

USGS RETIREES

NEWSLETTER No. 180

August 2018

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

Dear Fellow USGS Retirees,

The last time I sent an update we had a new six inches of snow. Now, we have had two 100-degree days. That's pretty hot for us in the Land of 10,000 Lakes. September is probably our best month. I hope you have registered for the reunion that will be held during September 13-15 in the Twin Cities of Minnesota. The Twin Cities have a lot to offer. We have great dining and cultural opportunities. If you have not signed up, there is still time to do that. Consider extending your stay and take a trip "up north". You will find much more about the reunion in newsletter NL179. Timely registration is greatly appreciated to facilitate organization of events. The planning team is putting together a great schedule of events. I want to give special thanks to everyone who has been part of the planning process.

Our officers are working hard to achieve the goals we set for the next two years. We have revitalized the scholarship program. In addition, we are working to grow our membership from a greater cross-section of all retired employees from "water", to better connect our membership with the current employees in Headquarters and across the country, and to recognize our volunteers. We would like to see more active involvement among Center Directors and with staff in each of the Science Centers. We will discuss these goals, and ask for your suggestions, during business meetings at the reunion.

There are changes at the Bureau. A reorganization is being planned that includes more direct management alignment between Science Center Directors and Headquarters. The new mission areas will include: Energy, Minerals and Environmental Health; Ecosystems; Natural Hazards; and Water. This may be more like the "Divisional" structure that was familiar to most of you. The goal is a more efficient and simple management structure. The realignment is working its way through Departmental and Congressional approval. We hope to provide you with updates on these changes at the reunion, and to discuss how these changes may affect the retiree's organization.

I want to thank our officers for all that they do to support this organization. They include: Al Condes (vice president), Kate Flynn (secretary), Cathy Hill (treasurer), and Dick Engberg (archivist). Our new, or renewed, Regional Directors include Jay Kiesler (Northeast), Ed Martin (Southeast), Ken Lindskov (Central) and Pete Anttila (West). Merilee Bennett helps so much with member tracking and with compiling and editing these newsletters. Tim Smith, a past president, helps keep us connected with Headquarters, with members, and with his history and experience in the evolution of the organization. Jim Kircher has been a mentor to me and provides a great connection with his recent experience as this organization's president. Herb Freiburger is helping us invigorate the meritorious service award process. Dan Fitzpatrick has agreed to continue to help with editing responsibilities. Finally, Jeff Stoner is doing a great job of leading the organizing committee in planning the reunion.

Our organization is limited only by the number of volunteers involved. Please let me know if you would like to help. **We have work that needs to be done!**

I hope you enjoy reading this newsletter. Thanks for your support of this organization. Please consider making your plans to attend the reunion. I hope to see you there!



Jim Stark
stark@usgs.gov

National Officers:
James (Jim) Stark, President
Alberto (Al) Condes, Vice President
Kate Flynn, Secretary
Cathy Hill, Treasurer
Richard (Dick) Engberg, Archivist

Regional Directors:
James (Jay) Kiesler, Northeast
Edward H. (Ed) Martin, Southeast
Ken Lindskov, Central
Peter W. (Pete) Anttila, Western

Newsletter Staff:
Editor: Daniel (Dan) Fitzpatrick
Layout Editor: Merilee Bennett
NR: Kenneth J. (Ken) Lanfear
SR: John Clarke
CR: James (Jim) Bennett
WR: John Klein

Address:
USGS Retirees
P.O. Box 280
Herndon, VA 20172-0280
Phone (703) 596-5468
Web Page: <http://wrdretirees.org/>
Email: wrdretirees2014@gmail.com

**USGS Retirees' Reunion 2018 in Twin Cities, Minnesota
September 13-15, 2018**

By the time you receive this newsletter, the 19th Retirees' Reunion will be less than 2-3 weeks away. The Local Arrangements Committee (LAC) has spent considerable time and effort in planning to provide attendees an enjoyable and memorable event. As of July 15, registrations have been a little sluggish and we are hopeful to see a surge in registrations in the ninth inning. The LAC will be accepting late registrations past the August 1 deadline until August 28th for extenuating circumstances. The River Cruise has been popular with most registrants and the Gangster Tour at 80 percent. In other words, there will be great opportunities to reconnect with former colleagues in a fun atmosphere.

We had a little bump in the road regarding hotel bed sizes after the allotted king-size beds were used up for the Reunion block of rooms. If you had to book two double beds upon reserving your room and want to try for two queen-size beds instead, the Crowne Plaza Aire Hotel recommends calling them in September for upgrade availability. Use the number 952-854-9000 [800-227-6963] and remind them of the block code **USG**.

A good place to find tips on self-directed "things to do," registration form, hotel information, or suggested restaurants is the **Reunion Web site**, <http://www.wrdretirees.org/Reunion2018>.

The LAC looks forward to greeting you at the Reunion Registration Desk. Some fun will be had by many. If you have any questions or concerns about the Reunion logistics or would like to see a list of attendees, feel free to contact LAC Member Mark Have (markhave@q.com), or at 651-528-2370. Chairperson Jeff Stoner will be available after September 3 at (usgsreunion2018@gmail.com) or 651-808-5795. Or feel free to contact any of the LAC Members: Mark Have, Jim Stark, and Linda Stoner (Minnesota), Gregg Wiche (North Dakota), Ken and Judy Lindskov (South Dakota), Marv and Rosann Sherrill (Wisconsin), Lee Case (Colorado), and Roger Lee (Texas).

RETIREES SCHOLARSHIP PROGRAM – 2018 AWARDS

The WRD Retirees organization awarded five scholarships this year. Since the program began in 2006, our organization has awarded 21 scholarships, not including the five awarded this year.

Including this year's awards, we have awarded \$61,000 in all.

This year's scholarship awardees are:

Holly Eschenburg. She is a full-time Hydrologic Technician in Oklahoma. Holly started as a Pathways student in 2013. She lacks one course for OPM qualification as a Hydrologist: Engineering Physics II. **Total awarded: \$700**



Olivia Stoken. She is a Pathways Hydrologic Technician in Oregon. She lacks 4 hours of calculus for OPM qualification as a Hydrologist. **Total awarded: \$500**

Award was presented by Marcia 'Marty' Erickson, Hydro Technician, Northwest Region

"My best experiences as a hydrologic technician with USGS have always been in the field enjoying the outdoors with great co-workers. We spend a lot of time driving boats to our water quality field sites on the Upper Klamath River and Upper Klamath Lake. The beautiful Cascade mountains offer a great background for bird watching, which is a must when your sites are part of the Pacific Flyway. The first time I saw a sandhill crane was here in Klamath during work. It reminded me of Aldo

Leopold's A Sand County Almanac and the importance of the science we do at USGS. It's hard to beat a job where you are paid to spend time outside enjoying beautiful scenery as you work on issues that are important to you. Thank you to the USGS Retirees for providing me a scholarship to take a class to convert to the hydrologist series which will allow me to continue to conduct meaningful science in beautiful places." **Olivia Stoken**

"Let me start off by thanking you all for your scholarship program and specifically for your award to Olivia Stoken. Olivia came to us recently as a grad student and she has immediately had an impact on our science in the Klamath Basin. Aside from being a stalwart and enthusiastic technician, Olivia has huge curiosity and ambition. Less than a year with us as a technician, and she conceived of and is executing a pilot study to evaluate dissolved organic carbon in the Klamath River. This is GS-11 hydrologist level work, which just goes to underscore how appropriate your awarded scholarship is. It will allow her to take the remaining college coursework for her to officially qualify for the hydrologist series. She has a bright future with the USGS!"

-James Crammond, Director Oregon Water Science Center, Northwest Region



Skylar Smith. He joined USGS in Illinois as a student contractor in 2014 and became of full-time Hydrologic Technician in 2016. He lacks 1 trigonometry and 2 calculus courses. He is going to Parkland College and plans to complete these courses by May 2019. **Total awarded: \$1,500.**



Johnse Ostman. He is a Hydrologic Technician and has been employed with USGS in Alaska for 9.5 years. He has a BS and is working towards a Master's in Environmental Science. **Total awarded: \$3,000.**

Presented by Jeff Conaway, Office Chief, Water, Ice, Landscape Dynamics, Alaskan WRSC (on the left) to Johnse Ostman

Johnse writes: "Many years ago, as a non-traditional undergraduate I watched in near-envy as fellow students began USGS careers as Hydrologic Technicians, but my life circumstances prevented me from pursuing that opportunity then. Several years later, while consulting as a Hydrologist in Southeast Alaska, I finally had the chance to join USGS at the Alaska Science Center and work within the Water Data Section maintaining Alaska's surface water monitoring network. From the Colville River to

Cordova, I have had the pleasure of working on rivers that support the lifestyles and livelihoods of Alaska residents. Besides ever-challenging fieldwork in the most spectacular regions on Earth, some of my best experiences include our USGS interactions and relationships built among the many Native Alaskan communities we have the pleasure of working with. To learn about their rivers from their perspectives has allowed me the opportunity to teach USGS Hydrology to children from many Alaska villages from that local perspective, while emphasizing the global-to-local feedback and its effects. Thank you to the USGS WRD Retirees' Hydrologic Technician Scholarship board- I am humbled to have been chosen to receive this award. Now, as I strive to balance seemingly endless Data Section responsibilities, while raising my family, I pursue defense of my graduate work quantifying runoff generation from neighboring headwater basins with differing glacier coverage using the distributed hydrological model WaSiM in the Eklutna watershed- the state's largest municipal reservoir. Once my thesis is complete, I look forward to contributions I can make as a USGS Hydrologist on local projects in hydrological science that affect Alaskans in a changing world."



Joshua Lee. He has been employed by the USGS in South Carolina for only 7 months but has proven himself. He was recently converted from intern to full-time Hydrologic Technician. He has a BS and is working towards a Master's in Environmental Policy and Management with a concentration in Fish and Wildlife Management. **Total awarded: \$3,000.**

Award was presented to Joshua by Brian McCallum, GA Data Chief and Eric Strom, Director Southeast Region at the SAWSC Data Section All Hands Meeting in Norcross.

Scholarship History of the Retirees Scholarship Program

NL132 (August): 2006 Winner:

Jacob B. Dayley of **GateWay Community College** in Phoenix, Arizona. Jacob had a 2006 summer internship with the California Water Science Center. An official ceremony was held at GateWay Community College. The award was **\$1500**.

NL136 (August) 2007 Winner:

Gretchen Anderson of **Vermilion Community College**. An official presentation ceremony was held at the Tulsa Oklahoma field office, where Gretchen participated as a summer intern. The award was **\$1500**.

NL140 (August) 2008 Winner:

Claire Bunch a student at **GateWay Community College** in Phoenix and a USGS summer intern in the Sacramento office was the winner. Claire received a plaque and **\$1500** check.

NL 144 (August) 2009 Winners:

First place winner of a **\$1500** scholarship was **Lisa Ashmore**, a student at **GateWay Community College** in Phoenix, AZ, who interned this summer in the Montana WSC.

Second place winner of a **\$1000** scholarship was **LaShawn Nohrenberg** who attended **Vermilion Community College** in Ely, MN. She was a summer intern in the Nebraska WSC.

NL148 (August) 2010 Winners:

First place, \$3000: **Travis L. Gibson**, a student at **GateWay Community College** in Phoenix was a summer intern in the Salt Lake City, Utah WRD office.

Second place, \$2000: **Michael Blumberg**, a student from **Vermilion Community College** in Ely, MN interned in the Richmond, VA office.

NL153 (November) 2011 Winners:

Casey P. Lovato, was the winner of a **\$4000** scholarship. Casey was a student at **GateWay Community College** in Phoenix and was a summer intern at the Oregon Water Science Center.

Brandon Clark won a **\$2000** scholarship. He was a student at **Western Dakota Technical Institute** in Rapid City, SD. Brandon was an intern at the South Carolina Water Science Center in Columbia.

Jeffery S. Sallas, won a **\$2000** scholarship and was a student at **GateWay Community College**. Jeff was an intern at the Sullivan's Island, SC office and was presented his award during a ceremony at the SC Water Science Center arranged by SC Water Center Director **Eric Strom**, and **Gary Tasker** represented WRD Retirees.

Michael Buil, won a **\$2000** scholarship. He was a student at **GateWay Community College** and interned at the Massachusetts Water Science Center. Michael received his award during a ceremony at the MA Water Science Center arranged by **Wayne Sonntag**, MA Water Science Center Director, and WRD retiree **Forest Lyford** represented WRD Retirees.

NL157 (November) 2012 Winners:

Timothy Brunetto received his award, a **\$4000** scholarship, attends **GateWay Community College** (in Hawaii part of the Pacific Islands WSC)

Alyx Schlafge, the **\$3000** 2nd Place scholarship Austin Field Unit, Texas WSC attends **Vermillion College**.

Sarah Jeanne Davis of Wyoming WSC received her **\$3000** award -- she attends **Western Dakota College**.

2013 – No awards were made due to a freeze by the Department of Interior on summer hires.

NL165 (November) 2014 Winners:

Carl Turner, **\$4000** -- **Vermillion Community College, MN**.

Adam Mastalir, **\$4000** – **Madison Area Technical College, WI**.

