the Surface Water Investigations Section in the Illinois office. As a Research Hydrologist, David has worked on several studies and feels fortunate and grateful for the opportunity to have worked with many bright and friendly colleagues in the USGS and other agencies, some names hereinafter. David provided a few project highlights: **-Peak-discharge frequency:** my first project in collaboration with Chuck Avery, Jennifer Sharpe, and Audrey Ishii. We updated the flood-frequencies for streams of Illinois and examined the peak-discharge magnitudes if the estimation was based on flood peaks

taken from the partial-duration series. Streamstats funded by Illinois Center for Transportation was completed by Audrey Ishii, Jennifer Sharpe, and me. Tom Over assisted with in-depth statistical skills and knowledge to help the applications in urban areas and led a well-received analysis on predicting flood peak-discharge in urban areas in Northeastern Illinois. **-Flood hazards and stormwater water management strategies:** I joined Tim Straub for work for Kane County. Tim Straub and Elizabeth Murphy helped extend the work to Kendall County and Argonne National Laboratory. **-Manning's roughness coefficients for rivers of Illinois:** initiated by Bob Holmes with the Illinois Department of Natural Resources, I was able to conduct this study only because of the devoted assistance from Teresa Halfar and Crystal Prater. We collected, analyzed, and delivered estimated roughness coefficients for rivers with natural and artificial bed and banks and established a Web site for disseminating the results. The results have been looked up for practical applications and as class teaching materials domestically and internationally. **-River Spills:** I continued an investigation on predicting the travel time of contaminants in a section of the Mississippi River and interacted with fish biologists from the Columbia biological station to understand their applications. Additional opportunity came working with Faith Fitzpatrick on reviewing an EFDC hydrodynamic model developed by consultants for EPA on the Kalamazoo River after the 2010 inland oil spill. I interacted with Marcelo Garcia and Zhenduo Zhu of the University of Illinois on particle transport modeling. With support from the Midwest Region Science Team, we developed an oil-particle-aggregate model (FluOil) based on an existing FluEgg model. FluOil is designed for the rapid-response stage after an inland oil spill. **-Invasive Carp mitigation:** in collaboration with Tatiana Garcia, I worked with her on the FluEgg model applications. I worked with Ryan Jackson to complete an investigation of the accuracy of the theoretical equations that FluEgg is based upon, and with Jess LeRoy on evaluating the hydraulics generated from a HEC-RAS model for the Illinois Waterway provided by the USCOE for the

applications of FluEgg modeling. **-Uncertainty in HSPF model simulated flows:** Intrigued by the needs to address the discrepancies between model simulated and published records, I collaborated with the USCOE-Chicago to investigate the Lake Michigan Diversion Accounting system. Working with Tom Over and Jim Duncker on the uncertainty in model parameter and structure, published records in precipitation and discharge, and the interactive effects between these components. Before joining USGS, David worked for the Illinois State Water Survey where he gained his experience in numerical modeling and field surveys. Working with colleagues from other countries has always been an interest of his. Through a USAID grant David worked as a technical advisor to Vietnam government officials on a Mekong Delta Study, and through an NSF grant he served as a co-organizer for the 1st Sino- US workshop on sediment transport and disasters.

**- Amy M. Russell, P.E., Section Chief, Statistical Hydrology and Water Availability. USGS, Central Midwest Water Science Center, Urbana, IL**



After nearly 36 years with the USGS, **Dan Sullivan** has decided to retire! The attached document gives a brief synopsis of Dan's career. Aside from his varied work in the field and the NAWQA program, Dan was involved with the National Water Quality Monitoring Council and the National Environmental Methods Index. As a Supervisor and Team Leader Dan developed a knack for the hiring process and served as a valuable resource for the supervisors within our center. We will miss Dan and wish him well in the next chapter of his life! Dan's last day of work is January 28th, after that date you can contact him at [pjssully@gmail.com](mailto:pjssully@gmail.com).

**- John F. Walker, Director, Upper Midwest Water Science Center**

After nearly 36 years with the USGS, **Dan Sullivan** is retiring. Dan has been a key member of the UMid Water Science Center Leadership team, serving as the go-to contact for all matters related to HR. Dan has excelled as a hiring manager, figuring out how to navigate the often confusing and ever-changing hiring process. For the past, several years he has served as a POC for hiring actions, attending bi-weekly calls with HR and serving on the team to develop new processes for hiring and onboarding for our merged center. What follows are some highlights of his career in Dan's words: My post-high school life took a few turns before I settled on a career in water resources. I worked variously as a cabinet maker in Florida, changing tires on semis in Peoria, and doing logistics for Outward Bound in Colorado, as well as several other odd jobs. At 22 and realizing I wanted a college degree but the only thing I seemed to be interested in was fish, I enrolled at UW-Stevens Point where one of my major professors used to talk about USGS, which I'd never heard of, being a great agency. In November 1985, after graduating and then working as a fish biologist for a county conservation department for a bit I got a call from the southern Illinois field office of the USGS and thought, "huh, I've heard of that place before". My first couple months were spent chasing floods and hauling 100-pound sounding weights out of the back of vans and wondering what I'd gotten myself into. Then the area went into a multi-year drought and I rarely made bridge measurements. In 1988, the Illinois District Office asked me if I wanted to work on a new project, the pilot study for the NAWQA program in the upper Illinois River basin. I moved to Champaign-Urbana and took grad classes at U of I and worked for Steve Blanchard who was an excellent mentor and made lifelong friends. It was a great time in an office full of a lot of people in similar stages of life who worked and played together. In 1992, I had a chance to move back to Wisconsin when the full-scale NAWQA program expanded throughout the nation. After several more years of NAWQA I was looking for a change and found it with the National Water Quality Monitoring Council, which Charlie Peters was the chair of, and he recruited me to work on the development of the National Environmental Methods Index. My career went from streams, sample bottles and backpack shockers to computers and databases and this thing called the world wide web. The change was incredibly refreshing and led to a renewed energy in my career and an enduring appreciation of the opportunities in USGS. I took on increasingly larger roles in the NWQMC over the next 10 years or so and then had the opportunity to be a team leader in the Wisconsin WSC and jumped at the chance. As a team leader by far my favorite part of the job is seeing young people come into USGS with new ideas and enthusiasm and watching their growth. The merger of the north central states into the UMid WSC has been a challenge but also very exciting and has provided more change and opportunities for growth. All the while the people I've been fortunate enough to call peers have made the forms and the red tape bearable and made me look forward to coming into the office. I feel like if I've contributed anything to USGS it is not any great science I had a part of but rather the opportunity to recruit and hire talented people into the agency which has been very satisfying. I feel very fortunate to have had this career. I've only worked in two states, Illinois, and Wisconsin, rather than the half dozen or more I envisioned, but I've met and worked with scientists from all over the country, in USGS as well as many other agencies. The Wisconsin and now UMid WSC has always

been a place of diverse projects and opportunities and I've always appreciated that. Well, one wife and four kids later, I'm retiring from the Madison office having lived in several different houses but all within a 20-mile radius. In retirement I plan to, first and foremost, spend time with Pam, my wife of over 27 years, who has been a devoted and loving spouse and the best mom four kids could ever want (call me anytime you want to talk about my family). Pam and I hope to have time to do some traveling and enjoy our kids while health allows. I also have plans to ride my bike(s), possibly fish without the aid of electricity, golf a bit, hike a lot, and generally not sit at a desk for extended periods. I am hoping to come back in a limited capacity as a rehired annuitant after taking a bit of time to get our house in order. In the meantime, I hope to keep in touch with as many people as want to: [pjssully@gmail.com](mailto:pjssully@gmail.com).



