USGS RETIREES

NEWSLETTER No.
May 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,

It's Easter Saturday and we received six inches of snow overnight. Hiding eggs for the kid's hunt will be easy tomorrow. That being said, there shouldn't be any snow remaining for the reunion that will be held, on September 13-15, in the Twin Cities of Minnesota. The Twin Cities have a lot to offer. We have great dining and cultural opportunities. I hope you will be able to attend. Consider extending your stay and take a trip "up north". You will find much more about the reunion in this newsletter, including the registration form. Timely registration is greatly appreciated to facilitate the 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 for our fall event.

Our officers are working hard to achieve the goals we set for the next two years. We are striving to revitalize the scholarship program, to grow our membership by including a greater cross section of all of the 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.

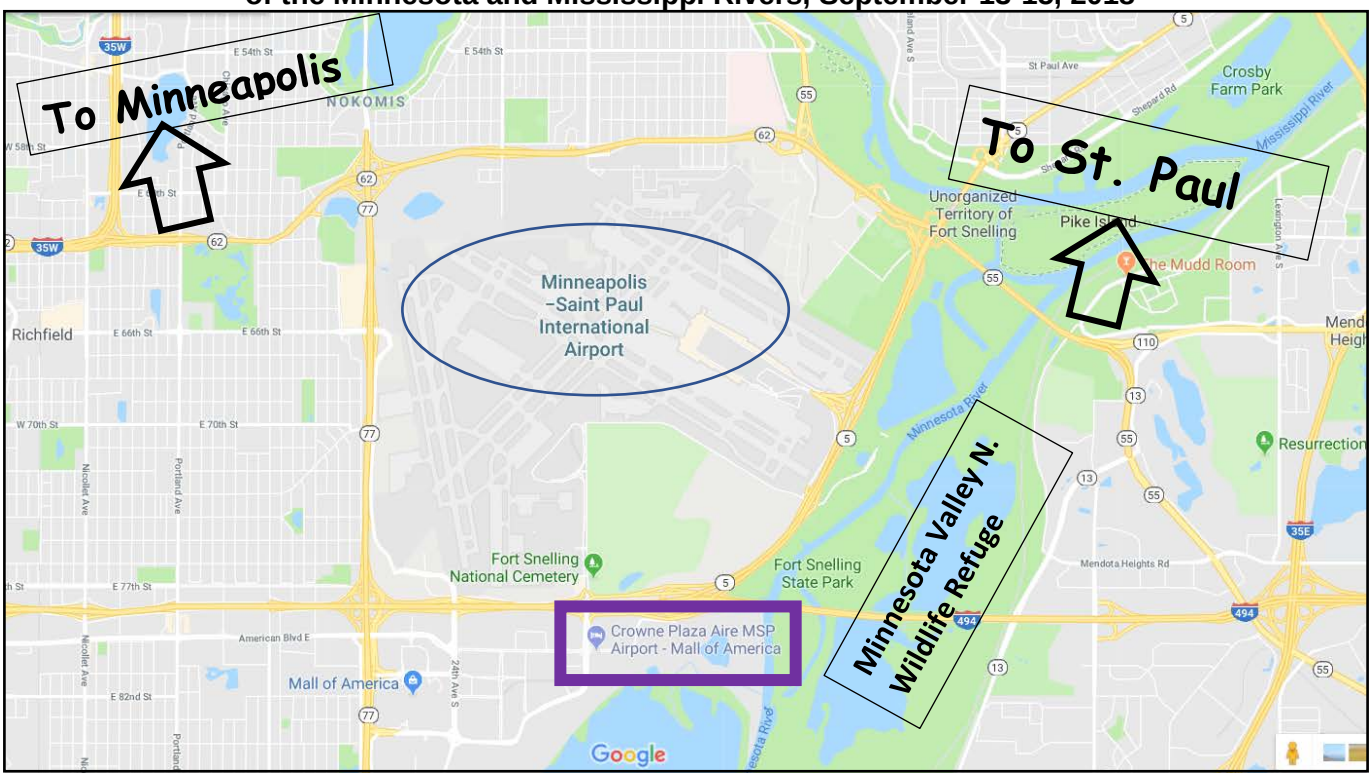
I want to thank our officers for all that they do to support this organization. They include: Al Condes (vice president), Kate Flynn (secretary), Cathy Hill (treasurer), and Dick Enberg (archivist). Our new, or re-newed, Regional Directors include Jay Kiesler (Northeast), Ed Martin (Southeast), Ken Lindskov (Central) and Pete Antilla (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 through 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 Freiberger is helping us invigorate the meritorious service-award process. Dan Fitzpatrick has agreed to continue to help with editing responsibilities. Finally, Jeff Stoner is leading the organizing committees 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
Email:stark@usgs.gov

REGISTER NOW for the next USGS Retirees' Reunion held near the Confluence of the Minnesota and Mississippi Rivers, September 13-15, 2018




Hotel near light rail (every 10 minutes)


Wood duck (Credit: Minn. DNR)

The Local Planning Team has these reminders:

1. **<u>Reserve your hotel room early—no cost to you</u>**.
2. Tell us if you'd like to have a golf outing on the Thursday prior to the Reunion.
3. Remember to register for the Reunion by August 1st (registration form is on pg. 4, or on and the Reunion Web site, http://www.wrdretirees.org/Reunion2018). Refer to the February Newsletter for a detailed chronological list of events.
4. Call a USGS colleague, even if they are not a current Retiree Member, to join in the fun.

As of **April 23**, **we have 22 people (11 couples)** registered for Reunion 2018 and most of them have also signed up for both tours and the banquet. The Local Arrangement Committee much appreciates these early birds. Remember to register both for the meeting and especially for the hotel rooms which require NO deposit! If you'd like to know who has registered to date, feel free to contact Jeff Stoner usgsreunion2018@gmail.com to obtain a list.

Hotel and Transportation from airport
The Reunion will be held at the Crowne Plaza AiRE, near the airports (Terminals 1 or 2)
The Hotel address is: 3 Appletree Square, Bloomington, MN 55425 (Interstate 494 & 34th Avenue South). Bloomington is a first ring southern suburb to the Twin Cities (see map above). The Minneapolis-St. Paul International Airport includes two terminals located across Interstate 494 from the Hotel. The Crowne Plaza AiRE Hotel operates a shuttle to and from Airport Terminals 1 and 2:

-Follow the signs from the baggage claim to shuttle transportation for Terminal 1.
-From Terminal 2 (Humphrey), you must call the Hotel for shuttle pickup.
-Taxi cabs and rental cars also are available at the terminals.

Please make Hotel Reservations as soon as you know your travel plans.
When you book rooms with the Group Code **USG**, you can always cancel without a penalty up to 24 hours prior to check-in. Early hotel reservations will greatly help the planning team arrange for meetings and goodie bags for your enjoyment. Call 952-854-9000 [800-227-6963] or online using www.crowneplazaaire.com and use the **Group Code= USG** (USGS Retiree Reunion). **DO NOT** reserve outside this group code or with third party reservation services – you may see a slightly better rate, but with payment up front, non-refundable, nor breakfast included, and no credit for the room count that the Retirees' Organization needs to obtain for the hospitality and reception rooms under the contract with the hotel.

The block of rooms reserved for the Reunion are at the guaranteed single or double base rate of $139, which is a total rate of $159.19 per night (includes all taxes and all fees). **Hotel Reservations must be made by August 23**, 2018 to receive the Reunion group rate, but the planning committee strongly suggests reserving much earlier to ensure a room at this good rate. Hotel reservations received after the deadline will be based on availability at the Hotel's prevailing rate. The hotel also made the Reunion Group room rates available for three nights before and after our event based on availability of rooms. **Free self-parking** is available at a structure near the hotel -- obtain a parking pass from the Hotel registration desk.

Golf Event: By June 1, let the Planning Team know if interested either by e-mail or by indication on the registration form. We'd like to obtain at least 12 participants for this to go.

Tours: The Friday River Cruise and Saturday St. Paul Gangster **tours both are accessible** events with minimal walking requirements. Be aware that the Gangster tour is limited to the first 100 participants.

Some people have expressed possible interest in a meeting room (outside the hospitality room) during the free time from 6:00 p.m. to 10:00 p.m. A meeting room with the capacity of 80 has been reserved, but the planning team needs to know by May 10 if this extra room really is needed. Contact Jeff Stoner (Chair), (J_stoner@comcast.net) for interest to keep this room.

The **Reunion registration deadline is August 1, 2018**. To register, please print, complete, and mail the form at the end of this message or print the form from:
http://www.wrdretirees.org/Reunion2018.
Payment by check is requested and should be mailed with the completed registration form to the address shown on the form.

If you have any questions, feel free to contact the Local Arrangements Committee, Jeff Stoner (Chair) (usgsreunion2018@gmail.com) or any Committee member: 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). Downtown Minneapolis is alive during the day and evenings. Numerous restaurants, bars, music venues, museums, theaters, art galleries, parks, and more are available to the visitor. See also the suggested list of activities, suggested restaurants (soon) and associated maps provided by the Local Planning Committee: http://wrdretirees.org/Reunion2018/index.html

REGISTRATION FORM--NINETEENTH USGS RETIREES REUNION 2018
Twin Cities, Minnesota
Thursday, September 13 through Saturday, September 15, 2018

http://wrdretirees.org/Reunion2018/index.html

Complete this form, keep a copy, and make check payable to "**USGS Retirees Reunion 2018**"

and mail all to:
USGS Retirees Reunion
c/o Jeff Stoner
P.O. Box 25671
Woodbury, MN 55125

REGISTRATION--Deadline August 1, 2018 - Refunds are available prior to the August 1 deadline.

Print first name(s) as you'd like on name tag(s):
FIRST NAME(s)_____LAST NAME(s):_____
STREET ADDRESS_____
CITY_____STATE_____ZIP CODE_____

EMAIL_____**PHONE**_____

REGISTRATION FEE:	**NUMBER_____@ $77 per person**	$_____

Includes Thursday evening ice-breaker reception and Hospitality Room activities for the three days.

Thursday, September 13, 2018

Reunion check-in is 2:00 to 7:00 p.m. Hospitality Room open at 3:00 p.m. Informal Reunion ice-breaker reception (6 pm to 10 pm). The Hospitality Room will be closed during the reception and subsequently reopened.

Number_____planning to play 18 holes of golf THURSDAY (9:00 am - 3:00 pm)
Estimated cost with cart $45 per senior (62) payable at course.
Contact Jeff Stoner (651) 808-5795, or usgsreunion2018@gmail.com **by June 1** if interested

TOURS: (One Friday and one Saturday) capacities are limited and filled based on date of registration. Refunds will be given for applications received after maximum capacities have been reached:

St. Croix River Cruise, Friday (11:00 am - 5:00 pm) September 14:
Tour includes lunch buffet & cash-bar option on boat.

NUMBER	@ $63 per person	$_____

St. Paul Gangster Tour, Saturday (8:45 am to 1:00 pm) September 15:
Tour includes refreshment. (Maximum Capacity 100).

NUMBER	@ $59 per person	$_____

Banquet, Saturday (6:00 p.m. to 9:30 p.m.) September 15:

Banquet at AIRE Ballroom 3 in hotel. The Hospitality Room will be closed during the banquet and subsequently reopened. Choose from entree's below:

Indicate Entrée Choice(s):	Fish	NY Steak	Chicken	Vegetarian	NUMBER_____@ $61 per person	$_____
	$61	$65	$58	$55	NUMBER_____@ $65 per person	$_____
					NUMBER_____@ $58 per person	$_____
					NUMBER_____@ $55 per person	$_____
TOTAL (Registration, Tours, and Banquet):						$

See Reunion Web site for other information including maps to help plan your trip:
http://wrdretirees.org/Reunion2018/index.html

Questions? usgsreunion2018@gmail.com or call Jeff Stoner cell: 651-808-5795

For your viewing pleasure, some mapped information clipped from USGS Circular 1211: Water Quality in the Upper Mississippi River Basin, Minnesota, Wisconsin, South Dakota, Iowa, and North Dakota, 1995–98, by J.R. Stark and others, 2000. The hotel is near where the Minnesota River meets the Mississippi River. The St. Croix River (cruise) also is a major tributary to the Mississippi in Minnesota and Wisconsin. Lake Itasca is the beginning of the Mississippi River:

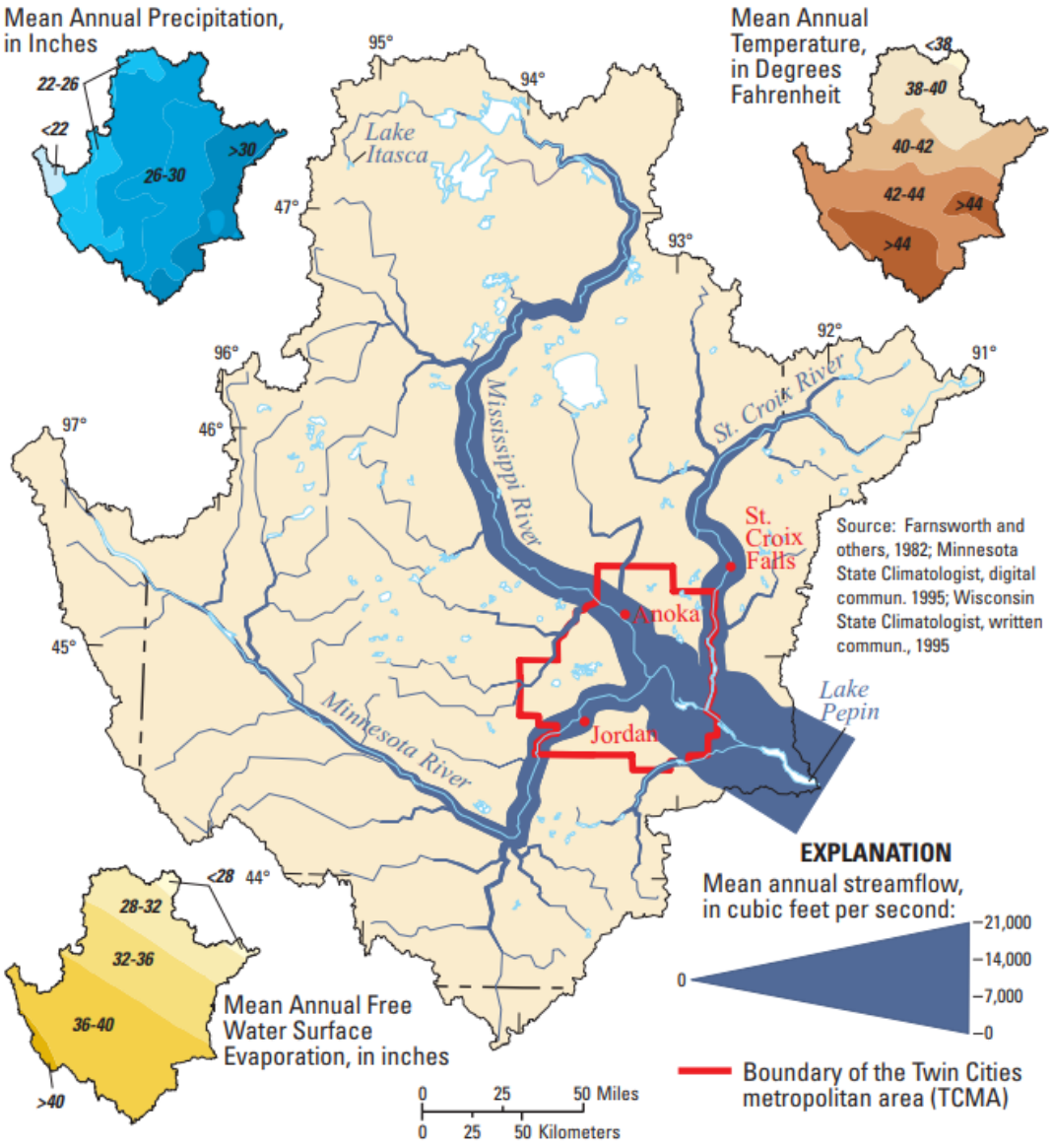


Figure 1. Climatic variables such as precipitation, temperature, and evaporation affected streamflow in the Study Unit, 1961-90.