NL169 (November) 2015 Winners:

Keith E. Mecum, **\$4000** – **University of Texas, San Antonio, TX**.

Devin S. Minnich, **\$3000** – **University of Santa Cruz, CA**.

NL173 (November) 2016 Winners:

Ruth Law, **\$2000** – **University of Wyoming**

Joe Morgan, **\$2000** – **Western Washington University**

Jacob Pascoe, **\$2000** – **Oklahoma State University**

2017 – No scholarship awards were made.

+++++

NEWS NOTES ON SUSTAINABLE WATER RESOURCES

Long Island Sound

<https://www.gao.gov/assets/700/693074.pdf>

United States Government Accountability Office, Report to the Committee on Transportation and Infrastructure, House of Representatives, LONG ISLAND SOUND RESTORATION, GAO-18-410, July 2018

Long Island Sound, an estuary bordered by Connecticut and New York, provides numerous economic and recreational benefits. However, development and pollution have resulted in environmental impacts, such as the degradation of water quality. EPA partnered with both states to create the Study to restore and protect the Sound. The Study developed a comprehensive conservation and management plan in 1994 and updated the plan in 2015.

GAO recommends that EPA work with the Study to ensure that it fully incorporates leading practices into its performance reporting efforts and that its cost estimates include the full range of activities as well as those for which there is uncertainty. EPA agreed with GAO's recommendations and highlighted steps the agency will take to meet the recommendations

This study will also be linked on the 2018 Reports Page 02 of the Sustainable Water Resources Site

<https://sites.google.com/site/sustainablewaterresources/>

Tim Smith

Sustainable Water Resources Coordinator

Government Web Site, <https://acwi.gov/>

Sustainable Water Resources Site, <https://sites.google.com/site/sustainablewaterresources/>

NEWS OF RETIREES

Jim Baker writes: A check is enclosed for my WRD Retirees dues. Hope this will get me caught up. Please make the following address change in the WRD Retiree Directory (*Reference 'Directory Changes', page 27*).

Jim Blakey writes: We have received pictures from some WRD retirees and would like to share with all of you.



Bob Burchett attending the
Kentucky Derby



Hal Lanford and his son fishing
(Hal caught a Red Drum fish)

Dale Blevins writes: Enclosed is a check to cover several years dues. Nine years after retirement Marla and I are still living in Independence, MO. I spend much time managing family farms and visiting kids and grandkids all over the U.S. I have also become more involved in saving remnant native tall grass prairies by serving as the year's president of the Missouri Prairie Foundation. Still enjoy keeping up with my USGS friends through the Retirees' newsletter. Keep up the good work.

John Van Brahana writes: I am forwarding dues for 5 years via U.S. Postal Service and providing a selected summary of activities during the time I have been retired from the Survey on 9/9/99. During the time I was with the Survey, I served as a Hydrologist (and later a Research Hydrologist) in 4 locations (Denver; Jackson, MS; Nashville TN; and Fayetteville, AR). I have maintained my connection as a Research Hydrologist Emeritus with the Survey by assisting with field training programs, report review, active involvement with the Karst Interest Group, and report writing. The last 10 years of my Survey position were split 50/50 between WRD and the University of Arkansas (U of A), and after my Survey retirement I was hired full-time by the Department of Geology, U of A. I retired from the U of A in 2013 and currently serve as Professor Emeritus. Being a double retiree, I am busier now than I have ever been. Most of my recent work has been pro bono in conjunction with the National Park Service in characterizing groundwater flow and transport beneath a major tributary of the Buffalo National River. The Buffalo was named America's first national river about 45 years ago, and currently receives intensive primary contact use by canoeists, kayakers, fishermen, swimmers, campers, and hikers. A 6500-head swine CAFO was sited about 10 kilometers upstream from the Buffalo on the karst land of this tributary, with no study of groundwater, or karst, or interaction between groundwater and surface water. Untreated hog waste, equivalent to a city the size of more than 15,000 people, is spread on fields that leak rapidly into the groundwater. With a diverse group of volunteers, we have documented rapid groundwater flow, dispersive interbasin flow between contiguous surface drainages, and evidence of contamination moving from the waste-spreading fields to the Buffalo. The case is still pending, and both sides are gearing up for lawsuits. On another topic, we have established a long-term karst research site, the Savoy Experimental Watershed, and have a much larger Survey presence here at the U of A now than ever before. This 1250-hectare site involves interdisciplinary study of animal production on a mantled karst setting and has generated more than 20 theses and dissertations (many Survey personnel), and numerous training classes. Dr. Phil Hays has established our Fayetteville office, Dr. Fred Paillet (Emeritus Research Hydrologist) has provided excellent borehole geophysics involvement as an Adjunct Professor in our Department, and previous Director Gordon Eaton spent several days at our Field Hydrogeology class back in the 1990's. I feel very lucky to have had the opportunity to have worked for WRD when I did, to have shared the insight and wisdom of our scientists, and for all the individuals who contributed to setting up this amazing, collaborative project. I send my deep appreciation to Gene Gann, Bob Faye, and Eve Kuniarsky, whose ongoing assistance and long-range attitude reflected rare vision of what science can be, and the need to share our understanding and technology with a young generation of hydrologists. It has been one exciting ride.



John Clarke writes: My wife Karen and I are enjoying retirement as we travel through the world. Since I retired in 2014, we have been to Australia, Iceland, China, Russia, South Africa, Peru (Machu Picchu), Ecuador (Galapagos Islands), and Japan. Upcoming trips include Italy, Greece, and South America. Between trips I keep busy working out, coaching a high school lacrosse team, serving on two science committees, teaching and taking courses at Senior University of Georgia, and finally taking piano lessons. (Need to go back to work for some rest!). We enjoy spending time at our north Georgia cabin with our 4- year old grandson and are proud of our son Chris who will graduate from Dental School at the University of Alabama Birmingham in June.

Bob Cory writes: Please take me off the mail list. At 92, I don't relate to anyone. I am enclosing a small contribution for the scholarship program. Enclosed is a check for \$50.

Barb Favor writes: Thank you for all the hard work that you do. Here are my dues for 2018-2019. I enjoy reading the newsletter although it was a shock to see that the 'kids' I worked with have retired!! Gadzooks!!

Herb Freiburger says Pat and I are doing fine. For the most part, we have good health but have all the same aches and pains that the rest of you have. There is one heavy-duty medical issue coming up soon for me. Two days after we get back from the St Paul, Minnesota reunion and another vacation, I have to have a left knee replacement. I grew up on a small farm in New Jersey and I can equate this situation to when our small John Deere tractor needed a new clutch. It just plain wore out and had to be replaced. The only difference was that back then my father and I fixed it and neither one of us knew what the hell we were doing! That won't happen for a second time in my life! I'm pretty sure I have a good doctor with a good track record, not a good "tractor" record- no pun intended. We don't have much to report as we haven't done anything that noteworthy. However there is one thing that might be interesting to many of you. When I was a District Chief in Maryland in the 1980's, we had a fantastic State Geologist named Dr Kenneth Weaver along with his associate, Dr Emery Cleaves, who was also fantastic to work with. When Ken retired, Emery got the job as the State Geologist. Early in 2018, Emery, who by then was retired, passed away. On March 3, 2018, there was a "celebration Of Emery's life" service at his church in northern Baltimore. Jim Gerhart, Bob Shedlock and I attended the service as well as Wayne Newell from the former Geologic Division. There were about 75 attendees in all. There were two ministers officiating the service. One was the resident pastor; the second one was a guest minister from Alstead, New Hampshire, who talked at length and very knowledgably about the life of Emery. To my astonishment, he was none other than the Reverend David W. Moody, a previous USGS water-use guru and Senior advisor to both Phil Cohen and Bob Hirsch. To make a long story short, Dave and Emery both received their master's degrees from Harvard University together and later earned their PhD's from Johns Hopkins University and were best of friends thereafter, something I never knew. It was a blessing for us in Maryland because we practically had both of them in our back yard. Pat and I hope to see many of you at the USGS Retirees reunion in St Paul in September. Get the word out and bring other WRD Retiree friends. We would be delighted to see them also.

Patrick Glancy writes: Enclosed find a check to cover my 2018-2019 dues. If there is an excess, use it as you see fit. The Carson City retirees resumed our occasional coffee-break get together in early April following a prolonged cessation to prevent exposure to the serious influenza epidemic of the 2017-2018 winter. We hope to meet 4-6 times a year barring further disease outbreaks. We now have between 30 and 40 retirees residing in the Carson City area. Best wishes to all. Thanks for keeping us informed of fellow retirees' "adventures."

Dan Hahl writes: We are doing reasonably well. We sure enjoy life 2000 feet below and 20 miles south of the freeze line. It snows here once or twice each year and the flakes usually survive until they are about one inch above the grass. Dues for a few years are included so I do not forget next year. My email is the same mdhal@frontiernet.net (yes, 2 nets). Please update my address. Best regards to all.



Cathy Hill writes: I have finally retired as of about 6 months ago. And of course, I am back working with USGS...Retirees that is. It's a great way to stay in touch with everyone. Speaking of which, my family and I went to Ireland this past spring and saw Steve and Julia Blanchard! Steve hasn't aged one bit. Must be something in the air in Ireland. Or the laid-back atmosphere there. It's gorgeous. I can see why they live there! We moved to a place on the Occoquan River just south of Clifton, VA. I can roll out of bed every morning and kayak. It feels like we are continually on vacation. Come visit!

Norman Hutchison writes: Enclosed are my dues for 2018-2020. I am still living at our old address in Round Hill, Virginia. My wife for almost 63 years, Marcella (Marcy), passed away in January this year. She had a stroke in November 2017 and was in Fairfax Hospital and Heritage Hall Rehab in Leesburg for two months before passing away on January 10, 2018. She had two previous strokes in 2014 but the recent one was just too much for her. Marcy is buried at the Hillsboro Cemetery. Our two daughters, Roberta and Kathryn, were with me for two months after Marcy's death but they have now gone back to Naples, FL and Winnemucca, NV, respectively. I am living alone but getting some help on financial matters from a family friend, Lisa, and house cleaning from another lady. Marcy had been handling financial matters and much of the cleaning. My daughters don't think I should travel alone, so Lisa travelled with me to visit Roberta in Naples in April. I still drive and can get myself to doctor's appointments and necessary shopping. I enjoy reading the Newsletter and appreciate the work the Retiree's staff do in putting it together.

Terry Katzer writes: Hi – Attached is a check for 2018, 2019 and 2020 year's dues. Use the remainder for whatever is needed. You do a great job and I really appreciate your continued good work. Best to all.

Clayton Kauffman writes: Enclosed for your information is a copy of Charlotte Arnold's obituary, in case you missed it.

Jack Kume writes: Please note my address change. Enclosed a check for the newsletter. Thank you.

Chuck Lamb writes: Enclosed is a check for my 2018-2020 dues. I really enjoy reading the Retirees' Newsletter and thank all who help in the preparation.

Larry Martens writes: Thanks for the quick response to my address problems. Enclosed is check for dues, hopefully to cover through 2020. For health reasons, after twenty-five years on the lake and near the golf course, we gave it up three years ago and moved into an independent living facility. Rita's health continued to decline and about a year ago, she required more help than I could provide, and she moved into the skilled nursing unit in this same facility. I see her daily and although she no longer remembers things, we still can carry on a decent conversation. Our oldest daughter now has our house, so I still go back there often. It brings back memories as I watch my great grandchildren learn to swim as we did for our grandchildren twenty-five years ago. All in all, things are ok except now I spend way too much time in front of the TV.

Jim McConnell writes: Enclosed is a check to cover late and current dues.

Jon Nowlin writes: Enclosed is a check for past dues and through 2024. Thanks for the newsletter!

Robert Perry writes: It's hard to believe that I have been retired since 1994, but then again, I have only fuzzy distant memories of working -- and I also have been remiss in submitting an update of what I have been up to. I have traveled a lot to both Europe and the States -- too much to detail, so I will summarize some of the highlights as best I can.

There was a memorable trip to Berlin and Eastern Europe -- the holocaust areas -- and the bullet-hole pockmarks on the ghetto walls in Warsaw. Another trip to Europe where I revisited where I was stationed with the Third Armored Division Honor Guard in Drake Kaserne outside of Frankfurt, Germany. The base is occupied by a contingent of the German Army, and the parade ground is now used as a parking lot.

There was also a golfing trip to Scotland and Ireland, where we played the Old Course at Saint Andrews. That day is a visual blur of the details except for an errant shot into a huge vertical walled sand bunker where the only option was to play the ball backwards toward the tee before then playing forward toward the green. We also played other less famous courses both in Scotland and Ireland.

Playing at the Ballybunion Golf Club in Western Ireland was a day to remember that started out with an all-day downpour of rain that is indicative of why Ireland is so green. When we arrived there, people were staggering off the course with umbrellas turned inside out. We waited a while, until we saw a momentary patch of blue sky in the far West. When the rain stopped for a few minutes, we decided to chance it. The course was then wide open with no one else on it. As we stood on the first tee one of the fellows had a small plastic bag that the wind tore out of his fingers, and we watched it soar until it ended up plastered to the course boundary fence more than 400 yards away. Next, I saw a motion out of the corner of my eye, which turned out to be our pull-carts moving like sailing ships in the wind. I volunteered that the winds must have close to 50 miles per hour. I was wrong! For that night on TV, they announced that the winds were up to 60 to 70 miles per hour. We didn't keep score even when we could find the golf balls that were blown here and there through the huge picturesque grass-covered sand dunes. The only close to level spot on the property was the clubhouse floor. My advice to anyone traveling to Ireland with plans to spend a lot of time out-of-doors is to bring your Gore-Tex and a hat with a chin strap!