**Anthony “Tony” Tallman**, a Hydrologic Technician in the MD-DE-DC WSC, Dover, DE Office, retired on March 31, 2022, after more than 37 years of service with the USGS. After attending the University of Delaware, he started his career with the USGS in late 1983 as a Hydrologic Field Assistant making discharge measurements in Delaware and the Eastern Shore of Maryland. He was later converted to a full-time Hydrologic Technician in 1986 and at that time he also provided technical support to several groundwater and water-quality projects being conducted out of the Dover Subdistrict Office. About 1994, Tony was promoted to a Lead Technician position in the Dover Office. This position allowed him to expand his network

experience with Data Chiefs and other Lead Technicians in the northeast part of the country. In addition, he has participated in many surface-water technical reviews over the years, which allowed him to gain insights from others to share with the WSC. In 2003, Tony was selected to be a charter member of CHIDER (Committee for Hydrologic Instrumentation and Data, Eastern Region) and also helped organize the first Regional meeting for data personnel. In 2018, Tony participated in the NGWOS (Next Generation Water Observation System) pilot project which focused on the Delaware River Basin. Tony is one of those Hydrologic Technicians, because of his time of service, that has witnessed and been a part of a huge change and improvement in hydrologic tools, more modern instrumentation, and better flow computation methods. For example, early in his career he used a current meter, wading rod, boom and base, 100-pound weight, computed rating curves by hand; he has also witnessed and used Stevens A-35 stage recorders, Fisher-Porter and Stevens ADR stage recorders. In the 1990's, he began to use the newer and more modern data loggers, real-time data, ADCPs, AVMs, satellite telemetry, and the AQUARIUS computer program that drives all the modern-day data collection and computation tasks. Also, during this time, the historical annual data report became history. More recently, Tony played a large role in cooperator relations which has been well received by the water resources community in Delaware. After retirement, Tony plans to continue working part time for the USGS as a retired annuitant to finish some SW data work. He'll get back to dabbling into bartending, and to do some travelling with his wife, Yvonne. Also, he might get out and hit the little white ball. We wish Tony and Yvonne a happy and healthful retirement.

*“He eventually decided that he liked groundwater better when it was running in streams than when you had to coax it out of the ground and devoted the rest of his career primarily to surface water.” – **Judy Denver, USGS Hydrologist, Retired***

*“He (Tony) knew and was trusted by the major cooperators in Delaware...He had that institutional knowledge of the cooperator community that 30 plus years of experience give you. He was good at building those relationships.” **Bob Shedlock—USGS Emeritus.***

*“Tony was always kind, always professional, and always responsive to our needs at the Delaware Geological Survey. He is leaving the USGS Dover office with some mighty big shoes to fill!”—**Stefanie Baxter, Delaware Geological Survey.***

After 37 years of service, **Paul Terrio** retired on December 31, 2021.

**Paul's Career Summary:** In August 1984, Paul began his Federal career with USGS in California. In 1985 Paul moved to the Illinois WSC to begin his professional career as a hydrologist working for NAWQA. Throughout his career at the USGS he has been integral to the success of NAWQA surface-water studies in Illinois. Additionally, his co-location for several years at the Illinois Environmental Protection Agency was valuable in developing nutrient criteria and sampling methods for the State of Illinois. More recently, as a project lead and water-quality specialist, Paul has made outstanding contributions and garnered the respect of the USGS and local scientists for his insights on continuous water quality monitoring and methods. Through his

hard work and inspired leadership, the water-quality program in Illinois has expanded and become one of the premier continuous nutrient monitoring networks in the country. The quality and importance of your work is reflected by the many endorsements that Paul and the Center have received from the Illinois Environmental Protection Agency and others. The outstanding quality of his work has earned him the respect of his colleagues and reflects his dedication to the goals of the USGS. Paul plans to volunteer for the USGS after retirement. He also has plans to spend time with their (currently 7) grandchildren, enjoying their new country property, finishing up his woodworking shop, working on some home improvements, and traveling with Denise.

*-Timothy Straub, Supervisory Hydrologist, Central Midwest Water Science Center, Urbana, IL*

**Eric Wakeman** retired on December 31, 2021, after 36 dedicated years. Due to Covid restrictions, uncertainty, and winter; we've decided to postpone a larger gathering and celebration. Personally, I've had the privilege of working with Eric during parts of his career, beginning when he was hired a student hydrologic aide in Kansas. Those of you who know or worked with Eric know he has been a great colleague, supervisor, employee, technical resource, mentor, and friend. He'll drop what he's doing to help with whatever you need, answer a question, volunteer for an effort, advise, walk-you-through a situation in the field, or just listen. Eric was a master of gage planning, construction, instrumentation, programming, and troubleshooting. Just from efforts I'm aware of, Eric's probably installed, planned, coordinated, and DECODED telemetry on well over 100 stream gages and well sites. These field sites, the data recorded from them, and the staff Eric mentored who operated them are just part of the legacy that Eric will leave the USGS and society. Please congratulate and thank Eric!

*-James Fallon, Data Chief, Mounds View, MN*

**In Eric's words:** When I think back on my career with USGS, I keep going back to the over-used metaphor 'My, how time flies.' In some ways it seems like yesterday on my first day as a student walking into the old USGS office on KU's (**boo!**) campus in 1985, meeting all the great folks there at the time and getting a tour of the large and impressive Prime (anyone remember that?!) computer system. In other ways it seems like a lifetime ago. Time and technology progress, as does the role and efficiency of being a hydrologic technician with USGS. Being a student for three summers afforded me the opportunity to visit pretty much every small town in eastern Kansas, be a helping hand on many construction and maintenance trips and dig a lot of orifice line trenches. After graduating from Kansas State in 1987, I started as a full-time hydrologic technician in April 1988. Hiring was slow then, too! This was a time of change and technological advances for hydrographers in USGS, as the installation (and often troubleshooting and/or replacement) of Sutron's model 8004 (yellow brick) was being rolled out in the Kansas District. I liked Lawrence, having grown up 15 miles from town. In 1992, I transferred to open a field office in Wichita. Wichita was a great move professionally; Not so much for me personally. It turns out I'm not much of a city-living person. Workwise, a large study was starting with Wichita, USGS, and Black and Veatch that was an attempt to use land north of the city to divert water from the Little Arkansas River (pronounced Ar-Kansas or expect funny looks) as an artificial aquifer recharge tract. USGS role in the study involved new and existing streamflow gages with a surface water/groundwater interaction element with multiple groundwater monitoring wells radiating out from the stream bank, real-time water quality monitoring, and water quality sampling done before any stream diversions began. In November 1995, I transferred to the Mounds View, MN district office (Twin Cities) on November 9<sup>th</sup>, 1995 when —it was 70 degrees in KS and the next day it was 9 above when I arrived in the Twin Cities, MN. People talk a lot about work/life balance, and to be honest, this transfer tipped the scales to the life side of balance. A lead technician position opened in the office that allowed me to follow my then girlfriend and future wife, Kathy Lee, who also works for USGS. And boy, did life happen in the 15 subsequent years we lived in the twin cities area (Stillwater). The birth of our son and daughter, the death of Kathy's brother and my Mother and Father and Kathy's Father and Mother. Joy and sorrow. My time in the Mounds View office—my longest stay at any of the four offices in my career--was an incredible experience. Sometime along the way, my position title changed from Lead Hydrologic Technician to Supervisory Hydrologic Technician, but the job was pretty much the same. So many memories there, moving to a place I never considered moving to, getting to know some great people both in and outside of work, getting to see all of southern Minnesota, installing more streamgages than I can remember. In 2010 we moved further north to Grand Rapids, MN where I accepted the field office chief job. As different as Lawrence was to Wichita, living and working in the Twin Cities seems equally as different as living and working 'up north.' Many of the streamgages run from the Grand Rapids office offer logistical challenges not seen at the other three offices. Lake crossings to access outflow stations, portages to travel to remote gages, "loong" hikes through the woods to get to gages or measuring sections. All while admiring the scenery. It's hard to believe we've been here 11 years especially when you are working with some of the best

technicians in the Survey and most days feel like a vacation. That third week in January field trip to the Roseau area where air temps. were 40 below excluded. I have heard it said often by USGS colleagues near or at retirement that reflect on how lucky they were to be able to work with so many great, smart, dedicated people, and I would have to agree. As I was writing this and stepping through each stage of my career, I was thinking about my time then and the profound effect you all have had on me. I leave it to you to keep carrying the torch.

***Editor's Note:*** Memorial and retirement announcements are significant features of this newsletter that offer opportunities to celebrate life and professional accomplishments. Shortly before newsletter press time, we commonly receive notes requesting additions of personal reflections for our friends. We do the best we can to insert them. I want to encourage use of this "News of Retirees" section of the Newsletter as another place to recognize our colleagues. Thanks for considering this approach.

## NEWS OF RETIREES

**Bill Alley** writes: Rosemarie and I recently packed up and moved back to northern Virginia for a number of reasons. One advantage is that we'll be closer to our daughter and family now that she's moving back from Vietnam to Boston. We continue to enjoy writing general interest environmental science books. Our fourth, "The Water Recycling Revolution: Tapping into the Future" is scheduled for release in April.

**Steve Anthony** writes: After living in Hawaii for nearly 40 years, I have moved to Sun Valley, Idaho to enjoy skiing and hiking in retirement. While we miss our family and friends in Hawaii my wife Leona and I are grateful for the seasons and ease of access to the mountains. We have become involved with several volunteer organizations which keeps us busy and connected with the community. This past summer we especially enjoyed the Sun Valley Music Festival with many days of admission-free classical music performed by a world class symphony and the Sun Valley Writers Conference with inspiring authors who shared their latest publications through breakout sessions and public presentations. Both of these programs are held annually at the Sun Valley Pavilion. I want to express my sincere appreciation to my colleagues at USGS who provided me with guidance, support, and friendship throughout my career. USGS is a fantastic organization that afforded me the opportunity to work in some of the most beautiful and remote islands in the Pacific but its employees and supportive culture I will remember and cherish the most.