MEETINGS & GATHERINGS

USGS RETIREES –INDIANA
Asian Kitchen, Indianapolis, IN
January 17, 2018

The Indiana Retirees gathered for their quarterly luncheon and everyone enjoyed themselves.
Pictured are **L to R front row**: Lee Watson, Marty Risch, Sonja Sanders, Deb Majors, and Dave Cohen -- **back row:** Paul Hayes, Konrad Banaszak, Jeff Martin, and Jay Kiesler. The Indiana Retirees next luncheon is scheduled for Thursday April 19, 2018.
If you are in town and wish to attend contact Jay Kiesler (jaykiesler@gmail.com) or Jeff Martin at (jdmartin@usgs.gov) for more information.

USGS RETIREES – NEW JERSEY
February 2018

From left John Dudek, Walt Jones, Woody Centinaro, Liz Centinaro, Ann and Mike Deluca, and Diane Dudek. Retired New Jersey Water Science Center Technicians and wives at our monthly dinner meeting.

USGS RETIREES AND SPOUSES - FALL LUNCHEON
NOVEMBER 2, 2017
RALEIGH, N.C.

First Row (L to R): Nancy Williams, Mickey Reed, Charlotte Lloyd, Nancy Coble, Carol Winner, Hala Cardin
Second Row (L to R): Rodney Evans (guest of Rose Pinnix), Doug Harned, Myra Daniel, Bruce Lloyd, Ron Coble, Rose Pinnix, Rufus Allen, Alex Cardinell
Third Row (L to R): Charles Daniel, Gary Garrett, Nancy Garrett, Robert Mason, Cathy Hill, Mike Winner

There were two attendees from Reston, VA – Cathy Hill and Robert Mason

NEWS OF RETIREES

Jeff Agajanian writes: Enclosed are my dues for this year and next. Thanks for all your great work in preparing the Retirees' Newsletter. I always look forward to reading it.

Pete Anttila writes: On March 30 my wife Joyce and I returned home in Fairfield Glade, TN after renting a condo for 3 ½ months on the Gulf Coast of Florida in Indian Shores. This was our fifth consecutive year renting the Indian Shores condo. Normally, we rent for a full 4 months (Dec.-Mar.). This year we were delayed until Dec. 17, because I had surgery for an enlarged prostrate. Fortunately, the surgery was a success and, best of all, the laboratory results showed no signs of cancer. In January Joyce's son and his wife from Auburn, CA visited us in Florida for 2 weeks. We celebrated two birthdays and our wedding anniversary with them on a week's cruise to the Bahamas.We have no major travel plans for the remainder of the year, except for attending in September a grand niece's wedding in Ohio and the Retirees Biennial Reunion in Minneapolis. We may schedule a week's trip to Myrtle Beach or Hilton Head in South Carolina in late October. We again will be returning to Indian Shores in December.We hope the Minneapolis Reunion will be well attended to insure continuation of the biennial reunions. We thoroughly have enjoyed the many reunions we have attended and encourage all Retiree Members to consider attending. The Reunion will be held at an excellent and quite affordable venue, and, the outstanding agenda insures a great and memorable time. Hope to see you in Minneapolis!

Jared Bales writes: Since January 1, 2017 I have been working as the Executive Directory of the Consortium of Universities for the Advancement of Hydrologic Science (CUAHSI) in Cambridge, MA – www.cuahsi.org/

Bill Bartlett writes: Getting ready for the move back to Maine this summer. Moving to a 55 and older community in Belfast, ME (*reference change of address in Directory article*).

Larry Beaver writes: Playing golf and traveling.

Steve Blanchard writes: My wife Julie and I moved to Ireland 3+ years ago. We are helping with a church here. We have loved living in Ireland, seeing the beautiful sites and experiencing the culture.

Rebecca Boswell writes: I have enjoyed getting the USGS newsletter. I did not realize there were dues when I first started getting it and have simply been remiss since then. I am enclosing a check to help cover my error. Please take my name off the list – everyone I knew is about gone. My husband loved working for the Survey! I am 95 – still living along and doing well.

Rick Bow writes: I relocated to Seattle, WA for hospice care of my father after 12 years as the Section Chief, Computer Services, Indiana District in August 1992. I worked as a consultant for US West/Qwest for 12 years until April 2009. I have been retired since, I travel, assist other seniors, and just enjoy good health.

Linda and Bill Carswell write: Sorry I've let us fall so far behind on our dues. This will pay us up through 2019 so I don't have to worry again until before the next reunion! Bill and I took our grandsons on a trip to Alaska last June. The end of October we went on our annual anniversary trip. The 2017 trip was a week in England followed by a trans-Atlantic cruise with stops in Boston, New York, Bermuda and the Bahamas. Had an amazing time on both trips. Looking forward to seeing everyone in Minnesota.

Ron Collins writes: Serving as a math and science tutor.

Becky Deckard writes: Oops!! Apologies for my lapse in dues. Hopefully, I'm good now through 2020. Thank you for the newsletter. Cheers

Lois Douglas writes: I'm enclosing my 2018 dues and my new address (*reference change of address in Directory article*). I'm moving out of the home I've lived in the past 42 years into a much smaller place and it's taking longer than I expected. I will continue to receive mail at my old address for 2 more months at which time I will be settled at the new address.

Bill Emmett writes: Enclosed is a check to cover dues through 2020. I'm doing well to be on the back side of 80, but have decided to hang up my consulting hat, a role I've played since retiring from WRD 23 years ago. Note the WRD

moniker; I miss it on the banner of our newsletter. WRD retirees have long enjoyed a camaraderie that often is not typical of larger groups. Special thanks to the WRD retirees in the Reston area as well as the others on the cover of the newsletter that help keep our group informed.

Barbara Favor writes: Retirement has been good for me. I wish I could have done it 10 years earlier but oh well!! I keep busy with family matters and volunteering at our church. Enjoy adult coloring books, reading, music, grandchildren, and latch hook when I can find a good project. So, it goes...

Randy Fields writes: Enclosed is a check to cover my dues thru 2020. Thanks

Gary Fisher writes: Having fun in retirement and keeping active as USGS Scientist Emeritus as much as I can.

Marvin Fretwell writes: Ardie had her left knee replaced, so I have been cooking, and housekeeper for two weeks. She is doing wonderfully and will soon relieve me of these extra duties. We are currently planning our summer; 2 months of fly fishing in British Columbia, followed by 2 months of fly fishing in Montana. Then to Florida to celebrate our grandson's first birthday. Life is good, and we are well.

Joe Gates writes: Sorry to be delinquent. Guess I need some kind of annual reminder as my memory isn't as sharp anymore.

George Garklavs writes: I've been remiss in submitting my dues since retirement. Please find enclosed a check for $150. This should cover past dues and those for a few years to come. Donna and I have been enjoying taking care of our house and garden. I've renewed my interest in photography (among other things) and have enjoyed taking photos of our travels and the local scenery and wildlife (Colorado has plenty of opportunities for this. As a social outlet and to keep the synapses firing (kind of) I present seminars to Federal employees on their retirement benefits. Some of the intricacies of the FERS system are fascinating. There are only about 4% of Federal employees left in the CSRS system. Anyone passing through northern Colorado is welcome to drop a line and visit. Many thanks.

Elaine Gockel writes: Enclosed is a check that should catch Dan and I up plus pay our dues forward through 2018. Like all the other WRD retirees we know, we seem to be able to keep ourselves busy enjoying ourselves -- Volunteering with our church and a food bank, visiting friends and relatives and using our Marriott and airline points takes up a lot of time. A good deal of the visiting relatives involves spoiling grandchildren.
They are growing up too fast!! We managed trips to Sedona, AZ and the Black Hills this year too. Our health continues to be good, so we plan on a more extensive travel schedule in the future. We look forward to the Minnesota Reunion. Since two of my sister live in the area we have been on the St. Croix River cruise. We know the retirees will enjoy it. My sister Jeanette lives in Stillwater, MN. Any of you who are antique buffs will enjoy just strolling around the town. It's a great favorite of ours. The architecture is really interesting-many handsome Victorian homes. Doug and Susan Manigold live here in Longmont. They are members of our church. Doug's health is not good. Any of you who are of a mind, send kind thoughts their way. Susan has a lot on her plate. We also enjoyed a visit with Jerry and Susan Ryan on their way home from visiting their daughters in Calgary and Portland. Many of you know the Ryan's have triplet grandchildren in Calgary. They are adorable, and grandpa and grandma are very proud of them as they should be. Hope to see many of you in Minnesota in the fall.

Don Diego Gonzalez writes: Semi-retired and living in Santa Fe, NM and ranch in Northern NM with wife Corine and oldest son Don Diego Jr. Performing consulting in water resources in northern NM. Did the directory receive my input submitted several months ago relative to history? Would request inquiry on contacting William Dudley's ex-wife Virginia Wegman or children. Thank you.

Joe Gorman writes: To bring my membership up-to-date, please apply towards 3-years membership and the rest to the Scholarship Fund. Thanks for the great newsletter.

Ron Hanson writes: Enclosed is a check to cover my 2018 and 2019 dues. Use the additional amount to help cover expenses as needed to keep the newsletter active or contribute to the technician rewards program. Thanks to all of you who volunteer your time working on the newsletter. Ellie and I sold our Tucson winter home last year and are no longer Arizona snow birds. It was a difficult decision to make as we have nearly 50 years of history in Tucson, where I worked on the Gila River Phreatophyte Project for 7 years (1968-75) and subsequently spent most of our winters there. But, it was time to simplify our lives and be closer to our 3 children and their families in Seattle, WA and Portland,

OR. We now stay year around in Post Falls, ID where we moved and built a home after retiring from the Oklahoma District office in 1994.

Bill Harkness writes: Enclosed is a check for my dues. Keep up the good work. Since I have been retired for 19 years I don't recognize most of the names in the newsletter.

Shirley Hidalgo writes: Is the $10 per year still the amount for the yearly dues? If this is not correct you can call me. My internet is not working. I do have voicemail if you need to leave a message. I enjoy the newsletter. Thanks for what you do.

Betty Hudner writes: I wish to cancel my membership in the USGS Retirees' organization. Thank you very much.

Mildred Jackson writes: Please know that my address is now (*reference change of address in Directory article*).

Bob Jarrett writes: Since retiring, I've taken up ballroom dancing with weekly lessons at local senior center. Continue to run mountain trails and local neighborhood parks and bike paths adding alpine skiing in the winter (Nov-May). Travel has been nearly monthly somewhere in the US and Canada. Volunteer work including assisting emergency managers with post-flood documentation in the 2012 Waldo Burned Area as well as natural flooding. This led to substantial consulting work making indirect flood measurement (150+) following the September 2013 Colorado Front Range Flood, one of Colorado's worst floods and providing technical guidance with updating flood-frequency estimates for the 2013 Flood area and downstream. Much of this effort continued quantifying the reliability of the critical-depth method for computing peak discharge in mountain rivers, which is extremely cost effective ($250/site) and providing results within 1-2 days of field work.

Don Jorgensen writes: Travel, work on my Missouri River property and promote Celebrate Recovery.

Bob Joseph writes: I'm sure I'm late on my dues, this should get me caught up.

Bob Knutilla writes: We will be moving March 30th to Michigan (*reference change of address in Directory article*).

Matt Larson writes: I retired from the USGS in 2014, after 30 years of service, spent in Menlo Park, Puerto Rico, and ending in Reston. I wasn't as smart as most WRD retirees, so I took another job, as director of the Smithsonian Tropical Research Institute (STRI) in Panama. I oversee 420 staff and tropical biological research program. The work is rewarding, exhilarating, and challenging, and I describe this phase in life as "reincarnation, except I didn't have to die first". STRI has 30 staff scientists and 85 research associate collaborators who come from around the world. This combined talent produces one peer-reviewed scientific publication about every 20 hours on average (about 400 per year), so I am in a constant learning mode. We have scientific visitors (undergrads, grads, and postdocs, plus researchers) from 50+ countries around the world, who spend months to years conducting research in Panama via our Smithsonian facilities. All the youthful enthusiasm for science keeps me young! When not working, I am still playing music (acoustic bass, ukulele), a mix of folk, blue grass, jazz, and plenty of good musicians regularly pass through STRI so I am keeping in practice. I plan to stick around here for a while [at least until a certain resident of Washington, DC has moved on], so come on down and visit! Contact info below, also: mclarsen.33@gmail.com

Dave Madril writes: I noticed by the mailing label that I was delinquent in my dues and I do apologize. Enclosed you will find a check for 2018 and 2019 dues with the balance for you to use as you wish. As with many people aging I find new ailments once in a while. Originally diagnosed with inoperable and incurable hepatocellular carcinoma of the liver I have undergone and continue to undergo experimental treatment which has thus far shrunk 95% of my tumor. Certainly, a good sign so I continue to enjoy the good life while I can. The other ailments are just bothersome and I'm fortunate to have 2 of the finest medical facilities in the Pacific Northwest here in Billings, MT. I continue to volunteer at least 3 days a week with the Yellowstone Country Sheriff's Office and the Billings Police Department which for the most part makes me behave. I enjoy the interaction with people for the most part. I say that "for the most part" because I am authorized to write parking tickets one day a week and sometimes have to deal with some unpleasant people who have received a ticket or has had their car tagged for towing. Rather unpleasant at times for them but I'd be lying if I didn't say I got some pleasure out of it, especially for illegally parking in handicap parking areas. Life is good and on my off days I'm fortunate to be within easy driving distance of 3 National Parks of which I am very familiar as my last USGS assignment before retirement was with the Northern Rocky Mountain Science Center in Bozeman, Montana. A great place and way to end a satisfying career.

Randy Olsen writes: Post-retirement 2 mornings a week part-time job with Boulder County (Colorado) Parks and Open Space. I made a 3-dimensional map model of Boulder County for display in their lobby. A video of making the map is on Youtube: https://www.youtube.com/watch?v=j2rxxcpTMM8

Deb Parliman writes: Enclosed is a check to cover my dues for 2018-2020.

Terry Perkins writes: Enclose please find a check to cover my dues for 2018-2020. Thanks

Ed Pustay writes: Enclosed is my check for 2018 and 2019 dues. God Bless

Jim Putnam writes: Debi and I are enjoying retirement. We worked on a small addition to our home last years and are currently planning a kitchen upgrade. After the dust settles, we may plan some international travel.

