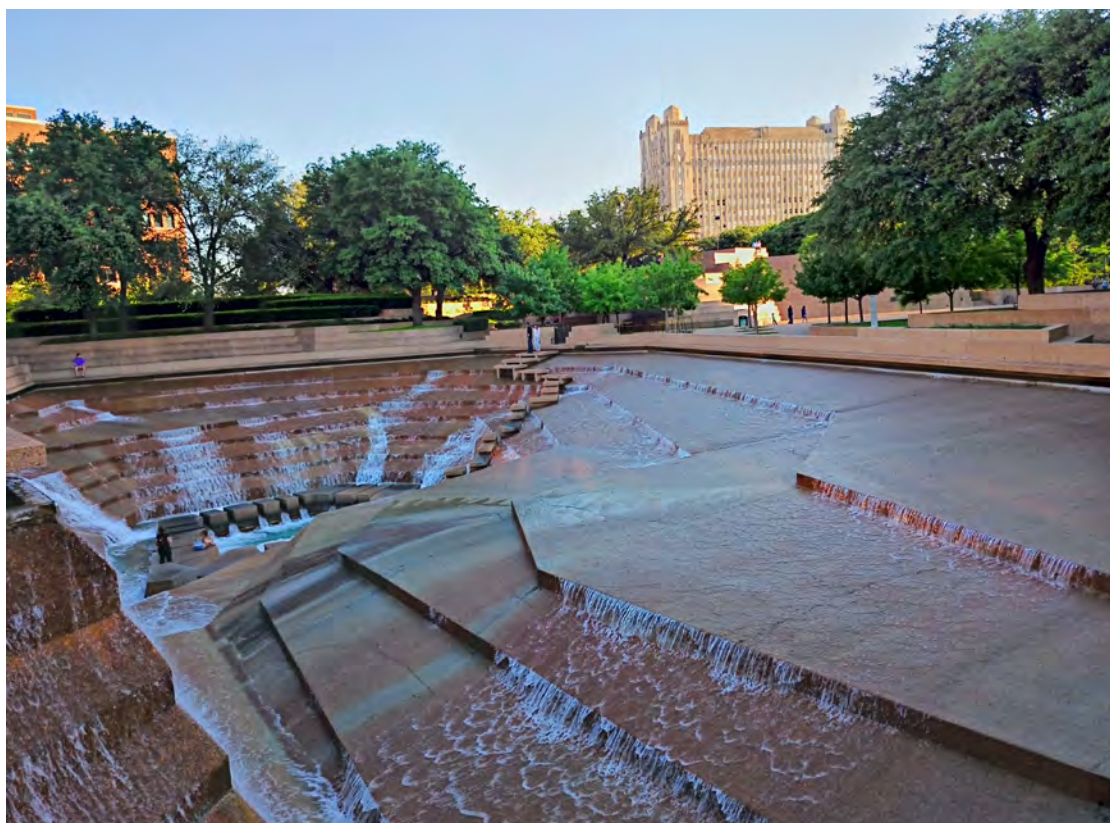


The Philosophical Society of Texas

PROCEEDINGS OF THE ANNUAL MEETING



FORT WORTH

2014



Ron Tyler
2013–14 President

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The Philosophical Society of Texas for the Collection and Diffusion of Knowledge was founded December 5, 1837, in the Capitol of the Republic of Texas at Houston by Mirabeau B. Lamar, Ashbel Smith, Thomas J. Rusk, William H. Wharton, Joseph Rowe, Angus McNeill, Augustus C. Allen, George W. Bonnell, Joseph Baker, Patrick C. Jack, W. Fairfax Gray, John A. Wharton, David S. Kaufman, James Collinsworth, Anson Jones, Littleton Fowler, A. C. Horton, I. W. Burton, Edward T. Branch, Henry Smith, Hugh McLeod, Thomas Jefferson Chambers, Sam Houston, R. A. Irion, David G. Burnet, and John Birdsall.

The Society was incorporated as a non-profit, educational institution on January 18, 1936, by George Waverly Briggs, James Quayle Dealey, Herbert Pickens Gambrell, Samuel Wood Geiser, Lucius Mirabeau Lamar III, Umphrey Lee, Charles Shirley Potts, William Alexander Rhea, Ira Kendrick Stephens, and William Embry Wrather. On December 5, 1936, formal reorganization was completed.

The office of the Society is in Austin. P.O. Box 160144, Austin, TX 78716.

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On the cover: Fort Worth Water Gardens. Credit: photo by Payton Chung, Wikimedia Commons

CONTENTS

Water

OFFICERS OF THE SOCIETY	vii
THE PHILOSOPHICAL SOCIETY OF TEXAS 2014 ANNUAL MEETING	1
OPENING REMARKS	3
Ron Tyler, President	
Reading from John Graves's <i>Goodbye to a River</i>	
Stephen M. Harrigan	
SESSION I: OVERVIEW	8
William W. Meadows, Moderator	
Robert Glennon	
Andrew Sansom	
SESSION II: THE TEXAS WATER PLAN	30
William W. Meadows, Moderator	
Carolyn Brittin	
Mary E. Kelly	
Carlos Rubinstein	
SESSION III: WATER CONSERVATION	33
Fernando Costa, Moderator	
Carole D. Baker	
Ken Kramer	
Edmund G. Archuleta	
Karen Guz	
SESSION IV: CONFLICT BETWEEN GROUND AND SURFACE WATER IN TEXAS WATER LAW AND POLICY	46
Schuyler Marshall, Moderator	
Ron Kaiser	
Greg Ellis	
Russell Johnson	
Tom Mason	

SESSION V: ROUNDTABLE	51
Evan Smith, Moderator	
Carole D. Baker	
Karen Guz	
Mary Kelly	
Ken Kramer	
Tom Mason	
Andrew Sansom	
BIOGRAPHICAL NOTES ON THE SPEAKERS	54
ACKNOWLEDGMENTS	61
MEMORIALS	62
PAST PRESIDENTS	84
MEETINGS	87
PREAMBLE	90
MEMBERS OF THE SOCIETY	92
IN MEMORIAM	119

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THE PHILOSOPHICAL SOCIETY OF TEXAS

2014 Annual Meeting

“Water” was the theme of the 176th Anniversary meeting of the Philosophical Society of Texas. President Ron Tyler organized the program with assistance from William W. Meadows and Andrew Sansom. The speakers discussed water policy, law, and regulation, and their applications and challenges. The meeting was held at the Hilton Hotel in Fort Worth, Texas. A total of 380 members, spouses, speakers, and guests attended the event.

The meeting began on Friday, February 14, 2014, with optional morning and afternoon tours. The morning tour visited the Bureau of Engraving and Printing and the BNSF Railway. Participants on the afternoon tour visited the Amon Carter and Kimbell museums. A dinner was held in the Crystal Ballroom of the Hilton Hotel during which President Tyler welcomed the guests of the 2014 meeting. He introduced 14 new members of the Society and presented them with their certificates of membership. They were: Ricardo C. Ainslie, Austin; Alwyn Barr, Lubbock; Martha “Marty” Braniff, Houston; Rebecca Dawson Brumley, Granbury; David L. Callender, Galveston; Andrew Card, College Station; Joanne Christian, Austin; O. H. “Bud” Frazier, Houston; Wallace B. Jefferson, Austin; Jack Martin, Austin; Virginia “Ginni” Lynn McTaggart Mithoff, Houston; Daniel K. Podolsky, Dallas; John T. Steen Jr., San Antonio; and Wallace S. Wilson, Houston. A Valentine reception followed dinner in the Promenade East at the hotel.

Saturday, February 15, 2014, started with opening remarks by President Tyler and a reading from John Graves’ book *Goodbye to a River* by Stephen M. Harrigan. The morning sessions began with an “Overview” moderated by William W. Meadows, followed by the session “The Texas Water Plan”. During lunch, James M. Hoggard and Jesús de la Teja, Book Committee Co-Chairs, presented the 2013 Awards of Merit for the best books on Texas published in 2012. The best non-fiction award went to *Let the People In: The Life and Times of Ann Richards* by Jan Reid. The fiction award went to *The Chicken Hanger: A Novel* by Ben Rehder. After lunch and the Awards, the program continued with the afternoon sessions “Water Conservation” and “Conflict Between Ground and Surface Water in Texas Water Law and Policy”. The day’s events ended with a reception in the Amon Carter Museum of American Art, followed by dinner in the Modern Art Museum of Fort Worth.

The annual business meeting was held on Sunday morning, February 16, 2014, and was followed by a roundtable session moderated by Evan Smith. At the business meeting, the names of Society members who had passed since the previous meeting were read. They were Jack S. Blanton Sr., T. R. Fehrenbach, Robert L. Hardesty, Alfred F. Hurley, Mavis P. Kelsey, William C. Levin, William S. Livingston, Al Lowman, and John F. Sutton. Secretary Ann Hamilton announced that Society membership stood at 197 active members, 60 associate members, and 104 emeritus members for a total of 361 members. Officers elected for 2014-2015 were as follows: Kirk A. Calhoun, president; Larry R. Faulkner, first vice-president; Kenneth W. Starr, second vice-president; Harris L. Kempner Jr., treasurer; Ann T. Hamilton, secretary; Michael H. Granof, assistant treasurer; and Judith K. Guthrie, assistant secretary. President Calhoun adjourned the meeting until February 6-8, 2015, in Tyler.

OPENING REMARKS

Ron Tyler

DR. TYLER: Good morning and welcome to the 176th anniversary meeting of the Philosophical Society of Texas. I would like to welcome you to Fort Worth and to our program on water. It is a timely topic, to say the least, and we have, whether farmer or rancher, urban planner or in oil and gas, been thinking about water for a long time. We are accustomed to hearing about droughts. Perhaps like me, you remember the drought of the 1950s, one of the worst in our history. As a child, playing on the hard clay of the Blackland Prairie in Central Texas, I remember three- and four-inch cracks in the ground, cracks that were wide enough to break the leg of a horse—or a child.

It was during this drought that a thirty-seven-year-old Fort Worth writer named John Graves created his now-classic meditation on the natural and human history of Texas, *Goodbye to a River*. John also wrote several other largely autobiographical works, including *Hardscrabble*, *From a Limestone Ledge*, and *Myself and Strangers*. After university and travel abroad, he returned to Fort Worth in 1957. And in the fall, he took a three-week trip down the Brazos River. *Goodbye to a River* was the result of that trip. John passed away on July 31.

And to open our meeting, we want to salute him as one of our most distinguished writers and thinkers about nature. I have invited Stephen Harrigan, who is a member of the Society and a distinguished writer himself, to open our meeting with a reading from *Goodbye to a River*.

MR. HARRIGAN: Thank you, Ron. I am going to read the first three or four pages of *Goodbye to a River*

Usually, fall is the good time to go to the Brazos, and when you can choose, October is the best month—if, for that matter, you choose to go there at all, and most people don't. Snakes and mosquitoes and ticks are torpid then, maybe gone if frosts have come early, nights are cool and days blue and yellow and soft of air, and in the spread abundance of even a Texas autumn the shooting and the fishing overlap and are both likely to be good. Scores of kinds of birds, huntable or pleasant to see, pause there in their migrations before the later, bitterer northers push many of them farther south. Men and women are scarce.

Most autumns, the water is low from the long, dry summer, and you have to get out from time to time and wade, leading or dragging your boat through trickling shallows from one pool to the long channel-twisted pool below, hanging up occasionally on shuddering bars of quicksand, making six or eight miles in a day's lazy work, but if you go to the river at all, you tend not to mind. You are not in a hurry there; you learned long since not to be.

October is the good month. . . .

I don't mean the whole Brazos, but a piece of it that has had meaning for me during a good part of my life in the way that pieces of rivers can have meaning. You can comprehend a piece of river. A whole river that is really a river is much to comprehend, unless it is the Mississippi or the Danube or the Yangtze-Kiang and you spend a lifetime in its navigation; and even then what you comprehend, probably, are channels and topography and perhaps the honky-tonks in the river's towns. A whole river is mountain country and hill country and flat country and swamp and delta country, is rock bottom and sand bottom and weed bottom and mud bottom, is blue, green, red, clear, brown, wide, narrow, fast, slow, clean, and filthy water, is all the kinds of trees and grasses and all the breeds of animals and birds and men that pertain and have pertained to its changing shores, is a thousand differing and not compatible things in between that point where enough of the highland drainlets have trickled together to form it, and that wide, flat, probably desolate place where it discharges itself into the salt of the sea.

It is also an entity, one of the real wholes, but to feel the whole is hard because to know it is harder still. Feelings without knowledge—love and hatred, too—seem to flow easily in any time, but they never worked well for me.

The Brazos does not come from haunts of coot and hern, or even from mountains. It comes from West Texas, and in part from an equally stark stretch of New Mexico, and it runs for something over 800 miles down to the Gulf. On the high plains, it is a gypsum-salty intermittent creek; down toward the coast it is a rolling Southern river, with levees and cotton fields and ancient hardwood bottoms. It slices across Texas history as it does across the map of the state; the Republic's first capitol stood by it, near the coast, and settlement flowed northwestward up its long trough as the water flowed down.

I have shot blue quail out by the salty trickles, and a long time ago hunted alligators at night with a jacklight on the sloughs the river makes in the swamplands near the Gulf, but I do not know those places. I don't have them in me. I like them as I have liked all kinds of country from Oahu to Castilla la Vieja, but they are a part of that whole which isn't, in the way I mean, comprehensible.

A piece, then . . . A hundred and fifty or 200 miles of the river toward its center on the fringe of West Texas, where it loops and coils snakishly from the Possum Kingdom dam down between the rough low mountains of the Palo Pinto country, into sandy peanut and post-oak land, and through the cedar-dark limestone hills above a new lake called Whitney. Not many highways cross that stretch. For scores of years no boom has brought people to its banks; booms elsewhere have sucked them thence. Old respect for the river's occasional violence makes farmers and ranchers build on high ground away from the stream itself, which runs primitive and neglected. When you paddle and pole along it, the things you see are much the same things the Comanches and Kiowas used to see, riding lean ponies down it a hundred years ago to raid the new settlements in its valley.

Few people nowadays give much of a damn about what the Comanches and the Kiowas saw. Those who don't, have good reason. It is harsh country for the most part, and like most of West Texas accords ill with the Saxon nostalgia for cool, green, dew-wet landscapes. Even to get into it is work. If you pick your time, the hunting and fishing are all right, but they too are work, and the Brazos is treacherous for the sort of puttering around on water that most people like. It snubs play. It shoals shear the propeller pins of the big new outboard motors, and quicksands and whirlpools occasionally swallow folks down, so that generally visitors go to the predictable impounded lakes, leaving the river to the hard-bitten yeomanry who live along it, and to their kinsmen who gravitate back to it on weekends away from the aircraft factories and automobile assembly plants of Dallas and Fort Worth, and to those others of us for whom in one way or another, it has meaning, which makes it worth the trouble.

DR. TYLER: Thank you, Steve. I forgot to mention that the beautiful slides of paintings that you are seeing on the screen are courtesy of William Reeves Fine Art in Houston.

Last year Bill organized a wonderful exhibition of Texas rivers and Texas water, so I asked him to put together a slide show so we could share that exhibition with you.

Water, or the lack of it, is certainly in the news today. Earlier this week, I spent a few minutes on the computer looking at news headlines from the first part of this year, and I want to share some of those headlines with you.

"Drought Threatens California's Drinking Water" made it all the way to the *Texas Tribune*. Also from the *Texas Tribune*, "Rio Grande Water Users Fear Groundwater Pumping Project." January 20th, *Dallas Morning News* editorial, "Harsh Reality of Texas Water Problem." And, as many of you know, *The New York Times* has an ongoing series on water. Some of the titles: "Saving U.S. Water and Sewer Systems

Would be Costly,” “Sewers at Capacity,” “Waste Poisons Waterways,” and one of my favorites, “Debating How Much Weedkiller is Safe in Your Water Glass.”

Here in Texas, of course, we have concerns about the oil and gas industry, which was the tax workhorse of our state from the 1930s until the 1960s, until the passage of the sales tax. And it is still a powerful producer of revenue. But last year, it amounted to only about 4.5 percent of the state’s revenue, versus over 26 percent for the sales tax. And the increased drilling all over the state has been in the headlines: From *Water Currents* in February, “Insatiable Thirst: The Fracking Water Collision in South Texas.” Again, from the *Texas Tribune*, “Water Availability: A Risk for Oil and Gas Producers.” From WFAA, Channel 8 in Dallas, “Tap Water Takes on Unsavory Flavor in North Texas.” And then, the next day, “Flammable Water in North Texas Poses No Threat.”

Last week, *The Daily Texan* ran an article, and I quote: “Late last month, researchers at UT’s Bureau of Economic Geology published a study about the source and fate of water used in the hydraulic fracking industry in the Barnett Shale.” The study found that 92 percent of the total water used in hydraulic fracking in that area was abstracted from surface water or groundwater, mostly from the Trinity aquifer, one of the most depleted aquifers in the state. According to an article last Tuesday in *The Texas Observer*, the correlation between gas production and water use in the fracking industry is almost perfect.

Then again, the *New York Times* on January 30: “Great Lake Shriveled, Iran Confronts Crisis of Water Supply.” And February 8 in *The Guardian*, “Why Global Water Shortages Pose Threat of Terror and War.”

There is some good news. One of my hopes is that we can leave this meeting with some good news and not be totally depressed. This is from *Marketplace Morning Report*: “Amid Texas Drought, This Rain Man Bottles Water.” It is about a Dripping Springs man who has captured a lot of rain water, and has begun to bottle it and sell it. The San Antonio water system is looking into desalination. “Desalination Opportunities Expanded in Texas from Brackish Groundwater,” from *Water World* in February. From *Bloomberg*, on February 13, “Israel Shows California, No Need to Fret About Desalination.” And the Environmental Defense Fund asked on January 28, “Is Texas the Next Global Leader in Water?” It is up to our state leaders to decide. My overall favorite: “World’s Tallest Waterslide Built in Texas.” They are not going to install it in Texas; they are only building it here. It is for a water park in Kansas City.

Well, enough preamble. We have before us what I am sure will be an informative and a provocative program. Largely organized by Dr. Andrew Sansom, who is a member of the Society and the Executive Director of the innovative Meadows Center for Water and the Environment at Texas State University, San Marcos, where he is also a research professor of geography, and William W. Meadows of

Fort Worth. Bill is the one who said, you have got to get Andy Sansom to help you with this program. And so we did.

Bill, like many other members of the Society, gives liberally of his time in community service. He is a former member of our City Council, the Texas Water Development Board, the Texas Transportation Commission, and the Dallas-Fort Worth International Airport, among others. He is now serving as the Chair of the North Texas High Speed Rail Commission. On behalf of the Society, I would like to thank you, Bill and Andy, for helping with this program.

SESSION I

OVERVIEW

*William W. Meadows (moderator),
Robert Glennon, and Andrew Sansom*

MR. MEADOWS: Good morning. It was an appropriate beginning to hear Stephen Harrigan read the words of John Graves. As we embark on this discussion and exploration of water policy, law, rules, regulation, their applications and challenges, it is important for us to pause. Listening to John Graves's words, I was thinking how important it is to recognize how water winds its way through the literature, music, art, and history of this state and nation.

Here's a personal story. John Graves's book, *Goodbye to a River*, undoubtedly inspired many people in this room. I was one of those thirteen- or fourteen-year-old kids who read that book in the 1960s and decided I too could do that. I set out with Blackie, my dog, after my parents dropped me off. Instead of making it three weeks, I called my parents from the Farm Road 4 Bridge, saying, "Come get me."

I made the mistake of not heeding John Graves's words to go in October, the best month. I chose a summer month instead, which is actually not a good time to be on the Brazos. Nevertheless, it was so impactful. I look around this room, and I see a couple of friends who have made that Brazos trip with me over the years. Every time you make the trip, you look up at the towering cliffs above the river, and you look at the river itself, and you recognize how important that is to all of us.