**Zelda Bailey and Pat Tucci** are continuing to enjoy watching their new grandson grow, even if it is mostly by video calls on the phone. It's been a typically busy winter season, with family and friends visiting Sedona and participating in the Tucson Gem and Mineral show. This will be our last year selling at shows – those rocks just get heavier as we get older. Although the reunion, and the musical jam session that was supposed to be a part of it, was postponed, Pat and fellow retiree Eve Kuniarsky got together here in Sedona for a mini-jam session in March. Despite a few new aching joints, we're still in good health and plan to stay that way.

**Merilee Bennett** writes: I talked with **Bill Emmett** on February 28, 2022. He has completed both radiation and chemo treatments for his lung cancer and accordingly has beat the cancer. However, it has taken its toll on his energy level and has impacted his COPD issues. He still lives alone except for his dog and cat and has a great care giver that works from 9-6 – cleaning, cooking and laundry duties. He is currently unable to walk due to his energy level and is unable to drive, his care giver does the driving to get him to physical therapy and doctor appointments. He turned 85 a little while ago. His two sons are doing well – Bill Jr. has a little girl 6, and a boy 4 1/2 and brings them over once a month for a visit. From my conversation with him, he sounds good. I asked him what was a good time to call – he says he sleeps late in the mornings and normally has PT during the week which his care giver gets him to around 3PM – so calling in the early afternoon (around 12pm MST) time is the best time. It was a good conversation and I asked him if it was OK to put our conversation in the next newsletter and he said OK.

**Paula Blakey writes for Jim:** Just sending a huge "THANK YOU" to Merilee Bennett and the entire Newsletter Team for keeping us connected and the Newsletter coming during the Evil Pandemic! Although many of the names in the Newsletter are new to me, it is a pleasure to hear from former colleagues. Have always thought of USGS-WRD as "family", so it is a pleasure to be sending Best Wishes and Good Health Wishes to all! And much success to the next Reunion! My battle with Diffuse Large B-Cell Lymphoma continues and am looking forward to my 90th birthday in October 2022. Sincerely, Jim

**Lois Douglas** writes: This year has been difficult. Several members of my family had Covid with four of them having it twice. My nephew in Alabama died of Covid. I'm vaccinated and remain in good health as are my immediate family here in Boise. Let's hope this year brings an effective cure and an end to this pandemic.

**Dave Freiwald** writes: Can't believe it has been 6 years since I left USGS. Not sure the last time I sent in my dues, but here's a check to keep me going for a few more years. Not long after retirement, my wife Teri and I moved from Little Rock to a condo overlooking the Gulf of Mexico in Pensacola Beach, Florida. We used to travel all the time but not so much recently. Have been snorkeling in Bonaire twice, two camping/hotel trips to the west coast via either Yellowstone or the Grand Canyon route, a Caribbean cruise, and 6 weeks in Europe visiting Italy, Germany, Holland, France and Ireland. I ride my road bike 20-25 miles most mornings while my wife goes for long beach walks. We live mostly a chill life which almost always includes a short nap under an umbrella on the beach and a scotch or two in the evening. Ready for "normal" again.

**John Gray** writes: (*April email from Bill Emmett*) "John, I meet with two of my cancer doctors next week; they likely will order a petscan to make sure my cancer is still in remission. I still can't walk but doing PT and have a full-time caregiver (I'm still at home). My present problem is weight loss; hopefully it's not my body shutting down, but I'm down to 100 lbs. My COPD doesn't help. As I know more, we can arrange a call after I get results from new scan - would be good to talk with you. Bill"

**Tom Kraemer** writes: Jo and I are spending our retirement in Falmouth, MA. We moved here in 2012 to enjoy the Cape and New England surrounds for their beauty and fun opportunities, which include travel, myriad outdoor activities, woodworking, rock-hounding, and volunteer work. Jo spent the early part of her life here and was delighted to reconnect with many old friends. We have both spent several years volunteering at the USGS and Woods Hole Oceanographic Institution, doing lab and field work on carbon sequestration in the area's superb wetlands. We were lucky enough to get a private tour of WHOI's newest ship, the *Neil Armstrong*, and to see the reconditioning of *Alvin*, which is affectionately called "Subby McSubface." I also do volunteer work for the Town of Falmouth, repopulating local estuaries with oysters as a means of removing nitrogen pollution. We have taken bike-and-barge trips down the Danube River and in Croatia, biked several National Parks (thank goodness for e-bikes!!), and toured the Galapagos Islands and parts of Iceland, where we straddled the MOR, with one foot on the American plate and the other on the European plate. Covid has kept us mostly at home the last few years, but we hope to introduce ourselves to the world again soon enough.

**Terry Maret** writes: Enjoy reading about former colleagues, especially those I worked with in the NAWQA program. Delores and I are making the most of retirement spending lots of time recreating in the public lands of Idaho. Like everyone else, our more exotic travel plans have been put on hold. We did manage a trip to Tucson last December to attend the Arizona Bowl to support the Boise State football team. Unfortunately, two days after arriving, the game was cancelled due to a covid outbreak within the BSU team. We made the best of the situation and became Arizona tourists for a week, hiking in National Parks and visiting desert museums, botanical gardens, aerospace museum, and Tucson Zoo. Good to see Dick Engberg is still actively involved with retiree activities. I have fond memories working with Dick and other USGS employees in the Lincoln, Nebraska office just after graduating from high school in 1972. This experience kick started my career in science. My dues for the next 3 year are in the mail.

**Rich Reynolds** writes: Still volunteering as an Emeritus with the New York WSC in Troy, NY and just had a report published this month. A bunch of us try to meet monthly for lunch at a local diner to catch up on things. I appreciate all the work that goes into putting out the Retiree's Newsletter. Thanks

**Jon Scott** writes: Jesse McNellis was a rare gentle person, who had a clear vision to improve things, military precision in planning and execution, and no patience for gamesmanship. He succeeded magnificently to all our benefit. (*Referencing NL194, February Newsletter Memorials*)

**Tom Wood** writes: It is hard for me to believe I have been retired for over three years. My Wife Cathy and I live in Charles Town, WV and have been mostly hunkered down during the Pandemic. We look forward to some long overdue travel. We enjoy taking in the scenery and history of Harpers Ferry. I also enjoy nearby trout fishing and taking care of our goldfish pond. Our only child Stephanie was finally able to get married on

October 30, 2021, after two postponements over a year and a serious bout with Covid-19. Between Covid-19 surges, Cathy and I enjoy watching Stephanie perform in large stage musicals at professional theaters in the mid-Atlantic. Stephanie is a professional choreographer, dancer, singer, and actress and has performed in dozens of shows over the past several years, including three shows with Sally Struthers of “All in the Family” and “Gilmore Girls” fame. After all those years of me bringing young Stephanie to USGS for “take your child to work day”, she refers to our visits to see her shows as “take your parents to work day” :)

## MEETINGS AND GATHERINGS

Regional Office - Menlo Park, CA  
March 16, 2022



The lunch was hosted by Mike Nolan at his home in Palo Alto, CA. **From left to right:** Keith Kirk, Graig McHendrie, Keith Prince, Pete Anttila, Mike Nolan, and Brian Cole. Photo was taken by Julie Nolan (Mike’s wife), currently a USGS volcanologist.

Office of Surface Water  
April 12, 2022



Five former WRD Office of Surface Water colleagues enjoyed a lunch near Reston, Virginia, on April 12. The mini-reunion doubled as a send-off for Harvey (and Barbara) Jobson, who subsequently relocated to Slidell, LA. **Pictured (l-r)** are retirees Kate Flynn, Mike Nolan, Harvey, John Gray...and their still job-afflicted colleague Robert Mason. (Narrative and picture provided by John Gray)

## **A Memorial to Former Chief Hydrologist Philip Cohen**

**Prepared by: Jack Fischer**

**Contributors: Bob Hirsch, Cathy Hill, Joanne Taylor, and John Gray**



Philip Cohen, Chief Hydrologist of the U.S. Geological Survey (USGS) from 1979 until 1994, passed away in Reston, Virginia, on January 18, 2022. He was 90 years old.