A three-week trip to Alaska was the best trip of all. We traveled by air, bus and boat, but not cruise ships because when I saw how huge they are, the first descriptive word that came to mind was "Titanic!" Even the lowest deck is so high above the water, that if one had to jump from there it would result in serious injury if not death. Our tour included Juneau, Skagway, Whitehorse, the Yukon, Fairbanks, Denali Park, Anchorage, Valdez and Whittier. I also took a quick side trip to Fort Yukon just beyond the Arctic Circle, just to say I had been there. Also included was Denali Park, and to sum it up it is vast and beautiful and makes one feel like an ant. The end of the trip consisted of a bus ride from Whittier through a former railroad tunnel that has been converted to handle auto traffic. From a previous trip in the late 80's I knew that at the end of the tunnel we would see the Portland Glacier, which is only a two-hour drive from Anchorage. I informed my wife Mary to be on the alert when we exited the tunnel. Much to my amazement the small glacial lake was there, but no glacier, just a National Park Service building and not a shred of ice anywhere. It was not even visible as far as we could see up the mountain side. This was in 2000 and if I wasn't convinced about global warming before, I was then. Even without the temperature data this is a blink of an eye in terms of geologic time, so what else is there that could be so causative in such a short time. What bothers me the most is that it is happening much faster than the scientific estimations. That makes me wonder if the situation can be reversed, even if we do everything right. Although I probably won't be around to witness what happens, I am worried for my grand- children.

Don't have any major trips in mind for the near future, but I spend as much warm weather time as possible at the old family farm in northeast Pennsylvania. We have had it in the family since 1878. I get a kick out of seeing my two-granddaughter experiencing rural living. There is plenty of wildlife including deer and black bear. One time I surprised a mother and her cub, and I could hear the cub's toe nails clicking on the bark of a tree that it quickly climbed. The mother stopped running when she realized that the cub wasn't following. As she looked at me I did a smart about-face and a quick to-the-rear-march and got out of sight fast. Two years ago, one of the bears hibernated under the house porch during the winter when no one was there.

Living still in Reston I rarely go to the National Headquarters, but I understand that the Water people have been moved to the third floor and some administrative types have taken over the fifth floor, where the blue rugs used to indicate water territory. I'm not sure what they did about the huge sign that read "Office of the Chief Hydrologist".

Helen Price writes: I'm still puttering along in Academy Village (just east of Tucson) where I've lived since Bill died. I enjoy the Newsletter and seeing that the three guys whose names I recognized are still going strong. I also like the expanded "Retirees" section – tho some have had whole careers since Bill retired!

Kevin Richards writes: I have been mostly retired for a year now though keeping some involvement with a very part time NDAA. Kathi and I are enjoying retirement and are staying in the Iowa City area and are centrally located to see grandkids and family. I volunteer at Table to Table, a food rescue organization that rescues good from stores and deliver it to non-profits that distribute it to those in need. Kathi is staying current with her French speaking skills by volunteering in French classes in our school district. This will come in handy when we travel to France for a month starting in late August to visit 2 of our favorite places in the world, Burgundy and Provence! If you're passing through the Iowa City area, please look us up. As they say the check is in the mail to cover 2018 through 2020 dues.

Ron Rickman writes: I retired about 18 months ago but never heard from the USGS retirees. Rick Fontaine gave me the retirees' website info and forwarded the 2017 newsletters so that counts for my first free year. We are enjoying 20 hours of daylight now and the leaves are coming out. I'm still doing some volunteer work for the USGS Pacific Islands Water Science Center.

Al Rutledge writes: Enclosed is a check – apply half to get me 'paid up' to the end of 2019. The other half is a contribution.

Bill Shampine writes: *Dear Cathy:* I write to you because I assume you will get the enclosed check for my long overdue dues. My apologies for being so far behind (2016), but I have been pretty busy. I have enclosed enough money to cover my shortfall and to prepay for three additional years. In addition, I have added a bit more as a donation to the scholarship fund. I hope it helps. I keep meaning to write something for the Newsletter, but never seem to get to it. Frankly, I need one of John George's wooden, round TUIT tokens. When I was on the Southeast Region staff in the early '80s he used to pass these out occasionally. Great idea. So, what has been keeping me busy. In addition to genealogy research, I am writing a family history book. I also work hard at working on my yard; planting flowers and pulling weeds. Many of you old-timers may remember that I lost Faye, my wife of 50 years in a tragic golf cart accident in 2012. Since then I have established a wonderful relationship with another lady. Margitta is German-born, but has lived in the USA since 1966, and became an American citizen many years ago. We sing in the Central Florida Master Choir, and both of us have administrative duties in addition to singing. We volunteer as ushers with the Ocala Symphony Orchestra, and in a variety of other activities within the On Top of the World Communities where we live. I recently retired as the Director of an entertainment group in our community. The New Pretenders are a troupe of about 32 people (11-piece band, 16 singers, plus others), who perform a

2-hour lip-sync show every year. It was almost a half-time job, so I finally decided to hang it up, so I could do other things. Margitta and I travel internationally every summer, usually for about seven weeks at a pop. This year, for example, we are going to Jordan, Israel, and the West Bank, followed by a couple of weeks visiting Margitta's family in Germany. Surprisingly, in my spare time, I am working on learning German!

Richard Stahl writes: Please cancel my membership at the end of the current year.

Yvonne Stoker writes: Enclosed is a check for my 2018-2020 dues. Thank you for everyone's work on the newsletter. I really enjoy hearing what my former colleagues like to share. I decided to do the same. No particular activity dominates my time, but highlights including spending time with our family, especially our grandchildren; boating and fishing; gardening; cooking (and eating) what we grow and catch; traveling; reading; spending time with friends; and helping with several Citizen Science projects (Lakewatch, Feeder Watch, and Nest Watch). The days fly by!

Dwight Tanner writes: We are doing fine in Portland, OR. We spend several months each year in Kobe, Japan, near Yoko's mother.

Pat Tucci & Zelda Bailey write: Now that we're living in Sedona, AZ (and loving it), Pat has volunteered to be the new Arizona contact for the Retirees group. Since moving to Sedona, we've had the pleasure of visits from a few fellow retirees, including Bob Broshears, Geoff Delin, and Ken Hollett. We expect that we'll see more of you passing through! Although our new house has required more work than we had expected, we are relaxing more and enjoying all that Sedona has to offer (hiking, great restaurants, lots of live music). We are continuing with our mineral business (GEOdyssey), although at a smaller scale, and will continue to travel. In May we spent almost 3 weeks visiting Hawaii. We have some family-related travel planned for the summer, and in October are planning to go on a cruise around the Greek islands. We've heard that Bill Meyer, our first supervisor when we worked in Indiana, is now living in Prescott which is about an hour away from us, but we don't have contact info for him. If anyone out there has current contact info for him, please contact us.

Bill Wilson writes: I will send news of activities and change of address this summer.

RECOGNITION

**USGS Honor Awards Ceremony Tuesday, Dallas Peck Memorial Auditorium
Reston, VA,
May 15, 2018**

Retirement -- BJ Lechrone

40-year length of Federal Service Award -- Jeff Christman and Kim Rogers

Meritorious Service Award -- Scott Bartholoma

Unit award (CARP Project) accepted by Joe Nielsen

Farewell message from outgoing GEO Secretariat Director Barbara J. Ryan to the GEO Community



As Jim and I get ready to return home, I would like to thank you for all the support you have given to the Group on Earth Observations (GEO) at large, and to me personally. It has been, without a doubt, one of the best career experiences that I have had, and that is, in large part, due to your active engagement and support.

I am proud of what we have accomplished over these last six years including growing the membership base from 89 to 105 governments, increasing the Participating Organizations from 60 to 126, engaging more with the commercial sector, and delivering a 400-fold increase (from 1M in 2012 to 400M in 2018) of Earth observation resources in the GEOSS Platform. GEO's growth in these areas is indicative of the increased visibility of the organization, interest in the partnership, and the value derived from working together collaboratively to leverage GEO's global convening power.

Three strategic engagement priorities – the 2030 UN Global Agenda for Sustainable Development, the Paris Agreement for Climate, and the Sendai Framework for Disasters – adopted by Plenary in 2016, served as organizing constructs for much of our work, and set the stage for other policy-level linkages such as the Minamata Convention and our emerging work with the UN Convention to Combat Desertification (UNCCD) on Land Degradation Neutrality. Each year GEO Flagships, Initiatives – both global and regional -- and Community Activities are striving to close the gap from observations to users, and the rapidly evolving methodologies of analysis ready data, cloud computing and data cubes will further help.

Much has been accomplished, yet more remains to be done. There are still many parts of the world that have not adopted broad, open data sharing policies and practices. We are still striving to bring more global coordination to *in situ* observations, and there is always a demand for more capacity building and development. I am confident that under the leadership of our next Director, Gilberto Camara, progress will be made in each of these areas and beyond.

I am most appreciative of the professional relationships and friendships that have formed with you during this time in Geneva. I wish everyone could have the good fortune that I have had in experiencing first-hand that regardless of where one is in the world, we are more alike than different. Thank you everyone, and I wish each of you much success, good health and time to enjoy both.

Barbara J. Ryan

MEETINGS & GATHERINGS

CHRISTMAS LUNCHEON DECEMBER 17, 2017 TUCSON, AZ



From the bottom of the picture moving clockwise are: Sandy Owen-Joyce, Ellen Van De Vanter, Irma D'Angelo, Sally Weiner, Laura Spicer, Patsy Martinez, Becky Ramieriz, Colleen Babcock, Barb Favor, Julie Graf, Gail Cordy, Alicia Hinds.
-photo provided by Barb Favor

WRD RETIREES – SPRING LUNCHEON HOLIDAY INN APRIL 24, 2018 LAKEWOOD, CO



Front Row (LtoR): Barbara Kastner, Carole DeHerrera, Karen Lystrom, Merilee Bennett, Judy Cornwell, Shirley Hidalgo
Second Row (LtoR): Bill Kastner, Dave Lystrom, Jim Bennett, Mary Kidd, Becky Palcsak, Allison Brigham, Cynthia Norman, Shirley Hidalgo (sister)
Back Row (LtoR): George Garklavs, John McLean, Gerhard Kuhn, Jim Kircher, Bob Meade, John Flager, Ann Mullin, Paula Blakey, Jim Blakey

-photo provided by George Garklavs

**USGS RETIREES AND SPOUSES
SPRING LUNCHEON, MAY 8, 2018
RALEIGH, NC**



Front Row (LtoR): Nancy Coble, Nancy Williams, Charlotte Lloyd, Nancy Garrett

Second Row (LtoR): Nelson Williams, Rob Coble, Jeanne Robbins, Charles Daniel, Bruce Lloyd, Gary Garrett

NOTE – Recent Retirees: Jeanne Robbins retired March 31, 2018 and Nelson Williams retired on June 1, 2018.

**NASHVILLE'S LOCAL AREA COMMITTEE (LAC) RETIREES' MEMBERS
O'Charleys' RESTAURANT
MT. JULIET, TN
MAY 2, 2018**



Pictured from left to right are: Bob Burchett, Charles Gamble, Rebel Gamble, Joyce Anttila, Pete Anttila, Gwen Hoover, and Harry Hoover.