Thus, we set the stage for this morning's important discussion on what is one of the most ancient but still relevant topics: water. We could not have asked for two more knowledgeable, thoughtful, influential, and passionate individuals than Robert Glennon and Andy Sansom to guide us this morning. They will set the stage for what I know will be a very productive, and challenging discussion.

Robert Glennon is the distinguished Regent Professor and Morris K. Udall Professor of Law and Public Policy at the University of Arizona College of Law in Tucson. Many of you have read the assigned reading and appreciate and understand how significant his contributions have been to this public policy discussion. Through books and articles, through interviews, he has challenged us all to rethink the way we think about the precious resource of water. He has placed water at the top of the agendas of many public and legislative bodies and caused there to be focus, and often, a bit of discomfort.

MR. GLENNON: Good morning, everyone. It is good to be back in Texas. And Andy, thanks for suggesting I join you here. I have known Andy for a while and have a high regard for his work.

I am supposed to offer a national perspective today and I will try and do that in several stages. I have not come here to preach to you about what you should be doing. First, I would like to talk about the national crisis. You are obviously familiar with what is going on locally. You have heard the headlines about California. But I think you would be surprised at just how pervasive the situation is, and how the country is in crisis. Then I would like to discuss what to do about it. There are some real solutions, but also some surreal solutions to the water crisis. Finally, in the time remaining, I will talk about a few things we can do, but are not currently doing, to mitigate the situation.

Ed Abbey is a curmudgeon of the first order. When he was on his game, he was a great writer—irascible to be sure—and this was his sardonic comment about the Mojave Desert, and of course, he is referring to the City of Las Vegas:

“There is no lack of water in the Mojave Desert unless you try to establish a city where no city should be.” —Edward Abbey

The Bellagio Fountain is an iconic representation of Las Vegas. It is really all that is good and all that is bad about Las Vegas. It cost \$40 million just for the fountain. It holds 27 million gallons of water. It has a footprint of eight acres. It has 1,200 heads that shoot water as high as 250 feet into the desert sky. But that is just the beginning.



Fountains of Bellagio. Credit: Hardscarf, Wikimedia Commons



The entire Project CityCenter in Las Vegas, seen from the roof terrace of Marriott's Grand Chateau. From left to right: Mandarin Oriental, The Crystals, Aria, the Veer Tower, and Vdara.
Credit: Tristan Surtel, Wikimedia Commons

The CityCenter is just about completed, as we sit here this morning. It is the largest privately financed construction project in American history. It pencils in at \$9.1 billion. It has six towers, ranging in size from 37 to 61 stories. And, to give you a sense of scale, the Monte Carlo Casino is one of the largest casinos in the Las Vegas Strip, and yet it looks like a toy compared to what is being built. At buildout, there will be 50- to 70,000 new inhabitants of the City of Las Vegas. It turns out that people from all around the U.S., from Canada, from the Pacific Rim, from the EU, are coming in and putting down large chunks of cash for condos on the Las Vegas Strip. And it is a representation of how Las Vegas has yet again, remade itself. Because there is only one casino in the entire operation. People are interested in going to Las Vegas, not for gaming, but for the other things that Las Vegas offers: the shows, the clubs, the boutiques, the shopping, the fine dining. All of that is bringing people to Las Vegas.

But there is a problem, and it is a big problem. The City of Las Vegas has virtually run out of water. And it was slow coming to this appreciation. The head of the Southern Nevada Water Authority, Patricia Mulroy, was rather casual about the problems that her city was facing. But eventually she had a baptism, a conversion, a meeting of faith. And like many converts, she now has discovered the true faith. And that faith is water conservation. Las Vegas, remarkably, has a very strong water

conservation ethic. It is now paying people \$2 per square foot to rip out lawns and has spent \$200 million paying people to do so.

The second thing the mayor has done is offer to build the cities of Tijuana and San Diego desalination plants on the coast. In turn, Las Vegas would take their Colorado River water out of Lake Mead. The third thing she is doing is embarking on a \$3 billion project to import groundwater from 250 miles north of Las Vegas, from an aquifer on the border between Utah and Nevada. Now the people up there—some of them descendants of the original pioneers of the Church of Jesus Christ of Latter Day Saints—aren't too happy about Las Vegas coming after their water. But from my perspective as a lawyer who studies water fights, there couldn't be a better fight than one that pitted Sin City against the Mormons.

There is another other thing that Pat Mulroy is doing: running public service announcements on local televisions to try to change people's behavior. As you view this one, I ask you to think about whether we should be running something like this in our home town. [Video shows a woman kicking a man in the groin because he is over-watering his lawn, and audience responds with laughter.] Las Vegas has a different sense about what is appropriate for television.

Well, how can Patricia Mulroy possibly justify the water use on the Strip? I mean, she is trying to steal the Mormons' water. She is threatening you with bodily harm. But how can she justify the fountains and the lagoons. Actually, pretty easily. When Steve Wynn, the developer of the Bellagio, wanted to put up that fountain, he came to her. He said, look, this is the concept of the project. I need a water feature. So let me have the water feature and then tell me what I need to do to make it work for you.

She threw down the gauntlet. She said, Steve, are you ready to double plumb the hotel, to take that contaminated water below the basement and run it through a reverse osmosis system? Are you prepared to install low flow fixtures, instant-on hot water, reuse every drop of it? He said yes, I will. And he does. What is so stunning about that Bellagio fountain is, it is all reclaimed water. And all those features that you see create the illusion of an abundance of water, but they are all incredibly efficient in how they are using it. The remarkable thing about the Strip is, it only uses three percent of Las Vegas's water yet it is the economic driver of the state, second to none.

In Las Vegas, as in Nevada, as in every western state, farmers use between 70 and 80 percent of the state's water. In Nevada, that supports a farming community of about 6,000 jobs. Six thousand jobs is about the same number of jobs supported by one casino. If you think about the economic value of water, you realize that the Las Vegas strip is a cash cow. It is the driver of the state's economy. I start with Las Vegas, because despite their naughty slogan about what happens here stays here, when it comes to water, Las Vegas is the future.

Ben Franklin, one of our wisest founding fathers in the eighteenth century, said, “when the well is dry, we know the worth of water.” Great slogan. But he was wrong. We Americans are spoiled. When we wake up in the morning, we turn on that tap and out comes as much water as we want for less than we pay for cell phone service or cable television. When most of us think about water, we think of it as just like air, infinite and inexhaustible. When for all practical purposes, it is very finite and quite exhaustible.

In the current crisis in 2012, the drought in the Midwest was ugly—\$35 billion in losses. Corn prices skyrocketed up to \$8 a bushel, soybeans to \$15, hurting all the people who rely on those crops and, of course, having impact on people who are buying the foodstuff. They had some rain last year. It got better. But it was a sign of things to come.

It is tough in California right now. The snowpack in the Sierra Nevada range is rapidly decreasing. In 2013 it was 17 percent of normal. This year, after a big soaking rain, it is all the way up to 29 percent of normal. Farmers in the Central Valley expect to fallow more than 500,000 acres of prime agricultural land; some of the best agricultural land in the country is going to be fallowed. Forty percent of the people who live in the Central Valley rely on those farms for jobs. It is the worst time in memory in California.

Lake Mead on the Colorado River is in the fourteenth year of drought. The bathtub ring around it shows just how low it is, the lowest it has been since they built the dam in the 1930s. What we don’t know is whether this is the fourteenth year of a fourteen-year drought, or the fourteenth year of a fifty-year drought. The Bureau of Reclamation is predicting that both Nevada and Arizona may take shortages and may not get their full allotments until 2016.

The drought was partly to blame. But there is something much scarier to blame, something we can’t control, and that is climate change. In the Great Lakes, ice cover has declined by 71 percent over forty years. What does that do? That creates the perfect situation for evaporation loss off the surface of those enormous bodies of water. And Lake Superior, is too low to float fully loaded cargo ships, requiring the offloading of hundreds of tons of freight and dramatically increasing the price of shipping.

The scariest story for me came out of Texas in 2013 when the Cargill Plant in Plainview closed, firing 2,200 workers. There were not enough cattle for them to process. The whole town’s population is only 23,000. This town is devastated. And what this suggests to me is that water is not simply some environmental amenity. While we in the United States fret about running out of oil, water lubricates the American economy just as oil does. We are not taking this problem very seriously.

Instead, what we are seeing is a situation like the one at Lake Lanier outside of Atlanta, Georgia. Four years ago, Atlanta came within ninety days of running out of water. Atlanta! It gets 50 inches of rain a year. It is the most humid section

of the lower forty-eight. And it almost ran out of water. Now you would think that Atlanta officials would have taken dramatic steps to fix the problem, but you would have been wrong. To be sure, they imposed some modest restrictions on filling swimming pools, washing cars, watering lawns. Beyond that, not much, until finally Governor Sonny Perdue decided to do something dramatic about this. He organized a prayer vigil on the steps of the State Capitol and prayed for rain. I have no doubt that prayer is a powerful medium, but the governor was not a guy to take chances. He didn't schedule the prayer vigil until the weather forecasters predicted that it was going to rain.

Then the state legislature got in the business. In 2009 they decided that the border with Tennessee had been erroneously surveyed. The Georgia legislature proclaimed that the border was incorrectly marked and that it should be moved one mile north, which would serendipitously place the little hook of the Tennessee River in Georgia, so Georgia could put its straw in and start sucking away the water to its heart's content. What Georgia did not do, and still has not done, is put real limits on drilling new wells and diverting more water from the rivers. To this day in Georgia you do not need a permit to drill a well unless you are going to pump more than 100,000 gallons of water—per day. Well, I have this simple-minded notion of our water supply as a giant milkshake glass. Each well is a straw in the glass. What Georgia and Texas permit, and Arizona in some parts, is a limitless number of straws in the same glass. This is a recipe for disaster. It is absolutely unsustainable. It is nothing more complicated than a common public resource with limitless access to it, and every economic incentive to use it in unsustainable fashion.

Also, Georgia's Apalachicola River flows into Florida. This drought has created a real problem for Florida, because it has devastated their oyster fishery in Apalachicola Bay. I was lucky enough to go oystering there about two years ago, and you use a big rake that is about fifteen feet tall. You sort of clamp it around the shells in the mud. And you muscle up fifty or seventy-five pounds of mud and hopefully, some fresh oysters. After doing this for a very short time, I had an insight: that I have a really cushy academic job.

How many of you know about Stone Mountain, located outside of Atlanta? This is my favorite Georgia story: Stone Mountain theme park partnered with Coca Cola to create Coca Cola Snow Mountain. They issued a press release saying that research has disclosed that very few Georgia children have ever had a satisfactory snow experience. They wanted to remedy that. They built an outdoor snow project in the middle of a drought. They brought it online on a day when the temperature hit 81 degrees Fahrenheit.

We humans have an infinite capacity to deny reality. The reality that we want is the hydro-illogical cycle. You start with drought, which makes you aware, and leads to concern. Then panic sets in. But panic lasts only until the first rainstorm,

and then it's back to business as usual. That is what has happened in Georgia. They had a crisis. They had an opportunity to learn but learned virtually nothing. They put in place a State Water Plan, which sits on the shelves, but no real reform.

We in the other parts of the country have to learn from that experience. Some might say that was a drought, which by definition is a temporary aberration, an unusual shortfall. But the hydrologists who looked at what was going on in Georgia said the situation in Lake Lanier wasn't like earlier droughts that were equally severe. What was the cause? It is pretty simple, actually: population growth. Georgia adds 100,000 people to the metro area every year, and they have simply outstripped the capacity to support that population growth.

If you think about it, that is really the problem nationwide. In the U.S., we went over 300 million a few years ago. Yet the Census Bureau predicts by 2060—that's in the lifetime of some of you in the room—we are going to be 420 million people. Where are we going to get the water and other resources for an additional 110 million fellow U.S. citizens?

What I have sketched so far is not rocket science. It is supply and demand. The supply is threatened, compromised, and being used in unsustainable fashion. The demand seems to be relentless. One of my favorite examples of such demand is Kohler's Power Shower. It has ten shower heads, each with enough water pressure to take paint off walls. These are very popular in Phoenix (which is why we in Tucson look down our noses at people in Phoenix). Another example would be bottled water. I was the first to blow the whistle on bottled water about ten years ago. It costs about a thousand times more than tap water, is no better than tap water, and is not regulated as well as tap water. Have you seen Penn and Teller's skit on bottled water? It shows a fancy California restaurant. But instead of a wine steward, there is a water steward who, instead of a wine list, presents a water list. The steward with the apron over his arm is talking about the flavors of the bottled waters and the patrons are swirling the water around like a good French Bordeaux, sniffing it. Definitely Arctic, you know; got that Glacier stuff. Then the scene shifts to the backyard where Penn is filling the bottles with a garden hose.

Now I want to turn serious on the new demand for water in the production of energy. I'm sorry to say that U.S. energy policy has developed in utter disregard of the water complications and consequences of the energy policy. Nowhere is that more evident than in ethanol. I don't have a dog in the fight about whether ethanol is a good or bad idea, but the scientists who have studied the energy return on investment mostly think it is not such a good idea. Even in a plant that recycles its water, it still takes four gallons of water to refine one gallon of ethanol, and a typical plant might be producing 50 million gallons of ethanol. That is a substantial amount of water and it gets worse when you realize how much water it takes to grow the corn to refine the ethanol.

That is not too bad if it's happening in the Midwest, where, except for 2012, mostly Mother Nature has provided ample rainfall to grow the corn. But look around and you will see that quite a few of those plants are in Colorado and it may take as much as 2,500 gallons of water to grow enough corn to refine one gallon of ethanol. Do the math, and there's just a lot of zeros. It is a tremendous amount of water. The truth is, all energy takes a lot of water.

Fracking is part of it. Fracking, in and of itself, doesn't take that much water for each well, about 5 million gallons. Compared with the amount of water that farmers use, it isn't that much. The problem seems to be that a lot of the best places to frack are already stressed, so there's a collision with other water users.

Conversely, it takes a lot of energy to move, pump, cleanse, and deliver water. One fifth of all of the electricity used in California is just moving water around and treating it. Our demand for energy seems to be absolutely insatiable.

Take a Google server farm facility, for example. It looks like a warehouse, an industrial facility. It is. Every time you press that search button or download a video, what cranks up is a server farm, in a data center with thousands of computers, all linked up, all generating heat. What does Google use to dissipate this heat? Water. Because water, as we know from our automobile radiators, is a wonderful coolant. The internet is now consuming so much energy that these data centers are being built all over the place. There are more than ten thousand of them now in the United States, each demanding about the same amount of energy as a decent-sized city.

And for what? To support all of the stuff that you and I are doing with this cell phone, among other things. But there are some important demands, too, because the internet is also the driver of the American economy. We need to make sure that the Googles and the Intels of the United States, great companies, home grown companies, have all the water they need so that they continue to locate their fabrication facilities in the United States. What are we going to do? I don't want to end on a pessimistic note. I am actually optimistic.

But first, a few silly ideas. Consider a billboard in Michigan that shows exaggerated caricatures of figures representing Texas, New Mexico, Utah, and California sucking up the Great Lakes through big straws. Really, what do they think we want in the Southwest? What do they think of you in Texas? Well, I am telling you, that whenever I am back in the Midwest, and I get back there fairly often, I put up a photograph of this billboard. And I say, shame on you. This is a scurrilous attack on those of us in the Southwest. We have no desire to divert all the water from all of the Great Lakes. We would be happy with one of the smaller ones.

But these silly ideas of diversions continue to crop up. And my favorite one is now under consideration in Colorado. A guy by the name of Aaron Million wants to take water from Flaming Gorge Reservoir, track the I-80 corridor, bring it all the way down to Colorado Springs. I don't have the time here to describe all of

the obstacles that he faces. I will just mention one obstacle: something called the Rocky Mountains.

Typically in the United States when we have a water shortage, we do one of three things. We build dams, we divert more water from rivers, or we drill wells. Many of our rivers are on life support. The Rio Grande, the Colorado, and thousands of smaller creeks have been hammered by all of the water that was taken out of them. We are so good in the United States at building dams that we have built one dam per day ever since Thomas Jefferson signed the Declaration of Independence. We have two agencies, the Bureau of Reclamation and the Army Corps of Engineers, whose entire mission is to stop moving water. Texas is about to embark on a big project to build more dams. As an outsider looking in, I scratch my head. Maybe this makes sense, but proposals to build a dam on a river that has already been dammed when the lake behind the dam is not full strike me as proposals you might want to rethink.

What else, then, are we going to do? Groundwater is a sad story. We have been over pumping aquifers during the twentieth century. That has created enormous problems throughout the country. Here in Texas, you have a big problem. You have the Ogallala Aquifer in the Panhandle and, in the San Antonio and Austin region, the Edwards Aquifer. The Edwards Aquifer Authority is a shining example of what you have done right when it comes to water. You previously had open taking of the water supply where anyone can put a straw in. But the Edwards Aquifer Authority said no and was upheld by the courts. No new straws. And those who already have straws in, we are going to have to cut you back because you are using the aquifer in an unsustainable manner.

There have been recent court decisions that have started to breathe life into claims that it is a violation of the "takings" clause and requires compensation for the state to restrict someone from pumping groundwater from beneath their property. Payment from the state would be required. This is a very dangerous doctrine. In Texas, you have had the right of capture, which developed in the nineteenth century when no one really knew how groundwater moved. No one knew, as we now know, that it is part of the hydrologic cycle. You are the only people in the country looking at water as private property. Texans have a right to use it by license or grant or permit, or whatever. Everywhere else, water is a public resource.

Under the right of capture, water on your land is like a deer in the woods. The first hunter to shoot the deer gets the deer. The animals were a resource of the government, but it gave licenses or permits to hunt. Now, the defenders of a property right to pump say simply: water is a property right. I think that is misguided, and here is why. Every first-year law student learns that property has important characteristics. The most important one is exclusivity. It is your property, not my property. I can't use your boat, or come onto your real estate, because it is yours. But the right to pump groundwater comes from a common supply. The right of



Sinkholes affect structures as well as many types of supporting infrastructure such as buried utilities lines. More than 110 sinkholes formed in the Dover area of Florida during a freeze event in January 2010. Ground water levels dropped to record-setting lows as farmers pumped water to irrigate their plants for protection from the cold temperatures. The sinkholes destroyed homes, roads and sections of cultivated areas. Credit: Ann Tihansky, U.S. Geological Survey from Reston, VA, USA, CCo, via Wikimedia Commons

one to pump is good only, unless, and until someone else comes in and drills a deeper well with a higher capacity pump and starts to pump the water out from underneath your property. I don't think that is a property right. That is more like a circular firing squad. I don't know how you are going to get out of this quagmire. That is the most important water challenge Texans face.

Some of the consequences of excessive groundwater pumping are earth fissures opening up. You may have read last year about West Florida sinkholes and the poor fellow who went to bed and disappeared into a sinkhole. They still haven't found his body. A massive sinkhole opened up because of excessive groundwater pumping. California has a system just as permissive as Texas. Continued drought and pumping of groundwater in the San Joaquin Valley created air pockets, and in more than half a century the earth has gradually compacted. Individual landowners and farmers are pumping water excessively because it seems to be in their best interest individually. But collectively, such behavior is mutually assured destruction. The environmental consequences of excessive pumping are quite dramatic. In my home state of Massachusetts, the Ipswich River just outside Boston has dried up because of groundwater pumping. When I first found out about this ten years or so ago, I was stunned. This is a city in a state that gets more rain than Seattle.

Now I want to turn to what we can do about this. As Mark Twain said, “Everybody complains about the weather, but nobody ever does anything about it.” Cloud seeding or weather modification might be an option? You just shoot some silver iodide and hope that it rains. The scientific community is pretty agnostic. I ask you, do you want to trust cloud seeders with your water supply?

