WRD RETIREES

NEWSLETTER 166
February 2015

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

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

PRESIDENT'S MESSAGE

By now the holiday decorations have all been stored away, and we are embarked on a new year's voyage together. I am pleased to announce that Jeff Armbruster has agreed to take on the job of Southeastern Regional Director, to replace Dick Bloyd due to his illness. Many thanks for that, Jeff. But gaps in our ranks remain, principally the vacancy of the newsletter editor's job. Since Charles Nethaway passed away, we have been trying our best to patch together these issues for you. Merilee Bennett has more to say about that vacancy in this newsletter. We also are looking for a new state (district) contact for Arizona, so any volunteers please let us know.

In this issue we are continuing the policy of including articles of wide interest. Frank Manheim has contributed a history of the civil service, based on a talk he gave to our Reston-Herndon luncheon. The talk given by Keith Robinson at the Portland reunion is also included, delayed from the November newsletter. Another article that grew out of a talk for the Reston-Herndon group concerns the Florida Everglades, a unique water ecosystem. One of our members, Don Helm, rounds out the list with his description of his trip to Xi'an, China.

For those who are still in the holiday mood, we have included photos from Christmas parties that have been sent in. You will find additional Christmas photos as well as Frank Manheim's illustrations in the electronic supplement on http://wrdretirees.org/ Work has started on the next reunion with a meeting of the local arrangements committee for Nashville. Many thanks to Pete Antilla for heading up the effort. Finally, we are continuing to include interesting material from the National Active and Retired Federal Employees' (NARFE) association, as well as a Treasurer's Report from Celso Puente and the newsletter of the American Water Resources Association (AWRA).

Contents of Newsletter Supplement: NL 166:
Additional photos from the December 1st Christmas party of the Reston-Herndon group.
Illustrations from Frank Manheim's article on the history of the civil service.

FEDERAL APPOINTMENTS THEN AND NOW: A HISTORICAL REVIEW OF FEDERAL GOVERNMENT OPERATIONS

By Frank T. Manheim[1]

If you were President would you choose independent, well-qualified people as your agency heads and policymakers? Or would you appoint persons you knew or were comfortable with and held compatible political views?

An in-progress review of federal appointment systems from the founding of the U.S. to the present reveals that periods of history when competency dominated appointments had far better success and public approval than those that favored the "patronage" system. However, since World War II the U.S. has increasingly moved back to the latter system. The media, the public, and also many academic scholars now accept it as "normal".

I divide federal government history into six overlapping periods, modified from a classification by the recently deceased, distinguished historian of the U.S. federal civil service, Paul R. van Riper (1916-2014).

The first six Presidents (1789-1829): Appointments largely followed the competence–based precedent set by George Washington. All but cabinet appointees were expected to serve in a nonpartisan manner. They normally continued in employment across administrations except when removed for cause.

Th**e spoils (patronage) system introduced by Andrew Jackson (1829-1877):** Jackson felt the previous system was elitist and held that any citizen should be able to fill any job. In subsequent administrations jobs and official positions turned over after elections. The spoils period includes eight out of the 10 worst rated Presidents (Abraham Lincoln broke with spoils era practices, even appointing political enemies to his cabinet). The patronage system led to massive public and private corruption in the Gilded Age (1870-90), peaking in the Grant Administration (1869-1877). Incentives for collusion between Congress and private operators came from increased revenues provided by taxes imposed during the Civil War, and subsidies for extension of railway lines to the West Coast. Conspiracies to corner markets by financial magnates and unstable financial policies created booms and devastating busts. Except for scientific & technical organizations like the Coast Survey, Corps of Engineers, USGS, and Dept. of Agriculture, trust in federal agencies was lacking and Congress (which included corrupt members) tended to micromanage federal operations.

The reform movement (1877-1909): Public revulsion over scandals breaking in 1872 led to competition between reformist Presidential candidates in the election of 1876. An underrated President, Rutherford B. Hayes (1877-1881) and his reform-minded Interior Secretary and advisor Carl Schurz, led the first administration committed to government reform. Hayes commissioned an intensive survey of foreign civil service systems. A merit-based, bipartisan-led civil service system based on the survey was signed into law in 1883 by Chester A. Arthur, who had become President upon the assassination of James Garfield (1882). Though the Pendleton Act initially applied only to a minority of "classified" federal workers, the new civil service system's effectiveness boosted the image of clean government. Appointment reform gained support in the administrations of Grover Cleveland and peaked with the "ultimate reformer", Theodore Roosevelt (1900-1909). TR is strongly identified with the goals of the Progressive Era (1890-1920).

Independent federal agency operations (1910-1960): The reform movement extended the principle of merit-based civil service appointments to high-level positions like agency heads and even cabinet officials. Increased respect for federal agency operations led Congress to adopt new conventions. These included short laws (less than 20 pages) that assigned agencies missions and goals and authorized funding, but left detailed policy development to agency leaders. Agency operations were largely free from arbitrary interference and collegial relationships between agency leaders and civil service staff allowed creative ideas to enhance operations. Agency professionals helped Congress write and amend laws. The system of independently managed agencies helped the U.S. maintain public health, geological mapping, water supply, agriculture, infrastructure development and other societal functions at high international standards. Exceptions occurred where industry or other interests led Congress to interfere with agency operations. For example, the Bureau of Mines, created in 1910 after a mine disaster, was not authorized to inspect coal mines.

Strains after World War II (1960-1977): Turbulent developments in the 1960s culminated with the Santa Barbara offshore oil spill of 1969. The perception of national environmental crisis and lack of trust in federal regulators led Congress to pass unprecedentedly rigorous laws. In effect, it assumed control of environmental policymaking previously delegated to federal

[1] Affiliate Professor, School of Government, Policy, and International Affairs. This is a summary of a presentation to Water Resources Division and Geological Division retirees from the U.S. Geological Survey, September 1, 2014, in Herndon VA.

agencies. Environmental policy was further politicized by assigning resolution of disputes to federal courts, which like Congress, lacked inherent scientific or professional expertise. The laws curbed pollution but opened a rift in society between environmentalists and industry.

Reinforcement of the patronage system (1978-present): Development of the Civil Service Reform Act of 1978 was openly promoted by President Jimmy Carter to increase the President's ability to implement executive policy. It authorized the Executive Office to place temporary (SES) administrators at high levels in federal agencies. Partisan appointment of the new Office of Personnel Management Administrator further removed balanced oversight. Administrations now had the means to implement radical changes in policy; replacing or overriding balanced judgments of mission-conscious managers. Policymakers and policies were replaced at changes in administrations – as in the earlier spoils era. The merit principle for civil service appointment was weakened in the interest of flexible management. The rift that grew over environmental regulatory policy in the 1970s widened into political polarization in the first Reagan Administration (1981-1984). It subsequently intensified to Congressional gridlock – where we are now.

Concerned by deterioration in federal agency performance, Congress enacted the Government Performance Results Act (GPRA) of 1993, which was amended and expanded in 2010. Defining its purpose, the law asserts that fundamental problems in agency operation lie in inadequate communication of assigned tasks and lack of proper monitoring of performance. The picture that emerges is that agencies are something like factories designed to produce sausages. An extension of this concept of Congressional control could let politicians determine operational policies of hospitals, police departments, or the Coast Guard.

Conclusions and predictions: the above story helps explain causes of worsening morale and dysfunction in federal agencies in recent decades. Examples include the former MMS, GSA, IRS, Veterans Department, Dept. of Homeland Security, Social Security Administration, Patents Office, Census Bureau, National Security Agency, and even the Secret Service and FBI. America obviously retains many dynamic qualities. But the above problems, public disillusionment with Congressional dysfunction, Wall Street scandals, unresolved conflicts, regulatory impasses, increase in self-serving behaviors in society, and declining economic prospects for average American families, have led to increasing public perceptions that the nation "is going in the wrong direction". Liberal economists and historians claim that we have entered a new Gilded Age.

What are prospects for reform? I suggest that reemergence and public acceptance of the political patronage system and voters' preference for politicians who serve their immediate interests and/or offer charisma are root problems. If so, parallels with events in the 19th Century are suggested to have predictive value[2].

To set the stage for reform public dissatisfaction with the state of national affairs needs to intensify as it did after the scandals of 1872. This may require new or deeper crises. We will need reformers with knowledge and vision who can be elected to influential national positions, ideally President. Unlike the 19th Century, when it took a moderately long political career for even a charismatic Theodore Roosevelt to establish a sufficient public image to be a candidate for President, the rapid rise of President Obama shows that modern media and organizational capabilities can accelerate the familiarization process.

[2] Even though major technological changes have taken place since the 19th Century, classic Greek plays and the Bible suggest that human nature hasn't changed in over 2000 years. More to the point, special national characteristics associated with the U.S. were already perceptively described by the French observer, Alexis De Tocqueville, in his celebrated 1835 book, *Democracy in America.*

New England Water Science Center
Our Science and Future

Keith Robinson, Director New England WSC

The New England Water Science Center (NE WSC) is going through a period change brought about by the merger of the 4 former individual water science centers in the region, and by changing science activities. In this article I will discuss the changes underway focusing on some science highlights and what the future may look like for the NE WSC.

The NE WSC's greatest asset is our staff. We have over 120 scientists, hydrographers, IT and administrative specialists that I am quite proud of. They work hard, are dedicated to the mission and goals of the USGS, and are the reason I can present some of the great work we are doing.

The NE WSC has very strong basic data programs in all of our 6 states. We have nearly 420 real-time streamflow gages, 200 groundwater level wells and about 40 routine water-quality monitoring locations. The number of streamflow gages continues to increase every year it seems as the need for real-time flow information remains popular. One part of our gaging program also growing is our work for the US Army Corp of Engineers, New England District. For our groundwater level network, we are seeing greater interest in real-time data for these wells and converting our monthly tape downs to continuous transducers in many locations.

A couple of new activities in our basic data programs include the implementation of a tidal storm surge network along the New England coast and use of advanced continuous monitoring equipment for water quality measurements. Superstorm Sandy supplemental funding has allowed for the placement of nearly 270 coastal rapid response tide sensors from Maine to Connecticut. These sensors will be deployed whenever coastal flooding from major storms is imminent. Recently, a combination of 10 communities and states are requesting that we operate some of these tidal gages on a continuous basis as part of our cooperative water program. This coastal network will be a new data program area for our Water Science Center.