RETIREMENTS



Julio Betancourt, a Research Hydrologist and Senior Scientist (ST) with the Water Mission Area, retired on April 28, 2018 after 35 years of service, all but the last year with the National Research Program. He started his career with USGS in the early 1980's as a student intern in the Minority Participation in Earth Science Program, while pursuing MS and PhD degrees in Geosciences at the University of Arizona. After obtaining his PhD in 1989 he became Project Chief of the Aridlands Ecohydrology Project. For most of his career, Julio was based in Tucson and served as Adjunct Professor in three colleges at the University of Arizona. His offices and lab were located at the University's

Desert Laboratory on Tumamoc Hill, a renowned research facility and ecological reserve Tucson Basin. He served as Assistant Research Advisor and Research Advisor for the WRD Ecology Discipline from 1992 to 1998, which taught him early on to celebrate and explain with enthusiasm the accomplishments of others. Julio thrived in the NRP and was promoted to ST in 2004. In 2013, he moved to our National Center in Reston, hoping to contribute his cross-cutting and Western U.S. perspectives to science vision and integration in the Bureau. From 2016-2018, he served as founding Co-Chair of the Council of Senior Science Advisors (COSSA), an advisory group to the Director and Executive Leadership Team made up of all the ST and SL scientists in USGS (<https://internal.usgs.gov/cossa>). Over his USGS career, Julio authored two well-reviewed books and 180 technical papers, many of them in top journals, including 18 in *Science*, *Nature*, and *PNAS*. His main research thrust has been to study how climate influences terrestrial ecosystems at scales critical for understanding natural processes, detecting and forecasting spatiotemporal variations, and managing natural resources and hazards. A signature accomplishment are his oft-cited studies on how large-scale climate variability and change drive regional drought, flood, and fire frequency, snowpack accumulation, and vegetation and disturbance dynamics at interannual to multidecadal timescales, based on analysis of the observational record of the last century and development of high-resolution reconstructions of the last millennium. To help remedy the general lack of spatiotemporally-dynamic ecological data needed to develop ecological forecasts, in 2007 Julio helped establish the USA National Phenology Network, a citizen science network of repeated and integrated plant and animal phenological observations, and the tools to analyze them at local to national scales (www.usapn.org). In support of the NPN, Julio investigated the climatology of variations and trends in the timing of seasonal transitions (spring and fall), studied their influence on evolutionary, ecological, and hydrological processes at regional to continental scales, and helped forge an interdisciplinary community of practice focused on seasonal timing in hydro-climatology and phenology. Julio's extensive field and laboratory studies contributed notably to defining baselines of environmental changes and their drivers over what he calls radiocarbon time, or the last 50,000 years, in the drylands of North and South America. From Montana to Baja California, he used plant-rich cave deposits (middens) made by packrats to map glacial vegetation; study ecophysiological and population responses to both atmospheric CO₂ variations and climate; and track in exquisite detail postglacial migrational rates and pathways for many of the dominant plants in the Intermountain region. He pioneered application of these and other methods to western South America, most effectively in the Atacama Desert. Wetland stratigraphies and vegetation histories developed by Julio, his colleagues, and students helped define a two-stage Central Andean Pluvial Event (CAPE) 15,900 to 9,700 years ago, when the frequency of monsoonal air masses from the Amazon and Gran Chaco Basins increased enough to lap over from the Bolivian and Chilean Altiplanos onto the hyperarid Pacific slope of the Central Andes. Over two decades, Julio co-led an international team of colleagues and students that made seminal contributions to our knowledge of paleohydrology, paleoecology, soil science, and even the microbiology of the Atacama Desert and the Central Andes. Just before retiring, Julio transferred his rich midden archives from North and South America to the University of Arizona in Tucson and Pontificia Universidad Católica de Chile in Santiago, respectively. In the near and far future, advances in ecological theory, informatics, modeling, microscopy and computer imaging, ancient DNA, and geochemistry will enable novel use of these physical and data archives, and inspire newly-focused field campaigns in aridlands worldwide. Over his scientific career, Julio mentored and employed a number of postdocs, graduate students, and undergraduates that now work for USGS, other federal and state agencies, universities, NGO's, and private industry. He has given more than 100 invited departmental seminars at universities in the U.S. and abroad, dozens of keynote and plenary talks at scientific meetings, and organized and presided over many exciting workshops and conferences, as well as topical sessions at professional

meetings. Conferences he organized span the Pacific Climate (PACCLIM) Workshops (1989-1991), the Paleoclimatology of Central Andes Paleoclimatology Workshop (2001), the NEON Ecological Impacts of Climate Change Workshop (2004), the National Phenology Network annual meetings (2005-2012), the 24th Biennial Meeting of the American Quaternary Association (AMQUA 2016), and the USGS Grand Challenges in Integrated Science Workshop (2017). Julio also has served on a number of advisory committees, review panels, and award committees in the USGS, USDA-Forest Service, National Academy of Sciences, NSF, U.S. Global Change Research Program, and University of Arizona, and several professional societies (AGU, GSA, ESA, IBS). Julio has received multiple awards and honors in recognition of his diverse scientific and service contributions. In 1994, he was awarded a Fulbright Senior Fellowship for explorations in Argentina that served as a springboard for his pioneering research in South America. He received Superior (1994), Meritorious Service (2002), and Distinguished Service Awards (2018) from DOI, and was honored by the White House with the Presidential Rank Service Award for Meritorious Executive (2008). He helped coordinate multijurisdictional efforts to curtail buffelgrass invasion in Southern Arizona, efforts that merited the Public Lands Foundation Landscape Stewardship Citation (2010) and the DOI Secretary Partnership in Conservation Award (2011). He was elected a Fellow of the American Geophysical Union (2009) and received the William S. Cooper Award from the Ecological Society of America (2003), the William R. Boggess Award from the American Water Resources Association (2005), and the Farouk El-Baz Award for Desert Research from the Geological Society of America (2012). Julio and his wife Terry will stay in the DC area and enjoy travel and spending quality time with family and friends. Julio will continue cranking out papers as a Scientist Emeritus with the USGS Science Decisions Center and the University of Maryland's Earth System Science Interdisciplinary Center and will continue his service with the College of Fellows at the American Geophysical Union and the International Quaternary Association's (INQUA) U.S. National Committee. His goal in retirement is to spend a lot more time outdoors, honing his skills as a naturalist, and less time in front of a computer. Julio can be reached best at ilbetanc51@gmail.com.



Dave Briar retired May 2018 after more than 32 years with the USGS in Helena, MT. Dave began his career with the USGS in 1983 after finishing a BS in Geology at Montana State University, working four summers with the Montana District office as part of the USGS/National Association of Geology Teachers Field Training Program. Dave joined the Survey full time as a hydrologist after completing a MS in hydrogeology from the University of Montana 1987 and subsequently conducted a series of groundwater investigations throughout Montana including being one of the principal contributors to the Northern Rocky Mountain Intermontane Basins RASA. Along the way Dave became interested in GIS and became the District GIS specialist including teaching GIS programming at the National Training Center.

Then, in Dave's words: "My scientific career ended in January 1995 when I was asked by then District Chief Joe Moreland to participate in a Total Quality Management Process Action Team tasked with standing up a Montana District web page. During one of the early meetings someone wondered aloud whether it would be possible to include our real-time streamflow data. After asking just exactly what that was several of us said, probably, sure, why not? Six weeks later on Valentine's Day 1995 **Daryll Pope, Gary Rogers, Dave Johnson, and I** released to the public the first implementation of what was then known as rt_www and which years later greatly expanded and matured into what is now known as NWISWeb. While there have been many over the years who have made irreplaceable contributions to the development and implementation of NWISWeb including invaluable guidance from the former Discipline Offices and User Groups I personally am most grateful for the literally hundreds of hydrographers, hydrologists, and engineers nationwide that have offered ideas, feedback, perspective, encouragement, and called us out when we went wrong. NWISWeb as it stands today is truly a community endeavor and is all the better for it." In retirement Dave says he looks forward to spending more time in the mountains with family, friends, and any young person up for an adventure. If you'd like to send Dave a note, his email address after Monday (April 30) will be davebriar@gmail.com

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



Daniel G. Driscoll began his retirement “training” May 31, 2018, just shy of completing 30 years of service to the Federal Government. Although Dan will officially retire on May 31, he will ease into retirement by starting an NDAA appointment on June 1 that will extend until Dec. 31, 2019. Dan’s USGS job has been his second career. In the fall of 1983, Dan ended a 10-year stint as a logging contractor in the Black Hills of South Dakota and returned to school in January 1984 at the South Dakota School of Mines and Technology in Rapid City. Dan completed Bachelor’s (Spring 1986) and Master’s (Fall 1987) degrees in Civil Engineering and spent the next year and a half teaching in the Civil Engineering Department at South Dakota School of Mines and working in a part-time slot at USGS. Dan was hired full-time by USGS as a hydraulic engineer/hydrologist

in December of 1988 when a government-wide hiring freeze was lifted. He became a Studies Chief in 1994, soon after the South Dakota District Office transitioned from Huron to Rapid City. The next 24 years were spent developing, guiding, and implementing hydrologic studies in South Dakota. Dan always maintained a part-time role as a hydrologist and authored or co-authored more than 30 reports and journal articles during his tenure as a Studies Chief. Topics covered a wide range of subject matter, in keeping with a position somewhat akin to a rover on a women’s softball team. Dan received a Superior Service Award in 2004 for scientific research and leadership on the Black Hills Hydrology Study. In recent years, many of Dan’s scientific endeavors have focused on addressing complex flood-frequency issues in the State, fitting well with a role as South Dakota’s Surface Water Specialist that began in 2001. In 2016, Dan became a section lead for the newly merged Dakota Water Science Center. Dan’s NDAA duties will focus on transitioning from more work to less work and striving to overcome the dull-boy syndrome.

Joe Fenelon retired on April 18, 2018 after 32 years with the USGS. Joe began his career in Indianapolis, working on a flow and water quality study in Gary -- the garden spot of Indiana. The urban decay and many oil refineries, steel mills, and chemical refineries made for a great study area and many fun-filled field visits. Joe moved on to do a variety of work in Indiana, including mapping the hydrogeology of the State, conducting NAWQA groundwater studies, being a bridge scour field lackey, and working on DoD studies. After 12 years, Joe left a lot of great friends and colleagues in Indiana for browner pastures in Las Vegas, NV. The remainder of Joe’s career focused on investigations of groundwater flow and radionuclide transport from underground nuclear tests at the Nevada National Security Site. He was fortunate to work with many high-level scientists from the USGS, National Laboratories (Livermore and Los Alamos), Desert Research Institute, and multiple large environmental engineering firms. Joe focused on conceptualization of groundwater flow systems and became sort of water-level obsessed, always looking forward to the next set of measurements to see what new water-level story might unfold. He is not so-sad to retire, being tired of the daily grind, the meetings, the on-line trainings, and other non-sciencey work. However, he still loves the science and story-telling and plans to continue as a USGS volunteer. Future plans are fuzzy, but will include more hiking, fishing and volunteering.



Shirley A. Hartsoe retired from the Maryland-Delaware-DC (MD-DE-DC) Water Science Center (WSC) of the US Geological Survey (USGS) in mid-March 2018, after 39 years of Federal Service, 36 with the USGS. The USGS is known for its data collection and interpretation skills and thus about 90 percent of the time when an employee retired, they were acclaimed for such things as making a peak of record discharge flow measurement, calibrating a ground-water flow or solute-transport model or providing some critical water-quality information. Shirley did none of those things. She started as an administrative clerk, worked on other jobs in the administrative section, moved on to become secretary to the WSC Director and his/her

staff, and then added receptionist duties to her job. But, even though she didn’t do technical work in a technical organization, if there was such a thing in the USGS as the team (office employees) picking a most valuable player at the end of each season as in some sports, Shirley would most assuredly be in contention for that distinction. Shirley’s office space was at the front door of the WSC and thus when anyone entered the building, the first person they would meet was her. That was a good thing. She was always an extremely happy person with a big smile, always positive, never negative, the kind of person one would want at the front door to be the first person to greet anyone who entered. She truly cared for every employee at the WSC and always made time

for them as she was an outstanding listener who could make ones' day immediately upon arrival or at any other time. During her time with the USGS(1982-2018), The MD Office was in 3 locations: a) Towson from about 1980 to 1995, b) Yellow Brick Road(no, this is not a fairy tale) in Northeast Baltimore(from 1996 until about 2010) and since then on the campus of the University of Maryland at Baltimore County(UMBC) and yes that is the same 16th seeded UMBC that defeated the # 1 seed, University of Virginia in the first round of the 2018 NCAA March Madness basketball championship. The Towson location had minimal conference facilities; the latter two had state of the art conference rooms. The upgraded facilities at the last two sites not only made for greater efficiencies for internal meetings but also became the host site for many external meetings that drew federal dignitaries, state agency officials, high-level members of academia, and many personnel from state and local cooperator agencies. It is here where Shirley rose to the occasion and made perhaps one of her finest contributions to the WSC and the USGS, that of the receptionist and "face of the USGS". She gained the respect of many external meeting attendees with her friendly big smile, her knowledge of the USGS and the WSC, her positive demeanor and her ability to make one feel at home and want to be at the USGS. This same treatment applied to John Q Public who came to the office for information or other things. Writers Note: I once had an EPA official tell me "You guys at the USGS are very lucky" I said, why is that? He said, "Because you have someone like Shirley Hartsoe." She is friendly, helpful, and makes you feel welcome and her first impression of positivity is contagious, and she makes a great "Face of the USGS". I agreed. Also, as a District Chief and I am sure that those who later followed me as WSC Directors would agree that it was comforting and important to know that someone like Shirley was at the front door making your office's first impression. There is an old adage that nobody is irreplaceable, and I agree with that but also know that whoever replaces Shirley will have some very high standards to meet. I know that everyone in the MD WSC will miss Shirley but also will wish her and her husband, Ron, a happy and healthful retirement.