“Water, water everywhere. Nor any drop to drink,” Samuel Taylor Coleridge wrote in *The Rime of the Ancient Mariner*. Well, how about desalination? That is one viable option. We have the technology to get salt out of water. It is not a silver bullet solution for three reasons. One, it is expensive. The membranes in reverse osmosis plants require extremely high tech and are costly. Prone to fouling, they require frequent replacement. The second problem is the energy use—because it requires very high pressure to push the water through the membranes. Desalination consumes a tremendous amount of energy. You are doing that here in Texas with the Kay Bailey Hutchison plant in El Paso, a water treatment facility that takes brackish water and desalinates it. A third issue with desal is, what do you do with the left-over salt? That is actually a benefit of the El Paso plant. Because there isn’t as much salt to start with—brackish water produces less salt than sea water—the El Paso plant recovers about 83 percent of the water with the remainder being disposed of through deep-well injection. With Pacific Ocean water, which has a much higher salt content, desalination recovers only about 50 percent of the water. What to do with the 50 percent that is salt water? The best thing to do would be to have maybe a ten-mile pipeline out into the Pacific trough where there is a good current that would diffuse the water and salt pretty quickly but that would cost untold billions. The companies would prefer to use the outflow of an existing power plant, but that creates a big salty spike in areas that are typically estuaries, and the environmental community, not surprisingly, thinks this is quite a bad idea. Still, desal is part of the solution going forward.

Reclaimed water is a second option. In Tucson about 10 percent of the water provided by Tucson water is reclaimed water. We don’t drink it, but we use it on golf courses, cemeteries, parks, highway medians. It is perfectly suitable for light industrial applications. Google is starting to move to reclaimed water for some of its server farms. This is something that we can and must do much more of. It is a resource that grows as the community grows and can be a terrific part of the solution. Not cost free. Not a silver bullet. It is expensive. You need a separate system of pipes and valves. There are some substantial engineering challenges. But the resource is there and provides a means for helping to do better.

Third, we could do much more to conserve water. That is really the low hanging fruit. For example, Southern California is a desert. They get thirteen inches of rain a year. We in Tucson and the Sonoran Desert get eleven. But Southern California acts as though it is in the tropics. Lawns and rose bushes and azaleas and swimming

pools are the norm. If California just rethought its love affair with lawns, that would go a long way towards solving its water problem. We don't do lawns in Tucson.

Water harvesting is a terrific option. It is happening in Texas, especially in West Texas. A couple on San Juan Island off of Seattle collects rain that hits the roof, stores it in the silo, and runs it through a treatment system that puts something in it to make sure there is no bacteria. And they are off the water grid completely.

So those are three things we can do: desal, reuse, and conservation. Now I would like to suggest three things that we could stop doing or do better. First, I want to take dead aim at the American toilet as a waste of water. Let's start with a quote from former President Teddy Roosevelt, a century ago: "Civilized people ought to know how to dispose of the sewage in some other way than putting it into the drinking water." Well, of course. No wait. That is what we do. Today. Yes. We get drinking quality water from the utility. And we urinate and defecate in it. And we send it back to them. And they treat it, and they send it back to us. And then we do it all over again.

If this is not the definition of madness—when something goes wrong, you keep repeating it—I don't know what is. If you think about the flush toilet for more than a nanosecond, you realize, it is an institution that wastes water, wastes money, wastes energy, and it may compromise human health. There is abundant evidence now that all those pills that we get from the pharmacist, all wonders of the modern pharmaceutical era, have very important compounds, endocrine-disrupting compounds. We take the pill, our bodies absorb some of it, and we excrete the rest. We flush it away. But traditional treatment doesn't remove the residues. The people who study the water downstream are finding intersex frogs, deformed fish—pretty scary stuff. We don't know what the maximum exposure level of all of these compounds is for human safety. They are measured in the parts per trillion. They are absolutely microscopic. But there are lots of these different compounds that make up a veritable cocktail mix of drugs, depending on what you and your neighbors are taking.

You hope that it is not like an upscale Connecticut community that sampled the water supply during the week, and then on the weekend for virtually the entire community. They found that cocaine and ecstasy use spiked on the weekend. I don't care if you get high, but I don't want to drink the residue of the fun you had over the weekend. So then let's have a fresh look at the American toilet. We need a national commission to explore waterless ways of dealing with human waste.

Most of our treatment plants, built under the federal government with federal government money in the 1970s, are coming to the end of their useful life. The piper needs to be paid. And the piper wants upwards of a trillion dollars to modernize our water system. Let's not build the same old mousetrap. Already, there are waterless urinals all around the University of Arizona campus. There are composting and incinerating toilets. Whether they are ready for prime time, I don't know. What I

do know is, we haven't put our heads together and used human ingenuity to figure out a better way to deal with human waste. Of course, there is some pushback on this, and I get that. It was Ann Coulter who wrote that "The flush toilet is mankind's single greatest invention."

Second, I want you to pay for your water. Really. You are not paying for the water you receive. In some communities, this is because there are no water meters. Fresno and Sacramento have resisted water meters. Just use what you want is the basic concept. Even if you did write a check, however, either to the municipal water department or to a public company regulated by the state Public Utility Commission, the check is only for the cost of service. You add up the amounts. And you figure out what it is. And then you have a check for that. And that is not paying for water. In a third of American cities, the rates are either flat rates or decreasing block rates. Thus, the more you use, the less you pay for the final unit of water. This is madness. We need it to go exactly the opposite way. Those who use the least water should pay less per unit.

What I argue for, then, is that we recognize a human right to water for basic needs. If the richest country in the history of the world can't do that for its people, we are a sorry lot. Let's do it. Because it is the right thing to do. And then we take that issue off the table. Then we can have an adult discussion about how to price water appropriately. It should be an increasing block rate and seasonally adjusted to capture the discretionary water use for pools and lush landscaping during the summer.

Now I know that such change is difficult politically. Often you see a headline about citizens in a community turning out for the proposed water rate increase. Then you read the details. The media says 21 percent increase. If you read the fine print, that turns out to be \$3.20 a month, less than you pay for a Starbucks latte, and people are getting exercised about it. Local politicians are between a rock and a hard place in trying to raise water rates. Don't expect your public officials to get out in front on this one. In the last six months the debt-rating agency has downgraded the City of Fort Worth's water and sewer bonds and downgraded the financing of the water supplier. Why? Because Texans are good citizens. During the last several years of drought, across the state, communities have imposed voluntary and mandatory conservation programs. The people have responded like good citizens, restricting water usage and at the same time producing a revenue shortfall for the utility.

What then do they have to do? They have to raise the rates. Conserve water. If they had only raised the rates to begin with, they would have achieved the same objective. So, paying a more realistic rate for water is an important concept to think about, going forward.

I say that for another reason as well. As I travel around the country and speak to people, I meet inventors and engineers who have built better water mousetraps,

things that save water. And what is so sad about this situation is that, almost to a person, none of them have a viable business model because the price of water doesn't justify installing their inventions. This is an important final point. We are running out of water, so what are we going to do? I suggest a demand offset system. If Intel needs more water for a fabrication facility, they need to persuade some existing user to take a straw out of the glass, so that Intel can put a straw in. What we are seeing around the American West is a pretty vibrant water market.

For example, Geneva Steel was a steel company built on prime land outside of Provo, Utah, home of Brigham Young University by the U.S. government during the Second World War. At the end of the war the government turned the company over to U.S. Steel. U.S. Steel ran the business for several generations. But by the end of the twentieth century, the U.S. steel industry was on the ropes. Pittsburgh had 100-year-old blast furnaces. Detroit was making automobiles that no one seemed to want. The young Chinese steel industry was aggressive and taking market share. Therefore, Geneva Steel tried to cut costs. They go into bankruptcy and reorganize. All of that failed. They then had to liquidate their assets. Fortunately, there were substantial assets to liquidate. First, there was the land that brought in \$46 million. Then the mill itself, with all of the equipment. They also had an iron ore mine. That brought in ten. They had pollution reduction credits. All told, they received \$100 million. And then, they sold the water rights for \$102.5 million. Yes. The water rights were worth more than all of these other very substantial assets combined. This is the future of water in the United States, as it should be.

What happened in Utah was that the state engineer, Jerry Olds, said, "I am not playing this game of charades anymore." No more wink, wink, nod, nod, and I give you a permit to divert water from a river, or a permit to drill a new well, when I know such actions are utterly unsustainable. You want to do a deal, fine. Bring water to the table. Offset your new demand, and I will give you a permit to build. This is not a no growth position, but rather an insistence that growth pay its own way.

This kind of thing is happening now and will continue to happen, but the preponderance of it is not going to come from steel companies. It is going to come from farmers, for the simple reason that farmers use 70 to 80 percent of every western state's water. I have recently completed a National Science Foundation project with two economists. We studied water transfers across the West, including Texas, compiling huge database comprising 3,200 sales and leases and 30-million acre feet of water. That is twice the annual flow of the Colorado River in the West (not your Colorado River) being traded. Much of it from agricultural to agricultural operations. Commodity spikes led one farmer to sell water to a fellow farmer. But the largest amount of water went from agriculture to municipal, industrial, and environmental entities. Thus, farmers are faced with choices. The farmer can say that some of our land out by the barn is all clay soil, low yields, so let's fallow it. Or the farmer could say that is a lot of money the developer is putting on the table.

With \$700,000 we could do some real modernization of our infrastructure. We could line that earthen ditch. We could replace that flood irrigation system with a center pivot. Or we could go to a more efficient system with that money. That way, the farmer grows the same product with slightly less water. And the water that is freed up is available for other uses.

The final thing the farmers are doing is adjusting their crop mix. A couple of years ago I observed iceberg lettuce being harvested in Yuma, Arizona. It is backbreaking work. It takes a score of workers the better part of a day to do a single field. That head of iceberg that you buy in the market doesn't come like that in the field. There are all of these other leaves sticking out of it. They all have to be macheted away before the head can be put in the box. From my perspective, those chopped leaves represent wasted water, or water that was used to grow leaves that have no economic value. Those leaves are simply left to desiccate in the desert sun. Thus, some farmers are moving toward baby lettuce. It is all the rage. We had some at dinner last night. Everyone is buying baby lettuce.

Have you noticed how much you are paying for a box of lettuce? Farmers notice and have developed new methods of cultivation to control costs. They use what consists of a tractor trailer on one side and what I would call a gigantic electric razor on the other. It is shaving off the lettuce leaves, just above the root zone. The lettuce goes up a conveyor belt. At the back of this operation is a fellow with empty boxes. When the boxes are full, they go next door to the tractor trailer rig. It takes four workers a couple of hours to do the whole field. And then the next day, they send the tractor back down with some fertilizer. No need for pesticides. The seeds are sown so closely together, there are no weeds. The next cutting is already coming up. They can do that two or three times before the lettuce becomes bitter. This method amounts to tremendous value added for farmers.

What I have tried to do this morning is suggest that the problem is serious. This is a crisis. A crisis is a time of opportunity. It is a time of choice. We still can decide whether to go down one path, or another path. The options are there. We can desalinate. We can conserve. We can reuse. We can use price signals to encourage conservation and market forces to encourage reallocation. Now what it takes is the political will and the moral courage to act.

MR. MEADOWS: Robert, Thank you so much. That was an outstanding presentation. You focused our attention on the problems and the challenges, but wrapped it up with a hopeful challenge for us, focused on solutions.

It is a privilege for me now to have the opportunity to introduce to you someone that doesn't need any introduction in Texas: one of our members, Andy Sansom. He is certainly well known to most of us here today. Andy has been one of the most successful leaders in conservation advocacy and action in Texas of the past fifty years. Your advocacy and your passion have served us all well. Andy led

the Nature Conservancy in Texas. He went on to be executive director of the Texas Parks and Wildlife Department and now serves as the executive director of the Meadows Center for Water and Environment at Texas State University. He has been at the forefront of conservation research, education, and advocacy. While Andy was head of Texas Parks and Wildlife Department, he expanded the horizon of that agency tremendously. It was an agency that was focused primarily on hunting, fishing, and camping. There are a lot of good things about all of that. But he caused us in Texas, from a public policy standpoint, to focus on the environment and on conservation. In fact, one of his legacies, was the Texas Parks and Wildlife-sponsored television series that aired widely on public television. It was a multipart series on water, especially on the beauty of it, on the rivers, the environment, the instream flows, and the importance of bay and estuary issues in this state. It caused us to think how these were all interrelated. the agency had not done that prior to Andy's leadership, and that is one of his great contributions in this state. His passion for the subject of water will be evident as he makes his remarks here today.

MR. SANSOM: Thank you all for having me here this morning. Thanks, Bill, for the wisdom you have shared with Ron and me as we put this program together. Also, Bill is being modest; his contributions to our state have been extensive as well. He is showing you that he possesses the most—and forgive me, Senator Hutchison—the most important characteristic of the politician. He or she is able with such an introduction, which was far too kind, to make things sound better than they actually are.

Which always reminds me of a man who is trying to get insurance for his family. As he filled out the forms, he came to the part where he had to say what had happened to his parents. The problem was, his father had been hanged, and he was reluctant to put it down that way. To make things sound better than they actually were, he wrote on the form that his father had died at the age of sixty-nine while participating in a public ceremony when the platform collapsed.

All you really need to know about me, then, is that President Denise Trauth, who is a member of this Society, has given my colleagues and me the incredible privilege of managing the second largest Artesian spring in the United States. It is home to eight federally listed endangered or threatened species. You used to know it as Aquarena Springs. It is one of the oldest, if not the oldest, continuously inhabited site by human beings in North America. Having it near is a wonderful privilege.

It gives our students and our colleagues an incredible inspiration to work with the issues of water, which are global issues. Across the world, the average woman walks nine miles every day to get water for her family. Every twenty seconds, somewhere in the world, a child dies because of lack of water or poor water quality. While we are here together over the next twenty-four hours or so, a couple of

thousand people will die somewhere in the world from waterborne issues. And most of them will be children.

Here in Texas, probably the most important takeaway that I can leave you with this morning is this: the reason why we are continuing to increase our reliance on groundwater is that we have a water allocation system in Texas that dates all of the way back to when we were a colony of Spain. Under that old system, we have already given permission for more water to be withdrawn from our rivers than is actually in them today. If all of the water rights that our state has granted over the years were actually exercised, many of our rivers would now be dry. You are going to hear today several perspectives about the water-planning process in Texas. All of our water planning for the last half century or so has been based on what we have called the drought of record, which lasted between 1947 and 1957. We defined it as being as bad as it could get. That is to say, we have organized our planning to address the worst possible scenario, which we have consistently considered the drought of the 1950s.

Then, in 2011, we actually had a year worse than any during the drought of record. We lost over 2,500 homes in Texas from drought-related fires, most of which were in Bastrop County. The most serious hits to our economy were in agriculture. Each year the drought continues, we lose about \$8 billion a year in economic impact, and more than 115,000 jobs. In 2011, virtually the whole state was in extreme or exceptional drought. Now these rains that we had, particularly in our part of the state, during October led us, I think, into a little bit of a lull that things were going to be getting better quickly. In 1952, in the teeth of what we call the drought of record, it rained twenty-six inches at Fredericksburg in fifteen hours. The Pedernales River went up forty-eight feet at Stonewall and isolated the elementary school from the rest of the town, so the kids couldn't get home for three days. Flooding blew out the 281 bridge over the Pedernales at Johnson City. Water came up sixty feet at Hamilton Pool Road. And where the Pedernales entered Lake Travis, which was lower in 1952 than it is today, it was flowing at two-thirds the flow of the Mississippi River. It filled Lake Travis within thirty-six hours, but it did not end the drought.

The drought went on for another five years. I think the biggest question that is now on everyone's minds in our water community is whether or not this is going to end anytime soon, or will it be a new normal for us? We simply cannot take it for granted that it is going to end soon. So, what can we do? Well, thankfully, our state leaders and the people of the state have stepped up. Water was a dominant issue in the last session of the legislature. Thanks largely to Speaker Joe Straus, the State established a \$2 billion revolving fund to fund infrastructure projects around the state. You the voters of our state approved that in a Constitutional amendment by 73 percent in November.

There are a few important things I want to tell you about this proposition. First, 20 percent of the funding is dedicated to water conservation. Second, 10 percent of the funding is dedicated to rural or small-town projects. That means, for example, that \$2 billion in Dallas alone could be spent on water infrastructure. I recall having spoken in Dallas a year or so ago, with the head of the water utility. She pointed out that if you put all of the water mains in the City of Dallas end to end, they would stretch from Key West to Anchorage. Therefore, it is very important that this measure has set aside funding for those communities whose funding could otherwise be swallowed up by the urban areas of our state. Finally, the governor has appointed Chairman Rubinstein to the Water Development Board and charged him, along with the legislature, to a rigorous process of setting priorities so that these funds will be spent only on those projects that make the most sense and are the most cost effective. For example, there are those who think that any new reservoir built west of I-35 in Texas might lose more in evaporation than it would actually produce in water. We should look carefully at the viability of such projects.

Finally, the Speaker has issued a series of interim charges that will deal with many of the nonpolicy, noninfrastructure issues that are going to help mitigate the effects of prolonged drought. This is what I will spend the rest of my time on this morning. I was a proponent of Proposition 6, and I believe that it was vitally important that it be passed, but I feel strongly that we cannot solve this issue by simply building a bunch of stuff. There are other matters that we must address.

First and foremost, 95 percent of our state, and thus all its watersheds, its recharge areas, all the things that make the hydrologic system work, are on private lands. In this group, you know why that is the case. It is because when we came into the country as an independent nation, unlike Colorado and New Mexico and Nevada and all other western states, we retained our public lands. When we became part of the United States, the former Republic of Texas, now State of Texas, retained its public lands. And over the first seventy years of our existence, we sold it all to finance the government.

We traded 3 million acres in the Panhandle to build the State Capitol. We endowed the University of Texas and Texas A & M systems with two of the most wonderful endowments for higher education in the world. We financed our public school system such that by the 1920s or so, virtually all of that land had gone back into private ownership. And that is basically still true today. What does this have to do with water, you may ask?

We lose rural and agricultural land faster than any other state. The biggest single terrestrial environmental matter that we face in Texas relates directly to the water issue. We are losing family land faster than any other state. If we can't find ways to keep ancestral families on the land, doing the right thing in terms of water, then that hydrologic system is not going to continue to work for us. We probably lost 2 million acres of land to other purposes between 1997 and 2007

alone. The biggest single terrestrial and water issue that we face is the continued fragmentation of family land.

Now those of you who know me, know that I have spent a good part of my adult lifetime attempting to acquire land for national parks, state parks, wildlife refuges, and the like. I hope that when they carry me away, I am still holding a deed for another park somewhere. Nevertheless, if the state legislature gave my successors at Parks and Wildlife all of the state budget for a year to buy land with, it would only change the amount of land in public ownership by maybe 1 percent. Thus, the job cannot be done by acquiring public land. We have to find ways to incentivize private landowners to stay on their land and to do the right thing.

By the way, we tend to think about environmental destruction or deterioration as an issue of modern times. But if you look at the accounts of the state, prior to 1900, the landscape was in far worse condition than it is today. All of the timber in East Texas had been cut by 1885. Much of the state had been so badly overgrazed that we lost probably fifteen inches of soil in the Hill Country. By the time Lyndon Johnson began to ascend, the Hill Country of Texas was as poor as Appalachia, simply because of the poor land management practices in the nineteenth century.

It is not just an issue of water quantity that needs attention. The issue of water quality requires scrutiny as well. We have gotten a pretty good handle on what we call point source pollution, that is, the discharges that come out of our municipal wastewater treatment or chemical plants. The principal issues in water quality today are with runoff from the landscape, from parking lots, roads, malls, rooftops, and agriculture fields. Once again, that relates directly to the stewardship and the preservation of our private lands in Texas.