Phil was born and raised in Brooklyn, New York. He earned degrees from the City College of New York (BS, geology, cum laude) and the University of Rochester (MS, geology). He joined the USGS in 1956 as a hydrologist in the Water Resources Division (WRD) Carson City, Nevada, office, working in the field there until 1964. Thus began an illustrious 38-year career with the USGS.

From 1964 through 1972, Phil was assigned to the USGS subdistrict office in Syosset, New York. While in Syosset, Phil was lead author of the USGS publication "An Atlas of Long Island's Water Resources." His co-authors, other distinguished USGS hydrologists, were Lehn Franke and Bruce Foxworthy. The atlas was a breakthrough publication in that it was written and illustrated so both professional water managers and the public could understand the complex subsurface hydrology of the island and appreciate the importance of carefully managing the ground-water resource. The desire to present USGS data and research in forms useful to resource managers and the public was the impetus for many of the programs Phil initiated later in his career. His Long Island Atlas is still in wide use today.

Phil was transferred to USGS headquarters in Reston, Virginia, in 1972, joining the Director's staff as a member of the Office of Land Information and Analysis. That office was headed by Jim Balsley, who at that time was the USGS Associate Director for Research. The charge to that office was to develop ways to transfer USGS scientific data and research findings into useful products for water resource managers and the public, an objective consistent with Phil's work in Syosset.

In 1978, Chief Hydrologist Joe Cragwall selected Phil as Assistant Chief Hydrologist for Scientific Publications and Data Management (SP&DM). Phil brought his interest in making USGS publications available and understandable to water managers to his new position. His time in the position, however, was short.

Soon after Phil took the reins of SP&DM, both the Director of the USGS, Vince McKelvey, and the Chief Hydrologist, Joe Cragwall, retired. Bill Menard, former Director of Scripps Oceanographic Institute, was named to succeed McKelvey as Director. Menard's appointment was a surprise within the USGS as he was the first Director not appointed from within the organization.

New to the organization and unfamiliar with his senior executives--some still not fully on board with his appointment--Menard looked more deeply into the WRD to permanently fill Cragwall's former position of Chief Hydrologist. One of the few members of the senior staff with whom Menard had established a supportive relationship was the newly minted chief of SP&DM, Phil Cohen. In early 1979, Menard selected Phil as Chief Hydrologist.

In his first days of division leadership, Phil was made aware of discontent within the WRD's National Research Program (NRP) and discord between members of his senior staff, both realities regarding the organization structure for managing the NRP. He took the opportunity, in resolving the management issues, to make clear his position that a vital program of basic hydrologic research was a central and necessary underpinning of a strong basic-data and field investigation program.

He began with a series of meetings with his senior staff and the four WRD Regional Hydrologists. Those meetings were followed by personal interviews with a large percent of NRP headquarters and regional researchers. John Bredehoeft and Jake Rubin, already internationally recognized scientists, were major spokespersons for researchers during the lengthy and, at times, heated deliberations. These were three strong personalities. In the end and to their credit, the three men developed career-long friendships marked by mutual admiration and deep respect. Phil frequently tapped the two for counsel and advice.

The result of the review was to consolidate supervision of division research within the NRP, replacing a distributed management system supervised by the four Regional Hydrologists. Procedures were established between Regional Research Hydrologists and Regional Discipline Specialists to maximize transfer of research findings to field hydrologists. Although the Regional Hydrologists expressed concern about what they viewed as a more cumbersome process to transfer research findings to the field, the new supervision structure worked well.

Not long after the change in research supervision, Phil changed the way research scientists were to be evaluated, initiating peer evaluation under the Federal Government's Research Grade Evaluation Guide (RGEG). One objective of the RGEG was to evaluate all WRD researchers under one evaluation guide, regardless of their physical location or organizational tie. Establishing the RGEG within the WRD created a career path for outstanding hydrologists, both District and NRP, that could reward their accomplishments with promotion to high grades (GS-15 and even SL positions) without them having to follow a management path to advance. District scientists could also be promoted without having to move to one of the NRP research centers. The RGEG not only benefited the individuals who qualified for the program, it facilitated transfer of research findings and methods from the NRP to field hydrologists.

Natural competition between USGS divisions for limited financial resources was intense. This competition was particularly acute between the Geologic Division and the fast-growing WRD. Early in his tenure, to defuse tensions and promote understandings between divisions, Phil established regular meetings between himself, his Associate Chief, Hal Langford, the Chief Geologist, Dallas Peck, and his Associate Chief, Gordie Eaton. Conversations within those meetings opened the way for cooperation between division scientists, provided opportunities for joint programs between divisions, led to better mutual understanding of division goals and objectives, and cemented respect between members of division leadership.

None of this diminished annual competition between divisions for finite congressional funds. The nation's need for hydrologic data and analyses was fast growing and WRD was growing with it. By the end of Phil's tenure, WRD housed roughly half of all USGS employees and the WRD budget (including reimbursable funding from Federal, State, and local partners) equaled that of the other three divisions, combined. These facts were not lost on the other divisions nor on Dallas Peck, former Chief Geologist, now Director. So, competition for funds between USGS division chiefs, in preparation for and during congressional hearings, though unspoken, was especially intense.

Phil proved to be an outstanding advocate for the division. His success, year after year, grew in large part from the relationship he developed with Representative Sydney Yates, Chair of the House Appropriations Subcommittee for the Department of the Interior. Although the Director was nominally the primary representative in explaining and defending the USGS budget proposal, year after year it was clear Mr. Yates had a genuine interest in water resources. He genuinely liked Phil, respected, and trusted him, personally and professionally. The positive relationship between these two people was enormously beneficial to funding of numerous WRD initiatives during Phil's tenure.

During a budget hearing in early 1980's, Mr. Yates began the WRD examination by asking "Well, Mr. Cohen, what is the status of the nation's water quality?" Phil managed a coherent reply by citing the work of our district scientists through the Cooperative Program, the existence of our extensive network of surface and ground water sampling sites and the benefits of our long-term data base stemming from those networks. But it was clear to all that, in fact, we did not have a coherent way to frame our data into a useful story on which to base national or even regional analyses and management decisions. At the conclusion of that uneasy exchange, Phil promised Mr. Yates that, by the next time they met, the USGS would have a proposal to better respond to his question.

The first program to emerge from Mr. Yates' inquiries was the National Water Summary (NWS) which debuted in 1982. That program was headed by Dave Moody, assisted by Dick Paulson, Ken Lanfear, and Edith Chase. The NWS, published annually, featured a national section focused on a single hydrologic topic such as the major aquifers or rivers, floods, wetlands, etc., followed by an annual compilation of significant hydrologic events by state.

The NWS, although excellent as far as it went, did not allow the USGS to completely answer the question Mr. Yates continued to pose. Recognizing that, in 1983, Phil tasked Gordon Bennett, then Assistant Chief Hydrologist for Program Coordination and Technical Support, to develop a program that would allow the USGS to provide the country with quantitative water quality evaluations of the nation's major rivers and aquifers.

Gordon Bennett gathered a team comprising eminent WRD scientists Jake Rubin, Ike Winograd, Bob Hirsch, Sam Luoma and Jim Bennett, to puzzle their way through that challenging task. Developing concepts to accomplish their charge took time. Then, once that was accomplished, Phil had to convince Director Peck to include such an expensive program in the bureau's annual congressional budget request. Every dollar requested for a WRD program would not be available for budget support in another USGS division. But, finally, in 1986, Phil convinced Dallas the program had too much potential to ignore. Mr. Yates quickly agreed to fund the program on a pilot basis, followed by an evaluation by the National Academy of Sciences, leading rapidly to fully funding the National Water Quality Assessment program (NAWQA). Under the leadership of Pat Leahy, Bill Wilber, Bill Alley, Bob Gilliom, and a host of others, the program delivered a stream of descriptions and analyses of the quality of water within the nation's complex surface water and ground-water systems.

In addition to the programs briefly described here, Phil was responsible for initiating a host of other programs and initiatives. That list includes the Toxic Substances Hydrology Program, the Nuclear Waste Hydrology Program, a program to better understand acid rain, another to contribute to understanding the impact of global climate change on water resources, the introduction of satellite technology in the collection and distribution of hydrologic data, and consolidation of the division's water quality laboratories. The list goes on--each requiring imagination and careful planning, each enhancing our nation's ability to better understand, describe and manage our freshwater resources.

During his career, as Chief Hydrologist, Phil earned many honors, among those the two highest awarded by the Department of the Interior the Meritorious and Distinguished Service Awards. Those were followed in succeeding years by the Presidential awards of Meritorious and Distinguished Executive. That quartet would be an impressive capstone for the career of any senior executive. But, in 1993, just a year before his retirement, the American Institute of Hydrology presented him the C. V. Theis Award for his "outstanding contributions in the field of ground-water hydrology." Few will be surprised to learn that, of all his awards, this is the one he cherished most.