Don James retired on January 3, 2018 after a 41-year career with the USGS, Upper Midwest Water Science Center (MI WSC). After working three years at a factory job Don decided he'd had enough of life in Metro Detroit and headed for Michigan's northern woods. Don enrolled at Kirtland Community College, in his adopted hometown of Roscommon, where after two years he received an Associate Degree in Forest Technology. Fortunately for USGS, Don wasn't sold on the idea of being a timber-cruiser but was keenly fond of water. One day Don wandered down the hall to the USGS portion of the shared building with Michigan DNR, and he was immediately hired by a boss that was more than happy to have

an employee that didn't deer hunt thus was willing to work in November. Don spent his first 25 years at USGS working the usual duties assigned to a technician in the northern woods at a small field office. In the mid 1990's, Michigan Water Science Center (MI WSC), like many others, had started experimenting with stationary acoustic equipment at complex sites, including using one of the first commercial ADCPs. While many of us were thinking acoustic-measurement technologies were decades away from replacing our trusty Price meters and CMD's, Don was busy learning as much about acoustic streamflow measurement theory and instrumentation as he could. By the mid-2000's Don understood things well enough that he had become the "go to" acoustics person at MI WSC. In 2008, we found the critical need for acoustic measurement expertise both within the Center, and beyond, as the International Joint Commission tasked MI WSC with installing and operating streamgages on three of the four Upper Great Lakes Connecting Channels. Working in the role of MI WSC acoustic measurement specialist, Don finally found his niche as he worked initially to understand the flow dynamics on the St. Mary's River at Sault Ste. Marie through the ice, and in the summer following, as innovator of all things related to the complex and vulnerable ADVIM installations at the three sites. After the Connecting Channels gages were installed, and operating Don worked tirelessly with Kevin Oberg, Victor Levesque, Dave Mueller, Liz Hittle, and others, to optimize their operation and produce excellent streamflow records. Before his retirement, Victor was even bragging that Don's installations were among the "best" in the Survey. Very soon after Don's foray into "big rivers" he realized that our boats were inadequate on the waves that seem to appear from nowhere on the Connecting Channels. Don was first able to coerce Jim Nicholas and Steve Blumer into buying a capable boat for the measurement work and then he took his carte blanche and somehow convinced the folks at Hewescraft in Washington State, that they needed to build a fantastic boat for MI WSC for about \$30,000. Go Don! Since 2008, Don has made improvements to his ADVIM track systems, including integrated ice shields and much improved

serviceability. Imagine floating 4-foot thick ice slabs across 2,000 to 4,000-foot wide channels, ice breakers working nearby, and floating ice at the ADVN level 14 feet below the surface and ponder that we haven't lost a meter (yet) and you'll have an idea of how robust Don's installations are. One important aspect of all of this work I have failed to mention until now is Don's measurement quality. Anyone who has been with Don knows he has no problem motoring back and forth at one site all day to understand complex hydraulics which seem so prevalent anywhere near the Great Lakes. Don's measurements on the Saginaw River at Saginaw made us all aware that a reversal in streamflow can occur within an hour or so at a gage 24 river miles upstream from Saginaw Bay! It was also Don's measurements on the St. Clair and Detroit Rivers that made the Hydroacoustics Working Group question the validity of the then current generation of internal ADCP compasses. As a result of Don's measurements and days of work by Dave Mueller and Kevin Oberg perusing the results of his measurements, GPS heading compasses are now used across USGS with greatly improved accuracy. In 2015, in recognition of Don's outstanding career, Don was awarded Hydrologic Technician of the year at the Annual Data Conference. Don's diligence has fostered an outstanding working relationship between MI WSC, Hydrometrics Operations Ontario (Water Survey Canada), and U.S. Army Corps of Engineers Detroit Office. Along his journey Don has become a de facto member of the Hydraulics Subcommittee of the Coordinating Committee on Great Lakes Basic Hydraulic and Hydrologic Data, which is the International group that oversees many Great Lake issues, including flow in Connecting Channels.

-John Walker, Director, Upper Midwest Water Science Center



Norm Midtlyng decided to retire on July 3, 2018 after more than 40 years of working for the USGS. Norm attended college at the University of Montana in Missoula and fell in love with Montana. Norm began his career with the government in 1976 with the Forest Service. He moved to the USGS a year later and spent the next 40+ years working in Montana, much of that time as the lead hydrologic technician in the District's International Waters Unit, and later as Chief of that unit. In these roles Norm's duties involved data collection, computation and review of international streamflow records and apportionment of the St. Mary and Milk Rivers to ensure compliance with the Boundary Waters Treaty of

1909 between Great Britain and the United States. He also served as co-chair of several United States-Canadian transboundary technical working groups. Since 2013, Norm has served as the Chief of the Helena Field Unit which operates over a hundred streamgages in western Montana. Nationally, Norm served as a charter member of the USGS Surface Water Users Group (SWUG), a group whose role was to oversee development and testing of the USGS time-series software, and as a member of the Surface Water Applications group, who developed and tested handheld (PDA) surface-water software applications. He also was a principal member of the Commercial ADAPS Replacement Project (CARP) training team. Norm's expertise and advice will surely be missed within the Wyoming-Montana WSC. Norm plans to remain in Montana and will not be hanging up his waders just yet but is looking forward to enjoying more time with his family, especially his grandkids!

David Susong, Director of the Utah Water Science Center retired this June after 30 years of service with the USGS. David began his USGS career as a summer hire in the Wyoming District after completing his MS in Geology at the University of Utah. At the end of the summer he joined the USGS permanently as a hydrologist. He then worked for three years on DOD contaminant studies and on regional groundwater studies in Wyoming before transferring to the Utah District (skiing on the eastern plains of Wyoming is somewhat marginal). David spent the remainder of his career in a number of positions: hydrologist, studies chief and finally center director in Utah. During this time, he had the good fortune to work on nearly all aspects of the hydrologic cycle from glaciers in the Wind Range, to the Yellowstone geothermal system, unsaturated and groundwater flow in Utah, snow modeling in the Wasatch Range, and water quality in the Colorado River Basin. He is indebted to the many colleagues who mentored, collaborated, and shared a drink and a laugh over the years. As a scientist emeritus based out of Driggs, Idaho on the west side of the Teton Range, David will continue to participate in a few ongoing projects as time allows. He is looking forward to 100+ day ski seasons, climbing and skiing peaks across the west, and picking tunes on his porch as the sun sets on the Tetons. All will miss Dave, his good science, sound judgment, easy manner, and – from what I understand – his slightly off-tune renditions of sad, twangy tunes whenever the Center band got together.

Nelson Williams has retired after thirty-seven years from the United States Geological Survey (USGS)! Nelson began his USGS career on December 12, 1980, as a Computer Clerk and intern in the Virginia District of the Water Resources Division Office in Richmond, VA. He worked with Randy Lacznia and Chet Zenone developing contouring programs for output from their modular groundwater flow model of the Culpeper Basin in Virginia. As a programmer, Nelson wrote programs to plot hydrographs using data retrieved from WATSTORE. He also wrote administrative accounting software using a SuperBrain microcomputer. Nelson worked on installation and use of the original pilot for the State Water Use Data System (SWUDS). In 1981, Nelson graduated from Virginia Commonwealth University with a degree in mathematics. In 1983, he transferred to Towson, MD to work for the Maryland-Delaware-DC District of the Water Resources Division. There, Nelson oversaw construction of their server room, and installation of their Prime minicomputer. He helped with the advent of personal computers, PDF printers, and Geographic Information Systems (GIS). He continued to assist personnel in Reston with the Water Use Program and with NWIS use. He wrote numerous applications for graphical output of hydrologic data, including programs to produce Durov, Piper, and Rosette diagrams, and publication-ready hydrographs. In 1991, Nelson moved to Reston, VA to work on the NWIS-II project. Although the NWIS-II system was never released into general use, the requirements and design documentation have been used to influence the design of current NWIS software. On NWIS-II, he developed the prototype for the Interagency Taxonomic Information System (ITIS), which is still being used internationally. As part of a group of software developers and scientists responsible for ITIS development, he received a Hammer Award (National Performance Review) from Secretary Bruce Babbitt. Late in 1993, Nelson moved to the North Carolina (NC) District of the Water Resources Division Office in Raleigh as the District Computer Specialist. There, he coordinated the conversion from a Prime minicomputer to Data General workstations, and eventually to a network of Windows-based personal workstations and laptops. Nelson established the first web presence for the NC District and influenced the design of NWISWeb. He served on the Spider committee to develop web standards and was an early adopter of NatWeb. Nelson also served as an Acting Eastern Region Geographic Information Officer under Kaen Siderelis. In this capacity, he became webmaster for the Clean Water Action Plan website. Nelson served as a member of Water's Information Technology Advisory Committee (ITAC) as the webmaster representative. Later, he served as Team Lead for the Bureau Windows Technical Support Team (BWTST). Working with BWTST lead to his work on numerous SWATs and IT technical reviews around the country. In 2014, Nelson moved to the Office of Enterprise Information and soon became Team Lead for NatWeb. The NatWeb Team has carried him to the finish line of his career. Nelson has considered it the most important honor and privilege of his career to serve with this Team, which he considers to be the gold standard for Bureau IT customer support. Nelson is a widower, having lost his beloved wife Sarah in 2013. He's the father of three grown sons, Samuel, David, and Patrick. In retirement, he hopes to live long enough to see his youngest son, Patrick, complete graduate school:) (that's his running joke). He also hopes to travel the world and spoil his granddaughter, Olivia, and his sweetheart, Rosemary, but not necessarily in that order. Having worked and known Nelson since May of 1989, I can't think of any better of a mentor, friend or person anyone at USGS could have and rely on. The USGS IT Specialists around the country will miss the help and service Nelson has always provided, being one phone call away, leading the TST, implementing eAD, or serving on an IT review. Let's all wish him the best and a most well deserved and happy retirement.

-Paul E. Exter, Chief Technology Officer, U. S. Geological Survey

MEMORIALS

Charlotte J. Arnold, 78, passed away on April 24, 2018 at UPMC Pinnacle Harrisburg, Harrisburg, PA. She was the widow of Charles E. Arnold Sr. Born in Harrisburg, she was a daughter of the late Charles and Ruth (Dillard) Logan. Charlotte worked for the Federal Government at the U.S. Geological Survey for many years before retiring. She was a member of the Mt. Pleasant Kingdom Hall of Jehovah's Witnesses. Charlotte is survived by a son, four grandchildren, and five great grandchildren. She was predeceased by a daughter and brother. Memorial services were held on May 12, 2018 at the Mt. Pleasant Kingdom Hall of Jehovah's Witnesses, Harrisburg, PA.

James F. 'Jim' Bailey, 92, passed away on June 17, 2018 in Amherst, VA. Jim was born on May 18, 1926. The following was received by email from Jim's daughter (Susan Bailey Shimp): "I wanted to notify you of the passing of my father. Dad loved the survey. His passion was as an engineer, and particularly the work done on the streams. The gifts given him on his retirement were passed onto his oldest grandson, an engineer himself in Charlottesville, VA. He is displaying the stream gauges proudly in his office. Dad passed away at 92 in his home, suddenly, with his wife on Father's Day, 2018. We know he did not know he was going then, which was his wish, because he was planning on drinking his favorite vanilla milkshake, happy to the end! Again, Dad loved the survey. I saw Herb Freiburger's name, which I recognized from 40+ plus years ago. His best friend was Hadley Carigan and Fritz Kilpatrick from my recollection of the daily carpooling, first to Arlington, then to Reston when the new building was completed....back around 1972?? My mother, Vivian, loved being a part of the "survey family" as she recalls it. She is very sad at the loss of her beloved, Jim. Jim retired in 1985 from the Survey and is survived by his wife Vivian and family. A graveside service was held on June 23, 2018 at the Amherst Cemetery. A memorial service followed at the Ascension Episcopal Church, Amherst, VA

Paul R. Beauchemin, 69, passed away in November of 2015. Paul was assigned to the Office of the Chief Hydrologist and replaced Francis Sessums upon his retirement in 1983 as the Program Officer. Paul retired in 2008 as Deputy Director of the USGS Office of Communication after 30 years of service with both USGS and NOAA. In March 2010 he returned to the USGS Office of Communications as an Emeritus Volunteer. Services were held on November 14, 2015 at the Adams-Green Funeral Home, Herndon, VA. Interment was at the Chestnut Grove Cemetery, Herndon, VA.

Anna M. Benson, 88, (widow of WRD retiree **Clark H. Benson**) passed away on January 27, 2018 in Ridgecrest, CA. Anna was born December 22, 1929 to James and Anna Stogsdill in St. Louis MO.



Charles F. "Chuck" Berkstresser Jr., 94, passed away at Eskaton Village Care Center in Carmichael, CA on September 22, 2017, surrounded by his four daughters. Chuck was born on April 5, 1923, in Sioux City, IA. As a youth, he was in Boy Scouts and Sea Scouts, built model airplanes, played the trumpet, and served as a page in the 1941 Iowa State Legislature. At age 19, he enlisted in the Army Enlisted Reserve Corps and entered active duty on March 25, 1943. Chuck served in Europe with the 276 Engineer Combat Unit and was awarded battle stars for The Battle of the Bulge, the Rhein, and Germany. He was discharged in Marburg, Germany and accepted a 6-month civilian job with the Army, working for the Armed Forces Radio Service, AFN-Frankfurt, as a recording engineer, and playing in a dance band. After returning to the U.S. in 1946, he enrolled in Morningside College, Sioux City, IA and graduated with a B.A. in chemistry and a B.A. in physical science. Chuck then enrolled at the University of Iowa and studied geology, but the U.S. Geological Survey hired him in 1952 before he completed his masters. He met his late wife, Beverly, while in college, and they were married for 59 years. Chuck worked for the Survey in California, New Mexico, and Wisconsin, before returning in 1961 to Sacramento, CA where he retired in 1973. He taught geography for Los Rios Community College and Sierra College, as well as a short stint at Sacramento State. Concurrently, he was enrolled at Sacramento State, where he earned an M.A. in geography and a minor in geology. Chuck qualified as a Registered Geologist with the State of California and worked as a consulting geologist for several companies. Chuck enjoyed a good pun, political humor, and shared his wide-ranging knowledge and interests with others. He had an encyclopedic knowledge of classical music and loved live theater. One of the highlights of his life was attending as many Broadway shows as he could manage while he

was stationed at Fort Monmouth, NJ. Chuck is missed by his four daughters, 7 grandchildren, 5 great grandchildren, and many other family and friends.