We waste far too much water. You are going to hear from two of the state's foremost leaders in water management today: Ed Archuleta from El Paso and Karen Guz from San Antonio. Those two cities in Texas have lowered their consumption of water by 40 percent per capita and have still continued to grow and prosper. San Antonio has grown by more than 40 percent in the last twenty years or so. And yet its overall consumption of water has been flat. We must find a way to increase the efficiency of our use of water if we are going to get out of our current situation. Most water is used either for municipal purposes, landscape irrigation, or agriculture irrigation. We have to remember that the cheapest and easiest water for us to get is the water that we already have.

I had the real privilege of having dinner last night with Judge Janis Jack, who is a member of the Philosophical Society from Corpus Christi. Judge Jack has ruled in a case that was brought by a group of citizens against the State of Texas, contending that the state is not providing enough water flowing down the Guadalupe River and into San Antonio Bay to protect the whooping crane. Judge Jack ruled that that in fact was true. The case is now under appeal before the Fifth Circuit in New Orleans, and the outcome is unknown to us.

If you don't care about whooping cranes, or if you like whooping cranes, you're going to love mussels. We have mussels in almost every river basin in Texas. And there is a whole suite of mussels now under consideration by the U.S. Fish and Wildlife Service as endangered species. If we don't get serious about protecting the flows of our rivers after we withdraw all of the water we need for industrial use, for municipal purposes, and for agriculture to make sure that there is continued amounts of freshwater flowing down those rivers and into our bays and estuaries, then we are going to be fighting the federal government on river basins throughout the state. Therefore, it is a business issue for us.

As I mentioned to you, because of that overcommitment of our rivers, we are continuing to increase our reliance on groundwater. We need to make sure that we understand that all of the aquifers in Texas are not a one-size-fits-all situation. The Edwards Aquifer, where my wife Nona and I live, is replenishable. When rain falls in Dripping Springs, the aquifer may go up six feet. In the El Paso area, where the aquifer is known as a bolson, where Ed Archuleta works, it was charged in the Ice Age. Thus, we have got to remember not to try to characterize the aquifers that we have in Texas as all being the same, because they are very different from each other.

Now imagine the Blanco River. It starts out in Kendall County, just southwest of Luckenbach, below the Gillespie County line, south of Fredericksburg. It flows southeastward toward where I work in Hays County. Before it gets to the Hays County line, most of the water in the Blanco goes right back into the aquifer through the riverbed. It flows underground to an iconic spring called Jacob's Well, which is at the Village of Woodcreek. It comes back up out of the ground, and then it flows down Cypress Creek through the Village of Wimberly and back into the Blanco. If you tried to get a water rights permit today to take any appreciable amount of water out of the Blanco, it would be denied, because it is already overcommitted. If you want to go up above Jacob's Well, and drill a hole in the ground, you can take just about as much of it as you are man or woman enough to pump without any regulation to speak of, and it is the same water. Continuing to pretend that groundwater is different from surface water is an unsustainable way of thinking.

If you have children or grandchildren who are wondering what to do with their lives, you should tell them to become water lawyers because we are going to be seeing a lot of litigation, not between citizens and the government but between citizens downstream who perhaps have possessed water rights for many years and citizens upstream in places like the Hill Country, who have both now been told by the state that the same water belongs to them.

If you want a good primer, thanks to Bill and his colleagues, an executive summary of the Texas Water Plan, which was most recently issued in 2012, can be found on the internet. It is probably the best summation in layman's terms of what we have been talking about. It provides the opportunity for us to explore some exciting and innovative projects, such as brackish water desalination and



Jacob's Well, Hays County, Texas. *Credit: TerraFrost, Wikimedia Commons*

aquifer storage and retrieval. The latter entails putting water directly back in the aquifer rather than in open reservoirs and subjecting it to evaporation. When we have plenty, we take it out of the aquifers when we need it.

One of the things that concerns me the most is that if we are not very careful, we are going to face a situation where we have winners and losers, where the big dogs eat first. There is almost nothing more important in my life, other than my children and my grandchildren, than taking my Labrador retriever down to the rice fields at the Lower Colorado basin and spending the fall in hunting waterfowl and having her bring them back to me. But I am not sure that in my children's lifetimes growing rice is going to be sustainable, given the situation that we are facing.

But we are a big enough and a thoughtful enough society that we can find ways to acknowledge that we no longer resemble the place that we were when we were

a colony of Spain. We just need to make sure that we don't hurt those portions of our society that are going to have to change. And so far, we are not doing a very good job of that. Those of you who are in Central Texas know that there is a pitched battle between the growing political and economic strength at the upper end of the basin and the declining strength of the agriculturalists at the lower end of the basin. We need to be sensitive that we don't hurt important parts of our culture and our society as we work our way to water sustainability.

SESSION II

THE TEXAS WATER PLAN

*William W. Meadows (moderator),
Carolyn Brittin, Mary E. Kelly, and Carlos Rubinstein*

A panel of Texas leaders discusses the most recent actions taken by the Texas Legislature and Texas voters to address ongoing water supply and conservation issues. William W. Meadows is a former member of the Texas Water Development Board and former Mayor Pro Tem of the City of Fort Worth.

Panelists:

- **Carolyn Brittin** has worked on six state water plans in her former role as deputy executive administrator for Water Resources Planning and Information at the Texas Water Development Board.
- **Mary E. Kelly** is an environmental lawyer and former vice president of the Environmental Defense Fund.
- **Carlos Rubinstein** is chairman of the Texas Water Development Board and served as a commissioner of the Texas Commission on Environmental Quality (TCEQ) from 2009–2013.

[Note: This session was not recorded. Chairman Rubinstein's summarized remarks and PowerPoint presentation are presented below. Current information about the Texas Water Plans of 2012, 2017, and 2022 can be found online at the Texas Water Development Board website: <https://www.twdb.texas.gov/water-planning/swp/2022/index.asp>

MR. RUBINSTEIN'S SUMMARY: Texas prides itself in having a robust water planning process. In 1997 the Texas Legislature changed how Texans plan for meeting future water needs. A regional water planning effort was established with a fifty-year planning horizon. The plan must be updated every five years. Planning and implementation are two different efforts. Following the 2011 drought, the legislature noted that dedicated funding to advance management strategies was necessary to enable Texas to meet future water demand, particularly in a repeat of the drought of record. In 2013, following passage of HB 4, Texans voted to move \$2 billion from the economic stabilization fund and created the SWIFT program. The TWDB is charged with adopting rules and implementing the SWIFT program.

SWIFT was created by the Texas Legislature to provide affordable, ongoing state financial assistance for projects in the state water plan. The program helps communities develop cost-effective water supplies by providing low-interest financing, extended repayment terms, deferred repayments, and incremental repurchase terms. The State Water Implementation Revenue Fund for Texas (SWIRFT) is a component of the broader SWIFT program. SWIRFT is used to issue revenue bonds for water infrastructure projects outlined in the State Water Plan. The State Water Development Board (TWDB) administers both SWIFT and SWIRFT, providing financial assistance for these projects.

Texas Water Development Board Overview

The Texas Water Development Board (TWDB) provides leadership and financial assistance for the conservation and responsible development of water resources in Texas. It oversees various programs and funds aimed at addressing the state's water needs.

- Established in 1997 for regional water planning.
- Introduced key legislation for water management, including SB1, SB2, SB3, and HB4.
- Created the State Water Implementation Fund for Texas (SWIFT) to support water projects.

Financial Overview of Water Needs

Texas faces significant capital costs for water supply and infrastructure, totaling approximately \$231 billion. This includes costs for wastewater treatment, water distribution, and flood control.

- Wastewater collection and treatment: \$81.7 billion.
- Water treatment and distribution: \$88.9 billion.
- Flood control: \$7.46 billion.

SWIFT Legislation and Funding Mechanisms

SWIFT was established through House Bill 4 and Senate Joint Resolution 1, providing a framework for funding water projects in Texas. It includes various funding mechanisms to support political subdivisions and nonprofit water-supply corporations.

- SWIFT funded by \$2 billion from the Rainy Day Fund.
- SWIRFT provides debt service payments or security on bonds.
- SWIFT supports projects in the 2012 State Water Plan.

Project Funding Priorities and Allocation

SWIFT and SWIRFT will fund projects based on their prioritization in the state water plan, focusing on new supply development, conservation, and reuse strategies.

- New supply development: 32% of volume, 43% of total capital costs.
- Conservation and reuse: 34% of volume, 12% of total capital costs.
- Other surface water strategies: 34% of volume, 45% of total capital costs.

Eligibility and Collaboration for Funding

Only political subdivisions and nonprofit water supply corporations are eligible for SWIFT funding. The TWDB collaborates with regional water planning groups to prioritize projects based on specific criteria.

- Projects prioritized by regional water planning groups.
- Criteria include feasibility, sustainability, and cost-effectiveness.
- Local financial contributions and emergency needs are also considered.

Timeline for SWIFT Implementation

Key milestones for the implementation of SWIFT, including the adoption of rules and submission of prioritized project lists.

- Nov. 5, 2013: Voters passed Proposition 6.
- June 1, 2014: Regional water planning groups submit draft prioritized lists.
- March 1, 2015: Deadline to adopt SWIFT rules.

Support for Small and Rural Communities

The TWDB provides resources to assist small and rural communities in navigating the SWIFT application process, ensuring equitable access to funding.

- Doug Shaw serves as the Agricultural and Rural Ombudsman.
- Additional resources are available for small and rural communities.

Mary Kelly and Carolyn Brittin also made opening remarks about the technical, financial, environmental, and regulatory challenges facing Texas as this new planning process and new funding are implemented. All three panelists addressed questions from moderator William Meadows and the membership.

SESSION III

WATER CONSERVATION

Fernando Costa (moderator), Carole D. Baker, Ken Kramer, Edmund G. Archuleta, and Karen Guz

A panel of experts from throughout the state discussed the meaning and importance of water conservation, state legislative actions to enact water conservation measures, and efforts Texas cities have put in place to curb water use in Fort Worth, San Antonio, and El Paso.

- **Fernando Costa** serves as assistant city manager for the City of Fort Worth.
- **Carole D. Baker** serves as executive director of the Texas Water Foundation and currently chairs the board of the Alliance for Water Efficiency, a national non-profit.
- **Ken Kramer** is the volunteer water resources chair for the Lone Star Chapter of the Sierra Club.
- **Edmund G. Archuleta** serves as director of water initiatives for The University of Texas at El Paso.
- **Karen Guz** serves as director of conservation for the San Antonio Water System.

[Note: This session was not recorded. Prepared notes provided by Fernando Costa and Ken Kramer along with summaries of PowerPoint presentations by Ed Archuleta and Karen Guz appear below. Additional information about conservation efforts in Texas can be found at the following websites:

- *Save Fort Worth Water:* <https://www.fortworthtexas.gov/departments/water/savefwwater>
- *San Antonio Water System:* <https://www.saws.org/about-saws/>
- *El Paso Water:* <https://www.epwater.org>
- *Texas Water Foundation:* <https://www.texaswater.org>
- *Texas Living Waters:* <https://texaslivingwaters.org>



Fort Worth Water Gardens. *Credit: photo by Payton Chung, Wikimedia Commons*

MR. COSTA: Good afternoon. We've had some excellent discussions today about our state's water resources and about our need to develop those resources wisely in support of our population and economic growth. I think it's clear from those discussions that we'll need a comprehensive and coordinated strategy to satisfy the state's water demands and that conservation must be a significant component of that strategy.

Here in Fort Worth, as in other Texas cities, water conservation has become increasingly important. To conserve water, we've modified our rate structure by increasing rates for large residential consumers and by eliminating declining rates for commercial and industrial customers. We've restricted spray irrigation year-round to mornings before 10:00 and evenings after 6:00. And we've instituted a variety of popular conservation programs, including free irrigation system checkups, free water audits for our commercial and industrial customers, and free high-efficiency toilets—more than 28,000 of them—to replace inefficient units in older homes.

These toilets are saving us more than 65 million gallons of water each year, and the story behind the toilet distribution program serves to highlight some important points about water conservation. San Antonio pioneered toilet distribution programs in Texas, and other cities—including Dallas and Austin—have followed suit. In Fort Worth, each high-efficiency toilet costs us less than \$120 but saves more

than 12,000 gallons annually, a volume that would cost us about \$40 to produce. The toilets therefore pay for themselves in about three years.

An even more important benefit is the avoidance of cost to develop our future water supply. The unit cost for us to conserve 1,000 gallons of water is only \$0.36, compared to \$1.36 to pipe 1,000 gallons of raw water to Fort Worth from Cedar Creek Lake near Athens, or at least \$2.60 to pipe it here from a proposed reservoir on the Sulphur River near Mount Pleasant. All of our conservation efforts have succeeded in reducing our per-capita water consumption from 207 gallons per day in 2006 to 172 gallons per day last year, a 17 percent reduction in just seven years.

The issues associated with water conservation in Texas are varied and complex. San Antonio has long been a leader in water conservation among Texas cities and at least part of the credit for that success goes to its elected officials. I'd like to take this opportunity to recognize Mayor Julian Castro, a member of our Society, who serves on the board of the San Antonio Water System and who has a particular interest in water conservation. Karen Guz serves as Director of Conservation for the San Antonio Water System. Her department is responsible for working with customers to acquire one billion gallons of water each year through proactive conservation education and incentive programs.

MR. KRAMER: First, let me express my thanks to The Philosophical Society of Texas for the opportunity to speak to you about a topic which is one of the most important to securing our state's water future: water conservation. I am privileged to have the chance to serve now as the volunteer Water Resources Chair for the Lone Star Chapter of the Sierra Club, after having been a professional with that organization for a number of years. Although I have dealt with many environmental issues over my career as a professional and a volunteer, water is the issue about which I am most passionate, and water conservation is a major focus of my work on behalf of the Sierra Club.

For the past almost 14 years the Lone Star Chapter of the Sierra Club has partnered with the National Wildlife Federation and other organizations in Texas in what we call the Texas Living Waters Project. The Living Waters Project is a joint public education and public policy project on water, funded by a variety of philanthropic groups in Texas. The members of the Philosophical Society will be pleased to know that one of your leaders played a primary role in the initiation of the Living Waters Project. Ann Hamilton, in her former role with the Houston Endowment, provided early and ongoing support for the project. I want to acknowledge and publicly express my appreciation to Ann for her involvement in bringing our joint water project to fruition and helping to maintain our progress advancing water policy since 2000.

The mission of the Living Waters Project is multifold, but it includes the goal of making efficient use of our existing water supplies. Water conservation is critical to

accomplishing that goal. In delving into that topic today, however, it is important to clarify some terms. When Texas or a region in Texas is suffering from drought conditions, the affected public is usually urged to implement what are often termed water “conservation” measures to reduce water use for the duration of the drought. We are asked to “conserve” water during dry periods.

Those of us involved in water policy, however, prefer to distinguish between the concepts of “water conservation” and “drought response.” We view water conservation as an *ongoing* set of activities to reduce water use overall and to become more efficient in using a smaller volume of water to accomplish the same purpose (like using less water to clean a load of clothes by purchasing a more water-efficient clothes washer). By contrast, drought response measures are *short-term* steps taken to reduce water use further on a temporary basis during periods of low rainfall or diminished water supplies.

Some of those drought response measures may ultimately become long-term conservation measures. For example, in Dallas restrictions on outdoor watering to no more than twice a week that were previously put into effect only during implementation of certain stages of the city’s drought contingency plan were adopted a couple of years ago on a permanent basis. What had been considered a temporary drought response became an ongoing limitation on outdoor water use. Dallas city officials have said that adoption of that one measure alone will reduce water use enough to allow them to postpone a major new water-supply project by at least a decade.

Texas has made progress on water conservation over the past thirty years. Let’s consider six of the milestones in state action and legislation that have advanced conservation in Texas:

(1) Expansion of the Definition of “Conservation”

It may surprise you to know that the traditional definition of “conservation” in the Texas Water Code—the legal statutes that govern management and regulation of water in our state—was “development of water resources,” which basically meant storage of water in a surface reservoir. In other words, putting a dam on a river or stream to impound water and prevent it from flowing downstream into our coastal bays and estuaries was considered “conservation” of water. Today most of us think of that as being a strange way of defining water conservation. Storing water in a reservoir may have benefits, such as flood control and providing a municipal water supply, but it is not something that reduces water use or increases efficiency in water use. However, that archaic definition of conservation remains in the Texas Water Code.

Fortunately, in 1985, as a result of passage of a package of water legislation, an additional definition of “conservation” was placed in the Water Code. That new language said that “conservation” also included: “those practices, techniques, and

technologies that will reduce the consumption of water, reduce the loss or waste of water, improve the efficiency in the use of water, or increase the recycling and reuse of water so that a water supply is made available for future or alternative uses.”

Although this definition itself is somewhat broad—some folks argue that “recycling and reuse” of water, while generally positive, is different from “conservation”—the enactment of this new language in the Water Code was an important milestone. While the old concept of conservation as “development of water resources” remains in state water law, for all practical purposes the 1985 addition to the Water Code is what has come to be accepted as the focus of water conservation activities in Texas.

(2) Adoption of Standards for Water-Efficient Plumbing Fixtures

Another milestone in water conservation in Texas was the adoption by the State Legislature in 1991 of water-efficiency standards for plumbing fixtures sold in the state. The most well-known of the standards was the requirement that all toilets purchased in Texas after January 1, 1993, basically had to use a maximum of 1.6 gallons of water per flush (compared to the most common toilets at the time that used 3.5 gallons or more of water per flush). There were standards for other plumbing fixtures such as showerheads and faucets as well. Despite our reputation nationally for being “behind the curve” in environmental action, Texas actually adopted water-conserving plumbing fixture standards ahead of the national standards adopted by the U.S. Congress a year later.

Moreover, Texas strengthened the performance standards for toilets with passage of new legislation in 2009, which had the effect of requiring that all toilets (with some exceptions) sold in Texas after January 1, 2014, meet an efficiency rating of no more than 1.28 gallons of water per flush. Texas and California were the first two states to adopt toilet standards more stringent than the national standards. Georgia has now adopted toilet standards for installation in new construction that are more stringent than the national ones. The bottom line, however, is that Texas is one of only a handful of states with these more stringent water-efficiency standards for toilets. The replacement of water-wasting toilets with more efficient models over the past twenty years has and will continue to have positive impacts on per capita water consumption in Texas and allows Texas water planners greater flexibility in addressing future water needs.

(3) Establishment of Requirements for Water Conservation Planning

As a result of a several pieces of state legislation passed over a number of sessions—including SB 1 in 1997, Water Code amendments enacted in 2003, and SB 3 and HB 4 in 2007—a large number of entities are required to prepare and submit water conservation plans to the Texas Water Development Board or the Texas Commission on Environmental Quality and to submit annual reports on

the implementation of those plans to the board. The entities covered by this requirement include, for example, entities applying for certain new or amended surface water rights permits, a retail public water utility receiving financial assistance from the board, and a retail public water utility that provides service to 3,300 or more connections. These plans must be updated on a five-year recurring basis.

The conservation plans must include specific, quantified five-year and ten-year targets for water use, expressed in gallons per capita per day, and targets for limiting water loss. Legislation enacted in 2011 (SB 181) established a process for developing uniform, consistent methodologies and guidance for calculating and reporting water use and conservation progress.

The development of a water conservation plan often results in identification to water suppliers of measures that others are taking successfully to reduce water use and water loss that may then be incorporated into their own plan. The requirement for annual implementation reports provides an opportunity for the public and state water agencies to see whether progress is being made to achieve water conservation targets and to pinpoint possible ways of bolstering efforts to reach those targets.