Ron Rathbun writes: Enclosed are 2-years due, plus a little extra. Hope you can get the Scholarship Program going again. Enjoy the Newsletter. Thanks to all who put it together.

Chuck Robinson writes: Have a good reunion!

Ken Vanlier writes: Enclosed is a check for past and future dues, and whatever. Mary and I are doing okay. In August we will celebrated our 70th anniversary. Still enjoy the newsletter. Many thanks to those involved in its production.

Loyd Waite writes: I am enjoying retirement and am busy working with Little Prairie Bible Camp, Kiwanis Club of Rolla, our Church, and paying racquetball and tennis. We enjoyed a two-week tour of Israel. Thank you for your good work producing the Retirees' Newsletter. Enclosed are my dues for 2015-2018.

Ann Whetstone writes: Please note the change of address for Clara Whetstone (*reference change of address in Directory article*). Mother greatly enjoys your publication, though of course she knows fewer and fewer people. She is, however, in touch with the few she knows well – John Musser, Ray Cummings, Dottie Geurin, and Ann Averett. She is doing well for 96. Reads mystery books and is fairly mobile. Thanks for keeping her in touch.

Rod Williams writes: My last newsletter address had a "2015" on it so I'm enclosing a check that will cover my dues for 2 or 3 years. Please take me off all your mailing lists, as I no longer see many names I recognize. Thanks

Sandy Williamson writes: Still working in the boat business I started before retirement, www.wordboats.com, http://www.pontoonwest.com/ and http://www.wordyachts.com/ . Soon starting our land-yacht phase of life after Debbie retires in June with a 19ft. travel trailer behind our SUV visiting kids and grandkids in Omaha and Phoenix and family in CA seeing lots of national parks on the way including a few new ones to us.

RETIREMENTS

Nancy Alvarez has retired after 24 years of federal service. Nancy spent her first 8 years of federal service with EPA and the last 17 years as a hydrologist with the Nevada Water Science Center. She started with the Nevada Water Science Center as a grad student at the University of Nevada Reno. Nancy began her federal career with the EPA as an environmental engineer regulating hazardous waste from private industry. Her duty station with EPA ended up in Carson City at the Nevada Department of Environmental Protection office where she developed many lasting friendships with folks from that office. As is so common for many of us, Nancy began her time with the NVWSC as a student intern. She became a permanent employee upon her graduation from UNR with a master's degree in Hydrology/Hydrogeology in May 2002. Nancy's first assignment here was investigating phosphorus and sediment along the Carson River. With the experience developed from that work, Nancy began assisting the very large Lake Tahoe Interagency Monitoring Program which she took over management of shortly thereafter. Many folks don't realize how big a project LTIMP is and how much work is involved. A reason for that is Nancy was very good at managing the project and made it look easy. Managing this $400 to $850 K per year project required extensive coordination between field work, managing contracts with multiple labs and UC Davis as well as ensuring that the labs were following USGS QA protocols. Nancy also provided field training to over 20 people to ensure that consistent field methods were used for this long-term monitoring project. The project also required coordination of countless gages operated by two different USGS Water Science Centers and managing and quality assuring seemingly endless quantity of data collected every year. While doing this Nancy also assisted the cooperator (TRPA) with evaluating environmental thresholds and collaborated with statistical analysis of the long-term LTIMP data with external and internal partners. Nancy says she's most proud of helping create this long-term dataset that will be used well into the future by scientists, agency personnel and the public. We are very grateful for Nancy's tenure and long-term commitment to the LTIMP program. Most recently, Nancy was instrumental in helping to refine our understanding of the relation between algae growth in the Carson River and groundwater discharge to the stream. She found that some of the worst algal growth in the Carson River directly coincides with nutrient rich groundwater discharge to the stream and that nutrients are originating from anthropogenic sources. Although Nancy's remaining days with us can be counted on both hands, she will not be leaving us cold turkey. She has agreed to serve as volunteer to assist us with transitioning her projects and will continue to have an office here during this transition period. We are very grateful that Nancy has agreed to do this. Nancy has decided to retire so she can pursue personal interests and have more time to spend with her family. Nancy has been an integral part of the Northern NV Studies unit and her work here with the NVWSC will be missed.

-David L. Berger, Director, Nevada Water Science Center

Dave Anning retired on March 30, 2018 after 28 years with the U.S. Geological Survey. Dave's career with the USGS began as a student in 1990 with the AzWSC in Tucson while he was attending the University of Arizona. His first assignment was to look through an entire hallway of archive boxes in search of sediment data as part of the Puerco River Project. After Dave graduated in May 1991 with a B.S. in Geosciences, he was hired by the AzWSC as a fulltime employee for the Tucson Field Office where he operated a subsidence monitoring network. In 1995, Dave switched to water-quality and NAWQA, helping collect surface-water samples for the Central AZ Basins Study Unit. Dave eventually led the operations and data analysis for the CAZB network and continued with the NAWQA program for the rest of his career. Through NAWQA, Dave has been involved in investigations of salinity in surface and groundwater resources of the Southwest, and nitrate and arsenic in basin-fill aquifers of the Southwest. These studies eventually led into working on the NAWQA national SPARROW modeling team, developing a national model of dissolved-solids transport and several regional SPARROW models. Alongside Dave's NAWQA work, there have been many other investigative studies that Dave has either led or worked on. These include estimating water use in AZ, determining the uncertainty in streamflow and reservoir content data for monitoring sites on the Lower Colorado River and Verde Rivers, classifying hydrologic basins in the Southwest, characterizing groundwater availability near Kingman AZ, characterizing salinity sources and conditions for the Colorado River Salinity Control Forum, and characterizing brackish groundwater resources in the United States. In addition, Dave completed his M.S. in Hydrology from the University of Arizona in 2002 while working full time for the USGS. Over Dave's career, he was an author on many reports and journal articles that provided critical information to the public about water resources, including 3 professional papers. Dave will be missed by the AzWSC and everyone who has had the pleasure of working with him. His thoughtful nature and innovative thinking will be a loss for the USGS.

Todd Augenstein will be retiring on April 28, 2018. Todd has been the long-time programmer for Aggregate Water Use Database (AWUDS) and the Site-specific water use database (SWUDS). He will be sorely missed when he is gone!

David M. Bjerklie retired on February 28, 2018. Dave's earliest work with the USGS was as a cooperator, when he worked for the Androscoggin Valley Regional Planning Commission based in Auburn Maine in 1981. They were a cooperator of the USGS on a regional MODFLOW groundwater model for the towns of Oxford, Mexico, Rumford, Norway, Paris, and South Paris. Dave was out with a USGS drill rig logging drill holes -- mostly clay, then sand and gravel, then till/bedrock. Every hole the same – the rig was run by Augie who some may remember, and the lead hydrologist was Dan Morrissey. Dave moved to Alaska in 1982 and worked seasonally for the BLM flying into areas of the Gulkana River Basin collecting samples and measuring flow. While still in Alaska, he worked directly for the USGS in a temporary capacity in 1986, again on a groundwater study of the aquifer situated between the Chena and Tanana Rivers in and around Fairbanks. Again, he logged holes, this time silt underlain by coarse gravel pretty much everywhere, and then worked with Richard Kemnitz surveying the coordinates for over 70 boreholes. Between 1986 and 1999, Dave worked in consulting and was contracted to do work for the Forest Service and the Navy in Alaska and Washington State. This work led him from a Navy radar base on Amchitka Island in the Aleutian Chain, to the forests of Southeast Alaska, up to the oil fields of the North Slope - and all along the way he relied on USGS reports for the most basic of hydrologic information and got to know USGS hydrologists in all of the various offices. Dave officially joined the USGS in Connecticut in December 1999 as a PhD student, starting out working 30 hours a week and within a couple years became a full-time employee. His first job was to complete FEMA flood studies surveying and mapping 14 rivers with Liz Ahearn as the lead and supervised by Greg Stewart. Work has taken Dave all over New England, completing hydrologic models mostly in New Hampshire with Joe Ayotte, estuary flooding studies, modeling of groundwater rise in response to sea level change with John Mullaney and Brian Skinner at Yale, and he has done many flood and indirect measurements. Dave is fortunate to have been involved and worked with great scientists in the USGS around the country on watershed modeling and remote sensing of lakes and rivers. He says it is great to see the New England Water Science Center growing with a lot of new staff, as too many of us are getting a bit slower of foot (but not of mind). There are great scientists working in the Water Science Center with a lot more to contribute, and the work and skills of everyone seems to just get better and more rigorous all the time. Dave will be a volunteer Emeritus Scientist in the near term working on some reports/papers following his February retirement.

Craig Bowers retired after 28 years with the USGS on March 30, 2018. Craig began his career with the USGS in the fall of 1990. Prior to working for the USGS, Craig had been working for the U.S. Forest Service, as a hydrotech in the Wenatchee National Forest but jumped at the chance for a "real job" in the USGS Twin Falls, Idaho field office. Craig spent eight years in Twin Falls working regular field runs for groundwater and surface water and any other projects that came up. He eventually became one of the primary surface-water sample field technicians for the Upper Snake River NAWQA study unit. In 1998 Craig moved to the WY-MT WSC in Helena, MT as the lead technician for the Northern Rockies NAWQA study unit. After NAWQA, Craig moved into the studies section and began working on a wide variety of water quality projects and authored or co-authored several water quality reports. Craig was instrumental in establishing a real-time water quality network and did a hitch as safety officer. During his tenure as safety officer, Craig and his field crew received a DOI-wide award for developing and implementing safety protocols for processing volatile petroleum-laden water samples. Since 2008, Craig has been water-quality database administrator. Craig's easy-going demeanor and willingness to accept new challenges made him the go-to expert for all-things related to WQ sampling and database management. His sense of humor, easy-nature, and expertise will be missed by everyone and we hope he enjoys many years in retirement.

Lynette Brooks retired on March 31, 2018 after 29 years with the USGS. She began her career with USGS after a lucky encounter with Joseph Gates (Former Utah District Investigations Chief) on a hike in the Wasatch Range in the summer of 1988. Her first project involved a groundwater model, and she has only worked on one project that was not a groundwater model in her career. She has gone from using Arc Macro Language and Fortran to using Python to pre- and post-process model data. She has developed 11 groundwater models,

including an update for the model for which she was hired and the Great Basin carbonate and alluvial aquifer system covering 110,000 square miles. At the Utah WSC, she took the lead in bringing sensitivity and regression techniques into all Utah models and she mentored other GW modelers at the beginning of their careers. She has also provided numerous peer reviews of modeling reports for other centers, and on occasion provided advice on scientific ethics within the Utah WSC. Lynette has already moved to her retirement location in Hawaii and is paddling outrigger canoes and attempting to boogie board. She will soon be involved in building their home, planting fruit trees, and trying to keep pigs and chickens out of the vegetable garden.

Bret Bruce, the Deputy Program Coordinator for the Water Availability and Use Science Program, has decided to retire on March 30, 2018. After completing his undergraduate degree in Geology at the University of Maine (1981), Bret spent about 8 years working in the private sector including the Rocky Mountain oil fields and environmental consulting all across North America. Bret joined the USGS in 1989 as a coop student in the Wyoming district in Cheyenne while completing his Master's degree in Geology/Water Resources at the University of Wyoming in Laramie. Some memorable projects at the Wyoming District included a water-quality assessment of Teton County – hiking through the national parks, assisting in the collection of ice cores from the glaciers at 13,000 feet in the Wind River Mountains, and working on F.E. Warren AFB. Upon completion of his graduate degree (1992), Bret was converted to a full-time USGS employee and moved to the Colorado District to be part of the South Platte NAWQA team, focusing on groundwater quality. The South Platte team also eventually took on the coordination of the High Plains Regional Groundwater Study and logged significant windshield time traveling to every corner of this 8-state aquifer system. From 2002-2007 Bret served as the NAWQA Project Chief for both the South Platte and High Plains projects. In 2007 Bret accepted a position in the Regional Hydrologist's office in Denver first as the Central Region Assistant Program Officer ("CRAPO") and later acting as the Regional Groundwater Specialist. As the USGS management structure evolved over the years Bret served in various incarnations of regional staff scientist positions helping promote regional science opportunities across the Rocky Mountain region and the southwestern US. In particular, the work coordinating a water-availability assessment in the Colorado River Basin stands out for Bret as a fantastic personal and educational experience. Salted into this timeline, Bret was also able to sneak in a small amount work with the USGS International Program which took him to Europe, Chile, Japan, and the Bahamas. Bret is finishing off his USGS career as the Deputy Program Coordinator for the USGS Water Availability and Use Science Program. Bret, and his wife Nancy, plan to remain in Colorado for the foreseeable future and move up to their rental property in Longmont (plenty of home improvement projects to do there). There is a good chance folks on the "Front Range" in Colorado might run into them skiing through the woods or on some mountain top. Bret will take a little break from the water world but might consider using his experience and connections to stay involved in water issues – particularly in the Colorado River Basin or in international locations that tickle his fancy. Bret's enthusiasm and vision will be greatly missed by the WAUSP and the WMA but we wish him well on his new adventures...congratulations Bret!

Rob Carruth, Hydrologist from the Arizona Water Science Center, retired on March 30, 2018 after 31 years of dedicated service to the USGS. After a year as a student volunteer, Rob joined the USGS Arizona District in 1987 shortly after receiving a B.S. in Hydrology from the University of Arizona (1987). His early career focused on a diverse collection of groundwater-related projects where he made significant contributions toward the understanding of the hydrogeology of the Basin and Range Physiographic Province with an emphasis on alluvial aquifer systems. Not content with having a singular focus on the alluvial aquifers of southeastern Arizona, he also studied the deformation of sandbars due to fluctuations of flow of the Colorado River in the Grand Canyon.

Particularly impressive was Rob's ability to work well with USGS colleagues and scientists in other agencies, as well as with partners having a wide range of technical knowledge. This ability was evident in the relationships he built with Native American Tribes which were cultivated into long-term meaningful friendships and collaborative projects that continue to serve these underserved communities today. His drive to serve underserved communities, as well as his propensity to search out adventures, brought him to Micronesia in 1995 to run the Saipan Field Office for the USGS Hawaii District. Rob spent 11 years in Micronesia conducting water-resource studies describing the occurrence and availability of water resources on the islands of Saipan, Rota, and Tinian, of the *Commonwealth of the Northern Mariana Islands.* Rob also conducted studies and oversaw USGS data programs on Guam, islands of the Federated States of Micronesia, and the Republic of Palau. His efforts resulted

in the first published report with a complete water-level map of the island of Saipan, a report that documented the island's freshwater resources. His knowledge of the hydrogeology of Saipan is unique to the USGS and continues to be sought out. Family ties drew him back to Tucson, Arizona in 2006 where he rejoined the Arizona Water Science Center and his work related to the hydrogeology of alluvial aquifers. This time he added aquifer-storage change measurements using temporal gravity measurements to studies of alluvial aquifer systems. These investigations of combined subsidence and aquifer-storage change are some of the most comprehensive investigations of their type in the country. His return to Arizona also gave him an opportunity to rekindle his relationships with several Native American Tribes and conduct numerous investigations to help serve these communities. Rob has made an indelible mark on the USGS, the lives of many in underserved communities, and the scientific understanding of Arizona's and Micronesia's water resources. All of us wish every happiness and hope to see him occasionally as an Emeritus volunteer.