Anne F. Bisset, 92, passed away on April 30, 2018. She was born on February 10, 1926 in Washington, DC to James and Sadie Keller Fox. Anne grew up in Arlington, VA and graduated from Washington-Lee High School in 1944. She began working for the USGS in 1964 at the Arlington Towers office in Rosslyn, VA. In 1974, Anne was part of the consolidation of DC area USGS offices into the new John Wesley Powell Building in Reston, VA. She worked for the Northeast Region of WRD for a total of 22 years, retiring in 1986. Anne was preceded in death by her beloved husband of 71 years, Thomas Richard "Dick" Bisset. She is survived by three daughters, one who also worked for the USGS for over 20 years. Additionally, Anne is survived by 5 grandchildren and 5 great-grandchildren.



Wesley "Wes" L. Campbell, 80, passed away gently June 15, 2018. Wes was born in Rawlins County, KS on November 1, 1937 to Albert and Leola Campbell. He married Phyllis June Langley on June 3, 1956 at the First Christian Church in Ft. Morgan, CO. Together they started a family and had three beautiful children. Wes was a Research Chemist on the Ecological Interaction of Lakes and Streams project in the National Research Program, Boulder, CO for the U.S. Geological Survey for many years. He is survived by his loving wife of 62 years, Phyllis; his two daughters and a son; nine grandchildren; eight great grandchildren; and, two brothers. Wes was preceded in death by his parents, and a brother.



Larry L. Hubbard, 87, passed away on June 11, 2018 at his daughter's home in Portland, OR. Larry was born on May 15, 1931 in Colfax, WA to Charles and Ruth Hubbard. Larry attended Washington State University and graduated with degrees in Agriculture Engineering and Civil Engineering. He served with honor in the Army during the Korean War. Before the war, he married Berta Lou Everest and they started their family. He lived most of his life near Portland, OR where he worked for the United States Geological Survey for over 30 years. After retiring in 1990, he started his own consulting company, WY East, which he thoroughly enjoyed. Larry was an avid outdoorsman and loved to hunt, fish, mountain climb, ski, snow shoe, and ran multiple marathons. He also built his own cabin near Mt. Hood, OR. One of his passions later in life was researching his genealogy and family history. Larry was a treasured father. His greatest joy in life was his family to include his two daughters, two grandkids, and two great grandchildren. If you measure a man's success by how much he cared for others, then his success was immeasurable. He was brilliant, loyal and kind. His passing is a huge loss for all that had the pleasure of knowing him. He was loved beyond words and missed beyond measure. Services were held June 18, 2018, and burial was at Colfax Cemetery, Colfax, WA.



Marcella M. 'Marcy' Hutchison, 81, (wife of WRD retiree **Norman E. Hutchinson**) passed away on January 10, 2018 in Round, Hill, VA. "Marcy" was born in 1936 in the small town of Louisville, NE to the late Otto and Elvira Heil where she grew up with her two brothers and one sister. Marcy graduated from Louisville High School in 1954 and was recognized as Miss Louisville at the Cass County fair. Marcy married Norman Hutchison in 1955 in a small Lutheran church on a country road south of Louisville. They moved to Lincoln, NE shortly thereafter where Marcy went to work for the Railroad Commission in the State Capital Building while Norm continued his studies at the University of Nebraska, and they had two children. Marcy worked as an administrative manager for SAIC and various companies while supporting Norm in his career with the U.S. Geological Survey starting in Lincoln, moving to Austin, TX and then on to Northern Virginia. She volunteered her time for many years as a Girl Scout leader in Falls Church, VA serving with her best friend Helen Howard (deceased). Marcy and Norm lived in Northern Virginia for 55 years, the last 35 years of which were in western Loudoun County where they built a house on 12-acres in 1983 and she planted many trees over the years. From 1989 to 1996 they also lived overseas in Oman while Norm worked for a British consulting firm, and they got to see many cities of the world. Marcy was an avid reader, a skilled seamstress, and enjoyed traveling, raising flowers, and dining at local restaurants. She is survived by her husband of 62 years, her two daughters and their

three grandchildren. A private grave-side ceremony was held on January 18, 2018 at Hillsboro Cemetery followed by a celebration of her life at their home.



Verda C. Jensen, 85, (widow of WRD retiree **Leon J. Jensen**) passed away peacefully in her home on July 15, 2011. She was born on June 23, 1926 as the fifth of seven children to John Alexander Nelson and Vera Wilcox Nelson in Cascade, MT. The family moved to Great Falls, MT, where Verda graduated from school on D-day, June 6, 1944. Verda attended Utah State Agricultural College in Logan, Utah for one year. She met her sweetheart Leon James Jensen on a blind date to a Stake Gold and Green Ball. He had recently returned from three 1/2 years in the U.S. Air Force in the Central Pacific during World War II. They were married in the Cardston Alberta Temple on July 31, 1946 and celebrated 61 years together before Leon's passing in 2007. After Verda's children started school, she attended the University of Utah and in 1969 at age 43, she graduated with a B. S. degree from the U of U. For 19 years, she loved teaching at Rosecrest Elementary School in Granite District. She retired in 1988. Verda was a faithful member of The Church of Jesus Christ of Latter-day Saints. She served in many callings including: Relief Society President in Mt. Olympus 7th Ward and again at age 72 in the Draper 2nd Ward, Draper, Utah, two service missions--one to the LDS Church Museum and another as a genealogist in the Genealogy Library, and as an ordinance worker in the Draper LDS Temple. She wrote three family history books: Heritage and Histories of John Alexander Nelson, Jr. and Vera Wilcox Nelson, Heritage and Histories of Victor James and Alice James Jensen, and Memories of Leon and Verda Jensen. She traveled the world with Leon, visiting: Russia, China, Hawaii, Australia and New Zealand, etc. and later with her children to China and Mongolia. Her favorites were Hawaii and Mongolia. She was a member of the Utah Retired School Employees Association, on the Board of Draper City's Visual Arts Foundation, and a member of the Daughters of Utah Pioneers, Douglas Camp. Verda loved entertaining her family and friends both in her home and in the family cabin in Big Cottonwood Canyon. She loved serving friends and family and unconditionally loved everyone. Her treasures were her family, her friends, and her testimony of the gospel of Jesus Christ. She was preceded in death by her parents, and her dear husband Leon. Verda is survived by her children, 24 grandchildren, and 47 great grandchildren. Funeral services were held on July 20, 2011 in Draper, UT.

Brenda Campbell Johnson, 62, passed away on June 23, 2018. She was born on October 22, 1955. Brenda was a resident of Virginia at the time of her passing.



Royce E. Johnson, 62, retired Hydrologic Technician of the USGS Tulsa Field Office, passed away on May 2, 2018 in Oklahoma City after a short illness. Royce was a hard-working and well-regarded Technician who specialized in water-quality work and enjoyed sharing his knowledge with others. He particularly enjoyed sampling the Scenic Rivers of northeastern Oklahoma. Royce retired in 2011 and had been living in Shawnee, OK, engaging in hobbies and spending time with his family in the Oklahoma City area. Royce asked that his ashes be spread near the rivers where he spent most of his career.

Donald G. Jordan, 91, passed away on May 11, 2018 in Tifton, GA. He was born in Kendallville, IN, served in the US Navy during WWII, and graduated from both the University of Notre Dame and Tri State (now Triune) University. He spent most of his career working with the U.S. Geological Survey, Water Resources Division, as a hydrologist in Indiana, the U.S. Virgin Islands, Puerto Rico, and Atlanta GA. He retired in 1984 from the U.S. Geological Survey. After moving to Tifton, he attended Our Divine Saviour Catholic Church and was a member of the Knights of Columbus. Mr. Jordan was also active in the Tifton Kiwanis Club and Habitat for Humanity. Don was preceded in death by his wife of 35 years, Mary Jane Grace Jordan in 1991 and his second wife Bobbie Brockbank Jordan in 2014. He is survived by his daughter and son; children, two grandchildren and one great grandchild. A funeral mass was held at Our Divine Saviour Catholic on May 17, 2018. He was interred at Maple Hill Cemetery in Huntsville, AL.

Solomon 'Sol' M. Lang, 90, (Leawood, KS; formerly of Vienna, VA), passed away on January 5, 2016. Sol joined the USGS shortly after graduating from the Newark College of Engineering in 1949. He worked all but two years of his career in the Ground Water Branch. Sol was recognized for his many contributions as a

Hydrologist while working in various management roles in the New Jersey, Rhode Island, and Washington, D.C./Reston offices. Towards the conclusion of his tenure, Sol was the Coordinator of the Federal Coal Hydrology Program. He also represented the USGS while serving on several committees across federal agencies (e.g., the Geographic Names committee). Sol retired from the USGS in December 1985 and was able to enjoy thirty years of retirement. He was predeceased by his wife, Yetta, in 2012. Sol is survived (and greatly missed) by his three daughters and three grandchildren.



Muriel A. Lawrence, 87 (widow of WRD retiree **Carl L. Lawrence**), passed away peacefully on July 5, 2016 at her home in the Brookdale Senior Living Center in Paso Robles, CA. Born Muriel Ann Rohwer in Rushmore, MN on January 17, 1929, she grew up on the family farm and attended a one-room country school through the eighth-grade. Muriel graduated from Worthington High School in 1947 and earned a B.A. in sociology from Macalester College in St. Paul, MN in 1951. In 1951 she married Carl Lowry Lawrence and they settled in St. Paul. Subsequently, Carl's work took them to Boise, ID, Champaign, IL, Rio de Janeiro, Brazil, and Madison, WI. In 1987 they moved to Corvallis, OR which was home until 2015.

Muriel was a homemaker and a wonderful mother to their three sons. A lifelong Presbyterian, Muriel was involved in many aspects of church life, including leadership roles as well as teaching and leading workshops at all levels. For fun, she enjoyed tent camping, bicycling, canoeing, hiking, and cross-country skiing. Muriel and Carl served as year-long volunteers in three schools after his retirement: in Corvallis, Sitka, Alaska, and Albuquerque, New Mexico. She also served on mission trips to Nicaragua and New Orleans. She enjoyed travel and visited many countries around the world, including several trips to the Philippines to visit their son and family. Muriel was preceded in death by her husband Carl. She is survived by her three sons; five grandchildren and many nieces, nephews, cousins, and friends. Friends and family attended a memorial service on August 30, 2016 at First Presbyterian Church in Corvallis.



Colleen 'Mozzy' Molenaar, 89, (wife of WRD retiree **Dee Molenaar**) passed away peacefully in her sleep at her daughter's home in Bow, WA, on February 21, 2017. Colleen was born the youngest of ten children to Christian and Ida (Miller) Haag on December 26, 1927 in Pasco, WA. She graduated from Pasco High School in 1945 and went on to attend the University of Idaho (where she ran on the track team), the College of Puget Sound (UPS), and the University of Montana, where she earned her degree in musical performance in 1951. During the summers between college she worked in the souvenir shop at Mount Rainier National Park, where she met her husband, Dee, who was a park ranger there.

Colleen "Mozzy" Molenaar was a treasure. She was fun and feisty and had a wonderful self-deprecating sense of humor. She taught her children that God is Love and taught them to look for the good in people. She was a gifted singer and had once been accepted into the Portland Opera Company, but decided, instead, to marry Dee and move to Colorado to begin a life with him. In her younger years she spent much of her time in the mountains with Dee, hiking and climbing (she climbed to the summit of Mount Rainier twice!). In her later years she enjoyed crossword puzzles, reading (her tastes were eclectic), caring for her animals (goats, llamas, and cats) at the family home in Port Orchard, keeping her bird feeders filled, watching Carl Sagan talk about the cosmos, and spending time with her children and grand-children. In 2016 she and Dee moved to LaConner to be closer to her daughter. Mozzy is survived by her husband of 62 years, Dee, her three children, and four grandchildren, and numerous nephews, nieces, and friends. She was preceded in death by her parents and nine siblings.

(Thoughts from Moz's grandson, Casey: I have never seen such an amazing soul, one that the world has had the great misfortune to lose today. No matter the situation, she ONLY gave out love and nothing but and she has been a huge part of my understanding of love and has instilled its importance in me. I believe that the thing I heard from her the most was "God is love" -- and that statement, in the entirety of its meaning, looms inside me and will continue to for the rest of my life. I am thankful to have had such a giving and goofy woman in my life...There aren't enough words to describe this wonderful lady. I will miss her very much, as will I'm sure every single person who has had the pleasure of meeting her. And truth be told, as I reflect, I am happy; I was fortunate enough to know her and call her a big part of my family. Thank you for teaching me that love is EVERYTHING)



Janet B. Pascale, 67, (wife of WRD retiree **Jerry Pascale**) passed away June 8, 2018, peacefully at home with her husband and children at her side in Perdido Key, FL. Janet was born April 4, 1951, daughter of the late John Ervin Bennett and Emily Irene Giles. She graduated from Rickards High School in 1969. She began her career with the State of Florida, where she served for several years before going to work for the U.S. Geological Survey, where she remained until 1996. In her spare time Janet enjoyed gardening, traveling and spending time with family and friends. Survivors include her husband of 31 years, Jerry

Pascale; two sons and a daughter and six grandchildren.