(4) Creation of the Water Conservation Implementation Task Force and Later the Water Conservation Advisory Council / Preparation of a Best Management Practices Guide

In 2003 the Texas Legislature enacted SB 1094, establishing a short-term Water Conservation Implementation Task Force to work during the legislative interim to review, evaluate, and recommend optimum levels of water-use efficiency and conservation for Texas and to make specific recommendations to the legislature in regard to furthering water conservation. The Task Force was also directed to develop a best-management practices guide (BMPs Guide) for water conservation for use by regional water planning groups and water suppliers. The Task Force accomplished both of those tasks, submitting a report to the legislature in the fall of 2004 and preparing a BMPs guide published as a Texas Water Development Board document that same year. Some, but not all, of the recommendations made by the Task Force to the State Legislature were eventually enacted into law, but not until passage of SB 3 and HB 4 in 2007.

One of those recommendations was for the creation of an ongoing state Water Conservation Advisory Council (WCAC), which was established by the 2007 legislation. The WCAC was given seven major tasks:

- Monitor trends in water conservation implementation.
- Monitor new technologies for possible inclusion in the BMPs Guide noted above.

- Monitor the effectiveness of the statewide water conservation public awareness program and associated local involvement in implementation of the program.
- Develop and implement a state water management resource library.
- Develop and implement a public recognition program for water conservation.
- Monitor the implementation of water conservation strategies by water users included in regional water plans.
- Monitor target and goal guidelines for water conservation to be considered by TCEQ and the Water Development Board.
- I am a member of the WCAC (serving as the environmental representative on the council). The WCAC is currently working to prepare its next report to the state leadership on these topics.

(5) Requirements for Water Loss Audits and for Financing Efforts to Curb Water Loss

One of the major challenges in using water more efficiently is monitoring and responding to problems with leaking water distribution pipelines and equipment and related issues in municipal water supply systems that lead to “water loss” in those systems. An analysis of water loss audits submitted by retail public water utilities to the Water Development Board based on 2010 data indicate that as much as 13 percent or more of water supplies are being lost in the municipal water systems through leaking infrastructure or malfunctioning equipment.

Fortunately, in Texas we at least have some information about water loss that must be reported to the state. As a result of several pieces of legislation over the past decade, all entities with retail water connections must submit a water loss audit to the Water Development Board once every five years, and any retail public water supplier receiving financial assistance from the board and/or with more than 3,300 connections must submit an audit to the board annually.

Moreover, in 2013 the legislature passed a new law requiring, among other things, that a retail public water utility receiving financial assistance from the Water Development Board use a portion of that assistance—or any additional assistance provided by the board—to mitigate that utility’s water loss if, based on its audit, the water loss meets or exceeds a threshold established by the board. Rules to implement that law are currently being developed.

There remain questions about the quality of water loss audits being conducted, and these must be addressed, but the legislature has certainly signaled its interest in seeing water loss curbed.

(6) Funding “Set-Asides” for Conservation or Reuse Projects in HB 4/SWIFT

The big water news of 2013 was the passage of legislation by the Texas Legislature to set up a new funding mechanism to provide state financial assistance to water projects proposed in the regional and state water plans. The voters of Texas overwhelmingly endorsed creation of that new funding approach by the voters of Texas with the November approval of Proposition 6 on the state constitutional amendment ballot. Those actions established a new State Water Implementation Fund for Texas (SWIFT) and a related State Water Implementation Revenue Fund for Texas (SWIRFT) to provide financial backing for the projects in the water plans.

With voter approval of Prop 6 two other pieces of legislation took full effect: a bill that moved \$2 billion out of the state’s so-called Rainy Day Fund into the new SWIFT as the corpus for the new water fund, and HB 4. HB 4 sets out the process by which SWIFT and SWIRFT are to be used to support water projects called for in the water plans. From the perspective of water conservationists, the most important provision of HB 4 was the section that requires the Texas Water Development Board to undertake to apply not less than 20 percent of the financial assistance provided by SWIFT/SWIRFT to projects for water conservation or reuse. (Other provisions of HB 4 also were directed at bolstering conservation.)

This is a huge milestone for conservation because it marks the first time that the State of Texas has made a specific commitment of financial resources to help foster local and regional water conservation projects. These new funds are not grants but rather financial obligations that must be repaid by the sponsors of the projects. They provide a new source of money to get water conservation efforts off the ground.

These six milestones are by no means the only state-level actions advancing water conservation in Texas over the past three decades, but they do illustrate the progress made during that time to bring Texas to the forefront among the 50 states on water efficiency. Indeed, the Alliance for Water Efficiency (AWE), a national organization promoting and facilitating water efficiency under the leadership of my colleague Carole Baker, has recognized that achievement. The 2012 publication *The Water Efficiency and Conservation State Scorecard: An Assessment of Laws and Policies*, a joint publication of AWE and the Environmental Law Institute, gave only California and Texas “A” grades for their state laws and policies on water conservation. The average grade for all fifty states on such state laws and policies was a “C.”

That’s the good news. In some ways it’s also the bad news. Even though we are considered among the top states for our statutes and policies in this arena, we in Texas are far from reaching our potential for water conservation (so there must be a lot more work needed in other states!). It is one thing to have good laws and

policies on the books. It is quite another to implement those official actions fully to achieve what is possible in water use reductions.

Nevertheless, many communities in the state are making progress on water conservation, and our laws and policies are supporting and facilitating that progress. Now because of the set-aside in HB 4 for funding water conservation we have a chance to put our money to the task of accelerating that progress dramatically.

But, just like our other conservation statutes, the HB 4 set-aside for conservation or reuse is not a “self-implementing” provision. We need a partnership among many actors to assure that this conservation funding opportunity achieves its goals.

The Texas Water Development Board cannot automatically assure that 20 percent or more of the SWIFT funding goes to conservation or reuse projects. The agency can only provide financial assistance to water suppliers who apply for that assistance and may only use SWIFT funding for projects included in the regional and state water plans. If those plans do not have the eligible conservation or reuse projects in the first place, and if the water suppliers do not seek state financial assistance for those projects, then the 20 percent (or more) goal cannot be met.

The first step, therefore, is to assure that the regional plans have water conservation projects prominent among the management strategies recommended for water user groups with needs. That requires active participation in the regional water planning process, working with the planning groups to promote conservation.



Acequia Madre Mission de Valero, Bexar County, Texas. The Spanish and their Indian charges built this irrigation ditch (acequia) after the founding of San Antonio in 1718. Hand dug and made of dressed limestone, the acequia diverted water from San Antonio River through agricultural fields that belonged to San Antonio de Valero Mission. *Credit: photo by Christopher Talbot, National Park Service*

Those of you who are members of the Philosophical Society are prominent leaders in your communities, and your opinions carry weight. I urge all of you to take an active interest in the regional water planning process and use your considerable influence to make conservation a major part of the revised regional water plans due next year. With that foundation we can move forward to encourage water suppliers to apply for funding for conservation projects and put more conservation measures into practice.

Texas is at a true crossroads in how we as a state proceed in addressing our state's water challenges. We can continue to put our faith in building more and more infrastructure to develop water supplies, always hoping that there will be yet another reservoir or other infrastructure project to meet ever-growing water demands. On the other hand, we can take charge of our destiny by becoming more and more efficient in our use of water so that we can stretch our existing supplies and minimize the need to pursue costly infrastructure projects that often carry negative environmental consequences.

I think we need to take the path of water conservation – the path that gives us the greatest potential to address our water challenges in the most fiscally responsible and sustainable way. I invite the members of the Philosophical Society to join me in making sure that this is the path Texas takes.

MS. GUZ'S POWERPOINT SUMMARY: A presentation on the conservation challenges and strategies implemented by the San Antonio Water System to ensure sustainable water management amid rapid population growth and varying climate conditions.

San Antonio Water System Overview

San Antonio Water System (SAWS) serves 1.6 million people and faces rapid growth, with 20,000 new residents each year. The region experiences both extended dry periods and dramatic rain events, necessitating sustainable and affordable water services.

Conservation Strategies and Programs

SAWS employs a diverse mix of conservation strategies, including education, outreach, and financial investments to promote water efficiency. The organization has established successful conservation programs and technologies to address water use challenges.

- Largest direct recycled water system in the region.
- Successful conservation programs implemented.
- Education and outreach through partnerships and workshops.
- Financial investments include tiered rate structures and rebate programs.

Trends in Water Use and Efficiency

Indoor water use trends indicate that new fixtures in homes are more efficient, leading to reduced water consumption. However, municipal water use remains volatile, particularly during summer months due to irrigation systems.

- New home fixtures save water and perform efficiently.
- Municipal water use is more volatile than before.
- Homes with irrigation systems use 71percent more water in summer.
- Average leaks account for 14 percent of home water use.

Importance of Landscape and Irrigation Management

A significant portion of municipal water, 20-40 percent, is used for landscaping, highlighting the need for better plant choices and irrigation technology. Small changes in irrigation practices can lead to substantial financial and planning impacts.

Community Engagement for Water Conservation

Community-wide efforts are essential for successful water conservation, including education, incentives, and personalized water use information. Managing demand during extreme weather is also crucial for effective conservation.

- Community engagement is vital for conservation success.
- Education and incentives accelerate landscape transformation.
- Personalized information on water use is provided.
- Demand management is necessary during extreme weather events.

Historical Milestones in Water Conservation

SAWS has a history of significant milestones in water conservation, including the establishment of conservation plans and ordinances that promote efficient water use. Key achievements include early adoption of water use reduction goals and the creation of advisory committees.

- SAWS adopted its first Conservation and Reuse Plan in 1991.
- Significant milestones include the establishment of the Community Conservation Committee.
- Early achievement of water use reduction goals set for 2008.
- Comprehensive water conservation ordinance approved in 2005.

MR. ARCHULETA'S POWERPOINT SUMMARY: This presentation outlines the Integrated Water Strategy implemented in El Paso, Texas, highlighting its effectiveness in achieving sustainability through diversified water resource management and conservation efforts.



Downtown El Paso at sunset. Credit: Brian Wancho Photography, Wikimedia Commons

Integrated Water Resource Management in El Paso

El Paso, Texas, has implemented a comprehensive Integrated Water Strategy to ensure sustainable water management amid challenges like drought and population growth. This strategy includes diversified water resources, conservation efforts, and innovative technologies.

- **Diversified Resources:** The Fifty-Year Water Resource Management Plan adopted in 1991 includes surface water, reclaimed water, groundwater, desalination, and importation.
- **Desalination Plant:** The Kay Bailey Hutchison Water Desalination Plant, opened in 2007, has a capacity of up to 27.5 million gallons per day (MGD) and was operated at full capacity for the first time in May 2012.
- **Aquifer Recharge:** Since 1985, reclaimed water has been used for aquifer recharge, with the Fred Hervey Water Reclamation Plant's capacity expanded from 10 MGD to 12 MGD.

Water Conservation Programs and Regulations

El Paso's water conservation programs focus on reducing water consumption and increasing public awareness through regulations, voluntary programs, and educational efforts. These initiatives have significantly contributed to the city's water sustainability goals.

- **Conservation Ordinance:** Regulations include a watering schedule and restrictions on water-wasting activities.
- **Voluntary Programs:** Rebates and incentives encourage residents to adopt water-saving practices.
- **Education Efforts:** Programs include school presentations, community events, and partnerships with local organizations to promote water conservation.

Impact of Conservation Initiatives

The conservation initiatives in El Paso have led to substantial water savings and financial benefits, demonstrating the effectiveness of the city's water management strategies.

- **Water Savings:** 249 billion gallons of water saved, equating to over \$460 million in deferred capital costs.
- **Per Capita Consumption:** The goal for 2020 is to reduce per capita consumption to 130 gallons per capita per day (gpcd), with a projected 2013 consumption of 132 gpcd.
- **Public Engagement:** Over 35,000 individuals reached through educational campaigns and community events in FY 2012-13.

Summary of Achievements and Future Goals

El Paso's water conservation efforts have stabilized aquifer levels and positioned the city as a leader in water sustainability. Continued commitment to these programs is essential for maintaining a sustainable water supply.

- **Conservation Success:** The conservation program has been embraced by the community, leading to stabilized aquifer levels.
- **Financial Impact:** The city has saved over \$500 million in deferred capital and operating costs due to effective conservation and reuse strategies.
- **Future Commitment:** Ongoing efforts are necessary to ensure a sustainable water supply for El Paso in the long term.

Carole Baker spoke about the mission and programs of the Texas Water Foundation, and all panelists addressed questions from moderator Fernando Costa and the membership.

SESSION IV

CONFLICT BETWEEN GROUND AND SURFACE WATER IN TEXAS WATER LAW AND POLICY

*Schuyler Marshall (moderator), Greg Ellis,
Russell Johnson, Ron Kaiser, and Tom Mason*

In Texas, water is more than a natural resource—it's a source of legal, political, and cultural contention. This panel moderated by Schuyler Marshall brought together experts from law, academia, and water management to debate the state's fractured approach to groundwater and surface water governance. Marshall set the tone with a nod to the famously contested nature of water in the region: "As Will Rogers said—though Mark Twain may have said it first—whiskey is for drinking, and water is for fighting."

The panel included Ron Kaiser, Russell Johnson, Greg Ellis, and Tom Mason—all experts in water law and management. Their remarks explored the complexity of Texas water law, the hydrological realities of water systems, and the institutional and political challenges of integrated water governance. Panelists reflected the increasingly urgent need to reconcile the science of water with the patchwork of legal frameworks that govern it.

The Era of Inexpensive Water Is Over

Ron Kaiser, professor at Texas A&M and a longtime water educator, opened with both levity and gravity. He began with a reminder that Texas has vast but unevenly distributed water resources, including the Gulf of Mexico, brackish groundwater, and inconsistent rainfall. He noted that while groundwater and surface water are hydrologically connected, the legal system treats them separately. Surface water is owned by the state and managed through a permit system. Groundwater, on the other hand, is subject to the "rule of capture," giving landowners rights to pump water beneath their land, albeit within limits set by local groundwater conservation districts.

Texas has over one hundred such districts, each with differing rules. This patchwork of governance complicates efforts to manage shared aquifers effectively.

Kaiser highlighted the lack of funding for these districts and their uneven authority, which undermines coordinated water management.

"We have plenty of water in Texas," he said. "It's called the Gulf of Mexico." But the problem, he added, "is that it doesn't always occur in the right place at the right time." He added, "the era of inexpensive water is over. Water is going to become increasingly expensive."

Kaiser's presentation highlighted the geophysical realities of Texas's water landscape—where much of the water lies underground and where rivers are often hydrologically connected to aquifers in complex ways. Yet, the legal system continues to treat surface water and groundwater as distinct entities.

"Managing water is more difficult than rocket science," he stated, outlining how laws are rooted in ownership concepts that no longer match hydrologic realities. "When water percolates from your land into a stream, it transforms—from private property to the property of the people of Texas."

Legal Overlays and Regulatory Gridlock

Russell Johnson, a water attorney with McGinnis Lochridge, brought a frontline view from decades of litigation. "I grew up at ground zero of the water wars," he said, referencing his role in representing San Antonio during heated conflicts over the Edwards Aquifer and the Endangered Species Act. A major turning point came when the Endangered Species Act (ESA) was invoked to protect spring flows essential to species in the Guadalupe River. Federal litigation led to the creation of the Edwards Aquifer Authority (EAA), which capped overall groundwater production.

That federal law, Johnson reminded the audience, has quietly become "Texas's other water law," placing environmental constraints on both surface and groundwater use. "Because there were fountain darters and bugs at Comal Springs," he noted, "the City of San Antonio had to restrict its water use by about 75 percent instantly."

Johnson was particularly critical of regulatory inertia. "I had a client who applied for a groundwater permit in 2007," he said. "We had our first hearing this week." The cause, he argued, is a fragmented system of nearly one hundred groundwater conservation districts, each with its own rules. "It's like having 99 different TCE-Qs," he said. "Instead of one science-based system, we have localized regulatory balkanization."

He critiqued the state water plan as overly aspirational, especially regarding the feasibility of building new reservoirs. Johnson advocated for more focus on conservation and the development of groundwater resources, particularly brackish water and aquifer storage and recovery (ASR). He warned of significant regulatory delays and uncertainty, which discourage private investment.

Balancing Certainty and Flexibility

Greg Ellis, former general manager of the Edwards Aquifer Authority and now a solo practitioner, pushed back on the idea that more centralization would improve outcomes. “You can’t regulate all of Texas groundwater from Austin,” he argued. “Local districts are messy, but they reflect the reality of geology and politics.”

Ellis acknowledged the difficulty of governing a shared resource under the “rule of capture,” where landowners can pump water beneath their land without liability—even if it affects neighbors. “Almost all water in Texas is considered either yours, mine, or ours,” he said with a grin. “If I’m pumping it, it’s mine. If you’re pumping it, it’s ours. If it’s polluted, it’s yours.”

He advocated for a balance between investment certainty for cities and developers, and adaptability for districts managing uncertain aquifer responses. “It’s tragic if you can’t get a permit,” he said. “But it’s catastrophic if you build a pipeline and the water’s not there.”

Ellis emphasized the need for groundwater conservation districts to balance hydrological science with local political realities. He described challenges in forming districts that span both rural and urban areas, noting tensions in districts like Brazos Valley, where funding disparities and governance disputes hinder effective management.

He also highlighted legal uncertainties stemming from recent court decisions, including *Day and Bragg*, which affirmed landowners’ property rights in groundwater and opened the door to regulatory takings claims. This, he warned, creates a dilemma: regulators may face lawsuits whether they approve or deny permits.

Ellis supported maintaining local control but called for greater emphasis on brackish groundwater development and ASR. He praised San Antonio’s efforts as a model for balancing conservation and innovation.

Systemic Contradictions and the Risk of Collapse

Tom Mason, former general manager of the Lower Colorado River Authority, broadened the view to institutional and historical failures. “These nineteenth-century approaches to twenty-first-century problems are not sustainable,” he warned. He described the tensions that have emerged as cities turn increasingly to groundwater while surface reservoirs shrink. “We indulge in this legal fiction that groundwater and surface water can be regulated separately. That’s ignoring reality.”

Mason provided historical context by recounting the founding of the Lower Colorado River Authority (LCRA) in the 1930s, created to address both flood control and irrigation needs. This model worked for decades, but population growth and climate change have strained surface water supplies. He critiqued the outdated legal distinction between surface and groundwater, calling it unsustainable in light of hydrological realities.

Mason advocated for reforming the legal framework to reflect the interconnected nature of water resources, suggesting aquifer-wide management districts as a potential solution. “Right now, it’s a crazy patchwork quilt,” he said. “That system is designed to fail—and it will.”

Mason urged policymakers to prioritize conservation, adopt new technologies like desalination and ASR, and recognize water as a shared, finite resource. He called for structural reforms, including aquifer-wide districts that retain local control but operate with uniform rules.

Mason also emphasized the need to include the environment in water management. “When you dry up springs, you dry up rivers. Then river authorities start looking for groundwater, and you get a snake chasing its tail.”

Toward an Integrated Future?

The panelists differed in their solutions—some favoring regulatory streamlining, others doubling down on localism—but most agreed that the current trajectory is unsustainable. The conversation often circled back to the question of certainty. Whether for investors, farmers, cities, or ecosystems, water governance in Texas must grapple with legal contradictions, jurisdictional fragmentation, and ecological interconnectedness. “In Texas,” Johnson quipped, “we’re all water managers now—whether we like it or not.”

Key Legal Cases and Policy Reforms in Texas Water Law

1. *Houston & T.C. Ry. Co. v. East* (1904)
Established the *rule of capture* in Texas groundwater law. Landowners could pump as much water as they pleased—even if it dried up a neighbor’s well.
2. *Edwards Aquifer Authority v. Day* (2012)
Affirmed that landowners have a vested property right in groundwater beneath their land, which cannot be excessively restricted without compensation. Introduced the risk of *regulatory takings*.
3. *Bragg v. Edwards Aquifer Authority* (2013)
Extended the implications of *Day*, finding that denial of groundwater permits could indeed require compensation under takings law.
4. Endangered Species Act (Federal Overlay)
Though not a Texas case, the ESA played a key role in limiting groundwater withdrawals from the Edwards Aquifer to protect endangered species at springs. According to Russ Johnson, this federal law functions as “Texas’ other water law.”