In preparing this memorial, recollections were received from Phil's former colleagues who had served with Phil at all levels within the WRD. There is not enough room here to list them all, but each recounted an incident or incidents in which Phil had taken time from his day to reach out with a personal note, phone call, or other kind gesture, each just a touch but revealing the thoughtful, kind-hearted person behind a guarded public exterior. Regarding Phil's management style, one colleague wrote "It is remarkable how much can be achieved if you don't care who gets the credit." A second, commenting on Phil's thoughtfulness, wrote "The first Christmas card I received each year without fail was from my Jewish friend, Phil Cohen."

In a private conversation during his final weeks of service, Phil was asked of which of his many achievements as Chief Hydrologist was he most proud. In words along these lines, he replied "In the moments immediately following the realization I was to be named Chief Hydrologist, I was uncertain I could measure up to the job, to the achievements of my predecessors, to scientific legends like Luna Leopold, and to strong managers like Joe Cragwall. To deal with that uncertainty, I set myself the modest goal to "do no harm." After pausing a moment, he added "I believe I achieved that." One marvels at the understatement.

In the postscript Phil prepared for the publication "History of the Water Resources Division, U.S. Geological Survey: Volume VIII, 1979-94," one can sense something of the man and the love and respect he felt for WRD and for the USGS.

He wrote:

None of this (meaning division accomplishments during his tenure) would have been possible were it not for the wonderful people who built the organization we were privileged to work for. Those who preceded us defined many aspects of the modern science of hydrology and were responsible for providing WRD with its stellar national and international stature. Likewise, the people who worked for WRD in 1979-94 (increasing from about 2,800 in 1979 to about 5,000 in 1994) made many advances to science and continued to enhance our scientific stature. This was as fine a staff of scientists, engineers, and support staff as ever was assembled. I am proud and humbled to have had the opportunity to serve with them.

Finally, WRD, as we knew it, could not have existed outside the USGS. We were part of the best scientific governmental organization in the world.

Philip Cohen, fourth Chief Hydrologist of the U.S. Geological Survey, was laid to rest on January 25, 2022, in King David Memorial Gardens, Falls Church, Virginia.

***(Note: We would like to thank John Keith, a Geologic retiree, who directed us to the USGS Denver Library Photographic Collection. We would also like to express our appreciation to Jenny Stevens, Librarian, at the USGS Denver Library Photographic Collection who researched the Library's collection and was able to provide us with the above photograph of Phil.) To honor Phil's preference to keep ground water as two words, the authors used that form in this memorial—fortunately not changing meaning or intent.***

## MEMORIALS



### ***\*\*Remembering Don Bingham\*\****

**Donald L. Bingham, 80**, passed peacefully on August 10, 2021, after a short illness. Don was born on Valentine's Day, 1941 to Donald Christopher Bingham and Helen Louise (DeLong) Bingham. He grew up in Loveland, CO where his family band often entertained local benevolent organizations, appeared in local parades, played on local radio and even performed twice on The Ted Mack Amateur Hour. At the age of 15, Don and his family moved to Lakewood, CO where Don graduated from Lakewood High School. He went on to Graduate in Engineering Physics from Colorado School of Mines in 1964 and entered the US Army Combat Corps of Engineers as a 2nd Lieutenant serving in Viet Nam where he received three service awards. Don returned from service to continue his work with the USGS and married Bonnie Lou Easterly in 1968. Their son, Jeffrey Dale Bingham was born in 1970. While working for the USGS he graduated from UC Berkeley with an MS Engineering degree in 1976. Don retired from the USGS in December of 1997 with 37 years of service, having worked in Denver and Pueblo, CO, Harrisburg, PA, Long Island, NY, and Reston, VA. Don loved a good game of volleyball, the Colorado Rocky Mountains, camping and boating with his family. While in Pueblo, CO he and his close climbing friends managed to climb over ½ of the +14,000 altitude peaks. Don developed an affinity for computers and especially Apple computers during his work at the USGS and opened a business in web development working from his home in Reston when he retired. He also became an accomplished photographer specializing in competitive dance photography. He had at least one cover credit on the magazine "On the Scene" in September 1998. Don parlayed his Apple experience into working directly for Apple on the opening team for the first Apple retail store in Tyson's Corner Virginia in 2001 and he never lost his affinity for all things Apple. Don had many Apple recognitions including several signed by Apple executives. Near the end of his career with Apple, he developed a wanderlust, researching and traveling country wide for the perfect RV. He sold his home in Reston and for the rest of his life he lived and traveled in three successive RVs, each nicer than the prior one. Although he traveled throughout the country, he was especially fond of Alabama, Oregon and Las Vegas where he "settled down" by buying a lot for his RV in the Las Vegas Motorcoach Resort. Don was forever making new friends in his travels and patiently helping them with tech issues. Don was preceded in death by his son, Jeff, his sister, and his ex-wife Bonnie. He is survived by his brother and family and a multitude of friends spread across the country who knew him as "Digital Don".

***-Narrative by Don's brother Dale Bingham, and John Klein***



**Dolores M. Borland, 84, (wife of USGS retiree John 'Pat' Borland)** passed away on January 21, 2022. She was born in Santa Fe, NM to Violet and Roland Ferguson. She went to Santa Fe High and then went on to Texas Tech University where she graduated in 1961. She married John "Pat" Borland and moved to Albuquerque, NM in 1967. She was an English teacher at De Vargas Middle School and Santa Fe High School prior to moving to Albuquerque. After raising three children, she returned to teaching when she joined the Special Education Department at Eldorado High School. She retired after 20 years with Albuquerque Public Schools. Dolores took time off to act as hostess and tour guide when the WRD retirees held its reunion in Albuquerque in 1994. This time off resulted in her making many new friends that she would enjoy seeing at future USGS retirement get togethers. Dolores is preceded

in death by her parents Violet and Roland Ferguson. She is survived by her husband of 60 years, her brother, and her three children, and six grandchildren. A funeral mass will be held in June 2022.



**Earline M. Dantin, 86, (wife of USGS retiree L.J. Dantin)** passed away peacefully at her home in Baton Rouge, LA on January 22, 2022. She was born in Erath, LA in 1936 to Nolis and Agnes Segura. Earline graduated from Erath High School in 1954, where she served as High School Librarian and was the recipient of the American Legion Award. She attended business school in Baton Rouge and was the assistant to the department head that created the practical nursing program for the Louisiana Department of Education. It was there that she met and married her beloved husband of 65 years, L.J. Dantin. Together they raised four sons. Earline was an avid reader, with a wonderful green thumb.

Earline was a devout Catholic who said her Rosary daily and never missed Mass. She was a wonderful cook with a fondness for white pepper and could make a delicious meal out of whatever she had in her pantry. Her love of cooking and her Cajun heritage was evident in everything she did, from preparing meals for French tourists to helping L.J. with meals at events at the LSU Rural Life Museum. Earline is survived by her loving husband and caregiver, L.J., her three sons and many grandchildren and great-grandchildren. She is also survived by her sister and brother. She is preceded in death by a son and grandson; her parents; a sister and brother. A funeral mass was held at St. Aloysius Catholic Church, Baton Rouge, on January 28, 2022. Burial followed immediately at St. George Catholic Cemetery.



**Larry D. Fayard, 81**, passed away at his home in Crescent City, FL on February 28th, 2022. Larry was born in 1940 in Bay St. Louis, MS, to Sedonia R. and Fred E. Fayard Sr. He graduated from St. Stanislaus High School in Bay St. Louis. Larry attended Louisiana State University and graduated with a degree in Chemical Engineering. He was also in the Army Reserves. In 1963, Larry began his USGS career as a Hydrologist in the Baton Rouge Office of the Louisiana District in the water-quality program. In 1979 he transferred to the Orlando Florida Subdistrict Office to become the Subdistrict's Data Chief. He retired from the USGS in mid-1992. After his USGS retirement, Larry went to work for the

Florida St. Johns River Water Management District, becoming the primary contact to the Orlando USGS data operations for this major Cooperator. Larry was preceded in death by his first wife, Patricia, and is survived by his wife, Margy Dunne Stevenson; children, Kelly Ray, Christopher, James, and a son who resides in Guyton, GA. He is also survived by eight grandchildren and four great grandchildren. A memorial mass was held on March 5, 2022, at St. John the Baptist Catholic Chapel in Crescent City, FL. Burial will take place in Eden Cemetery at a later date.