We are also using more continuous sensors for water-quality purposes. Acoustic velocity meters are being used to quantify sediment loads in two streams in Vermont and work is being done to determine if phosphorus loads can be estimated/predicted from the sediment data – this is important as phosphorus is a nutrient of concern in many of the tributaries to lakes in the region. In some small headwater streams and at the coastal outlet of a few rivers, we have begun to measure continuous nitrate with sensors. Originally designed for monitoring ocean water conditions, these sensors will find greater use in measuring riverine water quality in the near future.

Over the past 10 years, many major regional and localized flooding events have occurred in New England resulting in loss of life, major infra-structure damage, severe channel changes and sedimentation, and many peaks of record at streamgages. We have also observed the greatest runoff per area values ever recorded in the region during this period. As a result, the NE WSC has been active in responding to the floods both in documenting peak flows at gages, as well as working for FEMA in flood recovery studies and new floodway mapping. FEMA is our largest single cooperator now and we have a number of staff continuously working on FEMA studies and flood map revisions throughout all of New England. We feel our work for FEMA is a model for other areas of the Nation.

The large number of recent floods has made the impact of climate change on water resources front and center to many agencies, organizations and citizens in our region. NE WSC staffs in all of our offices have been or are now involved in studies aimed at assessing impacts of climate change. For over a decade scientists in our Maine Office have led the way on assessing how our changing climate is affecting our water resources. Earlier ice out dates for lakes in New England, earlier spring runoff and date of mean total stream flows, and increasing annual flows have all been documented by studies from this office. Recently, our scientists have

been conducting models to simulate effects of climate change on flows in watersheds in Connecticut, Maine and New Hampshire, and on groundwater levels in New Hampshire and Rhode Island and rising sea levels on groundwaters of Cape Cod.

Other science themes that scientists from the NE WSC have national leadership roles in include:

- documenting and predicting how and where elevated arsenic in groundwaters of New Hampshire, New England and the Nation may be found
- developing new and innovative sampling methods to characterize contaminant loads in rivers, especially multi-state large rivers
- using the latest in statistical tools developed by Robert Hirsch to evaluate nutrient and dissolved ion loads and long-term trends in rivers. These efforts are important for tracking progress in meeting clean water goals.
- providing critical support for the USGS national water programs used by NAWQA, Office of Surface Water and Office of Groundwater
- assisting with international water studies in Afghanistan, Abu Dhabi, and the Middle East

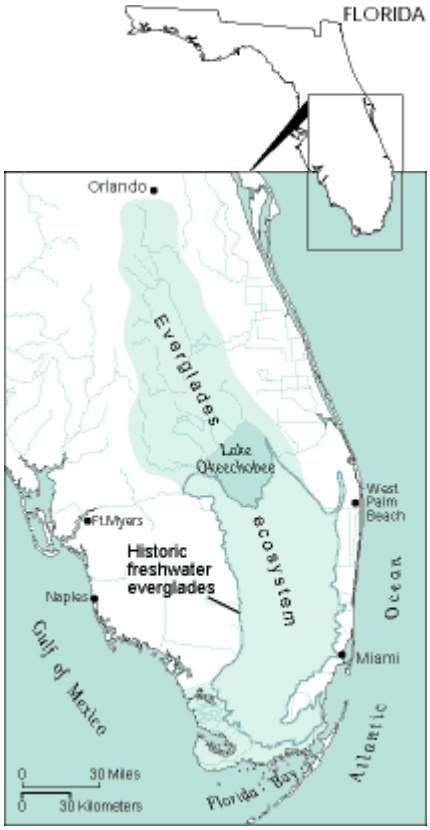
Despite all of the great work by our staff, the USGS and NE WSC continue to shrink in size due to budgets that do not keep up with inflation and other rising costs. As dollars get stretched in our cooperative water program and there are less overall dollars to do the science we have typically done, individual water science centers are beginning to merge together. That is what happened in 2012 with the 4 water science centers in New England. The merger of these science centers into one is designed to share the workload of staff among the offices, eliminate duplicative services and expertise, and to create a science center that has greater flexibility and buffer to a changing world than the former individual centers had by themselves.

Since 2012, the merger of the offices in New England has been a gradual effort so as to minimize the impacts on the science and scientists. In 2013-14 we created centralized Administrative and Information Technology units, centralized the FEMA project team, moved towards a single overhead rate, and performed regional science planning. In 2015 our merger will become more complete with a single assessment/overhead rate, creating single technical specialists for the entire NE WSC center, and technical discipline reviews for the entire NE WSC.

The mergers of WSCs will continue to expand across the Nation, I believe, due to shrinking budgets and workforces. WSC mergers have recently been proposed for the entire Southeast Region. Along with the mergers comes the need to re-invent how we do our work, defining our primary customers, and the blurring of political boundaries in the work we conduct. The one constant, however, must be the high quality hydrologic data collection and studies the USGS is known for. Maintaining this high quality and integrity in all we do, will ensure that the USGS will be a future worldwide leader in hydrologic sciences!

FLORIDA EVERGLADES

The Everglades ecosystem includes Lake Okeechobee and its tributary areas, as well as the roughly 40- to 50-mile-wide, 130-mile-long wetland mosaic that once extended continuously from Lake Okeechobee to the southern tip of the Florida peninsula at Florida Bay.



Florida Everglades

Since 1900 much of the Everglades have been drained for agriculture and urban development, so that today only 50 percent of the original wetlands remain. Water levels and patterns of water flow are largely controlled by an extensive system of levees and canals. The control system was constructed to achieve multiple objectives of flood control, land drainage, and water supply. More recently, water-management policies have also begun to address issues related to ecosystem restoration. Extensive land subsidence that has been caused by drainage and oxidation of peat soils will greatly complicate ecosystem restoration and also threatens the future of agriculture in the Everglades.

The Everglades ecosystem has, in fact, been badly degraded, despite the establishment of Everglades National Park in the southern Everglades in 1947. Prominent symptoms of the ecosystem decline include an 80 percent reduction in wading bird populations since the 1930s the near-extinction of the Florida panther invasions of exotic species and declining water quality in Florida Bay, which likely is due, at least in part, to decreased freshwater inflow.

A thin rim of bedrock protects south Florida from the ocean. The limestone bedrock ridge that separates the Everglades from the Atlantic coast extends 20 feet or less above sea level. Under natural conditions all of southeast Florida, except for a 5- to 15-mile-wide strip along this bedrock ridge, was subject to annual floods. Much of the area was perennially inundated with freshwater. Water levels in Lake Okeechobee and local rainfall drove slow-moving sheet flow through the Everglades under topographic and hydraulic gradients of only about 2 inches per mile. Lake Okeechobee, which once overflowed its southern bank at water levels in the range of 20 to 21 feet above sea level, today is artificially maintained at about 13 to 16 feet above sea level by a dike system and canals to the Atlantic and Gulf coasts.

The first successful farming ventures in the Everglades began in about 1913, not on the sawgrass plain itself but on the slightly elevated natural levee south of Lake Okeechobee. Early efforts to clear, farm, and colonize the sawgrass area had little success, being plagued by flooding, winter freezes, and trace-nutrient deficiencies. (The soil beneath the sawgrass was later shown to be too low in copper to support most crops and livestock.)

In the 1920s the State of Florida established an Everglades Experiment Station in Belle Glade, and the U.S. Department of Agriculture established a Sugarcane Field Station in Canal Point. The combined efforts of these units gradually solved the plant- and livestock-pathology problems experienced by early farmers. However, the land was still subject to frequent, sometimes catastrophic inundation. The great hurricane of 1928 caused at least 2,000 fatalities and flooded the Everglades Experiment Station for several months.

The Everglades are currently the subject of a major Federal-State ecosystem restoration effort. "Restoration" is perhaps a misnomer, as the focus of this effort is on more natural management of the remaining 50 percent of the Everglades wetlands, not on regaining the 50 percent that has been converted to urban and agricultural use. Even improving the natural functioning of the remaining wetlands will be a complex problem, due to the lost spatial extent, the hydrologic separation from Lake Okeechobee, and land subsidence. The Everglades will likely continue to be an intensively managed system. However, much as the major engineering effort in the 1950s and 1960s halted the destructive fires and saltwater intrusion of preceding decades, the current restoration effort has the potential to halt and reverse more recent environmental degradation. A major challenge will be to deliver water from Lake Okeechobee through the extensive subsided areas so that it arrives in the undeveloped southern Everglades at similar times, in similar quantities, and with similar quality, as it did prior to drainage and subsidence.

More information about the Florida Everglades can be found at:
http://sofia.usgs.gov/publications/circular/1182/

A Recent Return to Xi'an, China
Don Helm

After the 2013 International Association of Engineering Geology and the Engineering conference in Beijing, my wife and I joined one of the geologic field trips. This one ended in Xi'an, home of the ancient terra cotta warriors, to view the famous land fissures that have unfortunately destroyed parts of this historic city. Xi'an served as the Imperial Capital of about 15 dynasties as well as to Chiang Kai Shek's government before and during World War II, not to mention its being the point of origin of the famed silk route between China and the Mediterranean world that was assiduously traced in reverse by Marco Polo, who wanted to corner the market.

Most of my colleagues on this particular field trip were experts in earthquakes and landslides (from Japan and Europe). Our local Chinese faculty-guide for the afternoon in Xi'an grew slightly impatient with some of their comments, unsolicited suggestions, and self-serving offers to be consultants. He said, "Yes, yes. Before 1992, we also thought their cause was seismically related. But in 1992, Prof. Hai Yum gave a lecture to our geological college and suggested they may be caused by groundwater flow. We have since proven that this is the case. We can now control their occurrence." I asked: "How do you spell Prof. Hai Yum's name?" He said, "H-E-L-M, the great American professor." I said, "I am that Professor Hai Yum. I mean, Helm." Tears welled up in this mountain of a man and he embraced me. He spent the rest of the afternoon at my side, letting other members of the field trip fend for themselves.

It turns out, he was the graduate student/technician who in 1992 was assigned to take me, one-on-one, on this same tour of the fissures and the instruments he had built and put in place to measure earth movement and fissure occurrence and growth. I did not recognize him because I remember his being much shorter. He remembered my being much taller. Some grow with age and some, at least at my age, shrink.

He said my lecture changed his life and saved Xi'an. I recall that the Chinese Academy of Sciences had sponsored a lecture tour for me to a number of universities throughout China in 1992. After being shown the fissures, I had modified my stock lecture somewhat to address the problem faced by my local hosts in Xi'an.

Later, I expanded on these ideas and wrote a paper called "Hydraulic forces that play a role in generating fissures at depth." The Association of Engineering Geologists (AEG) awarded it Best Paper of the Year (1994). Unknown to me, this young geo-technician translated the paper into Chinese and distributed it not only to all geology students in Xi'an now for 20 years but to other Earth Science university faculties throughout the country.