Melanie Clark retired after 32 years working for the USGS on March 30, 2018. Melanie began her career on a student appointment in the Iowa District. She moved to Reston in 1990 to work on the National Water Information System program. After Reston, she attended Colorado State University under the USGS graduate school program. In 1994, she relocated to Cheyenne, Wyoming, where she has worked on a variety of water-quality projects and has served as the Center water-quality specialist. Melanie worked nationally on the Water Mission Area's water-quality data systems for the Office of Water Quality and Laboratory and Analytical Services Division. Melanie's expertise and sage advice will surely be missed within the WY-MT WSC. Melanie plans to remain in Wyoming and will do some volunteer work for the USGS but is looking forward to enjoying more time with friends and family and traveling.

Frank Crenshaw retired after 30 years with the USGS. After serving 8 years in the USAF, Frank joined the USGS in May of 1988 as a "computer clerk" while in school at Colorado Mesa University (CMU), Mesa, CO. It was supposed to be a two-year term appointment. In 1992 the NWIS II effort began and with that came a significant increase in site administration needs. Upon Franks graduation from CMU in 1993, he was hired by the Colorado District to be the computer specialist in the Grand Junction Office. In 1997, Frank and Bob Boulger worked to produce the very first version of PCFF. After some in office testing it became clear it was a very useful tool. PCFF went national in 1998 and has continued to evolve over the years. Some 20 years later, PCFF is still around. Not bad for a little program that sprung from a lunch conversation. In retirement, Frank intends to spend more time traveling and being with his family, mountain biking, hiking, skiing; and generally, enjoying the outdoors of Western Colorado. He has already purchased his ski pass for next year....

Judith M. "Judy" Denver retired on March 3, 2018 after 38 years of service, spending her entire career in the Dover, Delaware Office of the Maryland-Delaware-DC USGS Water Science Center (MD-DE-DC WSC). Judy graduated from the University of Delaware with a BS in Geology before accepting employment with the USGS in 1980 and later earned an MS in Geochemistry from the same institution. Judy leaves the Delaware Office with a stature likened to those mentioned in the USGS Retirees Newsletter number 176, August 2017, article entitled "A Small USGS Office With A Large Impact on USGS". Those mentioned in the article, Werkheiser, Guertal, Weyers, Leahy, and Paulachok, started as scientists and grew into high-level USGS Bureau managers. Judy began and mostly stayed in a science track, making significant scientific contributions during her career. In addition, she supervised and mentored many younger colleagues in USGS field and investigative techniques and report writing while showing a strong interest in the lives and well- being of all her colleagues. In 2017, Judy received the Meritorious Service Award of the Department of the Interior for years of work linking geochemistry to hydrological processes. She made major advances in understanding how shallow groundwater and surface water quality in the Atlantic Coastal Plain are influenced by hydrogeologic conditions and land-use practices, especially agricultural practices. She did many studies in the Delmarva Peninsula, where she made significant scientific contributions in the NAWQA Program and also led the combined Potomac Basin-Delmarva NAQWA Study Unit. These NAWQA studies eventually resulted in her involvement in regional investigations in Coastal Plain settings from North Carolina to New York. Judy was especially known for identifying distinctive chemical signatures in ground-water affected by agriculture and for using geochemical age-dating techniques to map residence times in the shallow groundwater to relate water quality patterns to changes in agricultural practices over decades. She also did a lot of important work on wetlands and soils and how they influence shallow groundwater quality. Judy was also a great collaborator, teaming up with researchers from

USGS, other agencies, and academia on many reports and journal articles. Many people from state agencies and agricultural and wetland interest groups sought her out for her rich understanding of water quality patterns in groundwater and surface water. Many of these partners attended her retirement reception and gratefully recounted what they learned from her and how they enjoyed working with her. In the future, Judy plans to keep working as an emeritus to finish some scientific work, but will spend most of her time with her husband, Steve and their family, going to the beach (only a short hop from their home), sailing, working in their garden, and traveling to familiar places and new destinations. We wish Judy, Steve, and family a happy and healthful retirement. Writer's Notes: In early 1980, Judy decided to accept a USGS job and like most of us retirees, got hooked on the USGS as a life-long career. We (Herb, Jim, Bob) greatly benefited from that decision as District Chiefs/ Water Science Directors during her career. She made our jobs easier, interesting, and fulfilling. Thanks for the great ride.

-Herb Freiberger, Jim Gerhart, Bob Shedlock

W. Fred Falls retired on February 28, 2018 after 28+ years with the USGS in South Carolina. Fred began his career with the USGS in January 1990. Over the years, Fred has worked on several groundwater and water-quality investigations including Trans-River Flow, Georgia Sound Science Initiative, NAWQA, BMP research, Bridge Deck Runoff and Culvert Assessments, and Water-Use Compilation. Many of these projects required Fred to work nights and weekends collecting, processing, and analyzing data; Fred approached these tasks with a smile and no complaints. Always ready to help and to contribute to the Center, Fred also was responsible for a field trip for the Data Section. In addition, Fred has done an excellent job as Chemical Hygiene Officer and, for the past two years, as Safety Officer. Fred is known throughout the South Atlantic Water Science Center for his upbeat personality, can-do attitude, and his genuine desire to help others. Fred indicated his plans for retirement are to spend more time with his wife and two sons, and potentially get a part time job to preserve his wife's sanity. Fred closes his USGS career as one of the most-respected members of the South Atlantic Water Science Center. Please join me in congratulating Fred on a great career and wishing him the best in his next chapter of life.

-Chad Wagner, Associate Director for Investigations | South Atlantic Water Science Center

Sarah M. Flanagan retired on February 28, 2018 after 33+ years with the U.S Geological Survey (USGS). Soon after receiving her B.S. in Hydrology from the University of New Hampshire in 1982, she began her USGS career working at 150 Causeway Street in Boston, Massachusetts in March 1984. Her first projects included working on an acid-rain study in Princeton, MA with Fred Gay and on a water-quality study of the Quabbin Reservoir watershed with Gerry Giraud. In 1986, she transferred back to her home state of New Hampshire to begin work on a state-wide glacial aquifer mapping project, known as the 'bond studies'. Sarah learned to do a wide range of field activities for this project, from installing monitoring wells for sampling to conducting seismic refraction surveys with real explosives. More than a few cows have been rumored to take off running in the fields and safety tarps have gone flying into the sky after Sarah set off some big-time blasts in the ground to get the 'noise' needed for the seismograph! Sadly, the 'bond-study' era had to end, and so Sarah had to find something else to do. So, in 1995, she heard that a new water- quality program, called NAWQA, was going to begin in New England and was assigned to the New England Coastal Basins National Water-Quality Assessment Program study unit. From 1997 to 2007, Sarah worked full time on this study and assisted mostly with designing and sampling several groundwater networks. During her NAWQA duties, she sampled hundreds of wells and authored or co-authored a series of scientific investigations reports on groundwater-quality conditions of New England aquifers in concert with the NAWQA program. In between NAWQA studies, Sarah assisted on many local cooperative projects about arsenic and MTBE in private and public wells in New Hampshire. Since 2003, Sarah has been assisting with the National Training Center and Office of Water Quality in teaching dozens of technicians and hydrologists across the country the techniques of sampling groundwater wells in the QW Field Methods Course. As many of Sarah's former students will remember, it is all about the purge (of well water, that is)! Sarah lives in Allenstown, NH. As a volunteer Emeritus Scientist, Sarah plans on creating a smooth transition of her current projects to other staff. Sarah is looking forward to more time in retirement to pursue volunteer activities and to plan some vacation trips that don't involve sampling wells!

Alan Flint retired after 35 years of government service. Alan joined the USGS in 1986, fresh out of a Soil Physics PhD program at Oregon State University with a minor in micrometeorology, where he established his career-

long approach to doing science using both measurements and modeling. He lived in Las Vegas and traveled out into the Mojave Desert each day to study the unsaturated zone and evaluate the suitability of Yucca Mountain as a high level nuclear waste site. After 10 months on the job, he became responsible for 20 contractors, a USGS hydrologic technician, and three on-site studies; infiltration, regional meteorology, and rock matrix hydrologic properties. He also developed extensive field monitoring programs, underground tunnel experiments, and a state-of-the-art hydrologic laboratory. In 1997, Alan moved to the California Water Science Center. He also continued working with the National Labs to estimate fluxes through Yucca Mountain. After 14 years of studies and many public, congressional, and other high-level tours and presentations, Alan and his colleagues provided scientific conclusions indicating that flux rates through the unsaturated zone were higher than had previously been assumed. Alan continued to conduct regional studies in the Mojave Desert and Great Basin, characterizing arid environments, measuring evapotranspiration, and estimating recharge. Along the way, he became an expert in 3-D unsaturated flow and transport modeling in deep and shallow unsaturated zones. As part of a southwest recharge project in 2004, Alan developed a regional water balance model to characterize basins across the southwest. The Basin Characterization Model (BCM), which employs a mathematical deterministic water-balance approach to estimate in-place recharge and runoff in a basin, has evolved over the last 13 years to be applied across the southwest US, the Tigris and Euphrates River Basins, Brazil, and Central America. And Iowa! Starting in 2011, Alan developed a technique for downscaling climate data to fine spatial scales for application to the BCM at 270-m resolution and used his approach to downscale and apply future climate projections. This fine-scale modeling, along with calculations of climatic water deficits, has resulted in fruitful collaborations with landscape ecologists and other scientists across the west. Alan has provided expertise and friendship to many colleagues over the years and has been a dedicated USGS scientist and mentor. His retirement will give him more time to be a wonderful grandpa, continue his woodworking, and play with the Golden Retrievers. And, we are happy to say, he will continue his friendships and mentoring as he stays on as Scientist Emeritus and continues to be active in the environmental community.

Dorrie Gellenbeck retired on March 31, 2018 from the National Water Quality Laboratory. Dorrie has been with the USGS for 30 years and has been dedicated to serving the public. Dorrie began her career as an undergraduate student in the Tucson office while getting her B.S. and M.S. degrees in Hydrology from the University of Arizona. She worked on several groundwater-quality projects in Arizona including assessment of acid mine drainage in Globe, Arizona, and evaluation of sources of nitrate contamination in groundwater in the Phoenix area. Dorrie also served as the groundwater-quality specialist for the Central Arizona Basins NAWQA. In 1999, Dorrie and her husband moved to Denver, Colorado, where she became the water-quality technical lead for the National Water Information System Program (NWIS). She advanced to become a project manager for NWIS. Along with 10 years of successfully leading NWIS-QWDATA updates and participating with the Phoenix Water-Quality User Group, she led the project team that transitioned NWIS from Ingres to Oracle database technology. Dorrie also managed the NWIS modernization project to produce a single national aggregation of distributed NWIS data. For the past few years, she has been leading the effort to implement an upgraded laboratory information management system at the NWQL, applying her knowledge and experience from field work and NWIS to manage the project for the NWQL. Dorrie plans to remain in Denver with her family and spend more time with her son and husband on grand adventures around the world.

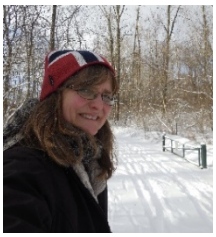
Eleanor (Ellie) Griffin, a Research Hydrologist in the WMA and formerly the NRP office in Boulder, CO, retired on March 31, 2018. Ellie completed her undergraduate education at the U.S. Military Academy, West Point, NY, as a member of the first class with women (1980). In 1992, after serving 5 and 1/2 years as a communications-electronics officer in the U.S. Army and 7 years as a communications system engineer with GTE Corporation, Ellie decided it was time to figure out what she really wanted to do with her life. In 1993 she quit her job and moved to Colorado to study geology at the Univ. of CO (CU). That spring, a fortunate discussion with a professor connected her to Jim (J. Dungan) Smith, who offered her a position with his NRP project conducting research funded by the Glen Canyon Environmental Studies. This project not only provided a topic for her master's thesis, completed at CU in 1997, but also provided an opportunity for several field adventures in the Grand Canyon and nearby 4 Corners area. Under this project, she was privileged to be introduced to the fields of geomorphology and sediment transport by Drs. Smith, Stephen Wiele, David Topping, and Kirk Vincent. A major component of Ellie's master's research was the use of a GIS to extract topography for modeling flow in the Colorado River through Grand Canyon. Building those skills led to opportunities for interdisciplinary research investigating the effects of woody vegetation on channel and floodplain flow and stability with Kirk Vincent, Jonathan Friedman,

and others from the Fort Collins Science Center. After integrating various forms of spatial data including aerial and satellite imagery, GPS survey data, and topography derived from aerial lidar surveys, she applied physically based 1D models of flow and sediment transport to gain an understanding of the processes that led to observed geomorphic changes. This interdisciplinary work addressed issues such as: vulnerability of the Clark Fork floodplain in the Deer Lodge Valley, MT, an EPA superfund site, to erosion; effects of woody vegetation in protecting East Plum Creek, CO, floodplain surfaces from erosion during a large flood; and the role of woody vegetation in the processes of arroyo filling in northern New Mexico. Ellie is sincerely grateful to have had the opportunity to work with an exceptionally fine group of people at the USGS, including scientists and support staff, particularly at the USGS Boulder and Fort Collins offices. Her plans for retirement are not yet fixed, but the nice thing is, they don't have to be!

Dave Hartle has retired. After graduating from Northern Arizona University, Dave began his government career in 1987 with the National Park Service. In 1991, he was hired by the Colorado District to be a Hydrologic Technician in the Grand Junction Office, CO. While a full time Hydrologic Tech., Dave has also been the Grand Junction Office's collateral-duty Safety Officer for the past 14 years. He has ensured a safe working environment for all his coworkers, who have avoided any significant safety problems during that time. So many have had the pleasure to work with him over the years. Dave's exemplary work ethic, positive attitude, fresh garden veggies, and stream wading prowess will be sorely missed. The road ahead for Dave means sharing more experiences with his family, having the time for his green thumb to reach full potential, yet more hiking and skiing around Western Colorado, as well as rafting peak flows unencumbered by annual leave requests.

Nancy Hornewer retired on March 30, 2018 after 28 years of service with the U.S. Geological Survey. Nancy will hang up her pfd and her favorite D-49 sediment sampler! Nancy began her career with the USGS in 1990 as a student in Madison, WI where she worked on a variety of storm-water runoff projects around Madison and in the Upper Peninsula of Michigan. In 1995 Nancy transferred to the Illinois District Office. In Illinois, she worked on a pilot study for the Metro Water Reclamation District developing a method to prevent stratification in sewage basins using a course bubble air diffuser. It is unclear if Nancy knew she would be working in sewage basins when she made the decision to transfer to Illinois. In 1998 Nancy decided to venture out West to work on sediment studies in the Colorado River Basin out of the Flagstaff, AZ office. Over the next 20 years Nancy led the Grand Canyon Project to pursue sediment and flow studies in the Colorado River Basin on the Colorado River and its tributaries throughout the Grand Canyon area. She has planned many missions through Grand Canyon, developed robust and redundant data collection systems, and collected untold numbers of sediment samples. Nancy has been incredibly successful in fostering close working relationships with Grand Canyon Monitoring and Research Center (GCMRC), National Park Service, Tribal entities and other regionally important cooperators and stakeholders. Nancy plans to stay in the Flagstaff, AZ area and take time to enjoy the great recreational opportunities and beauty of the area. She also plans to travel and spend time with family.