Dr. Joseph 'Joe' Rosenshein 89, passed away on April 21, 2018 in Virginia Beach, VA. Joe was born in Kimball, WV on April 19, 1929 to the late Sam and Ida Sarah (nee: Sattar) Rosenshein. Joe enlisted in the U.S. Army, where he served in the Army Occupation of Japan. He attended the University of Connecticut, John Hopkins University and the University of Illinois Urbana where he obtained a PhD in Geology with a full minor in Civil Engineering. Joe worked for more than 41 years for the Water Resources Division of the U.S. Geological Survey. He held numerous positions around the country during his career. He was the

Assistant Chief and Acting Chief of WRD Office Ground Water, Deputy Assistant Chief Hydrologist for Program Coordination and Technical Support, and Coordinator USGS effort for Department of Defense Environmental Restoration Program to name just a few. He authored and co-authored more than 60 publications ranging in scope from local hydrologic problems to broad regional or national ground water issues. Joe was active in many professional organizations. He was a founding member of American Institute of Hydrology, a 50-year member of the American Geophysical Union and of its Ground Water Committee and served as their Chairman. He was also Chairman of the Geological Society of America's Hydrology Division and served as President of the U.S. Chapter of the International Association of Hydrologist. Joe has received national recognition for his dedicated work throughout the years along with receiving numerous awards which included the American Institute of Geology's Founders Award, the Department of Interior's U.S. Geological Survey Meritorious Service Award and its highest award the Department of Interior's U.S. Geological Survey Distinguished Service Award and Medal which was presented to him by the Secretary of Interior, Bruce Babbitt. He was predeceased by his wife of 63 years Helene (nee: Silverman) Rosenshein, and his two brothers. He is survived by his two sons and a daughter, a brother and two grandchildren. His funeral was held on April 25, 2018 at Woodlawn Memorial Gardens, Norfolk, VA.

NOTE: Jay Gillespie forwarded me a note from Joe's son (Rick) on the passing of Dr. Joe Rosenshein on April 21st. Joe was the District Chief in Kansas from 1975 to 1988 and was active in groundwater hydrology even up to a couple years ago when we had a long chat about the High Plains. Joe was known as "Rosey Joe" by many and ending his all-hands meetings with a variant of "GO, GO, GO for the USGS".

-Andrew C. Ziegler, Director, USGS Kansas Water Science Center



Herbert H. Schumann, 79, passed away peacefully on October 16, 2017. Herb was born June 3, 1938 in Flagstaff, AZ to Herman and Rebecca Schumann and was raised in northeastern Arizona. He was a proud alumnus, of the St. Michaels Indian School where he graduated in 1956. Herb graduated from University of Arizona in 1961, with a Bachelor of Science in Geology, and he received his Master of Science degree in Water Shed Management from University of Arizona in 1967. He worked for the U.S. Geological Survey from 1960 until his retirement in 1996. In 2002 Herb received a Lifetime Achievement Award for his distinguished service to the science of Hydrology. After retirement, Herb opened H.H. Schumann and Associates as a consultant, specializing in investigations of regional water

resources, water supplies, water rights, land subsidence and earth fissure hazards, land subsidence and provided expert witness services. Herb authored and co-authored over 50 technical articles, reports and book publications concerning Ground Water Hydrology. Herb was an avid outdoorsman. He enjoyed hunting, fishing, photography, flying airplanes, being active in scouting with his children, and spending time with his family. Herb is survived by his wife of 56 years, Angela, his children; many adopted grandchildren, a brother, and many nieces

and nephews. Funeral services were held on October 20, 2017 at Richardson Funeral Home, Tempe, AZ with interment to follow at Green Acres Cemetery, Scottsdale, AZ.



Ruth R. 'Eileen' Smith, 90, passed away on April 12, 2018. She was born on January 10, 1928. Eileen worked in the Surface Water Office in Reston, VA and retired in 1988 from the U.S. Geological Survey. Colonial Funeral Home, Leesburg, VA coordinated the arrangements and services at Arlington National Cemetery. Interment was June 5, 2018 with her husband Frank L. Smith who passed away in 2014.

Headstone Inscription reads: 'Bama and Papa – Married 67 Loving Years'

Roy B. Stone passed away on November 29, 2017. He retired in 1985 from the U.S. Geological Survey.

Gordon Chase Tibbitts Jr., 82, passed away on October 22, 2009 of cancer in Eugene, OR. He was born August 17, 1927, to Gordon and Margaret Krall Tibbitts. He married Jane Page on November 27, 1949, in Washington, D.C. He attended the University of Virginia, served in the U.S. Army during World War II and was a hydrogeologist for the U.S. Geological Survey retiring in 1984. Survivors include his wife; four daughters and a son, Gordon Chase Tibbitts III of Andover, MD.; and six grandchildren.



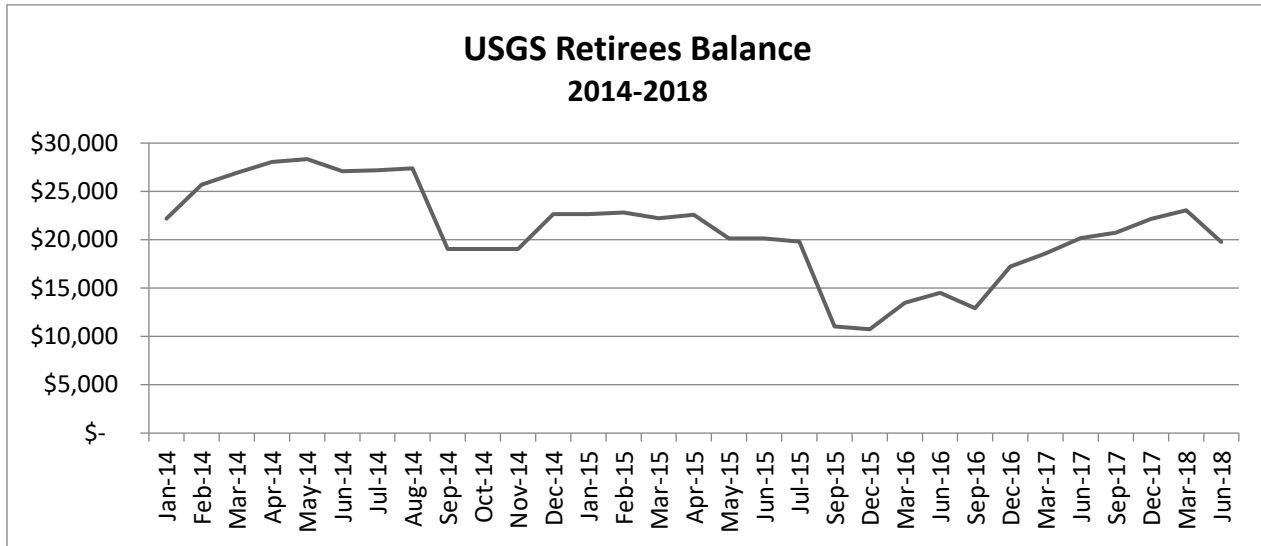
Lewis 'Lew' V. Wade, 72, of Fredericksburg passed away Sunday, April 22, 2018 at Mary Washington Hospital, Fredericksburg, MD. Lew was a graduate of Manhattan College and earned his PhD from Carnegie Mellon University, Pittsburgh, PA. Prior to joining the USGS in about 1999, Lew was the Director of the U.S. Bureau of Mines Research Center, Minneapolis and St. Paul, MN. He was a lifelong civil servant who spent his career in safety research, and retired in 2008 from the U.S. Geological Survey, Reston, VA. Lew was a member of St. Mary Catholic Church. Survivors include his beloved wife of 47 years, Nancy; his daughter and two sons; five grandchildren; and, his sister. The family received friends on April 26, 2018 at Covenant Funeral Service, Fredericksburg, MD. A

service was held on April 27, 2018 at the funeral home. Interment will follow at Oak Hill Cemetery.

TREASURER'S REPORT, SECOND QUARTER 2018

Treasurer Cathy Hill reports the organization had \$19,766 in its' coffers at the end of the second quarter, June 30, 2018. We awarded \$8,700 in Scholarships this year. There is still \$4,500 in checks written to awardees that have not been cashed. Once those checks are cashed our balance will be \$15,266.

Special thanks for contributions above dues to Bill Shampine and Jane Cory. Many thanks for your generosity.



+++++

NEWS NOTES ON SUSTAINABLE WATER RESOURCES (received 6/30/18)

USGS Hydrogeophysics

https://www2.usgs.gov/envirohealth/labs/hydrogeophysics_lab.html

The geophysicists and hydrologists at the Hydrogeophysics Laboratory develop, demonstrate, and support the application of geophysical methods to environmental-health investigations. They have expertise in a diverse suite of geophysical field methods including electrical, electromagnetic, seismic, radar, gravity, and thermal; these methods are run from land-based, waterborne, unmanned aerial system (UAS), and airborne platforms.

This page will also be linked on the 2018 Actions and Activities Page of the Sustainable Water Resources Site at <https://sites.google.com/site/sustainablewaterresources/>

Tim Smith

Sustainable Water Resources Coordinator

Government Web Site, <https://acwi.gov/>

Sustainable Water Resources Site, <https://sites.google.com/site/sustainablewaterresources/>

NEW MEMBERS

Desmond, Greg (17) (Pam) – 403 Masters Dr. Cross Junction, VA 22625, (c) 703-507-4140, gdesmond1228@gmail.com
Jones, Rick (76-89) (Connie) – 354 Wildwood Dr., Westerville, OH 43081, (h) 614-882-0222, (c) 614-937-7881, jones7252@aol.com
Price, Curtis V. (18) (Bethany Wojahn) – 108 E. Centennial St., Rapid City, SD 57701-7635, (c) 605-390-3053, curtprice@gmail.com
Rickman, Ronald L. 'Ron' (16) (Nicole D. Stucki) – 5351 Whispering Spruce Drive, Anchorage, AK 99516, (c) 808-352-6391, rickman54@icloud.com
Ries III, Kernell G. (17) (Helen Mann) – 321 Hunter Chase Ct., Bel Air, MD 21015, (h) 410-569-3876, (c) 443-616-1278, khcries@verizon.net
Stannard, David I. 'Dave' (16) (Linda G.) – P.O. Box 111, Kittredge, CO 80457, (h) 303-674-4599, distanna@comcast.net
Stannard, Linda G. (94) (Dave) – P.O. Box 111, Kittredge, CO 80457, (h) 303-674-4599, purplesageco@comcast.net
Zimmerman, Marc J. (15) (Jacqueline M. Gillis) – 58 Lincoln Street, Hudson, MA 01749-1633, (h) 978-562-8674, marczman@earthlink.net

DIRECTORY CHANGES

Baker, James B 'Jim' (03) (Ruth) – 7789 E. Reindeer Way, Prescott Valley, AZ 86315, jbaker9010@icloud.com – addr, email
Bailey, James F. 'Jim' (85) (Vivian) – *chg listing to Bailey, Mrs. James F. 'Vivian' (W)*
Benson, Mrs. Clark H. (Anna) (W) – *delete name from directory – passed away January 27, 2018*
Berkstresser Jr. Charles F. 'Chuck' (73) – *delete name from directory – passed away September 22, 2017*
Bisset, Anna (86) – *delete name from directory – passed away April 30, 2018*
Cory, Robert L. (83) (Jane) – *request to be removed from the telephone directory*
Hahl, Daniel C 'Dan' (88) (Melva) – 545 Padre Lakes Drive, Ivins, UT 84738 – addr
Hoffman, Ray J. (00) – rayn38es@gmail.com – email addr
Hollway, Richard (13) (Dr. Nancy Kurkinen) – 503-806-7544 – phone
Hubbard, Larry L. (90) – *delete from directory – passed away June 11, 2018*
Hutchinson, Norman E. (88) (Marcy) – Marcy passed away on January 10, 2018
Jensen, Mrs. Leon J. (Verda) (W) – *delete from directory – passed away July 15, 2011*
Johnson, Royce E. (11) – *delete from directory – passed away May 2, 2018*
Jordon, Donald, G. (84) – *delete from directory – passed away May 11, 2018*
Kume, Jack (96) (Dianna) – 548 W. Cedar St., Olathe, KS 66061-4022, 913-909-3572, jackkume@comcast.net – addr phone email
Lang, Solomon M. 'Sol' (85) – *delete from directory – passed away January 5, 2016*
Lawrence, Mrs. Carl L. (Muriel A.) (W) – *delete from directory – passed away July 5, 2016*
Lenfest, Leslie W. 'Lee' (92) – llenfest@gmail.com – email addr
Lloyd, Orville B. 'Bruce' (95) (Charlotte) – oblloydjr@gmail.com – email addr
Mankinen, Edward (10) (Jeanne) – emank@usgs.gov – corrects spelling of last name and email addr
Molenaar, Dee (83) (Colleen) – *Colleen passed away February 21, 2017*
Nowlin, Jon (00) (Janet) – 775-883-5913, ccnvwv@gmial.com – phone email
Pascale, C.A. 'Jerry' (96) (Janet) – *Janet passed away June 8, 2018*, capascale64@gmail.com – email addr
Rosenshein, Joseph 'Joe' (94) – *delete from directory – passed away April 21, 2018*
Schumann, Herbert H. (95) (Angela) – *chg listing to Schumann, Mrs. Herbert H. 'Angela' (W)*
Smith, Eileen R. (88) – *delete from directory – passed away April 12, 2018*
Stone, Roy B. (85) (Sandi) – *chg listing to Stone, Mrs. Roy B. 'Sandi' (W)*
Tanner, Dwight (12) (Yoko) – (c) 503-539-9728 – correct yr. retired, phone