The central government has decided recently to build a subway system beneath Xi'an, currently a city of 8 million people. The main problems faced by the contractors are all related to the fissures. Our local guide has become their consultant on fissures. He has been paid handsomely and says he still consults my paper for new ideas when unexpected technical problems arise.

Talk about a seed falling on fertile soil!

American Water Resources Association (AWRA) *Connections* Newsletter, Nov.-Dec. 2014

http://archive.constantcontact.com/fs124/1011215259037/archive/1119141704681.html

AWRA Introduces National Open Water Data Initiative

In coordination with The White House Climate Data Initiative, the Federal Geographic Data Committee, and the Advisory Committee on Water Information; AWRA recently hosted the introduction of a national Open Water Data Initiative (OWDI) during its Annual Water Resources Conference and 50th Anniversary Celebration.

- **AWRA Press Release**
- **USGS Press Release**
- **Open Water Data (Session 1 of 4): Assessment of National Priorities**

  Video Presentation (for information on viewing all 4 sessions contact christine@awra.org)

- **Conference Flikr Photo Album**

AWRA President Interviews Incoming Journal Editor

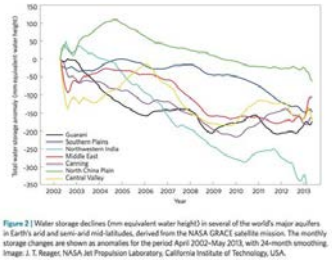
The most recent Windows on Water Management interview features Parker J. (Jim) Wigington, Editor-in-chief of the Journal of the American Water Resources Association (JAWRA). JAWRA is AWRA's premier peer-reviewed journal of water resources practice. Jim is taking over from Ken Lanfear who is retiring, and we wanted to talk with Jim about his aims and ideas regarding JAWRA.

Conducted by Mark Dunning, President of AWRA, the Windows on Water Management interview series is a part of AWRA's 50th Anniversary celebration. Past interviews may be viewed on **AWRA's YouTube Page**.

CONTINUING EDUCATION

- **2014 AWRA Annual Water Resources Conference**
  (Note: Powerpoint slides are linked to presentations where provided by authors)
- **AWRA 2014 Conference Programs**
- **AWRA Live Learning Center**
- **AWRA Water Resources Education**
- **AWRA Webinar Archive**
- **AWRA Reports and Resources**

Read This Commentary: "The Global Groundwater Crisis"



Jay Famiglietti just published this commentary in Nature Climate Change. It's a chilling message, and he says so right below the title: Groundwater depletion the world over poses a far greater threat to global water security than is currently acknowledged. Anyone even remotely interested in the world's water predicament has to read this paper. It's not long ...»

Editor Position Still Vacant

I have had the privilege in my 34 year career with the USGS to have worked in three different Divisions. In all three, I witnessed the 'family atmosphere' practiced time and again; and, have also been the recipient of the generosity of people in some very difficult personal times.

Jim Biesecker was a man of the people, he recognized that tribute should be paid to those that have worked for WRD and noted time and again in the 'In Memoriam' section of the quarterly newsletter. Charles Nethaway volunteered when Jim passed and kept that same emphasis on each newsletter that he edited. With Charles passing, no one has volunteered to fill that void. And, this is a real shame.

The duties of the 'Editor' for the quarterly newsletter are as follows:

-evolves the newsletter to a form more interesting to a new and younger audience, without losing our base, a major management challenge.
-prepares the Table of Contents for each quarterly newsletter.
-works with the President and Secretary of the retirees organization.
-forwards correspondence to the layout editor for the preparation of the quarterly newsletter as it is received.
-opens communication with the regional and state representatives on significant news (new science related studies, passing of retirees (including spouses), etc.
-serves as a focal point for science articles, news of retirees (including meetings & gatherings).
-reviews drafts and final copy prior to printing.
-works with the Secretary on the distribution of the quarterly newsletter.
-annually assists with the preparation of the retirees telephone directory.

For the most part, the layout editor (my job), does all the formatting, forwarding of drafts to regional editors for review, and makes any necessary corrections prior to transmittal to the printer. This is the time consuming part. We have 24 printed pages, plus an electronic supplement.

Those retirees who have been retired for 15 plus years are aging, and in recent years the retirees' organization has lost many of those who have the 'historical knowledge' of WRD both from the operational and professional viewpoint. We need some of the younger retirees to step up and keep the retirees organization vital. Especially in regards to the 'In Memoriam' portion of the newsletter, I do not have a background in the field of water science or what a passing retiree has contributed to WRD.

Federal regulations, specifically the Privacy Act, restrict us from an employee's or retiree's work history for the USGS Water Resource Discipline. Since Charles' passing, I have had to rely on newspaper obituaries to note the passing of retirees. In a few cases, people have stepped up to write an acknowledgment of those retirees' contributions.

Tim Smith, Andy Anderson and I have all been putting in extra time preparing the quarterly newsletters. What I am asking now is for someone to please volunteer and fill the Editor position. This will free up time to work more closely with the USGS.

If you would like more details, please feel free to call Tim at 703-860-1038. Our email address is wrdretirees2014@gmail.com/

Merilee Bennett
Layout Editor

NEWS OF RETIREES

Lee Trotta writes: he has been busy helping plan the Wisconsin Ground Water Association's annual conference coming up March 13, 2015. The theme of Vadose Zone Budgeting and Characterization will be thoroughly covered. In the meantime, he follows the travels of his globe-trotting daughter and visits with his son's growing family locally in Sheboygan. In May, Lee starred as Mr. Bumble in Sheboygan Theater's sell-out production of "Oliver"! Hope you can use this news! Also, I caught my limit of salmon this year, including this 30-pound 35-inch giant. Lee

2016 -- WRD Retirees' Reunion Committee Members
Nashville, TN

Seated (L to R): Charles Gamble, Pete Anttila (Chairman), Joyce Anttila, Rebel Gamble, Susan Hollyday, Bob Burchett, and Jerry Lowery
(Not present at this meeting, Gwen Hoover)

MEETINGS & GATHERINGS

Headquarters WRD/GD Retirees Christmas Luncheon
Amphora Diner, Herndon, VA
December 1, 2014

Andy Anderson addressing the Christmas luncheon attendees

From front to back: Andy Anderson, John Shanton, Hal Langford, Ellen Smith, Tim Smith, Dick Engberg, and Frank Manheim

Twenty-seven members and spouses were in attendance. We didn't have our regular meeting reports Andy Anderson, but several announcements were made pertaining to our members.

1. Hal Langford our professional fisherman is making plans to take five seniors (two of them in their nineties) in his development, out on the Chesapeake Bay in mid-December.
2. Concerned Bill Mann's wife, Helene, who slipped and fractured her hip on Tuesday, November 27th, and spent several days in the hospital.
3. We got word that Eileen Smith's husband Frank, passed away on Friday, November 28th while in Colorado. Frank had a massive heart attack on Christmas 2013, in CO and could not fly home. Eileen has been battling a problem for a couple of years and couldn't go to Colorado. She told me that it may be months before a service can be had for Frank, due to the backlog at Arlington National Cemetery.
4. Then we got word that Tom Buchanan also passed away on Friday, and that his family was all at his home. A funeral was held on the following Tuesday at his church.

I am sure that cards and/or phone calls would be welcomed at each of these households.

(Additional photographs from the luncheon can be found in the supplement.)

TEXAS WRD RETIREES NEWSLETTER
October 15, 2014

The Texas WRD Retirees met October 15th and only 4 members and guest were present. Those that came to the meeting were the ones that went to the National WRD Retirees meeting in Maine, Bob Burchett, Paul Rohne (Paul's guest Rita), and CT Welborn. There was nothing new to report at this meeting except news about the National WRD meeting.

The 4 of us went on the same flight which was 1½ hours late in departing and made us miss the flight from Newark, NJ to Portland, Maine. We had to take a flight to Baltimore and then a bus to Portland. We didn't get there in time for the ice breaker which was a disappointment. The next day we had a continental breakfast and then a business meeting. We had to sit far in the back at the meeting hall and I (CT) was unable to hear at all. So I have nothing to report on the business meeting. We had the afternoon off and CT rested. That evening we went on a ferry to an off shore island named Peak Island for a Maine lobster dinner. The lobster was of a good size, about 1 3/4 pounds. It was a very good meal and plenty to eat. Saturday, Bob and CT took a tour bus to New Hampshire to board the train for the foliage tour. CT was disappointed in the foliage we saw on the train but the foliage we saw from the bus on the way over was very good. However, the train ride and the food were excellent. That evening we had a buffet instead of the steak or salmon we were supposed to have. It was ok. After the meal there were speeches by the President and members of the Maine USGS. The flight back to Austin was as bad as or worse than the flight to Maine. We were delayed several hours and didn't arrive in Austin until 0100 hours. We were supposed to get around 2000 hours.

During the month of October, CT took his wife, two of his daughters (Debbie couldn't make it), and a step daughter on a 7 day cruise to Cozumel, Belize, and an island named Rotan, off the coast of Honduras. We had one day sailing to Cozumel and 2 days at sea for the return trip. Unfortunately we saw very little sun on the whole trip. The water at Cozumel was too cool for CT to swim so he just lay on a beach chair and read. At Belize, the girls went on a tubing trip through a cave. The trail up to the cave was too much for CT to negotiate. The water at Rotan was warm enough for CT and they stayed in the water for some time. The food on the ship was excellent. CT ate a lot but gained only 3 pounds. All in all it was a good trip.

About 3 or so weeks ago, Stan Sauer had serious surgery on his jaw and spent 14 days in ICU and then was moved to a hospital room and then to a rehab center. Stan's situation seems to be much improved. Virginia said that she is OK.

Francis Wessel of San Antonio passed away in August 2014. He retired in the early 1990's.
Our next meeting will be the third Wednesday in January and from then on, we meet monthly on the third Wednesday.

--Secretary-Treasurer – C.T. Welborn

RETIREMENTS

John Aktins, is retiring after over 40 years of surface-water investigations with the West Virginia Science Center, John Atkins has decided to retire on January 3, 2015. John began his career with the USGS in October 1973 with the West Virginia District, Water Resources Division, Charleston, WV, as a hydrologic field assistant. John had come to the USGS after receiving his PhD in Chemical Engineering from Virginia Polytechnic and State University. Several months after joining USGS, he received a career conditional appointment as a hydrologist. John's career as a hydrologist has spanned a wide breadth of subjects, including: water-quality studies, computer programming, hydrologic modeling, statistics, and water-use studies. Of particular regard is the wide variety of watershed modeling in coal mining areas that he has performed and his more recent work with stream statistics and skew coefficients. Overall John has participated in authoring 33 USGS publications during his career. His willingness to contribute to other project chiefs in the course of their studies has typified John's career. John will be greatly missed by his colleagues in West Virginia. John plans to retire to Jacksonville, FL. Please join us in celebrating John's outstanding career with the USGS.