Noel Hurley retired on March 31, 2018 after nearly 33 years with the USGS in South Carolina. In 1985, Noel began his Federal service when he was "in the right place at the right time" and happened to stop by the USGS office in Columbia to ask about jobs and was hired on the spot as a Civil Engineer. His career began working on floodplain delineations and then was ahead of his time as he transitioned into some multi-disciplinary science by applying hydraulic models to simulate the movement and dispersion of Striped Bass eggs in select rivers of South Carolina. In 1990, Noel became the project chief of the initial bridge scour investigation in South Carolina and set the course for an extremely productive program that after 25+ years is still active. Looking for a new challenge, Noel moved into the world of leadership in 1992 as the Hydraulic Systems Analysis Section Chief. After excelling in that position for 5 years, he was selected as the Chief of the Hydrologic Investigations Section and Assistant District Chief in the South Carolina District in 1997. He held that position for 13 years until becoming the Assistant Director for Studies in South Carolina with the formation of the South Atlantic Water Science Center. During Noel's career, the South Carolina District/Water Science Center/South Atlantic Water Science Center has flourished in large part because of his strong leadership. Noel's career with the USGS has been characterized by leadership, inexplicable dedication, and the utmost integrity, that have earned him the respect of his colleagues and cooperators of the USGS. As a retiree, Noel plans to spend a bit more time in his garden, in the woods hunting, and be at the beckoned call of his talented wife to help with her catering business.



Martha Jagucki is retiring on March 30, 2018 from the USGS Ohio-Indiana-Kentucky Water Science Center after 28 years! Martha was born in Dallas, TX and attended Trinity University in San Antonio (B.S. in Geology), and Ohio State University (M.S. in Geology). She worked for an ENSR environmental consulting firm for 2.5 years in Dallas, TX and Minneapolis, MN where she tracked VOC plumes from leaking underground storage tanks using a portable gas chromatograph, implemented hydrologic studies, and did environmental audits of industrial properties prior to sale. Upon moving from TX to MN, Martha was very surprised to learn that field work continued on through the winter there, but once properly outfitted by her coworkers in Carhartts and snow boots, Martha became a big fan of MN winter sports. Martha joined the Columbus, Ohio office of the USGS in 1990, working primarily as a project chief of groundwater-quality studies. Her first study was a regional project called the Management Systems Evaluation Area, where university and USGS folks in several Cornbelt states collaborated to evaluate the effects of various farming practices on the fate and transport of agricultural chemicals. For 23 years, she has worked with Geauga County in northeastern Ohio, operating (with the help of technicians) a groundwater-level network to assess the effects of development on groundwater quantity and periodically evaluating changes in groundwater quality. Martha was the primary author of numerous fact sheets for the NAWQA-TANC (Transport of Natural and Anthropogenic Contaminants to supply wells) program (2007-2013) and co-author of the program circular. Recently she has ventured into surface water-quality studies, co-authoring a report on the baseline water-quality of an area undergoing shale-gas development in Ohio. Since 1997, Martha has had a love-hate relationship with archiving in her role as the Archive Coordinator for Ohio (beware being the test-case for any new procedure). She was part of the team that updated the Mission-Specific Disposition Schedule for water-related records in 2006, created the original Water Resources Division Scientific Records Management web page, and has done project archive training for Ohio, Pennsylvania, and Michigan Water Science Centers. After retirement, Martha plans to visit every national park (leaving for Big Bend and Guadalupe Mountain National Parks immediately after the retirement party!). She also plans to volunteer in the Columbus City Schools “reading buddy” program, and other programs that involve interacting with people rather than sitting at a computer. You may also see her working as a seasonal employee at a local plant nursery to fund her gardening hobby or enjoying local points of interest on “explore Columbus Fridays”.

Matt Johnston retired on March 30, 2018 with almost 28 years of service with the USGS. Matt spent his entire career at the Oregon Water Science Center, Portland, OR starting as a GS-4 technician in 1990 fresh from graduating from Oregon State University. His knack for developing innovative solutions was recognized early in his career when he was asked to be the lab manager and efficiently implemented a digital equipment checkout procedure on the Prime computer. Matt was responsible for installing water quality monitors and reviewing and storing the continuous water quality data in NWIS for many of the early studies using monitors in Oregon, such as on the Tualatin River. When the U.S. Army Corps of Engineers needed real time total dissolved gas data to insure dam operation maintained healthy gas levels in spill water, Matt was instrumental in developing the program and later writing scripts to send warnings when gas levels were unhealthy. He developed other applications for the Center staff to display and evaluate real time water quality data for checking the function of sensors in the field. Oregon and other Centers benefited from his programming prowess, including his “yearend” toolkit for creating packets of documentation for water-quality monitors. Matt was informally awarded the Churn Spigot Modification Award by the Office of Water Quality for designing a replacement for a metal spring in churns which could contaminate water samples. In 2014, Matt became the team lead for technicians in the Studies Section at the Center. While supervising and mentoring others, Matt continued collection of high quality data and addressing innovative solutions for field equipment and processes including developing a power saving device to reduce power failures at a cold weather National Acid Deposition Program site; creating an automatic water quality pesticide sampling system to solve power, sampling cooling, sample collection reliability, and user interface challenges; and conversion of a manual laboratory de-ionized water system to a self-regulating system which monitors water levels and temperature in the tanks and automatically fills tanks when needed. Matt has been an amazing employee who excelled at water quality data collection, processing, and instrument troubleshooting and design. His calm demeanor, helpful attitude, and wonderful work ethic was appreciated by all who worked with him. He’ll remain in the Portland area in retirement to spend time with family, on house projects, fixing up old cars, and attending and participating in car racing events at Portland International Raceway.

Joseph 'Joe' Joyner retired on March 30, 2018 after 30 years of federal service. After graduating from Star Technical Institute of New Jersey and serving in the U.S. Marine Corps Reserve as a Cartography Technician at Willow Grove Naval Air Station near Philadelphia, PA. Joe began his career with the USGS in 1988 at the West Trenton, NJ Data Section as an Electronics Technician. In 1992, Joe was cross trained and converted to the Hydrologic Technician series and operated the Southern New Jersey Surface Water and Groundwater Field Trip. In 1994, Joe accepted a position in the Nevada Water Science Center in Carson City, NV and moved his growing family across the country. In 1996, he joined the Western Region Technicians Advisory Committee (WRTAC) and served as secretary. He worked alongside high caliber committee members such as Al Caldwell, Chad Smith, and Annette Campbell, just to name a few. This committee's accomplishments included helping to change the Hydro Tech Series full performance level from GS-9 to GS-11. This group also pushed to involve senior technicians in Surface and Ground water reviews. In 2001, Joe accepted the position of Collateral Duty Safety Officer for the Nevada Water Science Center. He reinstituted and chaired their quarterly safety meetings until present. Joe and his committee brought attention to safety issues that resulted in bureau level action regarding coating Columbus weights to minimize lead contamination and updating of the heat stress index in the Field Safety Manual. Joe's dedication to safety was recognized as one of the longest commitments to safety and was recognized with the Occupational Health and Safety Award of Excellence. As a retiree, Joe and his wife plan to spend more time with their five grown children and four grand kids. He will also be at the beck and call of his amazing wife to help with her child care center business.

Kyle Juracek is retiring after 27+ years from the USGS, after spending his entire career as part of the Kansas Water Science Center. Kyle began his career in 1991 as a Hydrologist and served as the GIS Specialist. Among his GIS accomplishments were development of the original version of the Kansas Department of Agriculture, Division of Water Resources, Water Information Management and Analysis System (WIMAS), still in use today, and several digital datasets including a statewide map of soil permeability and potential runoff contributing areas. He then discovered the wonderful worlds of sediment and fluvial geomorphology (the LOVE of mud!). His sediment studies included coring 30 different lakes in several States to investigate status and trends for nutrients, contaminants and trophic condition (using diatoms and cyanobacteria), continuous turbidity monitoring to estimate suspended-sediment loads delivered to reservoirs, and the use of chemical tracers to determine sources of suspended sediment to reservoirs. He also investigated legacy contamination from historical lead and zinc mining in stream and lakebed sediments, as well as floodplain soils in the Tri-State Mining District (Kansas, Missouri, Oklahoma). His fluvial geomorphic studies involved the use of aerial photos, streamgage information, and field work to investigate the effects of various natural and anthropogenic disturbances on river channel morphology. During his career he taught an upper level course on river systems at the University of Kansas and served on several thesis and dissertation committees. He was accepted into the RGE program in 2002 as a Research Hydrologist. In recent years he conducted studies on streamflow alteration with several colleagues. Since 2012, he has served as a USGS representative on the National Reservoir Sedimentation and Sustainability Team. During the past three years, he also served as a Supervisory Hydrologist and the WSC Reports Specialist. Kyle finished his career with more than 80 publications including papers in eleven different journals. He gave dozens of presentations at conferences throughout the U.S. and Canada. Kyle always approached USGS science with passion and a positive attitude in his service of science in the public interest. His ability to plan and accomplish the plan (with never a late report) is something we can all aspire to do! After retirement, he plans to stay on as a very part-time emeritus to finish up a couple things and continue to serve as the WSC Reports Specialist for a while. In retirement, he plans to enjoy family and work on a few home projects before resuming his quest to save the world in some yet to be determined manner. Please wish him well in his new retirement career and his increased time to enjoy family, Huskers football and Jayhawks basketball.

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

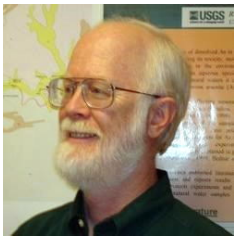
BettyJean (BJ) Lecrone retired on April 28, 2018 from the USGS. She began her career with the USGS as a GS-3 temp in 1980. She quickly found a home in the Chief Hydrologist Office under Phil Cohen as a full-time secretary. Although BJ enjoyed working in that busy office, she was fortunate to be accepted into the Upward Mobility Program within the Scientific Publications Section working on a project to record and manage the approvals of electronic publications. Due to the huge growth in technology at that time, BJ was able to write code, manage databases, and train employees on the Reports Tracking System. During that time period, BJ also graduated from George Mason University In 1991. BJ later changed her career path to become a System Administrator under the late Patrick Simmons on the National Water Information System (NWIS-II) project. In 1998, BJ transitioned to the Water Resources Division, Distributed Information System Unit, to work on the NWIS hardware and applications. At that time, BJ also provided workstation and server support to staff located in Reston headquarters. BJ enjoyed learning new technologies and the ability to be able to assist the users. In 2003, another opportunity arose for BJ to work for the Geographic Information Office in IT Security. At that time, security was beginning to become a major concern in the government. Shortly after she began her security journey, BJ earned a very challenging Certified Information Systems Security Professional (CISSP) certification. After 5 years of vulnerability management and reporting to the Director's office on security, BJ was lucky enough to return to Water as the Chief of the Systems and Support Unit for NWIS. Since 2012 that unit endured many shifts in duties and is now part of the Water Mission Area, Enterprise Technology Office. BJ and her colleagues still support the NWIS hardware and software. BJ has been part of and led a very dedicated team of professionals throughout her career. BJ's next phase is all about nature which is the foundation of the USGS. BJ is a certified Virginia Master Naturalist and has been working with Loudoun Wildlife Conservancy and Audubon at Home. BJ's passion is nature photography and planting pollinator gardens for herself and the local community. BJ will now have the time to help her wonderful husband, Brian, and Mother. In her spare time she will be investigating new opportunities for fun.

Dorene MacCoy retired on January 29, 2018 as a biologist with the IDWSC in Boise, ID. Dorene has been a biologist with the USGS for 30 years having started her career in the late 1980's with the California District. In California she worked on the Irrigation Drainage study in the Klamath River Basin researching pesticide impacts to biota and helping to develop pesticide solid phase extraction methods. She also helped develop innovative tracer methods on a South San Francisco Bay Non-point Source study. She collected, processed and analyzed water samples for the Sacramento Delta Pesticide Monitoring Study, and worked on both the San Joaquin and Sacramento NAWQA programs. In the late 1990s, she worked for the Washington District in Tacoma on both the Puget Sound NAWQA and in the Cedar River watershed developing an index of biological integrity for Seattle City Light. During that time, Dorene completed a detail with the Idaho District and was impressed by the efficiency and effectiveness of the Northern Rockies NAWQA sampling crew. In 1999, she was given the opportunity to work in Idaho as a biologist on the Boise River Water Quality Project. While in Idaho she was able to work on both the Northern Rockies and the Upper Snake NAWQA's as well as several water-quality and bioassessment projects. These projects included the Idaho Statewide Ambient Monitoring Project, the Owyhee River metals impact study, Salmon and Clearwater temperature study, Silver Creek water quality and biological trend monitoring, a Bull Trout recovery project in the upper Boise River Basin, and she was able to begin a trend monitoring program on the Big Wood River in south-central Idaho. She was also able to work on NAWQA surface water quality synoptics in the east, midwest, northwest, and California with teams of scientists from across the country. Dorene was also fortunate to be able to work on USGS national databases. She was the Idaho Water Science Center water quality database manager and implemented data checking procedures for the center. She was also on the development team and users group for the USGS national bioassessment database, BioData. What she really enjoyed was sharing her biological and water quality science skills with local and regional agency personnel, colleagues, and the public to help them better understand how to effectively measure stream health in order to preserve it for future generations. Dorene would like folks to know if you are ever in Boise and would like to go fishing or grab a beer or if you just want to catch up, please contact her at: Home email: brucemaccoy9175@msn.com Cell: 208-573-4650. We sure will miss her at the IDWSC and wish her the best in her future endeavors!

Mike Moreo retired on March 31, 2018 after 21 years of Federal service – 3 years as a crew chief on an Army Chinook helicopter and 18 years with the Nevada Water Science Center. A big loss to the Center, but the good

news is that Mike will be returning part-time as a mentor under the NDAA program. Mike came to Nevada from New York but is an almost Las Vegas native by having lived in the city 40 years. After earning a B.A. degree in hydrology from the University of Nevada, Reno, Mike started his unofficial USGS career in 1997 as a contract Hydrologic Technician and 'tunnel rat' on the Yucca Mountain project collecting field data for Bill Guertal and Alan Flint. Mike's official start with the NVWSC began in 2000, working for Richard Kane in the Las Vegas field office on the Yucca Mountain water-level network, and on a study, he would return to many times throughout his career, estimating water use in the Death Valley Regional Flow System. Full-time interpretive work was just around the corner, working with Joe Fenelon on evaluating water-level trends for wells near Yucca Mountain, and in 2005, accepting the baton from Randy Laczniak to continue Nevada's pioneering work on estimating rates of desert evapotranspiration and groundwater discharge. The latter decision was certainly a blessing for the WSC - Mike's contributions to the field of evapotranspiration and groundwater discharge in Nevada are many, including installing and monitoring more than 30 field sites and estimating rates in more than 20 basins across Nevada. The expertise Mike developed in this field led him to a rather unique position for the NVWSC, and within the USGS – the first, and likely only, ET Specialist. As Mike continued his work on groundwater discharge, he applied his expertise on energy budgets to reservoir studies, and in 2009 began work with Amy Swancar that turned into a series of studies to estimate evaporation rates at Lake Mead and Lake Mohave on the Colorado River – work that continues today and has received national and international recognition. Mike leaves behind a legacy of outstanding science, summarized in more than 20 publications during his 18-year tenure, and accomplished through a work ethic and dedication exceeded by none. Mike is currently getting into 'climbing shape' for his return to mountaineering, and along with his wife Carole, plan to continue enjoying hiking and backpacking, and eventually world travel.