Tibbitts, G. Chase (84) (Jane) – *request received from family to remove from directory – passed away October 22, 2009*

Wade, Lewis V. 'Lew' (08) (Nancy) -- *chg listing to Wade, Mrs. Lewis W. 'Nancy' (W)*

Waller, Antoninette E. 'Toni' (10) – 1019 145th Street Circle NE, Bradenton, FL 34212, (phone & email remain the same)

Wilson, William E (90) (Kathie) – 750 Weaver Dairy Road #3111, Chapel Hill, NC 27514-1443, 919-918-3581 – addr phone

NEW STATE CONTACTS

Central Region

Colorado	Betty Palcsak	303-908-7862	bpalcsak@gmail.com
Iowa	Bob Buchmiller	319-887-1587	buch395@gmail.com
Kansas	Linda & Bill Carswell	303-726-8415	lrcars22@hotmail.com
Minnesota	Mark Have	651-528-2370	markhave@q.com
Missouri	Jim Barks	573-364-7114	jpbarks@embarqmail.com
Montana	Chuck Parrett	916-813-1663	chuckparrett@yahoo.com
Nebraska	Robert Swanson	402-420-5627	swanie1@icloud.com
New Mexico (2)	Pat Borland	505-296-2823	jdborland@msn.com
	Richard Lepp	505-256-0643	rlepp57643@aol.com
North Dakota	Gregg Wiche	701-425-6365	gjwiche@bis.midco.net
Oklahoma	Lyn Osburn	405-799-3537	losburn23@cox.net
South Dakota	Ken Lindskov	605-431-8313	jkilindskov@gmail.com
Texas	Paul Rohne	512-712-5184	paul.rohne@att.net
Wyoming	(Pending)		

Western Region:

Arizona	Pat Tucci	303-513-3844	ptucci@sprintmail.com
Oregon	Bill McFarland	503-630-2090	billmcf761@gmail.com

NEW REGIONAL EDITOR

Southeast John Clarke

A Legacy for Your Children

By

Charles R. Gamble

In my opinion, there is no better legacy to leave to your children than (1) your autobiography, (2) information on the genealogy of your family, and (3) a good personal reputation, not necessarily in that order. The purpose of this article is to try to persuade all members of WRD Retirees to include as many of these as possible in the legacy you leave for your children and your fellow man. It might be rather late to start work on number three, but it is not for the other two. I have done the first two and have attempted number three, but history will be the judge of that.

I have written my autobiography mainly for my children and grandchildren. It covers growing up on a farm in rural Mississippi, schooling, early work, and my career in WRD. My children can remember visiting their grandparents and great grandparents on the farm but have little real concept about what it was like growing up on a farm. And, they knew only generalities about my work. I have tried to document these in fairly great detail for their information. As I stated in the preface of my book titled, "From Country Boy To Hydrologist."

"My purpose was to provide more insight than they already have into life of my generation, to describe something of how we grew up and to give some insight into my working career. Since the world is changing at a rapid rate, I feel it is important to document history in as many ways as possible. Vast changes have occurred just during my lifetime as evidenced by some of the information given herein. I have lived from a time of no electricity in our house to a time when most households have one or more computers in them, probably several televisions, at least two automobiles, and a cell phone or two. It is a time when anyone can communicate with anyone else anywhere in the world from almost anywhere in the world via landline-based telephone, the Internet, or cell phone. You can download music from the Internet, or copy it from CDs, onto portable devices for listening anywhere. And, satellite radio is beginning to make a splash. And compare this with my grandfather who lived from a time when the ox-drawn wagon or horseback was the mode of transportation to the landing of man on the moon. So, I view this writing as a snapshot of a segment of history, namely the period in which I lived. It is my hope that my descendants, and more people in general, will take the time and make the effort to do a similar writing. In my opinion, the best way to improve the future is to learn about the past, else the past might be repeated. And, hopefully, these short glimpses into the past will help do that.

My children have read my book and seem to genuinely appreciate it. In fact, they have made certain suggestions about additional documentation of how I grew up in case I ever do a rewrite. I did everything on my home computer, except the binding, and Kinko's, or other similar establishment, will do that for a reasonable fee. It does not have to be anything fancy-handwritten pages would be so much better than nothing at all.

I have also collected information about the genealogy of the Gamble family. I have shared much of this with my family in bits and pieces. But, I hope to put all this information into a book so that someone of a younger generation can pick up where I left off and continue with that work. Genealogy is never done and there will always be additional avenues to explore. I suspect that is one reason for its great popularity, but I believe the main reason is the great satisfaction one derives from discovering one's roots.

Wouldn't it be a great service to WRD Retirees if everyone would write his or her own obituary? No, I'm not trying to be morbid, but when you pass away, someone will have to dig up information about you. Wouldn't it be more accurate and easier for everyone if that information were something you yourself wrote? This idea is not original with me; but it seems that this is a good place to suggest it.

(Originally printed in N.L. 116, page 15 – submitted by Pete Anttila for reprint)

Water and Music Richard A. Engberg

[Dick Engberg, Archivist for the Retirees and a Past President writes a monthly column on water for the Middleburg Eccentric newspaper (Middleburg, VA). This column which has been slightly modified was published in June 2012.]

For several years I've thought about the interrelationship between water and music. I love water and I love music and there must be hundreds of songs about water. Both music and water can be cathartic for many members of homo sapiens, and, perhaps if you combine them, the effect is synergistic. Who wouldn't be able to relax while sitting in an easy chair listening to the sound of water on a table top fountain while at the same time, listening to lovely piano music by, say, George Winston or David Lanz? Of course, a glass of your favorite wine and the presence of your favorite person or pet wouldn't hurt. So, what I want to do is to compile a list of "water" music/songs.

I can think of quite a few water songs, but I want this to be an interactive column, so I need your help. A couple of friends have already made suggestions, thanks, Glenda, thanks Jacque. Now it's your turn –if you think of a song about water that I haven't listed, please send me the name of the song and the performer or composer. There is one caveat, the songs all have to include a form of water or something water related (like thunder) in the title.

I know several more but the songs I've listed use all the space for the column. I've tried to group them in several categories. Don't see any rap? You won't. Showing my age!

My plan is to include a few of the water song titles you send me in future water guy columns. **Thanks for your help!**

Classical:

Auf dem See (On the Lake)	Franz Schubert
Erlafsee (Lake Erlauf)	Franz Schubert
Auf der Danube	Franz Schubert
Water Music	George Fridric Handel
La Mer	Claude Debussy
Blue Danube Waltz	Johann Strauss
Over the Waves	Juventino Rosas

Easy Listening:

Moon River	Andy Williams
Cry Me a River	Julie London (the incredible Julie London – now I'm showing my age!)
Cryin'	Roy Orbison (the great Roy Orbison – again I'm showing my age!)
Cry	Johnny Ray
River Song	Dennis Wilson
Rainy Night in Georgia	Brook Benton (Fabulous song – great voice)
Singin' in the Rain	Gene Kelly
Mississippi Mud	Bing Crosby
Let it Snow	Dean Martin
White Christmas	Bing Crosby

Folk/New Age:

Down by the Riverside	Traditional
Roll on Columbia	The Weavers -Pete Seeger (Now I'm really showing my age – Pete is in his 90's and still performing – and no, I'm not in my 90's – whew!)
My Bonnie Lies Over the Ocean	Traditional
Shenandoah	Traditional (Such a beautiful melody)
Orinoco Flow	Enya
A Day without Rain	Enya

Pop/Rock:

Purple Rain	Prince
Black Water	Doobie Brothers
Smoke on the Water	Deep Purple
Water Runs Dry	Boyz II Men
Who'll Stop the Rain	Creedence Clearwater Revival

Ferry Cross the Mersey	Gerry and the Pacemakers
Sittin' on the Dock of the Bay	Otis Redding
Raindrops Keep Falling...	B. J. Thomas (Butch Cassidy and the Sundance Kid – great movie)
Rain on the Roof	Lovin' Spoonful
Rain	Beatles
Wind on the Water	Crosby and Nash
Crying in the Night	Boyzone
Tears in Heaven	Eric Clapton
Crying Song	Pink Floyd
Tears of a Clown	Smokey Robinson
Surfin' USA	Beach Boys
Surfer Girl	Beach Boys (One of their best)
Catch a Wave	Beach Boys
Surfin' Safari	Beach Boys
Sloop John B	Beach Boys

Country/Western:

Big River	Johnny Cash (The greatest!)
Blue Eyes Cryin' in the Rain	Willie Nelson (Also the greatest!)
Songs about Rain	Gary Allen
Georgia Rain	Trisha Yearwood
Let it Rain	David Nail
Smoky Mountain Rain	Ronnie Milsap
Raining on Sunday	Keith Urban
I'm No Stranger to Rain	Keith Whitley
The Thunder Rolls	Garth Brooks (Scary song – may be Garth's best)
Ocean Front Property	George Strait
Cool Water	Sons of the Pioneers (Now that's a classic!)

Thomas Jefferson

This is amazing. There are two parts to this. **Be sure to read the 2nd part.**
submitted by Joe McIntyre

His portrait is on the \$2.00 Dollar Bill.

Thomas Jefferson was a very remarkable man who started learning very early in life and never stopped.

At 5, began studying under his cousin's tutor.

At 9, studied Latin, Greek and French.

At 14, studied classical literature and additional languages.

At 16, entered the College of William and Mary. Also, could write in Greek with one hand, while writing the same in Latin with the other.

At 19, studied Law for 5 years starting under George Wythe.

At 23, started his own law practice.

At 25, was elected to the Virginia House of Burgesses.

At 31, wrote the widely circulated "Summary View of the Rights of British America," and retired from his law practice.

At 32, was a delegate to the Second Continental Congress.

At 33, wrote the Declaration of Independence.

At 33, took three years to revise Virginia's legal code and wrote a Public Education bill and a statute for Religious Freedom.

At 36, was elected the second Governor of Virginia, succeeding Patrick Henry.

At 40, served in Congress for two years.

At 41, was the American minister to France and negotiated commercial treaties with European nations along with Ben Franklin and John Adams.

At 46, served as the first Secretary of State under George Washington.

At 53, served as Vice President and was elected President of the American Philosophical Society.

At 55, drafted the Kentucky Resolutions and became the active head of the Republican Party.

At 57, was elected the third president of the United States.

At 60, obtained the Louisiana Purchase, doubling the nation's size.

At 61, was elected to a second term as President.

At 65, retired to Monticello.

At 80, helped President Monroe shape the Monroe Doctrine.

At 81, almost single-handedly, created the University of Virginia and served as its' first president.

At 83, he died on the 50th Anniversary of the Signing of the Declaration of Independence, along with John Adams.

SECOND PART

Thomas Jefferson knew because he himself studied, the previous failed attempts at government. He understood actual history, the nature of God, His laws and the nature of man. That happens to be way more than what most understand today.

Jefferson really knew his stuff! A voice from the past to lead us in the future:

John F. Kennedy held a dinner in the White House for a group of the brightest minds in the nation at that time. He made this statement: "This is perhaps the assembly of the most intelligence ever to gather at one time in the White House, with the exception of when Thomas Jefferson dined alone."

"When we get piled upon one another in large cities, as in Europe,
we shall become as corrupt as Europe."

Thomas Jefferson

"The democracy will cease to exist when you take away from those who are willing to work and give to those who would not."

Thomas Jefferson

"It is incumbent on every generation to pay its' own debts as it goes. A principle which if acted on, would save one-half the wars of the world."

Thomas Jefferson

"I predict future happiness for Americans if they can prevent the government from wasting the labors of the people, under the pretense of taking care of them."

Thomas Jefferson

"My reading of history convinces me that most bad government results from too much government."

Thomas Jefferson

"No free man shall ever be debarred the use of arms."

Thomas Jefferson

"The strongest reason for the people to retain the right to keep and bear arms is, as a last resort, to protect themselves against tyranny in government."

Thomas Jefferson

"The tree of liberty must be refreshed from time to time with the blood of patriots and tyrants."

Thomas Jefferson

"To compel a man to subsidize with his taxes, the propagation of ideas which he disbelieves and abhors, is sinful and tyrannical."