-Mark R. Bennett, Director, West Virginia/Virginia Water Science Center

William (Bill) Evans, after more than 40 years of service will retire on 2 January, 2015, from the Western Branch of the USGS National Research Program (NRP). Bill started his career with the USGS as a GS-5 Hydrologic Field Assistant in summer, 1974 in Menlo Park, and ends his career as a GS-15, internationally renowned Research Chemist. He is a highly valued team leader, colleague, mentor, and friend. Soon after beginning in 1974, Bill was converted to a chemist and began characterizing the chemical composition of thermal springs in the western United States. He continues this work today as a Research Chemist, but his studies have evolved to include the geochemistry of fluids from high-temperature vents in seafloor spreading-ridges, hot spring waters from geothermal fields, waters from deep boreholes in crystalline rock, natural soda springs, and the lake waters in the dangerous gassy lakes of Cameroon and Central Africa. He created a detailed model that explained the massive carbon dioxide release at Lake Nyos, Cameroon in 1986; this release asphyxiated nearly two thousand people. His model and exhaustive field work was instrumental in the installation of degassing pipes in the lake to eliminate future catastrophic gas bursts and loss of life. His studies of Cameroon lakes provided a springboard to quantify carbon dioxide-releases in the Mammoth Mountain-Long Valley areas of the eastern Sierra Nevada, the Lassen Peak area of northern California, and the Three Sisters area of the Oregon Cascades. His CO_2 flux measurement techniques have significantly furthered our understanding of the global carbon cycle. Bill's work also suggests that the geochemistry of waters containing magmatic gases may provide exciting information on the timing of volcanic eruption long before the eruption actually occurs. His highly relevant work has long been published in top-tiered scientific journals, including *Science* and *Nature*. Throughout his career, Bill has maintained a thoroughly professional approach while dealing with many challenges ranging from sharks in the Marianas, to volcanic eruptions, to earthquakes in Yellowstone National Park and the Aleutian Islands, to crocodiles in Cameroon. Bill's commitment to the mission of the USGS is unquestioned and is exemplified in the numerous leadership roles he has taken, many of which are out of the limelight.

-Jared Bales, Chief Scientist for Water

Patrick Finnegan began his career in St. Paul, Minnesota as a hydrologic technician in 1978 and transferred to the data section in Lawrence, Kansas in 1984. He transferred to the Investigations section in 1994 and led data collection efforts in the Lawrence office. He did a wide range of data collection activities with the Data and Investigations sections and led coring operations in reservoirs and lakes in 9 mid-western states.

-Andrew Ziegler, Director, Southwest Region, KS Water Science Center
(Reference grey text box on page 16)

Stephen (Steve) E. Hammond has retired after nearly 40 years of federal service with the USGS. Steve joined the Regional Geologist's Office in June 1975 as a student Geologic Field Aid in the Minority Participation in Earth Sciences (MPES) Program where he participated in slope stability studies, and later worked in the office of Geochemistry & Geophysics analyzing data used to revise Magnetic Variation and Standard Deviation maps. He worked as an MPES student intern while studying Mathematics and Geology at Whitman College. In 1977, Steve became a Hydrologic Field Assistant in the WRD Colorado District where he analyzed water-use information at the Denver Federal Center and later collected and analyzed geophysical logs of boreholes in the Piceance Basin near Meeker CO to document the groundwater hydrology interbedded with the energy reserves of coal, natural gas, and oil shale. After graduation, Steve became a Hydrologic Technician where he participated in groundwater-chemistry studies of reclaimed strip coal mining operations in Routt Co Colorado. In 1984,

Steve transferred to the Cascades Volcano Observatory (CVO) as a Hydrologist where he monitored streamflow and sediment transport on the rivers adjacent to Mount St. Helens Volcano. He conducted sediment-transport research and helped to develop high-volume bedload sediment samplers. Steve participated in a 3-year detail assignment to Reston, VA from 1990-93 to serve as a subject-matter expert for the National Water Information System (NWIS)-II software development team. From 1993-1999, Steve was stationed at the WRD Nevada District in Carson City, NV where he was the Hydrologic Data Monitoring and Surveillance Chief. In 1999, Steve returned to Reston to become the Deputy Assistant Chief Hydrologist for Operations. During that time Steve traveled to Tegucigalpa, Honduras to assist with hydrologic monitoring activities after Hurricane Mitch. He was sought out to serve the Bureau in several other leadership positions after 2000 including Senior Advisor and Program Officer for Budget in the Office of the Eastern Region Director, Director of Science Information and Education (SIEO) in the office of the Geospatial Information Officer (GIO), Chief of Emergency Operations in the National Geospatial Program (NGP), and finally as the Deputy Associate Director for Natural Hazards Mission Area and as the Bureau Emergency Management Coordinator before he retired on January 3, 2015. He was recognized by DOI for his service during the USGS response to Hurricane Katrina in 2005 and awarded the Civilian Service Award by the U.S. Coast Guard for his service during the Deepwater Horizon oil spill in 2010. Steve has mentored many employees and students and taught leadership courses throughout his career. Steve received the USGS Diversity Award and in 2012 he received the Meritorious Service Award for career achievement and his work with minorities and women in pursuit of science careers.

Cristi Hansen began her career as a physical science technician in 1978 in Denver Colorado and transferred to Lawrence, Kansas as part of the upward mobility program in 1981 (her other choices were Salt Lake or Houston). Cristi published her "Estimates of freshwater storage and potential natural recharge for the principal aquifers in Kansas" report in 1991 that is still cited and used today and many reports on the Equus beds aquifer. Cristi authored or coauthored more the 40 reports.

-Andrew Ziegler, Director, Southwest Region, KS Water Science Center
(Reference grey text box on page)

Joan Kenny began her career as a student in Lawrence, Kansas in 1977 as a hydrologic technician, became the first woman hydrologist hired in Kansas in 1978 working on a variety of studies including coal hydrology before finding her niche in water use. Joan completed all Kansas Water Use compilations beginning in 1985 through 2010, authoring and coauthoring the national Water Use compilations in her role as the Central Region Water Use Specialist. Joan authored or coauthored more than 30 reports in her career.

-Andrew Ziegler, Director, Southwest Region, KS Water Science Center
(Reference grey text box on page 16)

Tim McElhone is retiring, after 34 years with the USGS. Tim began his USGS career on January 20, 1981. He started in Wisconsin as the GWSI Data Base Administrator and later took on the duties of QW Data Base Administrator. He

transferred to Alaska in 1984 and continued working as both GWSI and QW Data Base Administrator. While working there, he became a member of the GWSI Coding Team and eventually transferred to Arizona in 1988 and became a Computer Programmer. Tim wrote many computer programs and created several data processes for the local, tri-state region and national USGS offices. In 1992, he transferred to Indiana and became their Computer System Administrator. In 1996, he transferred to Michigan as their first Computer System Administrator. Tim served as a member of the WRD Year 2000 SWAT team going from office to office testing computers to ensure that there would be no disruption of service due to the year change from 1999 to 2000. He served as Acting NE Region IT Specialist on a 2-month detail that lasted two years. He worked on several IT Review Teams and became a member of the ITAC committee. In 2005, he served as Acting Supervisory IT Specialist for CA while performing his duties as a member of the NWISWeb Support Team. He is grateful for his USGS experience which allowed him to travel all over the country and has made many friends in many places. He is looking forward to his retirement adventure. A retirement luncheon was held on December 18, 2014

-Ralph J. Haefner, Deputy Center Director, USGS, Michigan Water Science Center

Jim Putnam began his career as a student in Lawrence, Kansas in 1977 as a hydrologic aid then technician in 1981 in Lawrence, Kansas through 1988, was field office chief in Garden City from 1988-1994, then became a Hydrologist in 1994-96 in Investigations Section, Data Chief from 1996 through 2010 and in 2011 became the Hydrologic Investigation Chief. Few in USGS have had the width and breadth of a varied career in data collection leading the charge for continuous record processing and interpretation in USGS science and mentoring many employees in his supervisory positions. Jim authored or coauthored more than 30 reports in his career.

-Andrew Ziegler, Director, Southwest Region, KS Water Science Center
(Reference grey text box on page 16)

Richard (Rich) Reynolds, is retiring after almost 40 years of groundwater investigations with the New York Water Science Center, on January 2, 2015. Rich began his career with the USGS in 1973 as a Hydrologic Field Assistant in the Mineola, NY office on Long Island, N.Y. After conversion to a Hydrologic Technician, Rich received his Hydrologist rating in 1975 and became a project team member of the Long Island 208 water quality study. From 1977 to 1979, as a member of the Hydrologic Models Section in Syosset, N.Y., Rich developed a method of estimating mean annual base flow of Long Island streams through analysis of flow duration curves. In 1979, Rich transferred to the Albany, NY office to become a Project Chief in the Hydrologic Studies Section where he conducted assessments of the hydrogeology of a valley-fill aquifer system in Chenango County, NY and the surficial outwash aquifer at Cortland, NY. In these two studies, Rich pioneered the use of seismic refraction surveys to define the thickness of valley fill and introduced the use of floodwave-response modeling to estimate the diffusivity of glacial valley- fill aquifers. In 1982, Rich took over the Detailed Aquifer Mapping Program in upstate New York, which has become one of the most successful long-term projects in the NYSDEC-USGS Cooperative Program, producing 35 published reports to date. From 1986-88 Rich adapted the use of high resolution marine seismic reflection profiling to investigate the subsurface geology of valley-fill aquifers within the Susquehanna River Basin as part of the Northeast Glacial RASA program. Rich's 2001 proposal to NYSDEC for a groundwater quality sampling program to satisfy USEPA Clean Water Act Section 305b requirements has led to a long-term cooperative groundwater quality program with NYSDEC. His evaluation of the Federal-State observation well network in 2000 led to public awareness of the program and resulted in an increase in cooperator funding to expand and improve the network. His studies of the hydrogeology of the Beaver Kill, East Branch Delaware, and West Branch Delaware River basins in the Catskill Mountains have shown that the high base flows of the streams in this region are primarily the result of groundwater contributions from the underlying sandstone bedrock. He has worked with the U.S. Army to conduct a hydro-geologic investigation of the aquifer system at Fort Drum, NY and with the U.S Air Force to investigate the extent of coal ash contamination at Griffiss Air Force Base, Rome, NY. He has collaborated with the Geological Survey of Canada on the study of two transboundary aquifers. Most recently, Rich has provided technical assistance and advanced borehole geophysical logging to USEPA at the Shenandoah Road National Superfund Site in Dutchess County, NY. A sought-after colleague reviewer, Rich has been the Acting District Reports Specialist for the New York District (1991-1995) and served as the Acting Reports Improvement Advisor and approving official for Western Region in Menlo Park, CA. As an avid sailor and amateur historian, Rich plans to travel with his wife of 38 years, Maggie, do as much sailing as possible, work on house projects, and, if there is any free time left, work on a movie screenplay he has been mulling over. Rich plans to stay on as a Volunteer with the New York Water Science Center to finish up some project work.