Panelist-Suggested Reforms

Legal & Regulatory Integration.

- Recognize the hydrological connection between surface and groundwater in law and regulation.
- Consider unifying or coordinating groundwater conservation district rules, especially within shared aquifers.

Local Control, Smarter Structure.

- Preserve local governance, but reconfigure districts along aquifer boundaries rather than county lines.
- Avoid political patchworks that lead to uneven enforcement and conflicting rules.

Investment Certainty.

- Ensure that permitting processes for groundwater development are timely and transparent.
- Balance the need for certainty with safeguards for sustainable yield and ecosystem health.

Incentivize Conservation.

- Provide mechanisms (like water markets) for agricultural users to profit from conserved water.
- Shift the focus from general conservation to cost-effective efficiency.

Environmental Protections.

- Strengthen protections for spring flows and endangered aquatic species.
- Support aquifer storage and recovery (ASR) and off-channel reservoirs to build ecological and municipal resilience.

Infrastructure & Conveyance.

- Build or finance pipelines to move water from surplus to deficit regions.
- Reimagine Texas's water grid as a functional delivery network—not just a patchwork of rivers.

SESSION V

ROUNDTABLE

*Evan Smith (moderator), Carole D. Baker, Karen Guz,
Mary Kelly, Ken Kramer, Tom Mason, Andrew Sansom*

This roundtable discussion centered on the evolving challenges and policy complexities surrounding water in Texas. Moderated by Evan Smith of the *Texas Tribune*, the session convened leading voices from environmental advocacy, municipal utilities, legal and political spheres, and regional planning. Against the backdrop of prolonged drought, rapid population growth, and competing demands on finite natural resources, participants explored the intersections of infrastructure, regulation, conservation, and civic responsibility. The conversation, excerpted and refined here, reflects both urgency and pragmatism, offering a multifaceted view of how Texans might confront one of the state's most critical public policy issues in the decades ahead.

Sustainability and Growth: Water as a Leading Indicator

Framed by Smith's central question—whether water serves as a leading indicator of broader infrastructure and governance challenges—the discussion emphasized that water scarcity in Texas is emblematic of the state's struggle to keep pace with rapid growth, urbanization, and economic development.

Andy Sansom, a longtime conservation leader, opened with a call to reimagine Texas's future through the lens of sustainability. Referencing the late George P. Mitchell's vision, Sansom urged Texans to embrace a definition of sustainability that integrates natural resources, finance, education, and health care. "We have the people, the brains, and the optimism," he said, "to lead a generational shift—if we choose to."

Water Tradeoffs and Finite Resources

Tom Mason, former general manager of the Lower Colorado River Authority, addressed the reality of hard choices. "Water has its winners and losers," he stated, referencing the controversial reallocation of water away from rice farmers to municipal and industrial users. While Mason acknowledged finite supplies, he stressed that stakeholder dialogue—like the multi-sector meetings once held along the Lower Colorado—can yield consensus if guided by transparency and

shared sacrifice: “We must shift from entitlement to necessity—getting what we need, not what we want.”

Karen Guz of the San Antonio Water System (SAWS) echoed this view, emphasizing the success of long-term community engagement. San Antonio, once seen as a high-risk city for water scarcity, pioneered conservation and stakeholder collaboration through the Edwards Aquifer Recovery Implementation Program. “It wasn’t easy,” Guz recalled, “but we came to a solution no one loved—but everyone could live with.”

Leadership, Infrastructure, and Sustainable Development

Ken Kramer of the Sierra Club described himself as a “hopeless optimist,” rooted in a dual identity as both rural landowner and urban environmental advocate. He highlighted declining per-capita water use in Texas as evidence that behavioral change is both feasible and underway. Kramer urged water reuse and efficiency as central to future planning—particularly in areas affected by hydraulic fracturing.

Carole Baker of the Texas Water Foundation and Fernando Costa of the City of Fort Worth spoke to the need for grassroots education. Costa emphasized that “business as usual is no longer sustainable” and called for urban planning initiatives like Vision North Texas. Baker pointed out the public’s limited understanding of water’s role in economic and public health systems. “We must talk about water in almost everything we do,” she said, noting the importance of involving utilities and civic leaders in educational outreach.

Legal and Political Limits

Turning to legal frameworks, attorney Mary Kelly cautioned against relying on the courts to modernize Texas water policy. “The courts are working from nineteenth-century laws and have little grounding in modern resource realities,” she said. “Guidance must come from the legislature.” Russ Johnson, also an attorney, agreed: “Courtrooms create winners and losers. They are poorly equipped to manage scientific and infrastructure policy.”

The political system, too, came under scrutiny. Sansom, Kramer, and Smith lamented the lack of meaningful statewide dialogue during election cycles. Despite the passage of Proposition 6 in 2013, which created a \$2 billion water infrastructure fund, several speakers questioned whether the Texas Water Plan adequately reflected modern technological and environmental realities. “It’s a twentieth-century plan for a twenty-first-century problem,” Smith noted.

Behavioral Change and Public Engagement

Several speakers highlighted the importance of behavioral economics in driving change. Guz described how pricing structures in San Antonio, including inclining block rate models, helped shape consumer behavior. “As the cost of discretionary

water use rises, people change,” she said, citing a North Carolina case where drought-driven surcharges permanently altered public attitudes toward lawn irrigation.

Fernando Costa and Carole Baker emphasized peer-based civic engagement, drawing comparisons to the evolution of public attitudes toward cigarette smoking. “Cultural shifts happen over decades, not cycles,” Costa said. “And they begin not with mandates, but with informed communities.”

Conclusion: Toward a Civic Water Ethic

The roundtable concluded with a call to action. Sansom urged attendees to become mentors and stewards, introducing children to the value of water through outdoor experiences. “Responsibility begins with appreciation,” he said.

The discussion acknowledged that while crisis often precipitates change, thoughtful planning and stakeholder-driven consensus must lead the way. The prevailing view was clear: Texas can navigate its water future not by relying solely on courts or politicians, but by cultivating a civic water ethic rooted in science, education, equity, and shared responsibility.

BIOGRAPHICAL NOTES ON THE SPEAKERS

Edmund G. Archuleta has served as director of water initiatives for The University of Texas at El Paso since September of last year. He previously served for 24 years as president and CEO of El Paso Water Utilities, where he was responsible for all aspects of water, wastewater, reclaimed water service, and storm water for the El Paso metropolitan area. A registered professional engineer in Texas, New Mexico, and Iowa, Mr. Archuleta earned BS and MS degrees in civil engineering from New Mexico State University and a Master of Management degree from the University of New Mexico. Among his many honors, he was appointed in 2006 by President George W. Bush to the National Infrastructure Advisory Council. In 2010, Mr. Archuleta was appointed by President Barack Obama to represent the United States as chairman on the Pecos River Compact Commission. Also that year, he was named The WaterReuse Association's Person of the Year in recognition of his leadership on water reuse as a way to meet future water supply needs.

Carole D. Baker serves as executive director of the Texas Water Foundation and currently chairs the board of the Alliance for Water Efficiency, a national non-profit organization that promotes the efficient use of water. She previously served for 21 years as director of intergovernmental relations for the Harris Galveston Subsidence District and, in that position, was instrumental in the enactment of water conservation legislation that now guides state water planning activities. She is active as a public speaker, presenting talks at the 2009 International Water Conference in Paris and at the 2011 United Nations Global Water Initiative Conference in New York. She is the recipient of numerous awards, including the 2011 Greg Cooke Memorial Award for Exceptional Environmental Excellence from the Texas Commission on Environmental Quality and the 2004 Public Policy Award for Excellence in Environmental Awareness from the Texas League of Women Voters.

Carolyn L. Brittin is the former deputy executive administrator for Water Resources Planning and Information at the Texas Water Development Board, where she oversaw state and regional water supply planning, coordination of the National Flood Insurance Program, federal and state flood protection grants, and the Texas Natural Resource Information System. Brittin has more than twenty years of experience in state government, with experience in water policy, program oversight, and stakeholder input. In her past positions she regularly represented the agency in numerous state and federal water policy forums. Since 1990, Brittin

has worked on six state water plans, with primary responsibility for the 2007 and 2012 state water plans. She holds bachelor's and master's degrees in agronomy from Texas A&M University.

Fernando Costa serves as assistant city manager for the City of Fort Worth, overseeing a group of five departments that deal with infrastructure and development. Before moving to the city manager's office six years ago, he worked for ten years as Fort Worth's planning director, eleven years as planning director for Atlanta, and eleven years as a planner and planning director for a regional commission in Georgia. Among many professional and community activities, Fernando chairs the management committee for Vision North Texas and serves as a part-time faculty member at the University of Oklahoma. He holds BCE and MSCE degrees in civil engineering and an MCP degree in city planning from Georgia Tech and served as an officer in the U.S. Army Corps of Engineers.

Gregory M. Ellis is currently in a solo law practice. He has a long history in water law and water issues. While still in law school in the mid-80s, he helped clerk the House Natural Resources Committee and worked on a variety of water legislation. After graduating from The University of Texas School of Law he worked as legislative liaison for the Texas Water Commission. In 1992 Ellis moved to Houston to serve as general counsel to the Harris-Galveston Coastal Subsidence District. The Edwards Aquifer Authority, working to start up operations in 1997, tapped Ellis as their general manager, a position he held until October 2004 when he left to start his solo law practice. In addition to representing groundwater conservation district clients across the State, Ellis serves as general counsel to the Texas Water Foundation, a non-profit corporation that provides water conservation education. Ellis is well versed in groundwater law, groundwater conservation districts and administrative procedures.

Robert Glennon is Regents' Professor and Morris K. Udall Professor of Law and Public Policy in the Rogers College of Law at the University of Arizona. Glennon received a J.D. from Boston College Law School and an M.A. and Ph.D. in American history from Brandeis University. He is a member of the bars of Arizona and Massachusetts. He is the author of the highly acclaimed *Water Follies: Groundwater Pumping and the Fate of America's Fresh Waters* (Island Press, 2002). His latest book, *Unquenchable: America's Water Crisis and What To Do About It*, was published in April 2009. A guest on *The Daily Show with Jon Stewart*, *Talk of the Nation* with Neal Conan, *The Diane Rehm Show*, C-SPAN2's Book TV, and numerous National Public Radio shows, he is featured in the new documentary, *Last Call at the Oasis*. His other writings include pieces in the *Washington Post*, the *Boston Globe*, *Bloomberg Businessweek*, the *Arizona Republic*, and the *Wall Street*

Journal. He is also a blogger for the Huffington Post and for National Geographic's *Water Currents*. Glennon has received two National Science Foundation grants and has served as an advisor to governments, law firms, corporations, and NGOs on water law and policy. He is also a regular commentator and analyst for various television and radio programs and for the print media.

Karen Guz serves as director of conservation for the San Antonio Water System. Her department is responsible for working with customers to acquire one billion gallons of water each year through proactive conservation education and incentive programs. Karen serves on several state and national water leadership committees, including the Water Conservation Advisory Council and the Irrigation Advisory Council. She is a licensed irrigator and a Master Gardener. Karen has a Bachelor of Science from the University of Michigan and a Master of Public Administration from the University of North Carolina at Charlotte.

Stephen Harrigan is the author of eight books of fiction and non-fiction. Among them are *The Gates of the Alamo*, which was a *New York Times* bestseller and the recipient of a number of awards, including a Spur Award for the Best Novel of the West; and *Challenger Park*, which Thomas Mallon in *The New York Times Book Review* called "a fine, absorbing achievement, probably the best science-factual novel about the space-faring worlds of Houston and Cape Canaveral in the nearly half-century since the first astronauts were chosen." In May 2011 Knopf published his latest novel, *Remember Ben Clayton*, which was praised by *Booklist* as "a stunning work of art" and by *The Wall Street Journal* as "a poignantly human monument to our history." Harrigan is a longtime contributor to *Texas Monthly*, and his articles and essays have appeared in a wide range of other publications as well, including *Outside*, *Conde Nast Traveler*, *Audubon*, *Slate* and *National Geographic*. He is also an award-winning screenwriter who has written many movies for television. Stephen Harrigan lives in Austin, Texas, where he is a Faculty Fellow at the Michener Center for Writers at the University of Texas, and a founding member of the Texas Book Festival and of Capital Area Statues, Inc.

Russell S. Johnson has a multifaceted water law practice at McGinnis Lochridge, with an emphasis on matters involving land use, water rights and the Endangered Species Act. With a B.A. in biology and chemistry, in addition to his law degree, he fully understands the technical and scientific complexities his clients face. Johnson has participated extensively in legislation related to groundwater management. He represented a large municipal water system in a variety of matters, including legislative efforts to create the Edwards Aquifer Authority, modernize Texas water law with Senate Bill 1 (1997) and Senate Bill 2 (2001) and subsequent legislation related to groundwater management. He continues these efforts at each legislative

session. A board member of the Center for Water Law and Policy at Texas Tech University School of Law, as well as an adjunct professor at Texas State University teaching water policy, Johnson's comprehensive water law experience centers around preserving and protecting property rights and ownership. He also advises and represents clients on the use and disposal of water in oil and gas hydraulic fracturing operations.

Ronald A. Kaiser is a professor of water law and policy at Texas A&M University and chairs the Water Management and Hydrological Science graduate degree program. He developed the program and provides leadership for its administration. The program currently enrolls 58 masters and Ph.D. students from the United States and 10 different countries. His water policy research interests focus on: assessing the efficacy of urban water conservation strategies; analyzing barriers to water marketing; assessing legal strategies for environmental flows; and assessing the efficacy of groundwater conservation district regulations. A number of his water marketing and conservation research recommendations are incorporated in the Texas Water Code. He has published over 70 articles, two books, and five book chapters. His water conservation program in College Station that furnishes residential water budgets to 5,500 customers has reduced lawn overwatering resulting in 3-year water savings to the city of 285 million gallons. This is the equivalent of nearly one month of College Station water use.

Mary E. Kelly has 25 years of experience as an environmental lawyer, having worked in private practice and the not-for-profit sector. Before forming her own private consulting firm in July 2010, she served as vice president for rivers and deltas for the Environmental Defense Fund (EDF), managing EDF projects to protect and restore habitat, rivers and coastal deltas across the U.S. While she has specialized in water law and policy during much of her career, she has broad familiarity with all aspects of environmental law and policy. She also has deep knowledge of major players in the environmental and conservation community; key federal environmental and resource agencies; western state water management leadership; and dynamics between environmental and agricultural constituencies, particularly in the western U.S. Ms. Kelly joined EDF in 2002, after many years as the executive director of the Texas Center for Policy Studies. Prior to that, she practiced law, representing citizens and local governments in a wide variety of environmental matters.

Ken Kramer is the volunteer water resources chair for the Lone Star Chapter of the Sierra Club. An Austin resident, Dr. Kramer retired in 2012 after 23 years as the first director of the Lone Star Chapter and seven previous years as a contract lobbyist for the Chapter. Dr. Kramer has a B.A. in history from Texas Lutheran

University, an M.A. in political science from Stephen F. Austin State University, and a Ph.D. in political science from Rice University. His dissertation focused on the implementation of federal air and water pollution control policy in Texas. Dr. Kramer has taught at El Paso Community College, Houston Community College, Angelo State University, and Texas A&M University and currently serves on the state's Water Conservation Advisory Council. He is the editor of *The Living Waters of Texas*, published by Texas A&M University Press in 2010.

Schuyler B. Marshall is chairman and CEO of The Rosewood Corporation, a Dallas company engaged in oil and gas exploration, in addition to numerous other businesses. He practiced law with Thompson & Knight, P.C. in Dallas for 25 years before joining The Rosewood Corporation in 1996. The Rosewood Corporation worked with the North Texas Water Authority to establish a water polishing facility adjacent to the Trinity River east of Seagoville, Texas, on 2,000 acres owned by Rosewood. This project takes water owned by the North Texas Water Authority which was previously piped into the Trinity and is now, through this project, cleansed of phosphorus and nitrogen in a controlled wetland and pumped back up into Lavon Lake for reuse by North Texas and its constituent cities. The capacity of this project exceeds 93 million gallons per day. Marshall is a board member of the Dallas Citizens Council and has been asked to be the "point person" to monitor activities and issues affecting long term water supply for the Dallas area and to help the Dallas Citizens Council positively influence efforts to conserve and develop adequate water supplies.

Thomas G. Mason has over 30 years of experience in environmental law and water policy. He retired from the Lower Colorado River Authority in 2011 after serving as general manager (2007 - 2011), general counsel (1999 - 2007), and deputy general counsel (1989 - 1998). He began his legal career in 1980 as a staff attorney with the Texas Department of Water Resources, then practiced environmental law with the firm of Henry, Lowerre & Mason, after which he became director of the Water Quality Division at the Texas Water Commission. After retiring from LCRA, he was of counsel to the Austin law firm Graves Dougherty Hearon & Moody (2011 - 2013). He currently serves as chairman of the Texas Water Foundation and is a founding member of the Texas advisory board for EDF. He received his B.A. from The University of Texas at Austin and his J.D. from The University of Texas School of Law. He lives in Austin with his wife, Janis Monger.

William W. Meadows is the chairman emeritus of HUB International Insurance Services in Fort Worth. Previously, he was the executive vice president and member of the Executive Committee for the Rigg Group, Inc. Currently, he serves as a director of Dallas/Fort Worth International Airport and is the chairman of the

North Texas High Speed Rail Commission. Meadows has served on the board of directors for Dallas Fort Worth International Airport, as commissioner for the Texas Transportation Commission, and as a member of the Texas Water Development Board. He served as a City Council member and as mayor pro-tem for the City of Fort Worth. Meadows was vice chairman on the board of the North Texas Tollway Authority and served on the advisory board of the Tarrant Regional Water District. In 2009, Meadows received the Golden Deeds Award as Fort Worth's Outstanding Citizen. He attended Harlaxton Institute in Grantham England and received a B.A. from Southwestern University.

Carlos Rubenstein was appointed chairman of the Texas Water Development Board by Governor Rick Perry on September 1, 2013. He served as a commissioner of the Texas Commission on Environmental Quality (TCEQ) from 2009–2013. He is the Texas representative to the Western States Water Council; the Border Governors' Conference Sustainable Development worktable; the Governmental Advisory Committee, which advises the EPA administrator on environmental concerns regarding NAFTA, the North American Agreement on Environmental Cooperation; and the Commission for Environmental Cooperation. Rubenstein is a former member of the Texas Environmental Flows Advisory Group and of the Good Neighbor Environmental Board, an independent federal advisory committee that assists the president and Congress on environmental infrastructure needs along the U.S. border with Mexico. He has also served as deputy executive director of TCEQ and as Rio Grande Watermaster. He is the past Texas representative to the Border Governors' Conference Water worktable and a former city manager for the City of Brownsville. Rubenstein received a bachelor's degree in biology from Pan American University.

Andrew Sansom is one of Texas's leading conservationists. He is a former executive director of the Texas Parks and Wildlife Department and executive director of the Texas Nature Conservancy. For his commitment to the management and protection of natural resources, he is a recipient of the Chuck Yeager Award from the National Fish and Wildlife Foundation, The Pugsley Medal from the National Park Foundation, the Seton Award from the International Association of Fish and Wildlife Agencies, and the Lifetime Achievement Award from the Nature Conservancy. Sansom is a Distinguished Alumnus of Austin College and Texas Tech University. Under his leadership at the Texas Parks and Wildlife Department, Sansom spearheaded a number of significant programs, including: founding the Texas Parks and Wildlife Foundation, adding over 500,000 acres to the State Parks and Wildlife Management Area, and initiating an aggressive program to introduce urban children to nature. Sansom has served on the board of trustees of the Texas Historical Foundation, Bat Conservation International,

KLRU Public Television in Austin, The National Audubon Society, The Institute of Nautical Archaeology, and The Texas Travel Industry Association. His published works have appeared in *Texas Monthly*, *The Texas Observer*, *Texas Highways*, and *Texas Parks and Wildlife*. He is the author of five books, *Texas Lost*, *Texas Past*, *Scout the Christmas Dog*, *Water in Texas* and *Southern Plains Bison*, *Resurrection of the Lost Texas Herd*. In serving as executive director of The Meadows Center for Water and the Environment at Texas State University, he coordinates university policy and research related to freshwater resources; manages the headwaters of the San Marcos River; administers the most extensive freshwater environmental education program in Texas; and supervises training and coordination of more than 1000 volunteer water monitors in rivers and streams statewide.