Chris Neuzil retired on September 30, 2017 from the National Research Program after 40 years at the U.S. Geological Survey. Growing up on Staten Island, Chris was drawn to a career in geology by summers in the Adirondacks and near the famous zinc district of Franklin, New Jersey. He obtained a B.A. in geology from SUNY Binghamton in 1971, spending field seasons in Montana, the Florida Keys, and the Dry Tortugas along the way. After a spell on a Navy destroyer chasing Soviet subs, Chris headed to Johns Hopkins to study under Reds Wolman, and finished his Ph.D. in 1980 while at the USGS working under John Bredehoeft. At the time, little was known about low-permeability hydrogeology. Over several seasons of drilling in South Dakota, Chris developed some of the first successful approaches for measuring permeabilities, deformation properties, and fluid pressures in shale. Among other things, the work influenced thinking about shale as a host for radioactive waste and led to his collaboration with repository research programs in Switzerland, France, and, most recently, Canada. Chris' research also revealed the extent to which confining layers control groundwater supply, showing that aquifers often derive most of their water from adjoining shales and benefit from in situ reverse osmosis in the process. Chris' analysis of how fluid flow in clay and shale responds to geologic deformation has been applied in environments ranging from glaciated terrains to accretionary complexes. In addition to research papers, Chris is coauthor of the textbook *Groundwater in Geologic Processes*. He is a Fellow of the Geological Society of America and at various times served on editorial boards at the journals *Water Resources Research*, *Groundwater*, and *Geofluids*. He received the O. E. Meinzer Award from the Hydrogeology Division of GSA in 1991, and in 1995 was their Birdsall-Dreiss Distinguished Lecturer. As an emeritus, Chris is working on a synthesis of clay and shale permeability data, collaborating with Mike Plampin on multiphase flow in fine-grained rock in the Michigan Basin, and continuing collaborations with other colleagues. As a retiree, he will see more of his grandkids and spend a bit more time watching sunsets from a deck overlooking Lake Champlain.



Kirk Nordstrom retired on February 3, 2018 after more than 40 years of dedicated service to the U.S. Geological Survey. Although not normally negative himself, he is possibly best known for his measurements and documentation of negative pH waters at the Iron Mountain Mines Superfund Site, CA (with C.N. Alpers, USGS, and assistance from D.W. Blowes and C.J. Ptacek, U. Waterloo), where he conducted his dissertation (1977) studies, and where he still works today. He was invited to join the International Stripa Project (Sweden) in 1980; the first underground research lab to study the effects of burying high-level nuclear waste in crystalline rock. Kirk significantly contributed to our knowledge of the effects of high-level waste on groundwater chemistry for decades thereafter. He was an advisor for the Swedish Nuclear Waste

Management Agency and was a member of the Board of Radioactive Waste Management of the National Academy of Sciences. He assisted the Spanish and Finnish radioactive waste programs and contributed to the Poços de Caldas International Natural Analogue Project (Brazil) for nuclear waste. Kirk earned a B.A. (Chemistry, 1969) at Southern Illinois University. He then made his first stop in Colorado by earning a Master's degree (Geology, 1971) from the University of Colorado at Boulder, studying geothermometry of coexisting sulfide minerals. He returned to his home state and earned a Ph.D. (Geochemistry, 1977) from Stanford University. His dissertation made significant contributions to the field of acid mine drainage hydrobiogeochemistry. During four years as an Assistant Professor at the University of Virginia's Environmental Sciences Department, he worked with, and learned from, USGS scientists Blair Jones, Neil Plummer, Ty Coplen, Bruce Hanshaw, and others in Reston, Virginia, and observed the birth and evolution of the PHREEQE code (precursor to PHREEQC). In 1980 he joined the National Research Program as project chief for the 'Trace Element Partitioning in Natural Waters' group in Menlo Park, CA. He moved to Boulder, Colorado in 1991, and has enjoyed the rarefied air at 1,650 meters since. The Department of Interior has awarded Kirk the Meritorious Service Award and the Cooperative Conservation Award, both esteemed awards in recognition of his service and scientific contributions. He won the Brian Hitchon Award for the most highly cited paper for a 5-year period. Kirk's exceptional ability to bridge the disciplines of mineralogy, thermodynamics, hydrology, chemistry, and microbiology has been evident from his first publication in 1968 to the present. Kirk has published more than 260 peer-reviewed scientific journal articles and technical reports, a widely used textbook *Geochemical Thermodynamics*, and a new handbook *Geochemical Modeling for Mine Site Characterization and Remediation*. He has advised or been invited as external examiner for 41 graduate students and 11 post-docs and faculty members. Kirk is looking forward to finishing some books and papers, gardening, cooking, taking more foreign short courses, and getting back to tennis, ping pong, biking, and swimming.

Wendy Norton, Executive Secretary for the Advisory Committee on Water Information retired on March 30, 2018. Wendy began working for USGS as a summer hire in 1981, as a GS-2 clerk typist in Employee Relations. She worked for three summers as a student, then became a full-time employee in 1983, working for the Assistant Director for Programs, who was in charge of the bureau budget office. After a few years she transferred to the budget group in the Water Resources Division, where she eventually transitioned into a program analyst position. In that position, she assisted with initial cost estimates and justifications for the National Water Quality Assessment Program; she interacted frequently with chiefs of Water offices across the country; she wrote budget newsletters for Water field managers, explaining the impact of Congressional action on the USGS annual budget request; she wrote budget justification proposals and answered questions about the USGS Water programs from DOI, OMB, and the Hill. When the bureau's budget functions were centralized in 2000, she was reorganized back into the bureau budget office, to serve as the liaison for the Water programs. During this time, she served on the DOI interagency committee to redesign the budget development guidance that is issued annually to all DOI bureaus, and for 2 years she led the team that produced the USGS budget request to Congress, known as the Green Book. In 2008 she transferred back to Water, to serve as Executive Secretary for the Advisory Committee on Water Information. Several new workgroups were formed under ACWI during her tenure, including a group devoted to the issue of Water Resources Adaptation to Climate Change, and an *ad hoc* group convened to assess options for stabilizing and growing the water data collection programs in an era of shrinking budgets. In retirement, Wendy plans to devote more time to her hobbies of photography, painting, writing fiction, and making beaded jewelry. Wendy's leadership and ability to coordinate large groups will be greatly missed by ACWI members and the WMA, but we wish her all the best in retirement.....congratulations Wendy!

Carmen Reed-Parker retired on March 31, 2018. Carmen has worked as a chemist at the USGS National Water Quality Laboratory since May 1991. Carmen started in the Quality Assurance section in 1991. She moved to the GC/MS unit in Analytical Services in 1998, conducting pesticide and herbicide analyses. Carmen finished her career back in Quality Assurance, moving there in 2010, where she worked on annual report limits, assisted with internal audits, and obtained parameter and method codes for new analyses. Carmen greatly enjoyed working with the outstanding staff at the NWQL and made many email acquaintances with field personnel in the WMA over the years. In retirement, she plans to enjoy hiking, photography, relaxing with good books, and travelling with her husband Millard. We here at the lab enjoyed her perpetually happy attitude, her scientific curiosity and her exceptionally professional work ethic and we will miss her very much.

Dave Pollock is retiring after more than 40 years of dedicated service and remarkable contributions to the USGS. Dave began his career with the USGS while an undergraduate at the University of Illinois, working three summers with the Wyoming Water Science Center as part of the USGS/National Association of Geology Teachers Field Training Program. Dave participated in a variety of projects in Yellowstone National Park, the Powder River Basin, and the western Black Hills. After completing a master's degree in hydrogeology from the University of Minnesota and beginning a doctoral program at the University of Illinois, Dave transferred to Reston, where he was a member of the Groundwater Research Group in the National Research Program from 1978-86. Dave joined the Office of Groundwater in 1986 as a staff hydrologist and continued in that position until the recent WMA restructuring. It was in the Office of Groundwater that Dave began work on software to compute and display groundwater path lines using results from the USGS MODFLOW groundwater-flow model. The path lines code would become MODPATH, an essential companion code to MODFLOW that allows the user to track individual groundwater particles in a simulated flow field. The development of MODPATH coincided with the initiation of many source-water and wellhead-protection programs in the U.S. designed to protect water supplies from contamination. MODPATH has been used widely to determine the sources of water to wells, aquifers, and other features represented in MODFLOW simulations, as well as to assist hydrologists and water managers understand and visualize water flow through complex groundwater systems. Dave also excelled at explaining complex groundwater modeling concepts. That gift led to his assignment as lead instructor for the USGS "Introduction to Groundwater Modeling using MODFLOW" training course more than 25 years ago. In that role, Dave has trained generations of USGS groundwater modelers on both the philosophy and the approach for groundwater modeling in the USGS. Please join us in wishing Dave a rewarding retirement and congratulating him for his significant contributions to USGS groundwater software and education of USGS groundwater hydrologists.

-Paul Barlow, Chief, Earth Systems Modeling Branch**, **Water Mission Area, U.S. Geological Survey
-Bill Cunningham, Director, Earth System Processes Division

Curtis Price began working for the U.S. Geological Survey in 1987 as a Hydrologic Technician at Princeton, NJ. He was quickly converted to a Hydrologist in January 1988. In February of 1995, Curtis packed his bags and moved to Rapid City, SD, to work as a Physical Scientist in support of numerous national-scale scientific endeavors. Throughout those years, his geographic information system (GIS) expertise gained him notoriety throughout the USGS. Particular recognition was given to Curtis for completion and safeguarding of the Public Supply Data Base; his service as a member of the USGS Enterprise GIS team; and his support provided for the National Geospatial Program and WaterSMART. His dedication to the science and data that supports the USGS's legacy is very much appreciated.

Jeanne Robbins retired on March 31, 2018 after nearly 27 years with the USGS in North Carolina. In 1991, Jeanne started her career with the USGS after spending 7 years with the North Carolina Division of Water Resources. Jeanne began working on hydrodynamic and hydrologic models and flood frequency studies, and became the North Carolina District Surface-Water Specialist in 1995. She assumed the additional role of Acting Data Chief in 1996 and was formally appointed to that position in 1999 where she continued to serve in both roles. During Jeanne's tenure, she was recognized with a Superior Service Award in 2006 for her efforts in guiding the development, operation and maintenance of one of the five largest real-time surface water data networks within the U.S. Geological Survey. Her passion for high quality real-time data was also shown in the development of WaterAlert, a tool that started as a grass roots effort in North Carolina and evolved to a national application, used widely by our partners across the country. Jeanne led the flood response for many historic floods in North Carolina, including Hurricanes Fran, Floyd, Frances, Ivan and Matthew. She has always provided support for and taken great pride in her colleagues in North Carolina and their willingness to deliver high-quality timely data to meet the mission of the USGS. Jeanne has also been afforded opportunities to participate in national and international work. She served as the Data Chief representative on the NWIS Executive Steering Committee for several years, was recently appointed to the Technical Review Assessment Committee (TRAC) to review the Technical Review process in the new WMA structure, and has assisted with the development of a quality assurance program for the National Water Agency of Brazil. Jeanne's career with the USGS has been characterized by leadership, exemplary dedication, and the utmost integrity, that have earned her the respect of her colleagues and cooperators of the USGS. Jeanne plans to continue in an Emeritus role to follow through with the TRAC team and to ensure a

smooth transition with the NC Data Program leadership. In retirement, she looks forward to spending more time with her dear husband William, volunteering at the 1750's era water-powered grist mill that he restored, visiting her nieces and nephews in Wilmington, North Carolina and sitting on the porch when it rains without a worry about who may need to be making a discharge measurement.

Nancy Rybicki retired from the National Research Program in Reston in September 2017. She worked on estuarine, riverine, floodplain, and wetland systems to understand and predict vegetation changes in response to natural and anthropogenic stressors. Her research goal was to provide information to those charged with conservation and management for ecosystem restoration and protection. She focused on submersed aquatic vegetation and its effect on water quality, nutrient cycling, flow, and sediment trapping. Much of her work was done in the Potomac Estuary and Chesapeake Bay where water quality degradation and invasive species threaten biodiversity and restoration efforts. During her 38-year career with the USGS, she generated valuable long-term datasets and published numerous reports and journal articles. She was considered an expert in submerged aquatic vegetation and contributed to working groups on the Chesapeake Bay, the Maryland Department of Natural Resources, Environmental Protection Agency, the Army Corp of Engineers, and invasive species management councils. She was an affiliate Professor at George Mason University. In retirement, Nancy will enjoy additional time for sailing and will continue as an USGS emeritus scientist to complete publications.

Will Sadler retired after nearly 30 years with USGS on March 17, 2018. Will started his career working in a rock lab in Lakewood, CO. He moved to Wyoming in 1990 for a permanent position in the Riverton Field Office and in 1996, moved to the Cheyenne office. As a hydrologist in the Data Section, Will has done a variety of surface-water and water-quality work, including work on several flood events in Colorado and Honduras, and stream gaging in the Dry Valleys of Antarctica! His dedication and commitment to the USGS mission was unwavering through the years and will not easily be replaced. Will plans to stay in Cheyenne and looks forward to more mountain time and other travels.

Marre Jo Sager is from the Minnesota Water Science Center. Marre Jo began her Federal career in 1976 in Anchorage, AK a as an Administrative Assistant with the USGS Conservation Division. The following year Marre Jo and her husband Frank relocated south to slightly less mild winters in Minnesota where she worked as an Administrative Assistant for the Veterans Administration in St. Paul, MN. A few months later she followed her heart back to the USGS and became the Administrative Officer for the USGS Water Resources Division, Minnesota District. It must have been a good fit, as Marre Jo remained in Minnesota. Marre Jo has been a valuable resource for staff regarding contracting, appropriations law, employee performance standards, budget management, fiscal accounting systems, space management, supervision, procurement, relocations, alternative discipline and promoting a diverse workforce. Marre Jo found time to contribute in other ways, including chairing the committee that developed requirements for the revised Administrative Information System in the 1990's. More recently she's served as a representative of the Twin Cities Federal Executive Board. Her dedicated service to the USGS has been exemplified by enthusiastic administrative service to employees and management in Minnesota and reflects her sincere dedication to the USGS and DOI. Staying in one place must be an illusion because through 40 years, Marre Jo has navigated changes in administrative practices, technology, administrative systems, and USGS Regions (Northeast, Central, Midwest, East). We suspect it's the successful execution of more than 37 annual fiscal-year closeouts for Minnesota that has her moving on. She won't go far though; Marre Jo's roots are deep in the local community. She's repeatedly earned the public's trust as demonstrated by winning elections to a local school board, where she volunteers to serve. Upon retirement, Marre Jo plans to spend more movie nights "up north" with friends, more time by the pool, and continue serving the community.