**Charles Tibbals**, a colleague of Larry's writes: "Larry was very smart; a gentleman, and a good-hearted man. He was a treasured colleague of mine for many years. When Larry arrived in Orlando, to take over the Data Section, we were still collecting and processing basic data the old, traditional, time-honored way. By the time he retired, we were making solid inroads toward electronic acoustic flow measurements and telemetry of the results. The last time I talked with Larry was when I called to congratulate him and his beloved LSU Tigers on winning the NCAA Football National Championship. He took it with grace and aplomb as only he could do. As an aside, Larry used to referee high school and Pop Warner football and high school and Little League baseball games way back when my sons were playing. He called the games straight. That was just his nature."

**Mildred Alice Jackson, 89, (widow of USGS retiree Nathaniel Macon Jackson)** passed away suddenly in Wilmington at New Hanover Regional Medical Center on May 4, 2021, from congestive heart failure and vascular dementia. Alice was born on October 2, 1932. Alice met her high school sweetheart, Nathaniel Macon Jackson, Jr, they were married in 1953 and had three children. She worked at Wachovia Bank, the North Carolina Legislature, volunteered at Millbrook United Methodist Church and sang in the choir. She loved to paint, sew, shop, collect everything, (let us know if you need a salt & pepper shaker set), and talk on the phone. She had the gift of gab and could and would talk for hours to people. She coined the phrase, "just sit down and talk to me a minute." In 1 Samuel 16:7, the Lord said to Samuel, "for the Lord sees not as man sees: man looks on the outward appearance, but the Lord looks on the heart." And that was Alice, she looked at people's hearts, she felt their triumphs and their pain, and she loved openly. Her life was a living example of her favorite Bible verse, Ephesians 4:32, "be kind and compassionate to one another, forgiving of one another, even as God for Christ's sake hath forgiven you." She was a kind-hearted human with a big smile. Her passion was her family whom she loved unconditionally and abundantly. She is preceded in death by her husband—Macon, her mother and father--Frank B. Jones and Mildred Averette. She was blessed or obsessed, depending on how you looked at it, with her grandchildren. And just recently her first great grandchild. It did not matter what time of day it was, if she was on the phone with someone, if they reached out, they came first. They were her heart and soul. She was also blessed with so many nieces and nephews, great nieces and nephews and great-great nieces and nephews. She is survived by her two sisters a brother and children. They were her foundation. She made it a point to try and talk to them almost daily. Whether trying to figure out the cryptoquote in the paper, trading recipes, or just checking on their children. Alice was not perfect, but she loved hard, she tried her best, and she was a great wife, mother, sister, grandmother, aunt, and friend. A celebration of Alice's life will be held on May 15, 2021 at Oakwood Cemetery in Raleigh, NC.

**Mae Yoshie Jones, 88, (wife of USGS retiree Benjamin 'Ben' Jones)** passed away on February 7, 2021, in Honolulu, HI. She was born and raised in Honolulu, HI. She was a stenographer and technician in the USGS Hawaii District Office. Mae and Ben were married in 1970. She worked as a research assistant at the University of Hawaii before retiring in 1982. After we moved to Menlo Park, she worked at the Stanford Research Institute and retired from there in 1987. Mae is survived by her husband Ben of 50+ years, 5 children, 7 grandchildren and 14 great grandchildren.



**Barbara L. Keezer, 83, (wife of USGS Retiree Gordon R. Keezer)** passed away on February 19, 2022. She died peacefully in her home surrounded by her loving family. Barbara passed away after a 30-plus year battle with Parkinson's disease. Barbara was born in Portland, ME to Arthur Norrad and Louise (Tripp) Norrad. She was raised in Saco and was a 1957 graduate of Thornton Academy where she met her loving husband and high school sweetheart, Gordon Keezer. They enjoyed 63 years of marriage. After graduation from Thornton Academy Barbara attended IBM training in Portland where she trained to become a Key Punch Operator. She relocated to Orono while her husband attended college. While in Orono she worked at Eastern Pulp and Paper in their computer department until relocating to Augusta,

ME. Gordon and Barbara raised their four children in Augusta. As a family, they spent weekends and vacations traveling the State of Maine, the country, and Canada in their family camper. Barbara was an active mom who always made every activity perfect. Whether it was camping, hiking, traveling, snowmobiling, or visiting her family and friends in Saco. She also planned many events that included her children's friends who came to refer to her as "Mrs. Keez" or "Momma Keez." She was loved by all and made sure that any friend in need was cared for. Their love of traveling continued after her retirement in 1999. Through their retirement they logged over 150,000 miles and wore out two motorhomes. Their later

years were spent wintering in Florida where they met numerous friends. She is preceded by her parents Arthur and Louise Norrad and her in-laws Richard and Mae Keezer. Barbara is survived by her husband, Gordon and their four children (two sons and two daughters), eight grandchildren, and three great grandchildren. Funeral services were held on February 24, 2022.



**Frederick A. 'Fritz' Kilpatrick, 91**, "Grandpa Fritz" passed away on January 23, 2022, in Manassas, VA and joins his wife June. Fritz was born in Pennrose, NC, on August 18, 1930, and lived in Atlanta, GA, Fort Collins, CO, and then Northern, VA. He served as a Captain in the Army Medical Corp. during the Korean war, earned his Bachelor's and Master's Degrees in Civil Engineering at Georgia Tech, and worked his entire career for the USGS as a Hydrologist in the Water Resources Division. He retired from the USGS in 1986. Fritz loved the outdoors, woodworking and building all kinds of projects - from being a Scoutmaster for troop 655, canoeing the many streams of Virginia and West Virginia, building several houses, additions, and furniture, and taking up golf he led an active and fulfilling life. He is survived by his two sons, and four grandchildren. His and June's wishes were to have both their ashes spread across the waters of Cedar Creek (one their favorite streams in Virginia). We will have a small service this Spring at Cedar Creek to keep everyone safe from covid and to accommodate their final wishes.

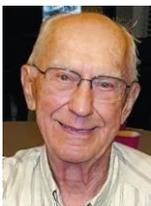
**Frances F. McNellis, 83, (widow of USGS retiree Jessie M. McNellis)** passed away on November 3, 2021, at her home



in Lenexa, KS. Fran was born January 18, 1937, in Hilo, HI. She was the daughter of Shigeru and Yoshiko Hara. She came to Kansas, (Yes, we all questioned her sanity on the move!) to attend Kansas University and there met the love of her life, Jesse Manley McNellis. They were an interesting couple, he a red headed Irishman and she an islander with Japanize roots. They married in August of 1958. She went on to a decorated career as an educator in the Lawrence Unified School District where she taught history, government, and political science. She was known as a teacher that cared so much about the students; she could ruin their GPA! And yet she was beloved. She taught them how to think. Her impact she had with her students, colleagues and friends are almost as much a legacy as her family. She had

three children, and 13 grandchildren...all of which knew they were her favorite! She is preceded in death by her parents and brothers. Fran is survived by her husband of 62 years, Jesse Manley McNellis, her two sons and a daughter, and numerous grandchildren from Arizona, Texas, Oklahoma, and Kansas. A funeral service was held at Porter Funeral Home in Lenexa, KS on November 9, 2021. A graveside service was held in Deerfield, KS at Deerfield Cemetery on November 10, 2021. **(NOTE: Her husband passed away on November 10, 2021 – just 7 days later – reference NL194**

**Memorials)**



**Dale J. Nyman, 90**, of Baton Rouge, passed away January 26, 2022. Dale was born June 4, 1931, in Bancroft, Iowa to James and Alice (Peterson) Nyman. After growing up on the family farm, he went on to receive both his BS ('53) and MS ('58) in geology from Iowa State College, followed by his service as a lieutenant in the U.S. Air Force. On May 21, 1960, Dale married Miriam Buck of Memphis while working on his first posting with the USGS. Dale went on to have a 30-year career as geologist with the USGS; the last 23 years in Baton Rouge. After retirement, he spent his time consulting and more fully pursuing his lifelong passion for singing. In addition to being an active member of St. Paul Lutheran Church where he sang in

the choir, he sang with the Baton Rouge Symphony Chorus and the Baton Rouge Opera, later Opéra Louisiana. He was also an active member of the Baton Rouge Geological Society. Dale left behind many beloved family members and friends. He is survived by two children and their spouses, son Kenneth and Marlene Nyman of Arlington, Virginia; daughter, Joy and Michael McEuen of Canton, Georgia; two grandchildren, Madelin and Jacob McEuen; and sister-in-law Gloria Buck of Warrenton, Virginia. He was preceded in death by his wife, brother Wayne and sister-in-law Marjorie Nyman of Bancroft, brother-in-law William E. Buck III, great nephew Justin Nyman, and parents. He also leaves behind Judi Betts, his significant other of the last eight years, who together enjoyed many and myriad travel and social events.