Evan Smith is editor-in-chief and CEO of *The Texas Tribune*. He spent nearly eighteen years at *Texas Monthly*, stepping down in August 2009 as the magazine's president and editor-in-chief. A New York native, Mr. Smith has a bachelor's degree in public policy from Hamilton College and a master's degree in journalism from the Medill School at Northwestern University. He previously held editorial positions at a number of national magazines, most recently at *The New Republic*, where he was deputy editor. He hosts a weekly interview program, *Texas Monthly Talks*, which has aired on PBS stations all across Texas since 2003. Mr. Smith sits on the boards of the Austin Film Society, Trinity Episcopal School, the Medill School of Journalism at Northwestern University, the Headliners Club, and Matinee Media. He is also the founding co-chair of the Texas Film Hall of Fame. In 2006, he was inducted into the Medill School of Journalism Hall of Achievement.

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MEMORIALS

JACK S. BLANTON, SR.

1927–2013

Jack Sawtelle Blanton died on the 28th of December 2013. His legacy is a life lived in service to others. He loved God, his church, and his family above all else. He also had an amazing capacity to love his neighbor. He cultivated a world full of neighbors. Anyone who ever asked for help from Jack knows that he went beyond the call of duty, doing everything in his power to help anyone in need. He served as president of the Philosophical Society of Texas in 1997.

Jack was born on the 7th of December 1927, in Shreveport, Louisiana, to Louise Wynn and William Neal Blanton, the fifth of seven sons. When he was two years old the family moved to Houston, which would be his home for the rest of his life. He graduated from Lamar High School and The University of Texas, earning a degree in history in 1947 and a L.L.B. in 1950. That same year he began his professional career at Scurlock Oil Company.

In 1949 Jack married Laura Lee Scurlock. Together they raised three children: Elizabeth Blanton Wareing, Jack Sawtelle Blanton, Jr., and Eddy Scurlock Blanton. Laura Lee and Jack were devoted to one another and enjoyed 50 years of marriage before her death in 1999. They shared a deep commitment to their family and their community and were actively involved in both.

After losing Laura Lee, Jack met and married Cindy Davis in 2000. She passed away only 16 months later, early in 2002. Later in 2002, Jack met Ginger Renfroe at church. They fell in love and married on November 30, 2002. Ginger shared Jack's love of family and eagerly joined him in his many civic endeavors.

Jack Blanton loved the city of Houston and the state of Texas. He demonstrated that love by serving a multitude of institutions that benefited the citizens of Houston and Texas. He was recognized numerous times for his contributions to the city and state. He actively served on the boards of several health care institutions including Houston Methodist Hospital where he was a Life Trustee; the Harris County Hospital District; the M.D. Anderson Hospital and the Texas Medical Center.

Jack was devoted to The University of Texas where he not only received his degrees but also was a member of the Texas Cowboys, received the Distinguished Alumnus and Santa Rita Awards, served as chairman of the board of regents, president of the Ex-Students Association, and a board member of the LBJ Foundation. The University's Blanton Museum of Art bears his name.

During his tenure as chairman of Houston Endowment from 1990 to 2003 he guided the endowment founded by Jesse Jones from \$400 million to over \$1

billion in assets. Jack also served as chairman of the board and was the recipient of the Man of the Year Award of the Greater Houston Partnership. He was also one of the founders of the Houston-based Coalition for Mutual Respect. Jack was generous not only with his time but also with his resources giving to the community personally and through the Scurlock Foundation. He would work with anyone to make Houston a better place and was particularly committed to meeting the needs of the underserved.

Jack Blanton was a servant leader in business. He was president and CEO of Scurlock Oil Company from 1958 to 1983, one of the largest midstream energy companies in America at the time, and was its chairman from 1983 until 1988. He also served on the board of directors of Texas Commerce Bank, Southwestern Bell Telephone, Pogo Producing Co., Baker Hughes, Ashland Oil Company, Gordon Jewelry, Quanex Corporation, and Burlington Northern Railroad.

Although faith, family and community came first, Jack was also passionate about tennis, and he was an accomplished player. Beginning at an early age on the asphalt courts of Albert Sidney Johnston Junior High, over the next 75 years, he competed in city, state and national tournaments winning numerous titles in both boys and men's singles and doubles. Among Jack's most prominent tennis accomplishments, he represented The University of Texas in both singles and doubles and won the 1945 Southwest Conference doubles tennis championship. During Jack's tennis career at UT, he was fortunate to encounter the great Dr. D. A. Penick, who had a profound influence as a coach and mentor to Jack. Some of his favorite tennis experiences included attaining the #1 ranking in the State of Texas Father-Son Doubles with son Eddy in 1977, winning numerous club doubles and singles tennis championships at River Oaks Country Club and the countless doubles matches with his lifelong doubles partner and friend, Howard Startzman. In 1972 Jack co-founded the Osuna Cup, an international amateur competition between Mexico and the United States, and for 42 years played on the United States team. He received the 2002 ITA Tennis Achievement Award in recognition of his outstanding career and contributions to society.

For someone as active in civic affairs and successful in business, Jack Blanton loved the simple things in life. He loved spending time with his children, grandchildren, and great grandchildren, especially at his summer home on the banks of the Guadalupe River in Hunt, Texas. He took his entire family to Hawaii for his 80th birthday. He liked hot weather and actually enjoyed playing tennis in the heat of the day, leaving the court drenched in sweat. He loved going to Galveston. He loved Blue Bell vanilla ice cream, blueberry pancakes smothered in a swimming pool of maple syrup, banana pudding, watermelon and Dr. Pepper. He loved baseball and was a St. Louis Cardinals fan early in life because the Houston Buffs were a St. Louis farm team before the Colt 45s came to Houston. Jack took his wife Ginger to an Astros game on their first date. He was famous for leaving parties early to

get home to see the 10 o'clock news. He never did things slowly; he walked fast, was a manic lane hopper in traffic and would always figure out a way to park close to the football stadium for a big game. He was fun, famously waking his kids up on the weekends by coming in their rooms and saying, "It's a new day in which to excel!" He loved a good joke and would wear silly hats to entertain his great grandkids. He never took himself seriously, except on the tennis court where he gave no quarter. He competed fairly but always to win. He was loved by many and we will all miss him.

The Blanton Family

THEODORE REED FEHRENBACH

1925–2013

The winter of Ted Fehrenbach's life ended after 88 years and he was buried in the Texas State Cemetery—right across from Governor Alan Shivers, next to famous author and painter Tom Lea, and not 20 yards from where J. Frank Dobie rests.

I've known Ted and Lillian Fehrenbach since the 1990s, when our common denominators were a love of Texas history, Spanish/Anglo heritage, politics, and then of course more important things like quail hunting, fly fishing, good Cuban cigars and fine cognac. Like many of you who shared these things with Ted and knew him well, I am just one of the hundreds of you that knew him over these years, and it is my humble privilege to write on your behalf about him.

I'm from Houston and I'm a lawyer. Those of you who knew Ted Fehrenbach knew that he hated lawyers -- or at least held them in minimum high regard, if any. So it's a bit ironic that I am here to speak at his service—a lawyer. I asked him when we were together about a month and a half ago why he wanted me to speak at his memorial service. He just smiled and said don't worry, I'll leave you an outline of what I want said about me and you'll certainly be able to deliver the remarks with ease, you're trained to do this. So this week, as we were going through the extremely meticulous funeral preparations that he and Lillian had made quite some time ago, I'm looking for the outline for those suggested remarks—and of course, they never appear, or if they did, they were those indecipherable sheets in Greek that were among his papers. Ted's wicked sense of humor lasted to the end. He's in heaven right this very minute laughing at the predicament of anyone having to speak about a man who has written about ten million words.

So, I honor one of the most famous sons of Texas and the greatest historian our state has ever known. Think for a minute, Texas has been a state for 168 years. At 88, Ted lived for over half those years here chronicling our history, telling the story of Texas, the Comanches, Mexico, making us think, reflect and understand our past. Newspapers throughout our state—from San Antonio, Dallas, Austin,

Houston, even New York, and yes, from small towns such as Lufkin, San Benito, Carrizo Springs and El Paso—have variously described him as: scholar, author, historian, columnist, linguist, conversationalist—but the one he most cared about, and the one he most favored was master storyteller, and that was who he was. When asked by those who didn't know him what he did for a living, Ted would almost always say, "I'm a storyteller" . . . and he meant it.

So, now having read countless articles in recent days on Ted's life across our state and country, I want to tell you about three things you may not know about Ted.

First, about his wonderful wife Lillian. Ted grew up in the valley, the son and grandson of a pioneer Texas family in land development in the Brownsville era, and with a shotgun or fishing rod usually in his hands. He was an expert shot and fly fisherman. His father died when he was seven years old and he spent much of his time with his grandfather, who had a library of classics from which Ted learned to love two things: history and writing. Before he passed away, his father expressed an interest for his boys to attend Princeton, and so off he went to Princeton in 1941. World War II came, and Ted was drafted into the army as a private and was sent to the Pacific theatre, where he rose quickly to become a sergeant, command men, and indeed to actually like soldiering.

The war concluded and he returned to Princeton and graduated in 1947. Then he went back to the Valley and his life changed dramatically. You see Ted's grandfather had met this young woman named Lillian Breetz and had mentioned several times to her mother that he wanted to introduce his grandson to Lillian.

This conversation went on in one form or another for months—and it became clear to anyone who inquired that Lillian had no interest in any blind date with anyone and was getting very tired of hearing about this ever so wonderful grandson of C.C. Wentz. No sir, no blind date for her.

But on May 29, 1951, many months later, young Ted Fehrenbach and his grandfather came to Lillian's mother's house to call on her, they wanted to show her some property that was being developed. And who decided to come along on that ride—yes, Lillian. These two meet for the first time on that car ride, never stop talking, fall in love, spend every available moment with each other that summer, and in less than 90 days after meeting, are married on August 22, 1951. Thus begins a wonderful 62 years of marriage between Ted and Lillian, and as most of you know, he simply adored this beautiful woman, cared for her, and respected her opinion on just about everything. Theirs was the marriage every one of us has ever strived for.

The second thing many do not know is about Korea and the profound affect it had on Ted's life. Ted was called back into the army shortly after getting married. He was sent to the Korean War where he commanded men, watched them die, and saw first-hand the lessons and mistakes of that war that should never be repeated. Coming home, he and Lillian moved to San Antonio in 1954, and Ted actually

owned an insurance agency that was very successful, but his heart was in writing. His first major success came when he wrote about the Korean War in a book called *This Kind of War—A Study in Unpreparedness*. It became the bible for soldiers in conducting what was then the first containment of communism and the lessons to be learned to avoid more men dying needlessly. It is still required reading at West Point, the Army War College and for every general officer going to Korea today. John McCain called *This Kind of War* the greatest military book on Korea and one of the five most important ever. General Collin Powell said *This Kind of War* was one of the most important in his life and most influenced his thinking over the years. Those are direct quotes from these distinguished American heroes.

And it was actually for this book that he later received commendations from the Department of Defense, the Korean government, and received the highest civilian award given by the army in ceremonies in Washington D.C. (on the Ellipse), the Pentagon, and in Seoul Korea at the 50th anniversary of the end of the Korean War with thousands of soldiers participating in these ceremonies. Ted always considered himself first a soldier, and Korea had a profound and everlasting effect on him.

In all, Ted wrote 18 books, dozens of articles and short stories and then became a columnist for the now *San Antonio Express-News*, for 30 years. In those columns he was the master storyteller, weaving history, facts and conclusions to show with clarity the situations facing us in everyday life, and the lessons to be learned going forward. He used history to teach, and comment. And that he did.

Ted always said he moved to San Antonio because it was the biggest city farthest away from Dallas and Houston, and far enough from Austin not to get caught up in the politics of the place, but close enough to yell at them loudly when in his opinion they needed scolding . . . which as most of you know if you read his columns, Ted did . . . numerous times. He also used to joke that if the Mexicans ever invaded again, looking right at me as if I was personally responsible for the demographic birth rate of our state, he wasn't going to hole up in any mission because he had escape routes in every direction on I-10 or I-35.

But it is the final and third thing I wish to comment on about Ted's life, one that defined him for many all his adult life, and that is the book *Lone Star - the History of Texas and the Texans*, which he will be most remembered by and revered for. It has been described as the greatest history of Texas ever written, and it still survives the test of time 45 years later. In it, Ted talks about the land, the people, the geography, the enmeshed cultures, the Indians, the soldiers, the wars—and leaves one spellbound that Texas is not a state, but rather a state of mind . . . one of character, grit, no nonsense, bounding enthusiasm and risk taking.

Lone Star came out in 1968, the year that Martin Luther King and Bobby Kennedy were killed, the riots in Washington DC and Chicago at the DNC occurred, and the Tet offensive in Vietnam was under way. LBJ was an unpopular President governing a nation in turmoil over civil rights and the Vietnam War. At that time,

Texas was 6th largest state in the country and Houston had just cracked into the top ten largest cities at #7. Not quite the time you want to launch a book on Texas history, but nevertheless it went to market, and its success was immediate.

Today, Texas is the second most populous state and has three of the top ten largest cities in the country. One might wonder if 45 years might make the material outdated or stale. Not so, the exact opposite happened. Ted was not writing about what was happening currently at the time, but rather was telling us who we were, where we came from, and why we are so unique. *Lone Star* became, and continues today, as the pivot point from which all future historians write from, in essence the North Star for any further written history of Texas. No other work has ever been repeated or undertaken, being so well done by Ted Fehrenbach the first time around. It is still today the most quoted book on Texas history and computers that can now track these things tell us that *Lone Star* has been cited as a reference over a quarter million times since 1968. No other Texas writer, of any sort, comes close to that record, which still stands at #1.

Ted served on the Texas Historical Commission for 18 years and chaired the Commission for 6 years. He presided over the Sesquicentennial celebration of our state, the remodeling of the Governor's Mansion and later the State Capitol, and fittingly today, the renovation of the Texas State Cemetery, where he now lies among our state's giants.

Kay Bailey Hutchison visited with Ted at his home about a month ago. She called me to say she couldn't be at Ted's memorial service because she was giving a speech in Washington and physically could not get there in time. But she shared the last words she and Ted had, and it was vintage Ted Fehrenbach. Knowing it would probably be the last time they would ever see each other, the discussion turned to life's goals, where Ted told her all he ever wanted was:

- The wondrous love of a good woman
- The respect of men
- Success in his field

Kay said she quietly cried, kissed Ted goodbye and told him he had clearly achieved all three goals in his life. She then went to her car and wrote down exactly what he had said, and now shares those wonderful comments with us today.

So, as we lay to rest our state's most famous historian, we thank Ted for his life, his wit, his wisdom, his patriotism, his companionship and his fatherly touch to so many of us whose lives were affected by knowing him personally or through his work. We are truly blessed to have known this Texas legend, this committed soldier, this wonderful husband, this teacher, this friend, this product of our country's greatest generation, and yes of course, the best storyteller ever.

Vidal G. Martinez

ROBERT L. HARDESTY

1931–2013

Robert L. Hardesty's career included key positions with President Lyndon B. Johnson, Speaker of the House Carl Albert, Texas Governor Dolph Briscoe, becoming president of Southwest Texas State University (now Texas State University), and the highest ranking official of the U. S. Postal Service.

Born in St. Louis Missouri, he was the son of Dr. John F. Hardesty, a prominent ophthalmologist and Lucille Hetzel Hardesty. He attended Western Military Academy and the George Washington University where he honed his skills as a writer and developed a lifelong passion for government and politics. Following his service in the Army, he was a reporter and columnist for *Army Times*, specializing in military and congressional affairs. Hardesty began his career as a writer and ended it as an administrator. He could never escape the call to write speeches for Democratic office holders and government officials around the country. "Bob was like a fire horse when it came to writing speeches," said his longtime friend, Tom Johnson. "No matter how busy he was, he couldn't say 'no' to a request for some eloquent words."

In 1964 with the presidential campaign between Lyndon Johnson and Barry Goldwater looming, Hardesty became chief speechwriter for Postmaster General John Gronouski, the Democrats' principal spokesman. In the wake of the 1964 Democratic victory, LBJ aide Jack Valenti called Gronouski to ask who was writing his speeches. According to Valenti, he had asked the Democratic National Committee to send to the White House fifty of the best speeches from the presidential campaign. Forty-two were written by Hardesty for Gronouski. Before long, Hardesty was in the White House working for the President. He stayed with Johnson writing speeches and working on legislative affairs until the end of LBJ's administration. Johnson called him "one of the best." Hardesty then moved with his wife Mary and four young children to Austin to edit and help write the former President's memoirs, *The Vantage Point*.

In the 1972 presidential race between Richard Nixon and George McGovern, Hardesty received a call from Speaker Carl Albert to orchestrate a House of Representatives Democratic campaign, separate from that of the Democratic National Committee. Back in Texas, Hardesty was named press secretary and special assistant to the newly elected Democratic governor, Dolph Briscoe, serving in that post for three years. Hardesty was next appointed vice chancellor for governmental affairs at The University of Texas System in 1976.

He was also chosen to serve on the drafting committee for the Democratic National Platform. It was during one of the Platform Committee's sessions that Hardesty received a call from the White House informing him that President Ford was sending his nomination to the Senate to fill a Democratic vacancy on

the board of governors of the United States Postal Service. He served three terms as chairman of the Postal Board of Governors and is credited with strengthening the role of the governors and bringing fiscal and political stability to the struggling Postal Service. Hardesty was awarded the Postal Service's highest honor: the Benjamin Franklin Award.

The year 1981 proved to be the pivotal point of Hardesty's career. He was named president of Southwest Texas State University (now called Texas State University), LBJ's alma mater. He initiated far-reaching academic reforms, presided over the student body growth from 13,000 to 20,000, built a state-of-the-art library, and vastly increased the permanent endowment. In the words of one state leader, Governor Mark White, "He took a sleepy, obscure university, brought new prestige to it and put it on the map."

Hardesty's university career came to an abrupt halt in 1988 when Republican Governor Bill Clements ordered several of the regents to fire him for "philosophical differences." His firing was appealed to a state district court which overturned it on the grounds it was illegal. Later a Travis County jury ruled that Hardesty had been fired for political reasons. The regents subsequently bestowed on him the title of "President Emeritus."

In later years, Hardesty served as a consultant to the Lyndon Baines Johnson Foundation and other organizations. Asked recently to name the best years of his career, Hardesty replied, "They were all the best years. The years with Gronouski were the most fun. The years with LBJ were the most significant with the passage of Medicare, civil rights, and education legislation. The years with the Postal Service were the most stimulating personally, having the opportunity to set national policy in a huge federal agency. And the years at Southwest Texas State University were the most exciting since I was able to make such a difference. I've been blessed many times over."

A quiet man with a wry sense of humor, Hardesty was a gifted mimicker and teller of stories, especially Lyndon Johnson stories. He and fellow speechwriter Harry Middleton recently gave a presentation, "LBJ With the Bark Off," to Middleton's University of Texas Liberal Arts Honors Program students, which was shown on C-SPAN. Hardesty was interred at the Texas State Cemetery in Austin.

Frances B. Vick

ALFRED FRANCIS HURLEY

1928–2013

Dr. Alfred F. Hurley, after a battle with Alzheimer's disease, passed away June 8, 2013, at the age of 84. He served as the 14th president of the University of North Texas, the longest serving president, and the university's first chancellor. He was

buried at the U. S. Air Force Academy in Colorado Springs, Colorado, after a service at the chapel followed by a military funeral.