-Ward O. Freeman, Director, New York Water Science Center

Kansas WSC had a flood of retirees in 2014-2015 for a combined total 313 years of dedicated public service to USGS. Retirees in May 2014: Craig Dare (29 years), Charlie Perry (39 years), Seth Studley (27 years), Donita Turk (22 years), Duane Wimes (25 years), and Mark Lysaught (23 years) were followed by 4 more in January 2015 – **names reflected above.**

-Andrew Ziegler, Director, Southwest Region, KS Water Science Center

MEMORIAL

Thomas J. (Tom) Buchanan
(1929-2014)

Tom was 85 when he passed away on November 28, 2014 in Vienna, VA, with his entire family at his side. The Buchanans lost a loving husband, father, grandfather and great grandfather. He was, very simply, an extremely devoted family man. But with Tom's passing, the U.S. Geological Survey (USGS) also lost one of its most admired, charismatic and successful leaders ever. The foundation for Tom's dedication to family, friends, and USGS career was his belief in God and dedication to sound moral principles that guided him no matter where he was, who he was with, or what the circumstances. For many of us who learned from him early in our careers, he was an icon to strive to imitate.

Tom was born and raised in Albany, New York, and is survived by his wife of 63 years, Marie, six children, sixteen grandchildren and eight great-grandchildren. He graduated from Rensselaer Polytechnic Institute in 1951 with a BS in Civil Engineering. Upon graduation, Tom began his career with the USGS as a hydraulic engineer with the Surface Water Branch in Albany, New York. There he learned the fundamentals of streamflow data collection and analysis and later conducted numerous surface-water hydraulic studies of New York streams. In 1962, Tom transferred to Arlington, VA to work in the Headquarters office of the Surface Water Branch, where he conducted District surface-water technical program reviews, wrote technical surface-water techniques manuals, and represented the Branch on a wide range of Federal multi-agency technical committees.

In 1964, after being recognized for his significant leadership and management skills, Tom became the first 'Assistant District Chief' of the New Jersey District in Trenton. In addition to sharing the normal day-to-day and long-term District operational responsibilities with the District Chief, Tom assumed the task (because he was the best person to do it) of putting into place for New Jersey the new national 'District' organization structure implemented by Chief Hydrologist, Luna Leopold. This challenging task required merging the staffs of the individual discipline (SW, GW and QW) office cultures into one integrated and harmonious operation, under the leadership of one District Chief. Tom's remarkable interpersonal skills and leadership savvy provided the catalyst needed to bring the diverse group together as a cohesive organization. He guided the building of bridges between and among the separate disciplines that promoted working relationships that had not existed before. Also, while in New Jersey, Tom was selected for graduate school training and earned a MS in Engineering from Princeton University in 1967.

In 1968, Tom became the Subdistrict Chief of the Miami Subdistrict, which at that time was as large or larger in all aspects as the average District. He took over an office that had both personnel and program issues. He successfully dealt with those, added significant coop, OFA and Federal programs, and added staff as the Subdistrict soared to unprecedented heights in every possible area. He became the first GS-15 Subdistrict Chief in WRD history.

Tom moved to Reston in 1976 to become the Assistant Chief Hydrologist for Operations with the responsibilities for heading up the entire operational side of the WRD. His innovative leadership style and solid

management acumen resulted in such important developments (one among many) as the Manpower Committee that convened all senior WRD executives together on a bimonthly basis to discuss candidates for all GS-13 and above positions, focusing on the needs of WRD and career development of talented junior professionals to fill those positions. The remarkable legacy of his work through that group has had positive ripple effects that still exist today. Tom's magnetic personality and 'go-get-em' work ethic resulted in the WRD running at the highest possible rates of productivity and efficiency during his tenure as ACH/O.

Throughout his career Tom, led with a style that made employees want to be on his bandwagon. Morale that may have been low upon Tom's arrival was soon 'off the high end' of the charts; and productivity grew to levels that had not been experienced before with exceptional program growth and employee satisfaction. Tom retired in 1986 after 35 years of exemplary service to the USGS.

Tom was a role model for at least 2 generations of leaders and managers on how to guide large organizations such as the WRD, both in the short- and long-term. We (Jeff and Herb) were extremely fortunate to have served under Tom's tutelage very early in our careers with WRD. From him, we learned effective solid management principles that we used later in our careers for guiding all aspects of District and Regional operations. We both feel that what set Tom apart above most managers were the intangibles imbedded in his personal style of management, the kind that can't be found in management manuals. For instance, he made a point of taking every dignitary or visitor on a tour of the office making sure they were introduced to each and every employee—the result, we felt important and a valuable part of the USGS. He made sure each employee knew what had to be done and why—there were never any gray areas. Every day, Tom made sure there was always some humor and he never let outside issues affect his daily disposition. One of his best attributes was his communication, which was always done up front, not after the fact. He was almost religious about writing and sending notes, always in green ink, always in his left-handed scrawl. Employees were held accountable for their work on projects and maybe most importantly, he worked hard to make sure we knew what it meant to be a good citizen. We both learned a wide range of techniques from Tom that we applied later in our careers as we both managed District and Regional Programs. These techniques served us well. Both of us faced some difficult problems during our careers and we both asked ourselves the same thing, "What would Tom have done, given the same situation?"

At his funeral, Tom and Marie's daughter Jacquie remembered her Dad. In part, she lovingly shared:

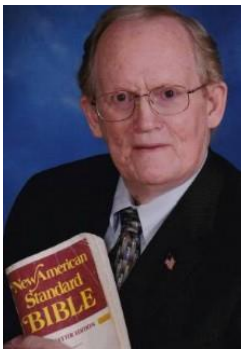
> *"Dad lived by God's word. He was a man of his word. His words so shaped who we Buchanans became that when we listen to our conscience, it sounds like his voice speaking the words we need to guide us. He taught us to be frugal and practical and was the original do-it-yourself fixer upper. He could fix anything, and was always taking care of something that somebody needed because that's what he did - he took care of us. He was a devoted and selfless provider and protector who saved every penny to put SIX kids through college and help 16 grandkids to do the same because family and education was the most important thing in the world to him. He was regimented and disciplined but he was also crafty, competitive and loved to tease with an incredibly sharp wit."*

Tom meant a great deal to both of us. He influenced our careers. He influenced our lives.

He will be dearly missed by many.

by Herb Freiberger and Jeff Armbruster

MEMORIAL



Charles D. Nethaway, Jr.
November 21, 1943 – October 22, 2014

Charles passed away following a courageous 12-year battle with multiple myeloma cancer. He was born in Oklahoma City, OK, November 21, 1943, to Charles D. and Betty (nee Rowland) Nethaway while his father fought in World War II. An honor student in his hometown Belton, MO, he went on to study at the University of Missouri and the University of Texas before he graduated Phi Beta Kappa from the University of Colorado. He also graduated from the Defense Language Institute West Coast while serving in the U.S. Army as a linguist. His languages included Russian and German.

Charles became the first District Computer Specialist for the large Colorado District under District Chief Jim Biesecker from 1974 until 1979, in Lakewood, CO. Building on his skills with mathematics Charles' specialty was computer programming and software development, especially data base design, structures and access. He was a co-developer for the design of the new national Groundwater Site Inventory (GWSI) data base.

In 1979 he was selected by newly appointed Regional Hydrologist Jim Biesecker to become the first Regional Computer Specialist for the Northeastern Region (NR), in Reston, VA. He was responsible for organizing the first generation of computer talent in each of the 15 district offices in the NR; was a participating team member in acquiring the new Distributed Information System (DIS); and, led the effort to design the telecommunications network, initially using the new standard X.25 packet-switching technology. This network became the first national computer network for any civilian agency in the US government, and thus a model for many others that followed. Charles was in this position through 1982.

From 1983-1985, Charles was selected by DIS Program Manager Douglas Posson to be the Chief of the new Distributed Information Systems (DIS) Programming Unit. He was responsible for the implementation and operation of the national DIS telecommunications network, the maintenance and upgrades to the operating system and network of the 50 Prime Computers, and the training of the new cadre of system administrators in every WRD district and research offices.

From 1986 through 1992, Charles worked for Asst. Chief Hydrologist Jim Daniel as Chief of the DIS Program. During this period he worked closely with others to upgrade, acquire and manage the Distributed Information System of Prime Minicomputers and Data General minicomputers (DIS-II). While managing the DIS network of Prime Computers, he led the effort to design the 2nd generation DIS computing environment. Under subsequent DIS Chief Gloria Stiltner, this culminated in the largest contract ever let by the Department of the Interior, to Data General (DG) Corporation. Together they led the transition to the DG desktop workstations throughout WRD, first as a supplement to then as a replacement for the Prime minicomputers.

Charles was instrumental in establishing pioneer sites throughout the District offices for this program. He was always an enthusiastic supporter of training for the system administrators. He organized a WRD-wide training program not only for systems administrators but also for scientists, technicians and administrative staff

to take advantage of the new generation of hardware, software and telecommunications. Charles spear-headed the design of an x.25 telecommunications network for the WRD and then later the Local Area Network concept to support the effective use of the Data General servers and workstations. He worked closely with other USGS offices to upgrade the Internet technology used by the DIS to the new standard TCP/IP protocol. Charles was instrumental in the planning, development and implementation of all these systems.

Charles joined the Information Systems Division in 1992 as Chief of the Office of Computer and Communications Services. In this capacity, he was responsible for the operation of the mainframe computer which housed several critical Department of Interior systems including the Federal Financial System. He also oversaw operation and expansion of the DOINET, the telecommunications network which linked all USGS and Departmental offices. Due to his strong background in mathematics and his experience with the Distributed Information System, Charles provided exceptional leadership, completing several cost benefit analyses which effectively justified the cost savings of a consolidated approach to networking.