**Joseph "Joe" Rinella, 72**, passed away on January 19, 2022. He was born on September 5, 1949, in Portland, OR to Frank Natale Rinella of Portland and Merrie Anne Lombardo of New York City. He was raised Catholic and maintained his relationship with the church and God throughout his life. He graduated from Cleveland High School in 1967 and obtained his Bachelor of Science from Portland State University (PSU). He pursued his master's in air pollution at PSU, where he completed all his requirements except his thesis before he was offered a job as a hydrologist for USGS, Water Resources Division. He was passionate about his work and continued with the USGS for 42 years, retiring as a

Water-Quality Specialist in January 2016. He went for lunchtime walks with his brother, Frank, who also worked for the same department. He liked being compared to Elvis Presley in looks, and on September 28, 1974, he used his good looks to his advantage: While attending an Airstream trailer rally with his parents, he met his future wife, Patsy Ross, who was also attending the event with her parents. Joe's father asked him to drive her to the grocery store and the rest was history. The two were married in December 1975. They had three children together. Joe loved his family and wanted them to be taken care of and happy. He liked to be involved in whatever his family was interested in and particularly enjoyed hearing the latest updates about their workdays. Joe took great pride in his family. He enjoyed spending time with his mother, and

regularly took her to church. Joe loved watching one of his granddaughters play sports. Basketball was his favorite sport, and he enjoyed watching her excel. He was well-known for his sense of humor, often playing tricks on his family members. While watching movies, Joe would wait until a tense scene and make a noise to scare his family. He never seemed to tire of making them jump. It is no wonder he enjoyed the show "Impractical Jokers!" He loved strategy games and instilled this love of games in his family. They also adopted his competitive nature: Joe loved to win! Joe is survived by his wife, Patsy, their two sons and a daughter, and two granddaughters.



**John R. Ritter, 86**, passed away peacefully on January 1, 2022, in Gainesville, FL. John was born in Eveleth, MN on September 5, 1935, to John and Eunice Gossman Ritter. He graduated from Eveleth High School in 1953, Eveleth Jr. College in 1955, and South Dakota School of Mines and Technology in 1958 with a B.S. in Geological Engineering. He worked in Venezuela for the Creole Petroleum Corporation for 2 years. He worked in Casper, WY as a hydrologist for the USGS. After he received a M.S. in Oceanography from the University of California at San Diego in 1963, he returned to work as a hydrologist with the USGS. In his career, he worked in Sacramento and Menlo Park, CA, Harrisburg, PA, and Albany, NY. His expertise in river sediment resulted in work at Mt. St. Helens soon after the volcano erupted. He retired in 1995 after 32 years. In 2006 he moved to Gainesville. He will be remembered for his great sense of humor, love of nature, passion for travel and learning which included taking conversational Spanish classes and other classes at the Institute for Learning in Retirement. He served as President of the Friends of the Library in Clifton Park, NY and in Gainesville. He was an avid reader and collector of bookmarks. He is survived by his wife of 61 years, Judith (Johnson) Ritter, his two daughters, and two granddaughters: as well as many cousins, nieces, nephews, and friends. A memorial service in Virginia, MN will be conducted at a later date.

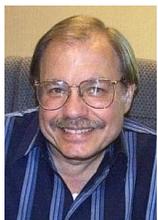
**Bernita Ann Sieger, 91, (widow of USGS retiree Theodore Sieger)** of McCook, NE passed away on Thursday, April 30, 2020 at Great Plains Health Hospital in North Platte, NE. Bernita was born February 17, 1929 in Avon, SD to parents Jake and Anna Pudwill. On June 6, 1949, Bernita married Theodore Sieger in Custer, SD. The couple was blessed with three sons. Over the years, Bernita worked as an accountant. Bernita was preceded in death by her parents and her husband, Theodore Sieger. Those left to celebrate her life include her three sons, one sister, as well as numerous grandchildren.



**Richard E. Taylor, 87**, passed away on March 6, 2022, in his beloved Ocean Springs, MS. Richard was born March 18, 1934, in Philadelphia, PA. He received his Bachelor of Science in Geology and Mineralogy from Penn State University in 1956. As a U.S. Naval officer Richard served aboard the "USS The Sullivans" and completed active duty in April of 1960. He continued to serve in the Naval Reserve and retired as a Lieutenant Commander in 1972. Taylor joined the USGS in the early 1960s and spent most of the next decade working on a joint project in Mississippi with U.S. Atomic Energy and U.S. Department of Defense which was aptly named Project Dribble. This involved the underground detonation of two nuclear weapons in Mississippi, one in October of 1965 and the other in December of 1966. Richard was an author or co-author of more than 20 publications concerning the geology, water-levels, before and after the detonations, as well as investigating water-well complaints. Richard changed career paths and became a groundwater modeler working on the Gulf Coast Regional Aquifer Systems Analysis (RASA) and the Mississippi Embayment Aquifer System and others. In March of 1988 Richard transferred to Arkansas as the Assistant District Chief for Hydrologic Investigations. He retired from the USGS in 1994. Richard wrote more than 35 publications during his career. Richard is survived by his two daughters.

**Angel Martin who worked with Richard writes:** Richard was a dedicated hydrologist with an easy-going manner. He mentored me when I was chief of the Louisiana portion or the Gulf Coast RASA Study in the 1980s. I always enjoyed giving Richard a good cigar now and then to make up for the drugstore cigars he used to smoke.

**David Sumner adds:** I arrived in the USGS Mississippi office as a new hire from college in 1982 and Richard became an integral part of my life for my 5 years in Jackson. As a newbie on my first real job, Richard (and Billie Wasson, Mike Mallory and Kerry Arthur) were great mentors on the "Delta groundwater flow model" - one of the first generation of MODFLOW models - along with including me in the regular evening trips to "Studebaker's" for beer, good conversation, and people watching. Richard was chain smoking and crusty at first glance but with a heart of gold. He was loved and valued by those that were fortunate enough to get to know him. He left a solid body of hydrologic-science work that will outlive all of us. Rest in peace friend Richard.



**John E. Terry Jr., 74**, of Alexander, AR was born December 7, 1947, in Little Rock, AR. He passed away February 10, 2022. John worked at the USGS where he served as the District Chief and Director of the Arkansas District Water/Science Center for many years until he retired October 1, 2010. He was a member and leader in his church, Alexander First Baptist. John and his brother, William Terry, shared a bond that many siblings never have had the privilege of experiencing. William and his wife, Mary, mourn the loss of their family member and friend as do his two nieces and their children. John also leaves behind two men he raised as his sons and were a big part of his life, Christopher Sharp and Dillon Sharp, who also will miss him dearly. Anyone who knew him was blessed in some way. His heart was big just like his smile. He admired loyalty and honesty, cherished old traditions, and loved his family beyond measure. He was a mentor to many and an example to all. He will be greatly missed. He is preceded in death by his father, John E. Terry Sr., and his

mother, Helen Geneva Moon-Terry. Visitation was held on February 16, 2022, at the Ashby Funeral Home. Funeral services were held February 17, 2022, at Ashby Funeral Home with burial at Pine Crest Memorial Park.

### Remembrances of Gene Hampton from three former WRD colleagues

**Jim Daniels:** Gene Hampton worked for me when I was ACH/SIM (Scientific Information Management -- that always smacked to me of something the Comintern in the Kremlin would do - manage information). Although Gene was frequently controversial, there was no fiercer proponent or defender of the reports of the USGS and WRD in particular. His main goal was to publish the most accurate, unbiased, and informative reports possible. Woe to the poor author who offended. I always appreciated Gene's fervor and we got along in the common goal of seeking excellence. Most people are not aware that Gene was a pack rat. He would stop on the side of the road to 'save' some piece of flotsam that he noticed as he drove. Many is the morning that he would visit my office to show me his latest acquisition that he picked up on his drive in to work that morning. I would have hesitated to see what his backyard shed contained when he died. To me, Gene was a lovable curmudgeon. RIP Gene.