Frank Schaffner retired on March 30, 2018**.** Frank starting work with the USGS in Tucson as a student before completing his BS in Hydrology with the University of Arizona in 1997. Upon graduation, he moved to the Flagstaff office where he began his illustrious and action-packed career as a Hydrologic Technician. While in Flagstaff, Frank's work resume included water quality specialist, sediment sampling 'go to guy', construction specialist, and Grand Canyon river rat. Buy him a beer and he'll tell you a few stories. After meeting his wonderful wife to be, Liz, Frank transferred to the Tempe office in 2012 and got married shortly thereafter. Upon announcing his retirement, he immediately became a popular guy with a pickup truck and time to spare. In addition to fixing up his old house, Frank plans to perfect his carpentry skills and spend more time in his garden. When not at home you can find him practicing Zen or vacationing somewhere nice. It's a beautiful life.

Thor Smith retired from the USGS on February 28, 2018. Thor began his federal career in 1989 as a Hydrologic Technician with the Bureau of Reclamation in Colorado, where fun tasks included opening the gates of the Pueblo Dam to discharge thousands of cfs down the Arkansas River, and measuring lake evaporation rates that astounded a north-country boy unaccustomed to living in an oven (the Southwest). After a stint as a geologist in California, Thor returned to the pleasantly cooler climate of New England and landed on the USGS doorstep as a graduate student in 1992, working on his Master's thesis with Jamie Shanley at the Sleepers River Research Watershed in Vermont. In 1994 he moved to Montpelier to work full-time at the Vermont office as an 'ECO' contract hire, and officially joined the USGS as a Hydrologist in 1996. In 2000, Thor left the hill country and backyard skiing of Vermont to migrate across the eastern frontier into New Hampshire, where he settled into the USGS Pembroke office. In short order he was handed a drum of bright red rhodamine dye to pour into some big rivers, which was a hit with the small-town TV cameramen on a slow news day. After those dye-tracing studies, a steady drip and then rain of FEMA flood studies kept him busy with surveying and hydraulic modeling over the years. Thor had the good fortune to work with almost everyone at the NH-VT USGS (and many others throughout New England) at one time or another on a huge variety of projects, and he couldn't have asked for a better group of co-workers or good people to spend the days with. This variety was great for someone who likes to dabble in everything, to always be learning, and to attempt the art of being a 'jack-of-all-trades'. Some of these projects included measuring nitrogen loads in the Connecticut River, real-time monitoring of water quality, sediment transport, stream eco assessments (i.e. scrubbing critters from rocks), geophysical monitoring of groundwater remediation (i.e. electrocuting worms) and helping periodically with the NH-VT streamflow gaging program. After 24 years of haunting the halls and waterways of the New England USGS, Thor decided it's an opportune time to exit stage left and begin Act Two. During the intermission, he's finally going to repair the deck and decommission the knob-and-tube wiring in his house.

Sue Thiros retired on March 31, 2018. Sue began work at the Utah Water Science Center in 1985 after graduation from Weber State University, Ogden, UT. Early in her career as a hydrologist, she got to study groundwater systems in some beautiful areas in rural Utah. She then settled down and worked on groundwater studies closer to home in Salt Lake Valley, Hill Air Force Base, and the Great Salt Lake Basins NAWQA project. Many monitoring wells were drilled, tested, and sampled as part of this work and new techniques, such as environmental tracers, were utilized to better understand aquifer systems. Caught in the NAWQA vortex, she coordinated a regional assessment of water quality in basin-fill aquifers across the southwestern United States. During the last few years she has completed studies on salinity in streams in the Upper Colorado River Basin and circled back to groundwater in the Salt Lake Valley. She has a new Sprinter van and has plans to revisit many of the remote canyons, mountains and plateaus of the Colorado Plateau and Great Basin.

Sanborn 'Sandy' Ward retired on March 30, 2018 after 25+ years with the USGS in New Hampshire. Sandy began his career as a work-study student in 1992-93, spending his summers blowing things up in support of the NH Stratified Drift "Bond" studies. Fingers intact, he began working with the NH Data Program as an ECO in 1994 and finally officially signed on as a USGS employee in September 1996. Sandy has been a cornerstone of the NH-VT Office Data Program, being responsible for a field trip while serving as the local Hydroacoustics Specialist. Over the years Sandy was the Project Chief for the NH-VT groundwater network from 1998-2010, assisted with data collection

efforts at Mirror Lake from 2001-06, and worked on a joint project with EPA on the Sudbury River Hg Study quantifying streamflow characteristics from Framingham to Wayland, MA. Sandy leaves behind a legacy of collecting over 2,300 streamflow measurements to validate the stage-discharge relation at sites in New England. He documented floods of 2005, 2006, 2011, 2012, and 2015 in NH and VT and the 2010 flood in RI. He made the highest streamflow measurement ever at 5 sites in NH, 2 in VT, and 4 in RI. He was also instrumental in passing on his streamgaging knowledge by routinely demonstrating USGS techniques at local universities. Sandy and his wife are planning to do a bunch of travel in the years ahead!

Ean Warren retired on March 30, 2018 after almost 27 years with the USGS. Ean started working at the Survey in July 1991 with Mike Godsy, right after receiving his Masters' degree from Stanford University. Mike and he worked on several projects related to microbial degradation of contaminants in the subsurface, primarily identifying microbial populations and degradation products of creosote- and crude oil-biodegradation. After Mike retired in 2003, Ean worked with Mark Marvin-DiPasquale. With Mark, he worked towards the development of a method to analyze environmental samples using genetically-modified bacteria. At the same time, he started a long-time collaboration with Barbara Bekins on microbial populations and activity at the crude oil-contaminated research site in Bemidji, Minnesota. Ean was the Assistant Branch Chief (ABC) for the Western Region National Research Program from 2004 to 2009 under Steve Ingebritsen and Keith Prince. In 2009, he initiated the annual Symposium on USGS Science at AGU (American Geophysical Union). He left the ABC position to return to science full-time to develop a new method using temperature increases from microbial activity to determine biodegradation rates in the subsurface. His and Barbara's most recent paper on the topic, "Relative Contributions of Microbial and Infrastructure Heat at a Crude Oil-Contaminated Site," was very recently accepted for publication in the *Journal of Contaminant Hydrology*. Ean was elected a Fellow of the American Chemical Society in 2017. Ean plans to continue his research on increased temperatures resulting from microbial activity as an emeritus scientist. He also plans to take a "sabbatical" in France with his family before continuing to his next adventure.

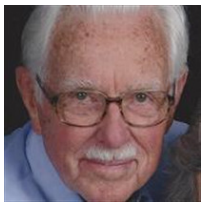
Dave Wood retired on March 30, 2018 after more than 43 years of service. Dave was born in Gardnerville, NV and began his career with the USGS in early 1974, at the Nevada District Office in Carson City, NV. Skip Worts was District Chief and just in the process of retiring when Dave arrived. Skip was the Assistant District Chief in California when Nevada was a California Subdistrict and appointed as the first District Chief when Nevada became a District on July 1, 1962 (NDWR Bulletin 46). Dave is indebted to his early mentors who graciously donated time and wisdom and include (alphabetically) Tim Durbin, Pat Glancy, Jim Harrill, Terry Katzer, Don Moore, Frank Olmstead, Gene Rush, Carol Schroer, & Steve VanDenburgh among others. Dave traveled to all parts of Nevada working with all phases of geothermal and groundwater wells as well as spring discharges and an occasional stream discharge (i.e. – surveying locations, drilling, developing, sampling, measurements, etc.). Dave often traveled alone, without access to two-way radios (Walkie-Talkies), and spent many nights in his vehicle at remote parts of Nevada, both to avoid returning to areas difficult to access as well as when vehicle breakdowns occurred. Dave transferred to the Las Vegas office in 1988 and was fortunate enough to salvage over 60 years of historical data from the Nevada National Security Site; see https://www.sciencebase.gov/mercury/#/. Dave has worked with and/or become acquainted with many people over the years that have touched him both professionally and privately. Dave plans to devote most of his time to his beautiful wife Myra who has been the love of his life for nearly 46 years and see more of their great Country together. Dave also plans to attend Toastmasters with Myra and hone his vocal skills to become more involved with classical and opera groups in addition to Church choir as his main hobby. Please join us in congratulating Dave on his successful career and wishing him all the best in many years of retirement.

MEMORIALS

James D. Bohn, 81, passed on March 11, 2018 in his home in Wichita, KS. He was born on November 18, 1936 in Carson, North Dakota to Walter and Julia Bohn. After starting his education in a one-room school house where his mother taught him for one year, he graduated from Carson High School. Working his way through the University of North Dakota, Jim earned his degree in Mining Engineering and served in the Army and National Guard. Jim continued his education at the University of Oklahoma in Industrial Engineering and the University of Texas in Civil Engineering. He embarked on his successful career with the United States Geological Survey as a hydraulic engineer in the Water Resources Division, employed in California, North Dakota, Montana, Oklahoma, and Texas. He published in the USGS Publications, was a member of the Texas Society of Professional Engineers, the American Institute of Mining Engineers, and the Engineer Council. Later he bought and sold real estate, often rebating his commissions so young couples could buy their first home. However, Jim believed of his most significant achievements were his three children. Growing up fishing with his parents, Jim continued freshwater and saltwater fishing throughout his life. For many years he joined his brothers for annual pheasant and deer hunting and pinochle, and later spent summers on a family farm with grandchildren and special nieces and nephews. Jim enjoyed showing family and friends his rock and mineral collection, bidding and winning a good auction, was a regular fan of college and professional basketball, and was always ready to read or watch about World War II or a good western. He was awarded Kiwanian of the Year for his community service, was a founding member of Peace Lutheran Church in Austin, TX and served on the Board of Directors of the Government Employees Credit Union for five years. After his stroke in 1989, he continued to tackle with a smile through the Stroke Survivors Group, was co-speaker of "Drawing on the Right Side of the Brain" at the annual Texas Stroke Conference and participated in a year-long research program at the University of Texas. Jim will be greatly missed and forever in our hearts: that smile, his witty sense of humor, and his independent creative mind. Survivors include long-lasting friend and wife Kathy; two daughters, a son; and, four delightful grandchildren. Preceding Jim in death were his parents, three brothers and one sister. As per Jim's wishes, his cremains will be inurned at the Veterans Cemetery, Mandan, North Dakota.

Mary Condes, wife of WRD retiree **Alberto 'Al' Condes**, passed away at her home on March 10, 2018. Mary grew up in Nogales, AZ, where she met and married Al in 1958. She was at the time employed as an insurance agent. When she married, she chose to give up her career to devote herself to her family. She returned to working outside the home 22 years later when her son went off to college. Throughout her life Mary was very active in many activities. She enjoyed playing bridge, bowling, golf and quilting. When Al was in the Air Force, she was active in the Officers Wives Club. When they lived in Yuma, AZ she was active in her church's religious education program. For 10 years she cared for her mother who suffered with Alzheimers. Her most enjoyable activity through the years was caring for her children and grandchildren. She was very excitable at her grandchildren's sporting events and made it a point not to miss any of them. Among her charities, Mary has helped support a Catholic home for young girls in Nogales, Sonora, Mexico. She was survived by her husband Al, a daughter, a son, and five grandchildren. Services were held on March 15, 2018 at St. Timothy's Catholic Church, Chantilly, VA.

Fayne D. (Derward) Edwards, 87, also known as "Der", passed away December 9, 2017. Der started his career with the USGS in June 1954 working on the Pigeon Roost Project (flow and sediment transport) in North Mississippi. He worked 4 years there before transferring to Pascagoula, MS in the summer of 1958. His work in Pascagoula involved streamflow data collection and analysis. In January 1961, he transferred to Chattanooga, TN to continue his work as a streamgager. Needless to say, stream-gaging work was quite different in Tennessee (except West Tennessee) due to different slope streams and narrower width of flood plains. The Mississippi District used power rigs mounted on truck utility bodies for measuring streamflow from bridges. Derward was convinced these power rigs would work in Tennessee as well. He convinced the district to give him permission to buy materials to construct a prototype for Tennessee, which he did mostly on his own time on weekends. The district was so impressed with it they adopted the truck-mounted power rigs because of the time they could save and the potential safety of the streamgager This equipment was great during floods on Tennessee's large rivers as well as smaller streams. When the WRD reorganized and moved to Nashville in 1965, Derward remained in Chattanooga along with Fritz Hassler (who had retirement plans) and one or two other employees. After Fritz's retirement Derward was in charge of the Chattanooga field office. In September 1976 he oversaw the closing of that office and moved to the Nashville field office. He was well versed in streamflow records computation and field work and oversaw most of this work. He played a huge role in upgrading the Nashville field office to the Nashville Subdistrict Office and was a great asset and resource to incoming new subdistrict chiefs. Derward had a very good sense of humor. On one occasion, three or four employees were doing maintenance at gage sites by cleaning stilling wells and other work. Derward was in a 6' x 6' concrete house whose bottom was several feet below ground level. After bailing several buckets of mud from the bottom he yelled up to the others "lean the house over so I can clean this stuff in the corner." He was a very conscientious, hard-working employee and this was recognized in 1986 with a meritorious service award. Der retired in June 1995 with the respect of all who worked with him.



Marion Spencer Hines, 96, passed away December 13, 2017 with his family at his side. Born in Paducah, KY to Robert and Marie Faulkner Hines, Marion was a U.S. Navy veteran of WWII, assigned to the USS Simpson, performing convoy duty in the North Atlantic. He was a graduate of Georgia Institute of Technology, Atlanta, GA. Marion was a civil engineer with the U.S. Geological Survey and retired in 1979 from the district office in Little Rock, AR. He is survived by his wife, Mary Hines, his two daughters and their husbands, five grandchildren, four step-children stepchildren, and eleven step-grandchildren, and seven great-grandchildren. He was preceded in death by his parents, first wife, Leone Starks Hines, and two brothers. Services were held on December 18 at St. Mark's Episcopal Church, officiated by Rev. Danny Schieffler. A reception followed. Burial will be private.