Charles retired in 2005 as Enterprise Architect at the U.S. Department of Interior. He was accomplished in photography and drawing. He was a published haiku poet and past president of the Haiku Society of America He was an active member of Truro Anglican Church, Fairfax, VA. He was preceded in death by his wife Carole (nee Rollins) Nethaway and a son. He is survived by his mother; a brother; two daughters; two sons; step-daughter; and 5 grandchildren. A memorial service was held on November 9, 2014, at Truro Anglican Church, in Fairfax, VA. His cremated remains will be placed in the Arlington National Cemetery Columbarium during an inurnment ceremony at a later date.

-Contributors: **Doug Posson**
Jim Daniel
Gloria Stiltner
Wendy Budd

Personal Remembrances:

Jim Daniel: For example, Charles, Doug, and Southeast Region Computer Specialist Jim Bergman made up something of a 'Three Amigos' group. Once in January 1982, Charles and Doug were in Atlanta to consult with Jim about the State of the Computer World when Atlanta experienced a really severe ice storm. They made it to Jim's home where they were stranded for a couple of days. Jim & Sue Bergman housed and fed them until enough ice melted that they could get to the airport. Undoubtedly, many problems were solved in that time.

Doug Posson: Charles was a real talent scout. Whichever job he had, he sought out, hired and trained bright young people to advance the cause. You may know that he was a Phi Beta Kappa college student, a member of Mensa, a linguist (including Russian, German and Finnish) when he was in the military, an accomplished long-distance hiker and climber, a marathon runner, a vegetarian, a toastmaster, and also a talented photographer, graphic artist and poet. When we worked together, I always felt confident in giving Charles the most complex problems to solve -- e.g., the design of the DIS telecommunications network. He was a marvel.

Gloria Stiltner: Charles was a brilliant, innovative and tireless creator of the computing environment in the Water Resources Division. He supported the hiring of young innovative workers who he would train and help grow to accomplish this mission. He was caring, supportive, and entertaining. He always had the ability to have long conversations and black board lectures on many topics. Charles' staff had great love and respect for him. Being a brilliant man he had quirks we all enjoyed. I am sure he is up there networking in the cloud.

History of the DIS can be found in the Publication WRD Bulletin, Water Resources Division, 80th Year December 1992, and Special Issue Distributed Information System "AT TEN" 1982-1992.

MEMORIAL

Loren E. Young
September 25, 1922 – November 23, 2014

Loren passed away peacefully at the age of 92 on Sunday November 23, 2014 in Los Altos, CA with his family at his side. Loren is survived by a daughter and son, and their respective spouses; 5 grandchildren; and, 6 great grandchildren. He was preceded in death by his loving and devoted wife of 64 years Renee Young.

Loren was a good friend and colleague of many who worked in the USGS, Water Resources Division. He was clear thinking and honest and had a quick step and positive energy, which made him a great role model and mentor for colleagues and friends. He was respected and trusted because of his truthful and ethical nature, professionalism, diligence, and well-grounded thinking. He was a wonderful supervisor because of his sound leadership and thoughtful, caring and fair management style. His good judgment, sound advice, and loyal service were valued assets to those who supervised him. It is hard to say enough good things about Loren. He was a special person. He will be missed, but he lived a long and productive life. He will continue to inspire those who were his colleagues and friends.

Loren was born September 25, 1922 and raised in Vancouver, WA, by his devoted and hard working parents Ted and Nola Young. Ted worked in the lumber industry. Loren helped his mother feed and care for some cows, chickens, and pigs that supplemented their family's food needs. He did this each day before walking on a rural highway two miles to school. He went to a one room school house in grade school with up to 8 grades being taught there in the same class. The family lived in a log cabin that his father built. In the log cabin, Loren studied by the light of a kerosene lamp. He helped his father build two other family homes and a cabin on the Washoe River. He went on to attend Vancouver High School and played the trombone in the high school marching band. After high school he attended the University of Washington at Seattle where he intended to study aeronautical engineering.

In January 1943 while attending his second year at the University of Washington in Seattle he joined the U.S. Army Air Corps (US Air Force) and reported to Lincoln, NE at 5:00 am one icy morning. Ironically, shortly after enlisting he received a letter from the U of W offering him a part time job in the College of Aeronautical Engineering's wind tunnel, which would have given him a permanent deferment from service in World War II. After short periods of indoctrination at Lincoln, NE and Santa Ana, CA, he was sent to Cedar Rapids, IA for schooling at Cole College for 3 months. His primary flight school was at Rankin Field in Tulare, CA where he trained in Stearman Biplanes. The flight school was run by Tex Rankin, a famous stunt pilot of the era, who to celebrate each graduating class put on a show with his special-built airplane culminating in his flying upside down through a huge open-ended hangar.

After earning his pilot's wings in 1944, Loren was trained as a C-47 pilot and assigned to the 434th Troop Carrier Group in England as a second lieutenant. He flew several paratrooper missions during the Holland invasion and flew food, ammunition, and gasoline for General Patton's tank troops in France, landing near the front lines sometimes on barely long enough grass strips. During WWII he participated in 22 combat missions

and was awarded the Air Medal for the Holland missions and Bronze Oak Leaf Clusters to the Air Medal for both the Bastogne and Rhine missions.

Loren obtained his degree in civil engineering from UW (as he liked to call it) and started his career with the U.S. Geological Survey in Tacoma, WA in 1948. Shortly after WWII he met his life partner, Renee Wells, and they were married in October 1950. They later moved to Mountain View, CA with their 2 children where Loren worked as a hydrologist in the Menlo Park, CA office. During his career he also served as Chief of the Menlo Park Sub District office and later as California Assistant District Chief for Programs and Program Officer for the Western Region Office. Loren also served for over 20 years as President of the Board of Directors for the Menlo Survey Federal Credit Union where there is a scholarship given in his honor. Loren retired in 1986 and enjoyed running marathon races, golf, bowling and traveling with Renee. He was a member of the Elks Club of Palo Alto, CA, American Society of Civil Engineers and volunteered for numerous organizations. He especially enjoyed spending time with his grandchildren and great grandchildren, making them his favorite dish, homemade ice cream. A memorial service was held on December 11, 2014 in Palo Alto, CA.

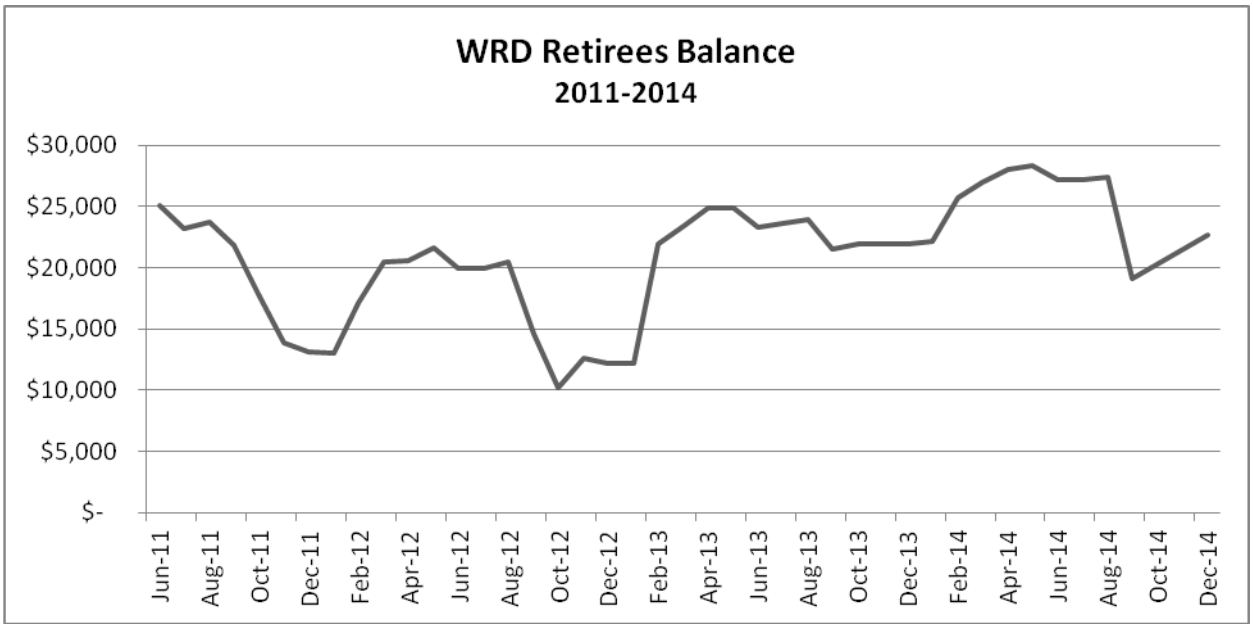
by Marc Sylvester and T. John Conomos

TREASURER' S REPORT, FOURTH QUARTER 2014

Treasurer Celso Puente reports that the organization had $22,664.71 in its treasury at the end of the fourth quarter for calendar year 2014. Receipts for the quarter were $4,368.24 from dues and contributions from 33 members. Distributions for the quarter were $415.15, including the cost for the printing of the WRD Retirees Newsletter. During the quarter, a total of $305.00 in contributions above dues was received from 15 members.

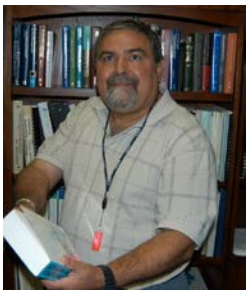
Special thanks for contributions above dues go to:

Patricia McAlwee, Kim Rogers, Mrs. Harold Guy, Cathy Hill, Richmond Brown, Chester Thomas, Mary Amos, Charles Berkstresser, Gilbert Bortleson, Bernard Massey, John R. Little, Billy Paul Robinson, Kenneth Muir, Mary Garrelts, and Horace Jeffery



IN MEMORIAM

Carolyn N Reno-Melendez, 65, of Aiken, SC, wife of Frank Melendez, died Monday, November 17, 2014. She was born on June 18, 1949. Arrangements made by Palmetto Cremation Society, Charleston, SC.



Frank Melendez lost his battle with cancer on Friday, December 5, 2014. In the last year and a half, Frank has undergone four surgeries and had to deal with the failing health of his wife, Carolyn. Through these difficult times, Frank has continued to be a valued and productive member of the South Carolina Data Section. Frank's 33 years of service with the USGS, as a hydrologic technician, has all been with the South Carolina Water Science Center. Frank also volunteered for temporary duty assignments assisting other centers with hydrologic records processing or emergency flood measurements. Frank had a passion for his job and the people he worked with. He was a wealth of knowledge and considered his colleagues his family. He was always a joy to work with. We will remember Frank with fondness and respect knowing he had a career and family in the USGS he loved. His laugh, humor, and personality will be sorely missed.