**Chet Zenone:** I worked for Gene for several years when Celso Puento and I, as Staff Hydrologists for Reports at the National Center, evaluated and approved (or not), all interpretive report products of the then Water Resources Division. [At the time, however, ours was not the final approval step; the report had to go on to the Director's Office for the distinctive signature of Henry Spall.] I can attest to Jim Daniel's statements (above) that Gene was a stickler for making sure that the report manuscripts that crossed Celso's and my desks in Reston met the criteria spelled out in Survey's "bible" on reports, *Suggestions to Authors (STA)*, as well as in the WRD Publications Guide (does anybody remember that 400+ page tome?). Gene held that the criteria and guidelines for report preparation in STA and the Pubs Guide were meant to ensure that WRD authors presented the results of their investigations objectively and in useable and attractive format for their intended audience. Gene reminded us, as did the poster in his office, that "*This is not Burger King. You (authors) don't get it your way; you do it my (the USGS -- or was it Gene's) way.*" To Jim's point about Gene's habit, or penchant, for rescuing items discarded by others, I was often a participant in his searches for treasure. In good weather, Gene would often lead Celso and me, as well as visitors to Reston, on lunchtime walks around the residential areas near the National Center, especially on trash pickup days. During those forays, small scraps of metal or wood, small appliances, picture frames, etc. were fair game. But occasionally there were bigger prizes: a lawnmower and even a TV set, the latter requiring two of us to cart back to Gene's car in the National Center parking lot. And I can't conclude without mentioning the quick stops along rural roadsides when riding with Gene to retrieve fresh roadkill as treats for the hawks and falcons who frequented his property near Leesburg.

**Steve Craigg:** I first met Gene in late 1988 when he was inviting two-week detailees to USGS HQ to assess their potential as candidates to replace the retiring "Purple-Pencil Lady," the venerable WRD Geologic Names Reviewer -- Claire Davidson. I became one of those detailees after serving as Geologist on the Four Corners area San Juan Basin RASA in the New Mexico District. I worked under Claire's daily tutelage and Gene's supervision for two weeks. I eventually received the offer and arrived in Reston in Fall 1989. My personal effects were in storage while I was in temporary lodging at the Hampton Inn (irony?) in Herndon. Sometime during my first week Gene asked me to join him and wife Pat for Sunday dinner at their "farmstead" on Old Waterford Road northwest of Leesburg. After dinner, Gene said "Let's take a walk up the hill, I want to show you something." What Gene showed me was a 5,000 Sq-Ft home for sale on a ten-acre wooded estate, listed at a couple million dollars. Gene said, "This place has been vacant too long and needs a house sitter. I'm going to talk to the owner about you staying there." Lo-and-Behold, in a couple of days, the owner agreed, and I became the occupant, living rent- and utilities- free for ten months, commuting back-and-forth to Reston most workdays with Gene. We forged a unique bond during those days, and I feel fortunate to have known Gene in ways that otherwise I would never have known him. Gene and I enjoyed taking detours on our commutes, especially when leaving HQ. We always listened to WAMU's daily afternoon Bluegrass show. One memorable detour occurred when we got behind an Old Dominion Brewery truck. We followed it to the brewery in Ashburn. We walked into the brewery, got a private tour, sampled numerous brews, were given/purchased various brews, and after wandering/rambling towards home, we eventually arrived on Old Waterford Road safely. And to echo Chet Zenone's mention of lunchtime walks through the woods around HQ and around neighborhood environs: These were always "noteworthy and enlightening." Gene was a birdwatcher and knew all the species in the area. Bob Laney (OGW) would often accompany our esteemed group. Dr. Bob's off-beat humor was always in evidence, and he had one "particular species" he would "point out" to Gene and company (I cannot put the species name in print herein). The review group, including Don Hillier (CR reports guru) and, Don's assistants John Flager and George Garklavs, were in San Antonio to attend a USGS reports and outreach gathering.

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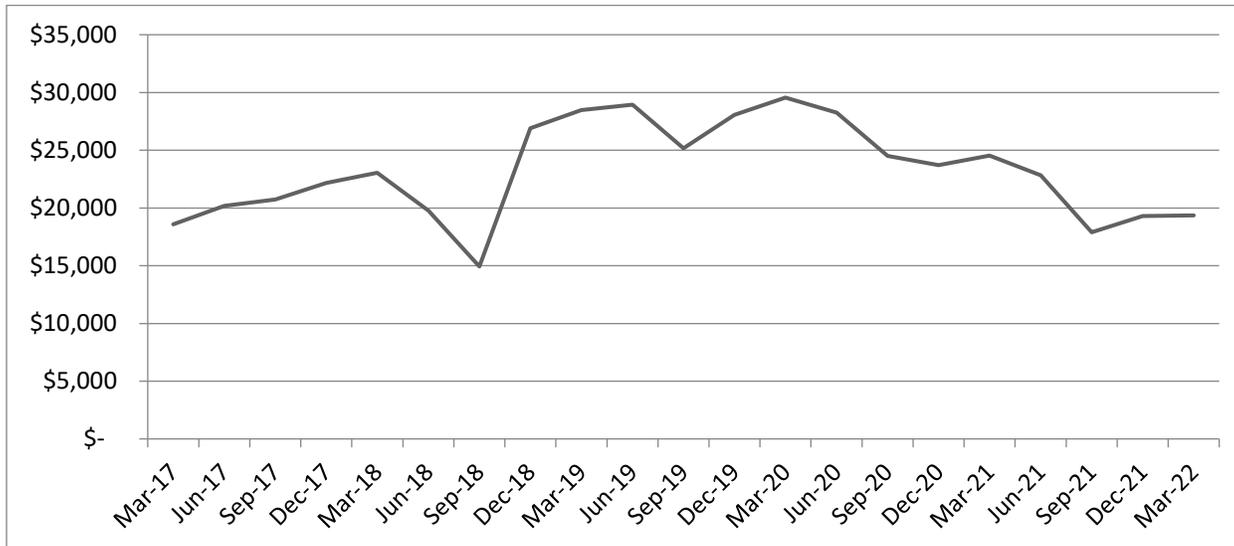
From all of us whose lives intersected with Gene's, for either a long or short time, I'll borrow John Flager's usual correspondence closing: HAPPY TRAILS AND FAIR WINDS, OLD FRIEND!

**USGS HQ, Fall 1994, from R to L: standing--Jim Whitmer, Janet Sachs, Steve Craigg (on detail from MT), Gene Hampton, Ron Hansen (on detail from OK); kneeling--Celso Puento, Chet Zenone. Behind the camera--possibly Dave Aronson?**

## TREASURER'S REPORT, FIRST QUARTER 2022

Treasurer Cathy Hill reports the organization had \$19,368 at the end of the first quarter, 2022. A special thanks for extra contributions from John Gray, Pete Anttila, Merilee and Jim Bennett, John Briggs, Kate Flynn, Keith Robinson, Eric Wakeman, and Annie Wood. These funds will be used to support the Scholarship fund. Many thanks for your generosity.

### USGS Retirees Budget, 2017 - 2022



### DIRECTORY

#### NEW MEMBERS

**Bartolino, James Ray 'Jim' (21) (Christine)** – Hailey, ID  
**Baxter, Carmen R. (21)** – Jonesboro, AR  
**Baynham, Owen R. (21) (Pam)** – Gilbert, AZ  
**Diggles, Michael F. 'Mike' (22) (Deanna L.)** – Oakland, CA (Geologic Division)  
**Freiwald, David 'Dave' (16) (Teri)** – Pensacola, FL  
**Jones, Joseph L. (21)** – Gig Harbor, WA  
**Hocheiter, Jr Joseph 'Joe' (F)** – Yardley, PA  
**Kalkhoff, Stephen J. (21) (Pam)** – North Liberty, IA  
**Kirk, Keith (20) (Susan)** – Felton, CA  
**Robinson, Keith W. (21)** – East Stroudsburg, PA

#### AFFILIATE LIAISON

**Dillow, Jonathan J.A. 'Jon' (AL)** – Towson, MD  
**McGowan-Mix, Rose Marie (AL)** – Lansing, MI

#### MEMBERS

**Alley, William M 'Bill' (12) (Rosemarie)** – change of address  
**Bales, Jared (16) (Callie Oblinger)** – change of address  
**Berris, Steven N. 'Steve' (19) (Debbie)** – change of address  
**Click, David E. 'Dave' (94) (Laurel)** – new email address  
**Hollett, Kenneth 'Ken' (03) (Claudia Stone)** – email address updated  
**Lewis, Robert E. 'Bob' (95) (Betty)** – new email address  
**Markham, Kenneth L. 'Ken' (96) (Barbara)** – new phone number  
**Martin, Jeff (19) (Kathy)** – change of address  
**Knochenmus, Darwin (93) (Linda)** – change of address and new emails  
**Oblinger, Callie (18) (Jared Bales)** – change of address  
**Rapp, Donald H. 'Don' (94)** – email address updated  
**Rogers, Gary (00) (Janet)** – new address  
**Shay, Janice H. (20) (Jeff)** – email address updated  
**Williams, Rose (S) (Owen O.)** – email address updated  
**Zenone, Chester 'Chet' (91) (Merilee)** – new cell phone number