Dr. G. Richard "Dick" Marzolf, 82, a former professor at Kansas State University and scientist with the U.S. Geological Survey died at The Village of Orchard Ridge in Winchester, VA on February 1, 2018. Dick was born to Dr. Stanley S. and Helen Marie (Gooding) Marzolf in Columbus, OH, in 1935. Dick was a 1957 graduate of Wittenberg University in Springfield, OH where he met his future wife, Eileen, a 1958 graduate. He earned his Ph.D. in Limnology from the University of Michigan in Ann Arbor, MI in 1961. Dick spent 26 years at Kansas State University in Manhattan, KS as an acclaimed teacher and researcher. He was instrumental in initiating the Konza Prairie Biological Station as part of the Long-Term Ecological Research Program and conducted research on local reservoirs and rivers. He was a member of the Water Science and Technology Board at the National Academy of Sciences and was active in the Ecological Society of America, American Society of Limnology and Oceanography, Societas Internationalis Limnologiae, and North American Benthological Society. His desire to explore led to summer research trips to Colorado, Massachusetts, Oklahoma, Wisconsin, and Oregon and international research to the Middle East, Siberia, and India. Except for the foreign trips, his family accompanied him on these adventures. He joined the U.S. Geological Survey in 1991, in Denver, CO, where he worked on western reservoirs and the Colorado River through the Grand Canyon and then in Reston, VA, where he was Chief of the Eastern Region Branch of the National Research Program until his retirement in 2004. He remained interested in water quality in retirement as a board member of the Friends of the Shenandoah River. He spent his leisure time busy in his custom woodworking shop where he produced family heirlooms, including three canoes, two cradles, and a dollhouse. Dick was an avid reader, especially of history; bird watcher; and teller of "Dad" jokes. No autumn Saturday was complete without hearing "Hail to the Victors" and he was thrilled to watch his beloved Cubs win the World Series. He enjoyed traveling the American Southwest adding to his collection of Two Grey Hills weavings. He passed his love of water onto his family as both Erich and Carl are avid boaters and fishermen, and Erich and grandson Nicholas are aquatic ecologists. Through his family and the large academic and professional community he mentored, his legacy flows on. He is survived by his wife of almost 60 years, two sons, his brother and his brother-in-law, and five grandchildren. In lieu of flowers, the family requests contributions to the Parkinson's Foundation, The Nature Conservancy, or an organization supporting your local watershed, such as the Friends of the Shenandoah River. A Celebration of Life was held at a later date.

Ernest C. Pogge, 90, passed away in January 2018 in Lawrence, KS. Ernest was born April 11, 1927 in Clarion, Iowa, the son of William Henry Christian and Dorothy H. E (Lassen) Pogge. Ernest served his country for over 40 years in the Army, retiring as Colonel. He married Emma E. Ball on December 20, 1950 in Westmoreland City, PA. He served during World War II, the Korean Conflict and in the Army Reserve. He worked for the U.S. Forest Service, U.S. Army Corp of Engineers and U.S. Geological Survey. He was also a Professor of Civil Engineering at the University of Kansas from 1967 until he retired in 1998. He was a member of Lawrence Free Methodist Church, where he taught Sunday school until this past November. He was a member of the American Legion Dorsey-Liberty Post #14 and he was an advocate for AARP with the Kansas Legislature. Ernest and Emma traveled to Branson each year during Veteran's Week to participate with other veterans being honored for their service. He loved working at the family farm in Iowa and traveled the World, always wanting to learn and read about historical and current events. His wife preceded him in death on January 2, 2015. Survivors include his daughter and son, three grandchildren and one great-grandchild. He was preceded in death by one grandchild and one great-grandchild. Services were held on February 6, 2018 at the Lawrence Free Methodist Church, Lawrence, KS. Burial followed the services at the Veteran's Administration Cemetery in Leavenworth, KS.

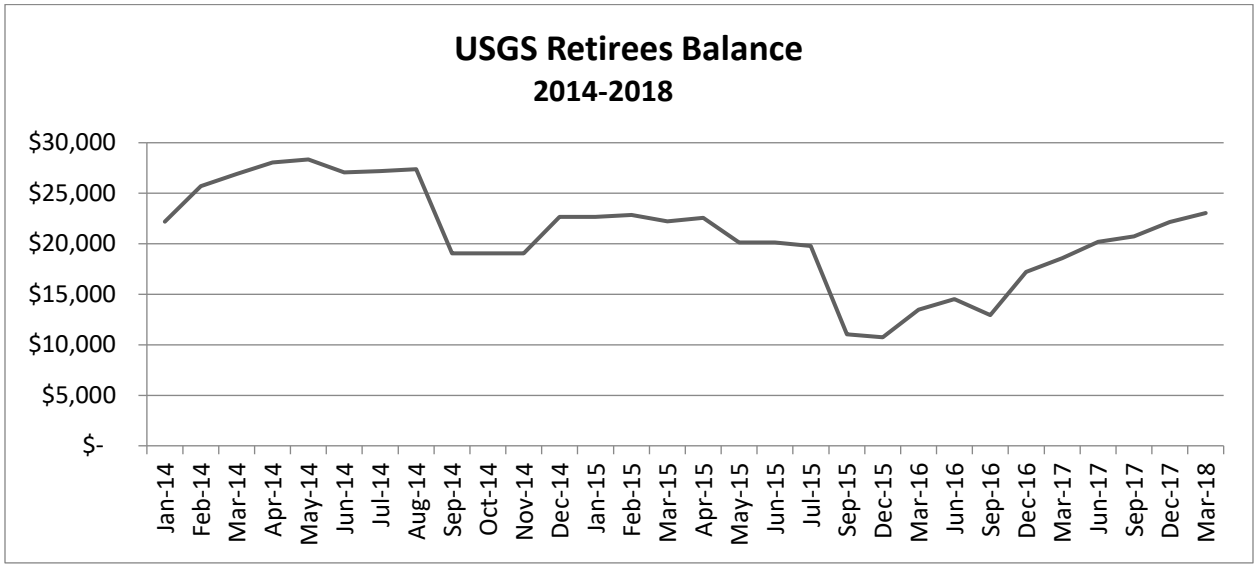
Florence R. Weber, 96, passed away on January 18, 2018 at the Fairbanks Pioneer Home. An article appeared in the Alaska Geological Society, Inc newsletter (May2009) recognizing **'Florence Weber -- Extraordinary geologist, scientist, and adventurer'** (pages 4-5, By Ric Wilson, USGS colleague and friend). The article can be seen at the following website:
http://www.alaskageology.org/documents/0809/09MayNewsletter.pdf

TREASURER'S REPORT, FIRST QUARTER 2018

Treasurer Cathy Hill reports the organization had $23,040 in its coffers at the end of the first quarter, March 31, 2018.

Special thanks for contributions above dues to Chet Thomas, Roger White, and Ruth Yeager-Thornberg. Many thanks for your generosity.

And, for those who keep up with these kinds of things, the 2017 Federal Taxes have been successfully submitted.



NATIONAL ACTIVE AND RETIRED FEDERAL EMPLOYEES (NARFE)

Setting the Record Straight: The Chained CPI and Tax Reform

December 21, 2017

The recently approved tax reform bill, H.R. 1, indexes the newly formed tax brackets using the Chained CPI. This is causing some understandable confusion for NARFE members. However, the tax bill does not change the current index (CPI-W) used to determine annual cost-of-living adjustments (COLAs).

NARFE strongly opposes using the Chained CPI for determining COLAs to federal and military retirement annuities and Social Security because it would decrease benefits and undermine the true costs facing senior citizens.

The tax bill ties the tax brackets to the Chained CPI. Using the lower rate of inflation to calculate future tax rates means that taxpayers will more quickly fall into higher tax brackets. However, this does not impact the COLA experienced by seniors. NARFE will continue to oppose any effort to index cost-of-living adjustments to the Chained CPI.

NEW MEMBERS

Bruce, Breton W. 'Bret' (18) (Nancy) – 331 Sherman St., Longmont, CO 80501, (c) (303) 263-4767, (h) (303) 317-6341, nlbbwb@yahoo.com
Clark, Melanie L. (18) (Wilfred Sadler) – 5500 Hamilton Ave, Cheyenne, WY 82009, (c) (307) 274-7564, melanieclark307@gmail.com
Flanagan, Sarah M. (18) – P.O. Box 538, Suncook, NH 03275, (c) (603) 229-2819, Flanagan11@gmail.com
Jagucki, Martha L. (18) (Philip) – 325 Electric Avenue, Westerville, OH 43081, (c) (614) 230-8760, (h) (614) 898-7571, jagucki@sbcglobal.net
Kuniansky, Eve (17) – 2209 Winding Woods Dr., Tucker, GA 30084, (c) (404) 548-9211, elkunian@gmail.com
Lecrone, Betty-Jean 'BJ' (18) (Brian) – 39324 E. Colonial Hwy. Hamilton, VA 20158, (c) (703) 624-6253, felizbj@gmail.com
Ludington, Steve (12) (Beth) – 886 Richardson Court, Palo Alto, CA 94303, (c) (650) 387-0561
Madeh, Mary Ann (13) (Alan) – 1699 I St., Arcata, CA 95521, (707) 822-2218, soilsaver@hotmail.com
Mankinin, Edward (10) (Jeanne) – 1594 Dennis Lane, Mountain View, CA 94040, embank@usgs.gov
Myers, Donna (18) (Gerry) – 825 Fox Hollow Lane, Golden, CO 80401, (c) (720) 534-8892, dnmyers452@gmail.com
Newman, Harold R. (14) – 8132 Keeler St., Alexandria, VA 22309, (703) 260-7991, hnewman33@gmail.com
Oberg, Kevin (18) (Petra) – 102Magnolia Dr. Villa Grove, IL 61956, (h) (217) 832-8415 (c) (217) 840-9739, kevin@obergs.net
Odum, Jack (17) (Linda) – 4823 Valley Vista Lane, Ft. Collins, CO 80526, (h) (970) 225-2440 (c) (970) 218-6781
Rytuba, James (16) – 344 McKendry Place, Menlo Park, CA 94025, (h) (650) 325-3453 (c) (650) 465-4262, jrytuba@gmail.com

AFFILIATE

Williams, Nelson – 8612 Mourning Dove Road, Raleigh, NC 27615, (919) 8480120, williams.nelson.e@gmail.com

DIRECTORY CHANGES

Agajanian, Jeffrey 'Jeff' (09) (Emma) -- 23923 Corte Cajan, Murrieta, CA 92562 – addr
Albin, Mrs. Donald R. "Elsie" (W) – 3713 Maple Lane, Tillamook, OR 97141 – addr
Bartlett, William P. 'Bill' (13) (Liz) – 55 Shoreland Drive, Belfast, ME 04915, (207) 706-3930 -- addr
Boswell, Mrs. Ernest "Rebecca" (W) – requested to be removed from directory
Case, H. Lee (13) – 822 Locust St., Windsor, CO 80550 – addr
Clarke, John (14) (Karen) – (770) 367-5880 – phone
Cotter, R. Dale (86) (Gerry) – 6225 Mineral Point Rd., Apt C65**,** Madison, WI 53705**,** (608) 229-6734 dgcott259@gmail.com – addr, phone, email
Cowing, Derrill J. (01) (Mary Jean) – djcowing@gmail.com – email
Crawford, J. Kent 'Kent' (11) (Beverly Cigler) – k9kentc@gmail.com – email
Douglas, Lois J. (94) – 12377 W. LaGrange St., Boise, ID 83709-8127 – addr
Hines, Marion S. (79) – passed away December 13, 2017
Hines, Mrs. Marion S. "Mary" (W) – replace in directory for Marion S. Hines
Hudner, Betty L. (85) (Frank) – cancel membership (remove from directory)
Jackson, Mrs. Macon "Mildred" (W) – 564 Royal Tern Drive, Hampstead, NC 28442, (919) 210-2062
Knutilla, Robert L. 'Bob' (89) "Shirley" – 356 Barrington Circle, Lansing MI 48917 -- addr
Leonard, Mrs. Alvin R. "Jean" (W) – email request to remove from directory received November 27, 2017
Martens, Lawrence A. 'Larry' (92) (Rita) – 3605 Ratliff Road Apt 201, Birmingham, AL 35210, (205) 884-9742, lmartens1930@gmail.com – addr, phone, email
Morris, Edward E. 'Ed' (95) (Evelee) – (501) 681-0926, edandevelee@aol.com -- Phone, email
Tate, Mrs. C. Herb "Nita" (W) – remove from notification (passed away on July 13, 2017)
Walth, Deanna (13) – 1769 N. Harmon Street, Tacoma, WA 98406, (c) 253-278-8826 deannalu00@gmail.com – addr, phone, email
Whetstone, Mrs. George "Clara" (W) – 3 Huntington Common Drive #122, Kennebunk, ME 04043 – addr
Williams, J. Rod (89) (Annette) – cancel membership (remove from directory)

Remembering and Reminiscing

Richard A. Engberg

{*Richard (Dick) Engberg retired in 1999 after 37 years with USGS and the Department of the Interior (DOI). His last job with USGS was Iowa District Chief and following that he spent nine years as Manager of the DOI National Irrigation Water Quality Program, DOI, a program that included USGS affiliation along with three other DOI agencies. Following his federal retirement, he spent 16 years as Technical Director of the American Water Resources Association retiring 2.5 years ago. He is a past President of the WRD Retirees and currently is Archivist. For the past seven years, he has written a monthly column on water for a monthly newspaper, the Middleburg Eccentric, Middleburg, VA. He will be contributing some of his previous columns to future issues of the Retirees Newsletter. The following is his column that was published in April 2014.}*

Recently I had a conversation with my friend Hal Langford, like me a native of Nebraska and also, like me, retired from a career with the U. S. Geological Survey (USGS) and living in Northern Virginia. Hal is a little older than me and although we both began our careers doing field work in Nebraska our time didn't overlap.

Anyhow, we were reminiscing about our early days in the field and recollecting events from those days. Hal asked if there was ever a time when I thought about changing careers and I answered that there were probably several times. He went on to tell me about a time when he was working in Nebraska that he seriously considered a career change. He was measuring the water discharge of the Calamus River near Burwell, Nebraska. It was December, it was cold, it was snowing. He was wearing waders, standing in the middle of the river in two feet of water using a wading rod with a flow meter attached to it and a stopwatch, both tools used in measuring flow. He was facing upstream and was dodging small ice chunks floating in the river. About 100 feet upstream was a bridge. Looking up, he noticed a mallard duck fly under the bridge just a few feet above the water and straight toward him. The duck obviously didn't see him until it was about 15 feet away. When it saw him, it was as startled as he was and with some frantic wing flapping cleared his head by a few inches. Startled by the near miss and looking around at the snow and ice, Hal thought to himself, "What am I doing here? There's got to be a better way of making a living."

"What about you", he asked, and I recalled an incident that also had me considering a career change. Weeping Water Creek near Union, Nebraska, was an isolated location on a dirt road with no houses nearby. It was December, it was cold and I was there to collect water samples for chemical analysis. There was open water under the downstream of the bridge but for the most part the creek was frozen over. My first thought was how fortunate I am, I'm not going to have to put on waders, I can collect the samples from the bridge. Then looking upstream, I noticed two stuffed gunny sacks on the ice with blood all around them. One concern all field personnel had was discovering a body and my first thought was that someone had been murdered, their body dismembered and stuffed in the sacks. I knew I had to investigate so I put on my hip boots, made my way down the bank and gingerly stepped onto the ice. Moving slowly, I had just gotten close enough to see that it was the remains of a deer obviously poached out of season, stuffed in the bags and thrown off the bridge. Just then the ice cracked and I went through, barely overtopping my waders. Climbing out soaking wet, I most certainly had second thoughts about my career choice. Oh, by the way, I did collect the samples.

Fortunately, neither Hal nor I quit our jobs and both of us went on to successful careers with USGS. But it's still great fun when us old timers get together to reminisce and laugh about memorable happenings from early in our careers. I recommend it highly. Believe me, the memories get better with every telling!