Nancy I. Ordazzo, 77, passed away on November 11, 2014 in Mechanicsville, VA. Nancy was an editor for the California District and became the Reports Specialist. She transferred to Sacramento from Menlo Park either in 1983 or 1984 when the District Office moved to Sacramento. As Reports Specialist she supervised the Reports Unit that had 8-10 employees. Nancy retired from WRD, USGS in 1994. She is survived by her husband Jack, 2 sons, 2 grandchildren, and, 3 great-grandchildren. A memorial service was held on November 16, 2014 at the Messiah Lutheran Church, Mechanicsville, VA. There was a light gathering at the church after the service. Flowers were accepted at Monaghan Funeral Home

Harry Tanaka, 96, passed away on August 13, 2014. Harry was born on March 19, 1918 in Gardena, CA to Toyokichi and Tome Tanaka. He was the youngest of four children. Harry grew up in Anaheim and graduated from Anaheim High School in 1936 where he was a varsity athlete in football and track and field. He attended the Colorado School of Mines and graduated with a degree in Geology in 1940. After graduating, Harry went to Japan to work as a research assistant for a geology professor at the University of Kyoto. He spent a year and half in Japan and returned to the United States in November, 1941 just as the diplomatic relations between the two countries were crumbling. Harry's draft notice was waiting when he returned and he registered three days before the attack on Pearl Harbor. By 1943, he had heard about an all-Japanese-American unit being created and he decided to join the famed 442nd Regimental Combat Team. After training, he was assigned to the 232nd Engineer Company, and sailed to the European theater, landing in Italy. After taking part in the Italian campaign, the 442nd went to France and saw action in the Rhone Valley. Harry was back in northern Italy when WWII ended. After the war, Harry returned to the US where he spent a few years on the East Coast and in Cleveland. While in Cleveland, he met Mitsuko. They married in 1948. That same year, Harry enrolled at the University of Texas where he obtained an MA in Geology. He joined the U.S. Geological Survey after graduating from Texas and worked in different offices. He and Mitsi spent the longest periods of time in Norman, OK (1956-1966) and Tacoma, WA (1967-2009). Harry retired from the USGS in 1976. He then joined the newly-created Washington State Department of Ecology and worked on hydrology studies in eastern Washington. Harry retired from the state in 1984. Harry and Mitsi raised three sons. After retiring and seeing their sons through college, Harry and Mitsi traveled extensively to places all over Europe, Japan, China, Argentina, Peru, Nepal, as well as wilderness locations in the US and Canada. Many of their travels involved hiking in the mountains. They were long time members of the Tacoma Mountaineers and graduated from the Basic Climbing course. Harry was a

devoted husband, father, and grandfather. He served as a caregiver for Mitsi during her illness in the last years of her life before she passed away in 2011. He loved to have fun and was the sparkplug behind many family activities. Those who knew him enjoyed his geniality and keen sense of humor. He will be interred at Tahoma National Cemetery. Those wishing to leave messages for the family may do so in the guestbook at http://www.flintofts.com/ . Harry is survived by his three sons, three daughters-in-law and four grandchildren. (There was a small gathering of friends and family to honor his memory on October 26 at University House. Harry didn't like to be the center of attention, but he and Mitsi were the center and heart of their family. He will be missed by all who knew him.

Renee Young (85) (wife of retiree **Loren Young**) was born on January 10, 1929 in Tacoma, WA. Renee loving wife, mother and grandmother passed away peacefully with her family by her side on September 23, 2014. In 1950 she married Loren; and, in 1958 moved to Mt. View, California. After her children had grown she worked as an assistant to the director of a non-profit business association (PIBA) for 20 years. Recently Renee and Loren had moved to Bridgepoint a senior living facility in Los Altos, CA. She was survived by her loving husband of 64 years Loren Young, a daughter and a son, 5 grandchildren; and, 6 great grandchildren. She will be truly missed by all of her family and friends.

New Members & Directory Changes: This information was not available at the time of preparation of this NL, but will be appear in the May NL.

N.L. 166S -- SUPPLEMENTAL

Headquarters WRD/GD Retirees Christmas Luncheon
Amphora Diner, Herndon, VA
December 1, 2014

Tim and Ellen Smith

Hal Langford

Andy and Mary Anderson

Shirley and Bill Boning

Dick Engberg

John and Lindabelle Shanton

Paul Beauchemin

John Keith
President, Geologic Division Retirees

Federal appointments then and now

- **A historical overview of federal government operations from the founding to now**

- By Frank T. Manheim*

***USGS 1964-74; 1976-2002; Since 2003 Affiliate Professor, School of Government, Policy, and International Affairs, George Mason University, Arlington VA 22201**

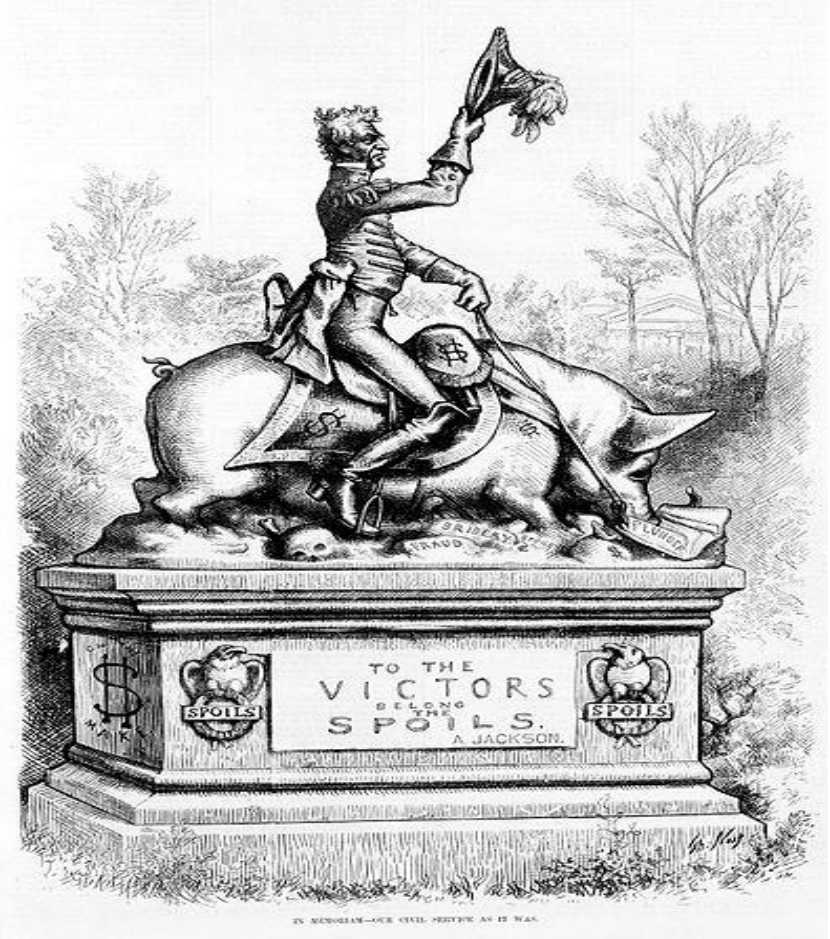
Periods of federal government operations

(modified and expanded from van Riper (1983)

- **The first six administrations.** Appointments based on competence: 1789-1829
- **The spoils (patronage) system initiated by-Andrew Jackson (1829-1877)**. Corruption peaked in(Grant Administration (1869-1877), "Gilded Age"
- **The reform movement (1877 – 1909**). Civil Service Act of 1882; replacement of patronage by competence-based appointments, antitrust laws; attack on urban machine politics, led to "Progressive Era" (1890-1920)
- **Era of Independent federal agency operations (1910-1950)**. Professionalized government agencies serve statutory missions with minimal arbitrary interference
- **Transition after World War II (1960-1977)**. Turbulent developments in 1960s culminate in Santa Barbara offshore oil spill of 1969. Congress assumes detailed control of policymaking previously delegated to federal agency leaders
- **Reestablishment of patronage system (1978- present**) . Civil Service Reform Act of 1978 politicizes government agencies; rift over environmental regulatory policy widens to political polarization in the 1980s intensifying to Congressional gridlock.

Andrew Jackson

Cartoon by Thomas Nast, Harpers Magazine 1877



N.L. 166S; p. 4

Eight out of the "10 worst U.S. Presidents"* served during the spoils system era from Andrew Jackson through Ulysses S. Grant.

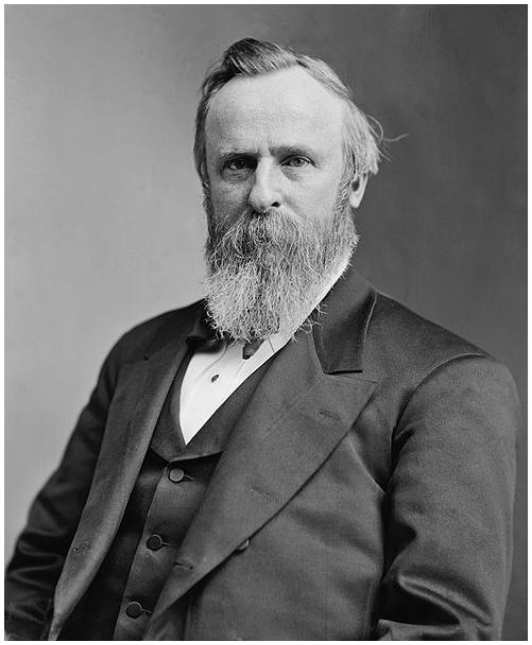
*Consensus of rankings by presidential historians, in Wikipedia

Dates	President	"Worst" rank
1869 - 1877	Ulysses S. Grant	6
1865 - 1869	Andrew Johnson	2
1857 - 1861	James Buchanan	1
1853 - 1857	Franklin Pierce	3
1850 - 1853	Millard Fillmore	5
1849 - 1850	Zachary Taylor	8
1841 - 1845	John Tyler	10
1841	(William Henry Harrison)*	9

Scandals, abuses, and adverse events in the Grant Administration

- ***Crédit Mobiliere scandal*: Union Pacific RR & Congressmen inflate subsidies to build the Union Pacific**
- **Financiers (Fisk, Gould) attempt to corner gold market**
- **Collapse in public and private morality as corrupt machines take control in leading cities**
- **"Salary Grab" Act, 1872, bonus equivalent to $90,000 to all Congressmen**
- **Panic of 1873 brings on great hardship as result of excess of trading and credit inflation over wealth creation**

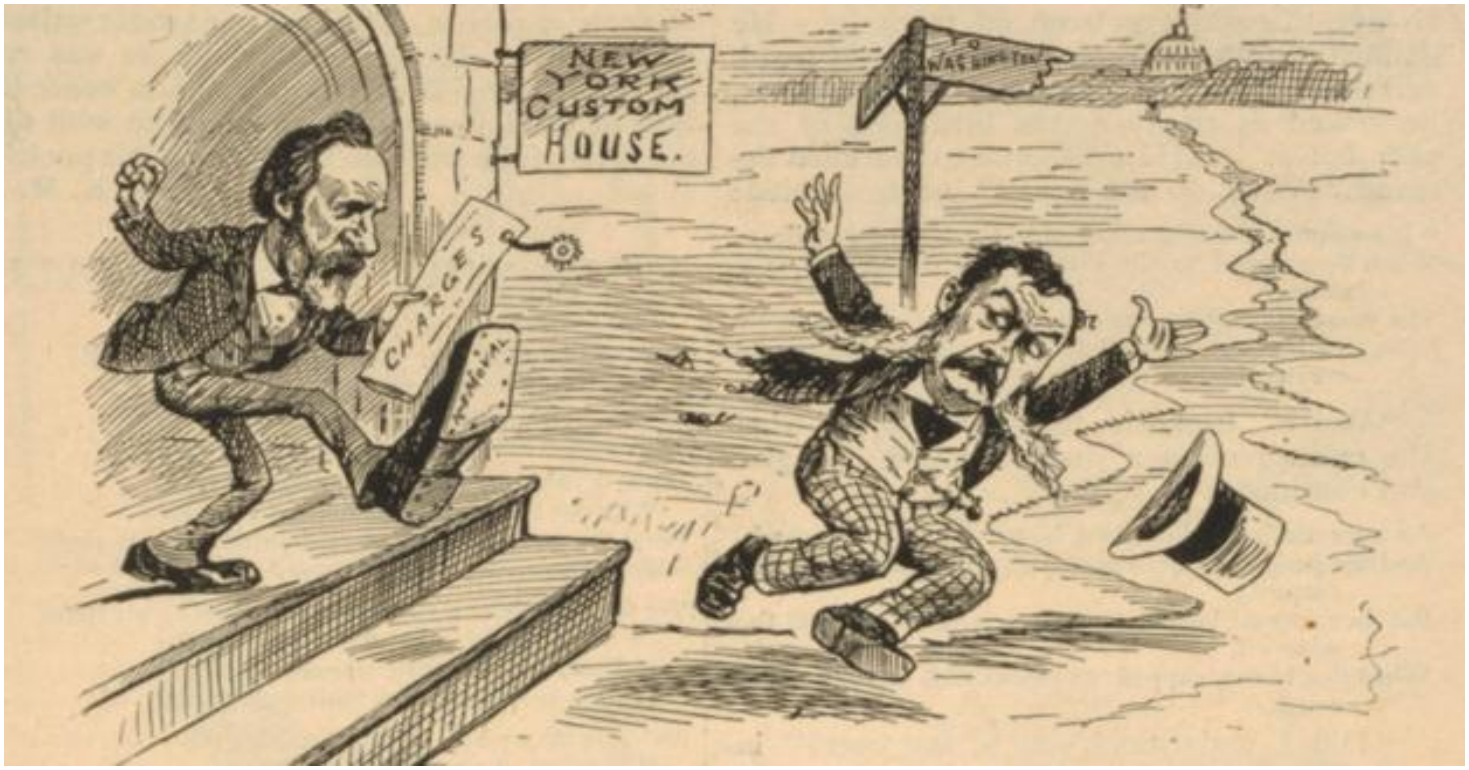
The first Presidentia administration reformers



- **Rutherford B. Hayes**

- **Carl Schurz**

Hayes kicks out Chester A. Arthur



Hayes removed Arthur for corruption. Arthur headed the New York Customs House that generated 70% of income for the federal government. Arthur moved to reform after he succeeded James Garfield as President.

N.L. 166S; p. 8

Events leading up to Civil Service Reform (Pendleton) Act, 1882

- **President Hayes commissions Dorman Bridgman Eaton to conduct comprehensive survey**
- **In 1880 Dorman Bridgman Eaton publishes detailed account of British civil service system, reformed through the Northcote-Trevelyan Act of 1853**
- **James Garfield (1882) fails to follow advice of Schurz to prioritize competency in high-level appointments. Schurz refuses to serve in Garfield cabinet. USGS Director Clarence King, an associate of reformer Schurz, resigns and is succeeded by John Wesley Powell**
- **After 200 days in office Garfield is assassinated by a crazed office seeker.The public is aroused against the patronage system. Congress passes civil service reform.**

Further reform leads to Progressive Era (1890-1920) and new status for federal agencies

As Governor Grover Cleveland delivers reform message to NY Legislature, 1882: "Appointments of subordinates in several State departments, and their tenure of office or employment, should be based upon fitness and efficiency…"

In his two Presidential terms Cleveland (D) generally appointed qualified men – including Theodore Roosevelt (R) as Civil Service Commissioner

Teddy Roosevelt, the "ultimate" reformer

- * Trustbuster (Northern Securities, Standard Oil) – but observed balance
- * Promoted Pure Food & Drug Act, and meat inspection
- * Established independent Forest Service under Gifford Pinchot
- * Expanded civil service ("classified positions" in federal government and emphasized qualiifications in high-level appointments.

Under qualified independent leadership federal agencies achieve public & Congressional respect

- **1920s US Public Health Service water quality standards: U.S. becomes first nation where restaurants provide safe fresh water to all patrons**
- **1920s Under leadership of hydrologist O.E. Meinzer USGS leads world in ground water theory and practice**
- **1935 Rachel Carson scores first in civil service exam: becomes second female federal biologist; later becomes editor of all Fish & Wildlife publications**
- **1933-1946: FDR appointees Frances Biddle, first female cabinet officer (Dept. Labor) and Harold Ickes (Dept Interior) set longevity in office records for cabinet officers, serving entire FDR tenure; fiercely independent Ickes resigns from Truman cabinet over ethics issues**
- **1952 Cover issue of Newsweek Magazine features Forest Service as "Model federal agency"**

Recent decades: a new gilded age? (I)

Income and wealth inequality

- The top 3% in income held 54.4% of all wealth in 2013, up from 44.8% in 1989. The bottom 90% held 24.7% of wealth last year, down from 33.2% in 1989 (Federal Reserve data cited in the Wall St. Journal, Sept. 4, 2014).

Campaign spending and veniality

- In 1895 Senator Mark Hanna said: "There are two important things in politics. Money is the first and I can't remember what the other one was". In 2012 outlays in the Presidential campaign reached $7 billion. After winning an election, Representatives must spend up to half their time raising money for the next election.

Federal government scandals:

- President Clinton was impeached by Republican House in 1998 for perjury and obstruction of justice; he was tried and acquitted by the Democratic Senate.
- The real estate and financial crash of 2008 resulted from bursting of a bubble created with approval from high officials of the Clinton and Bush administrations.

G.W. Bush Administration

- VP Richard Cheney) heads Energy Task force report in 2001; participants and deliberations kept secret
- Subsidiary of the Halliburton Co. gets sole-source contract (up to$ 7 bill.) for services in the Iraq War. V.P. Cheney was former CEO of Halliburton.

New gilded age (II)

Bush Administration (cont'd)

- President Bush sets record for signing statements.
- A long list of Bush Administration officials indicted or resign under pressure.
- Sex-favor scandals at Minerals Management Service; windfall profits from deep oil subsidy create adverse publicity

Obama Administration

- Minerals Management Office (in charge of offshore oil and gas drilling is silent for 10 days after blowout of BP oil rig in the Gulf of Mexico in 2010 – awaiting instructions
- Director of IRS and senior executives resign or are dismissed after scandals involving selective targeting of opposition political groups
- Scandals in the Veterans Administration and General Services Administration led to resignation of their heads.
- Patent application backlogs of 600,000 and 5 year delays; malingering and fraud by patent reviewers
- President Obama and Attorney General Holder declare they will not enforce the DOMA law because they regard it as unconstitutional. Under the Constitution responsibility for determining constitutionality is reserved to the Judicial branch, not Executive Branch

MMS directors' qualifications (?)

Name	Years	Administration	Prior occupation
Harold Doley	1982-1983	Ronald Reagan	Stockbroker, investment banker
William Bettenberg	1983-1988	Ronald Reagan	Career interior officer, budget & finance
Robert E. Kallman	1988-1989	Ronald Reagan-G.H.W. Bush	Naval officer, Interior agent
Barry A. Williamson	1989-1991	G.H.W. Bush	Corporate Director, lawyer
S. Scott Sewell	1991-1992	G.H.W. Bush	Energy management
Tom Fry	1993-1995	Bill Clinton	V.P. natural gas mgmt firm
Cynthia Quarterman	1995-1999	Bill Clnton	Lawyer, Office of Surface Mining manager
Walter Rosenbusch	1999-2001	Clinton-G.W. Bush	Land manager Texas
Johnnie Burton	2002-2007	G.W. Bush	V.P oil exploration co.; Director Wyo. Dept. Revenue
Randall Luthi	2007-2009	G.W. Bush	Wyoming State Representative
S. Elizabeth Birnbaum	2009-2010 (fired)	Barack Obama	Environmental lawyer; Counsel, American Rivers; staff dir. Congressional committee
Tommy Beaudreau	2010-	Barack Obama	Partner law firm

Movements toward reform?

- **Voter revulsion?** Public approval rating of Congress falls as low as 10% - lowest for any public institution in polling history; election results of November 2014

- **Recent bipartisan/reform organizations**

  Bipartisan Policy Center, founded by Senators Tom Daschle, Trent Lott and Olympia Snowe along with Secy. Dan Glickman and Gov. Dirk Kempthorne

  Americans for Financial Reform, nonpartisan and nonprofit coalition 200 civil rights, consumer, labor, business, investor, faith-based, and civic and community groups; *Americans for Campaign Reform,* advocates for public funding of elections

  Americans Elect, promotes online primary for presidential candidates any party

  Come Back America, launched by former Comptroller General David M. Walker

- **Record fines for fiscal wrongdoing**: JP Morgan Chase accepts $16.6 billion fine for fraudulent marketing practices of securitized mortgage instruments;

- **Corruption punished.** Rod Blagojevich is fourth of last seven Illinois governors to go to prison; well-regarded former Virginia Governor Robert McDonnell convicted of multiple counts of corruption; awaits sentencing