Alfred Francis Hurley was a remarkable man. He had two extremely distinguished careers. After graduating summa cum laude from Saint John's University, he enlisted as an airman in the Air Force, and over the next thirty years rose to the rank of brigadier general. He spent half of his military career flying as a navigator and the other half at the U.S. Air Force Academy, where he was Permanent Professor, named by President Lyndon Johnson, and chair of the Department of History from 1966 to 1980, building a nationally regarded history department. He was also a member of the Academy's executive board and chairman of the Humanities Division from 1977 to 1980. He took great pride both in teaching cadets and recruiting and mentoring the officers who served in the department. Many of the cadets and officers went on to have distinguished careers themselves, including General Ronald R. Fogelman, the 16th Chief of Staff of the Air Force.

Dr. Hurley was born October 16, 1928, in Brooklyn, New York, to Patrick and Margaret Hurley, both Irish immigrants. He took great pride in what his parents had achieved as immigrants and they in turn must have been extremely proud of what their oldest son achieved. After graduating from St. John's University summa cum laude in 1950 he joined the Air Force and later received the President's Medal from St. John's University in 1990. While serving in the Air Force, he received a master's degree and a Ph.D. in history at Princeton University in preparation for his initial assignment to teach at the Air Force Academy from 1958 to 1963.

He enlisted as an airman two weeks before the outbreak of the Korean War in 1950. Prior to his appointment as a Permanent Professor by President Lyndon Johnson at the Air Force Academy, General Hurley was one of the three youngest lieutenant colonels in the Air Force and had served in assignments as a navigator (achieving distinction as a Master Navigator with 3,630 hours), planner, administrator, and educator in Texas, North Carolina, Colorado, Germany, Washington D.C. and Vietnam. He was the navigator on seventy reconnaissance missions while stationed in Germany during the height of the Cold War in 1963 and 1964. In the summer of 1968, he served a tour of duty in Vietnam where he flew missions and worked on the EC-47 program, which he conceived and organized, producing 100 histories of the air war in Vietnam, researched and written on the scene. Hurley's military decorations included the Air Force Commendation Medal with oak leaf cluster, Legion of Merit with oak leaf cluster, Republic of Vietnam Gallantry Cross with device, and Vietnam Service Medal with two bronze stars.

After leaving the Air Force, Dr. Hurley served for twenty years as the chancellor and president of the University of North Texas, where, among other achievements, he is credited with launching UNT's very strong program in military history. He was chancellor of the University of North Texas System from 1982 to 2002 and also president of the University of North Texas (UNT) until 2000. Growth was

the hallmark of his tenure at UNT, which started in 1980 and ended in 2002. The regents recognized Hurley's accomplishments with the title of chancellor emeritus and president emeritus. The UNT System, which includes UNT and the UNT Health Science Center, rose to educational leadership in the North Texas region. Enrollment at the university increased from less than 19,000 to more than 27,000 students. The university's endowment grew from \$850,000 to \$45 million, and nearly \$200 million was raised across two capital campaigns. More than \$260 million was invested in renovations and new construction. The increased stature of the university was signified by the change in 1988 of the university's name from North Texas State University to the University of North Texas. In January 2001, the UNT System was recognized by the Texas Legislature as a formal system, making it one of the six recognized higher education systems in the state.

Many of the UNT academic programs received nationwide recognition during Dr Hurley's tenure: creation of the UNT Office of Postgraduate Fellowships; establishment of UNT's Texas Academy of Mathematics and Science; transformation of the Texas College of Osteopathic Medicine into the UNT Health Science Center at Fort Worth; and creation of the UNT System Center at Dallas, including creation by statute of UNT at Dallas.

While living in Denton, he was the first resident of Denton to chair the North Texas Commission and to join the Dallas Citizens Council. Other service included his serving as: co-chair of the Coalition of Urban Metropolitan Universities (CUMU) and on its executive committee; director, Fort Worth and Denton Chambers of Commerce; vice chair, Denton County Business Leaders Council; president, Denton County United Way; chairman, (Texas) Council of Public University Presidents and Chancellors; director, Association of Texas Colleges and Universities; and president, Philosophical Society of Texas, with his outstanding Annual Meeting program on military history.

After he retired as chancellor, Hurley became a professor in UNT's Department of History from 2003 to 2008. In addition to teaching courses to undergraduate and graduate students, he and his wife continued to play a key role in organizing UNT's annual Military History Seminar, which enabled business and community leaders throughout Texas to hear various discussion topics and question both a leading scholar and a current or retired military officer who had served in combat. At its 23rd anniversary in 2006, the seminar was endowed by many of its participants and named the Alfred and Johanna Hurley Military History Seminar.

Dr. Hurley was a warm and loving father and a devoted husband who shared a love of stories, adventure, and social events with his wife Johanna. Throughout his careers at UNT and in the Air Force, Dr. Hurley highlighted the crucial role played by his full-time partner and wife Johanna. As a tribute to their accomplishments, the board of regents of the UNT System named the administration building, which stands at the center of the campus in Denton, the "Alfred F. and Johanna

H. Hurley Administration Building.” He was a great mentor to his children and took great pride in their educational, professional, and personal achievements. He was also a fitness advocate who ran at least three miles a day.

During his tour at the Air Force Academy, Dr. Hurley expanded his Ph.D. dissertation, *Billy Mitchell: Crusader for Airpower* into a book. Initially published in 1964 and revised in 1975, his book is still considered to be the definitive scholarly treatment of the topic and was reissued by Indiana University Press in 2006.

When he became ill he was working on a book on the personal letters of General Curtis LeMay to his wife Helen and daughter Jane. He turned the work over to Ben Hegi, one of his former students. *From Wright Field, Ohio, to Hokkaido, Japan, General Curtis E. LeMay's Letters to His Wife Helen, 1941-1945* was published by the UNT Press in 2006. Dr. Hurley is listed as the editor of the book. His son, John K. Hurley, wrote the foreword.

In a September 2000 editorial, *The Dallas Morning News* spotlighted Hurley as an unsung hero of higher education and cited the pivotal role he had played for the North Texas region. He did that and much more. He was not only courageous as a military man, he was courageous as an administrator in higher education, specifically when it came to the University of North Texas. When he was approached about starting a university press at the University, he said that other universities were shutting down their presses as being too expensive to operate. However, he understood that a top-flight research university would have a university press and bravely decided to take a chance on it. He always introduced me as the director of a university press whose report was delivered with a smile from financial officer, Phil Diebel. With Dr. Hurley's blessing, UNT Press was founded in 1987 and published its first book in 1989. The Press is now a fully accredited member of the Association of American University Presses, with books distributed nationally and internationally and with awards garnered for many of the books. As with many of Dr. Hurley's other projects, starting UNT Press was forward thinking and has paid off for the university in its outreach through its books to Dallas-Fort Worth-Denton area and even internationally. He will always be heroic to me.

Frances B. Vick

MAVIS PARROT KELSEY, SR.

1912–2013

Dr. Mavis Kelsey, a medical pioneer, was a founder of the Kelsey-Seybold Clinic in Houston. Dr. Kelsey honed his medical skills and embraced the idea of the collaborative care model at Mayo Clinic in Rochester, Minnesota. He returned to his native Texas in 1948, bringing with him a dream to create a “Mayo Clinic of the Southwest,” and founded Kelsey-Seybold Clinic the next year.

The grandson of a physician, Dr Kelsey was born in Deport, Texas, in 1912. Although Deport had no electricity, water or sewers until the mid-1920s, Kelsey credits these early hardships with giving him the “toughness” to persevere during the hard times in his life and career. Two great-great uncles, who were both doctors in the Confederate Army, and his family doctor, were role models and mentors, but it was his grandfather, Dr. J. B. Kelsey, who inspired him. Kelsey accompanied his grandfather on many house calls and by age 10, he knew he wanted a career in medicine.

He earned a Bachelor of Science from Texas A&M College in 1932 and a Doctor of Medicine from The University of Texas Medical Branch at Galveston in 1936. Kelsey interned at New York City’s Bellevue Hospital after which he served for a year as instructor of pathology at The University of Texas Medical Branch at Galveston. From 1938-39, he served on the junior staff of Scott and White Clinic in Temple, Texas.

In 1939, Kelsey married Galveston native Mary Randolph Wilson and accepted a three-year fellowship in internal medicine at Mayo Clinic in Rochester, Minn. While at Mayo Clinic, he strengthened friendships with future partners, Drs. William D. Seybold and William V. Leary. World War II interrupted Kelsey’s medical training, and he served in the U.S. Army Air Force Medical Corps from 1941-45. After the war, Kelsey completed his residency at Mayo Clinic, receiving a Master of Science in internal medicine from the University of Minnesota, Mayo Foundation in 1947. He was appointed to the Mayo Clinic staff as an instructor in medicine of the Mayo Foundation in the University of Minnesota.

A fifth-generation Texan, Kelsey founded a practice in the Texas Medical Center in 1949. That same year, he also became a staff member at what was then a new hospital called M.D. Anderson, where he set up the isotope lab and gave the first dose of radioactive iodine in Houston to treat thyroid cancer. In 1950, he encouraged two former Mayo Clinic colleagues, Drs. Seybold and Leary, to consider the prospect of establishing a clinic in Houston. In 1951, the three doctors opened the Kelsey-Leary-Seybold Clinic in the Hermann Professional Building. When Leary left the practice to join M.D. Anderson Cancer Center in 1965, the practice was renamed Kelsey-Seybold Clinic.

Kelsey was appointed dean of the UT Postgraduate School of Medicine, which is now the Graduate School of Biomedical Sciences at the UT Health Science Center. Mary also became involved by serving from 1978-87 on the development board of The University of Texas Health Science Center at Houston, serving as board president from 1980-82. To honor her leadership, in 1983 the development board established the Mary Wilson Kelsey Professorship in Medical Sciences.

At Kelsey-Seybold Clinic, Kelsey not only actively practiced medicine but was the chief of the Department of Occupational Medicine and directed a number of medical contracts for NASA and the U.S. Navy. He also established the Kelsey

Research Foundation, which fosters the advancement of medicine by sponsoring medical research and education and has funded hundreds of projects in the Texas Medical Center over the past 50-plus years.

In 1966, Kelsey-Seybold was selected to serve the medical needs of National Aeronautics and Space Administration employees. Throughout Kelsey-Seybold's association with NASA, the clinic contributed medical support services to the Apollo, Skylab, Apollo-Soyuz and Space Shuttle programs. In addition to providing onsite medical services at Houston's Johnson Space Center and the White Sands Test Facility in New Mexico, Kelsey-Seybold also provides medical care to all NASA-affiliated personnel in Moscow.

Recruiting top-quality physicians and staff was always a priority. "Other clinics came and went, but I think the reason that we survived was because we kept up our quality, and we kept up loyalty and dedication to that sole purpose of delivering medical care," Kelsey once said.

Kelsey was honored in many ways over the years, including being named a Distinguished Alumnus of Texas A&M University and an Ashbel Smith Distinguished Alumnus of The University of Texas Medical School in Galveston.

As one of the original members of the early endocrinology staff at The University of Texas M.D. Anderson Cancer Center, Kelsey was honored before a lecture named for him was delivered at M.D. Anderson. In May 2009, Kelsey was honored with a Lifetime Achievement Award during the Houston Business Journal's first Health Care Heroes luncheon, part of the publication's four-day Celebrate Enterprise program of business events.

In 1985, Dr. Kelsey retired after 37 years of practice in Houston, but he continued to be active and published an amazing 22 books in his retirement. His autobiography, *Twentieth-Century Doctor: House Calls to Space Medicine*, was published by Texas A&M University Press in 1999. They described the book as, "quintessentially the story of how medicine developed from a single-doctor, home-visit practice to the mega-business, high-tech system it now is, especially in urban areas." A&M Press also published *Engraved Prints of Texas, 1554-1900*. In the process of doing that book, Dr. Kelsey and his wife accumulated a large collection of prints, which they donated to the Cushing Library at Texas A&M University. He published *Texas Sayings and Folklore*, a collection of metaphors, axioms, and proverbs as well as personal stories of his growing up in East Texas, to commemorate his 100th birthday.

Reflecting on his career in an April 2009 radio interview, Kelsey said, "I think the most enjoyable, the most gratifying part of my whole career was seeing patients."

Frances B. Vick

WILLIAM C. LEVIN

1917–2013

William C. Levin, M.D. passed away on January 28, 2013. Born March 2, 1917 in Waco, Texas. He served as president of the Philosophical Society of Texas in 1991. Dr. Levin received his B.A. degree from The University of Texas at Austin in 1938 and his M.D. degree in 1941 from The University of Texas Medical Branch at Galveston. He completed an internship at Michael Reese Hospital in Chicago in 1942, a residency in internal medicine in 1944 at John Sealy Hospital in Galveston, and postgraduate work in hematology at Washington University Medical School in St. Louis. He joined the UTMB faculty as an instructor in 1944. His positions at UTMB have included Warmoth Professor of Hematology, director of the Hematology Division of the Department of Internal Medicine, medical director of the Blood Bank, director of the Clinical Research Center, and president of The University of Texas Medical Branch at Galveston, a position he held from 1974 until 1987. In May 1998, he was named president emeritus by the Board of Regents of the University of Texas System.

Levin held numerous national and state professional appointments. He was a diplomat of the American Board of Internal Medicine. He was the executive director of the Center for Health Manpower and Allied Health Sciences with the World Health Organizations. He served as consultant to the surgeons generals of the U.S. Army and the U.S. Air Force and as a member of numerous review committees of the National Cancer Institute. He served as a member of the Board of Scientific Counselors for Cancer Prevention and Control of the National Cancer Institute. Other appointments include the Texas Cancer Council, the Governor's Special Committee to the Post-Secondary Medical, Dental and Allied Health Education Committee, and the Board of Directors of the Texas Society to Prevent Blindness. He also served as chairman of the Subcommittee on Quality of Academic Programs, the Texas A & M Project 2000 Committee, the Governor's Task Force on Indigent Care, the executive board of the United Way of Texas, and the State Health and Public Policy Committee. He served as a member of the Blue Ribbon Task Force on Sickle Cell Trait, as president of the board of directors of Texas Coastal Higher Education, Inc., as chairman of the advisory council of Blood Donor Programs, Inc., as consultant to the Hematology and Pathology Devices Panel of the Bureau of Medical Devices of the Food and Drug Administration, as a member of the board of directors of the National Council on Alcoholism. He authored more than 200 scientific papers for professional journals.

Dr. Levin was elected a fellow of the American College of Physicians and President of the Texas Chapter of the American College of Physicians. He was elected to membership of the American Society for Clinical Pharmacology and Therapeutics and to the Society of Sigma Xi. He was a member of the Phi Beta

Kappa and Alpha Omega Kappa. He was a member of numerous professional and scientific organizations, including the American Medical Association, the Association of Academic Health Centers, the Association of American Medical Colleges, the American Association of American Blood Banks, the American Association for Cancer Research, the American Federation for Clinical Research, the American Society for Clinical Oncology, the American Society of Hematology, the American Society of Internal Medicine, the New York Academy of Sciences, the Phi Beta Kappa Associates, the Reticuloendothelial Society, the Society Experimental Biology and Medicine, the Texas Academy of Internal Medicine, and the Texas Medical Association.

Among his honors were the Nicholas and Katherine Leone Award for Administrative Excellence at UTMB in 1977, Docteur Honoris Casus de L'Universite de Montpellier in 1980, and in 1981, Commandeur des Palmes Academiques (Commander of the Palms), the highest honor conferred upon an academician by the French Government. He was awarded the 1984 Spirit of Giving Award by the Mental Health Association in Galveston County. March 2, 1986, was proclaimed William C. Levin Day in Lockhart, Texas. In 1986 he was named Ashbel Smith Professor. The University Area Association awarded him the R. E. "Bob" Smith Award for leadership in 1987. In 1988 he received the National Cancer Institute Outstanding Service Award and the Christie Mitchell Beachcomber Award. The Brown Foundation, in 1991, endowed a \$500,000 chair at UTMB to be known as the William C. Levin Chair in Environmental Toxicology. The Learning Center at UTMB was renamed William C. Levin Hall by the Board of Regents of the University of Texas System. In 1992 he received the John G. Sinclair Sigma Xi Award at UTMB. In 1995 he received the Laureate Award from the American College of Physicians. He also received the Southwest Oncology Group Dedication Award, NASA Group Achievement Award, National Cancer Program Outstanding Contribution Award, the Open Door Award from News Media of Galveston County, and the Galveston Historical Foundation Texas Landmark Award.

During his tenure at UTMB, Dr. Levin was instrumental in securing funding for educational and research programs, and for major construction projects at the University. He was responsible for the construction of fifteen buildings and he helped in the renovation and preservation of the Ashbel Smith Building (Old Red). He trained thousands of medical students and residents during his many years of service.

Dr. Levin served on the board of trustees of Temple B'nai Israel. He served as president of the congregation and he served on the national board of the Union of American Hebrew Congregations. Other local activities in which Dr. Levin was involved included being president of the Grand 1894 Opera House, chairman of the United Way of Galveston, and community advisor of the Junior League of Galveston County, Inc. He also served on the boards of the Galveston Chamber of

Commerce, Rosenberg Library Association, Trinity Episcopal School, U.S. National Bank, Menil Foundation of Houston, First Republic Bank of Galveston, Houston Institute for Arts in Education, American Indemnity Financial Corporation, and the Galveston Artillery Club. He served on the Galveston Park Board of Trustees, the Galveston College Foundation Board, American Cancer Society, and was a member of the Galveston Rotary Club.

The Levin Family

WILLIAM S. LIVINGSTON

1920–2013

In 1949, William S. Livingston arrived in Texas to begin his career as new faculty member at The University of Texas. He never left. It was a perfect match. In a career of 64 years, he became an indispensable personality in the life of the University, well identified with his tireless effort to realize an institution notable for style as well as ambition. He served as *president ad interim* in 1992–1993, after he had already given decades of leadership as vice president and as dean of graduate studies. After his presidency, he provided two additional decades of trusted advice as senior vice president to three succeeding presidents. Former president Robert Berdahl memorably extolled Dr. Livingston as “the conscience, the soul, the memory, the wit, and the wise elder statesman of this institution.” And in a commencement address, he himself confessed to the audience that that he loved “this place—what it is, what it does, and how it does it.” He believed deeply in the value of the University as a public institution, and he lavished his care upon it.

Livingston was elected to the Philosophical Society of Texas in 1979 and remained a member for 34 years until his death on August 15, 2013. A native of Ohio, he was born in Ironton on July 1, 1920. He completed both a bachelor’s degree and a master’s degree at The Ohio State University in 1943. His further education was interrupted by service in the Second World War, but immediately afterward he pursued doctoral study in political science at Yale University, from which he received a Ph.D. in 1950.

Livingston’s service in the United States Army during the Second World War seems to have been fundamental in forming his worldview. He saw serious action, most notably in the Battle of the Bulge, leading to a Purple Heart and a Bronze Star. He was impressed as a young man by the enormously consequential achievements of the democratic allies, and he was proud, too, of having had a personal part in the effort. His war experience seemed to fuel a lifelong optimism about what can be accomplished by well-led, open communities.

He joined The University of Texas as a member of the Department of Government and always maintained that connection. As a scholar of comparative politics, his

research and much of his teaching was focused on institutions of self-government in America and elsewhere in the world. His particular academic subject was federalism—the type of government in which power is divided in different ways between national and state governments. Dr. Livingston pursued this interest persistently in Britain and the United States, as well as Australia and New Zealand. He spoke on the subject frequently in the British Studies seminar, a program he helped to launch, and which met in the Ransom Center every Friday afternoon for no fewer than five decades. He wrote or edited six books and numerous articles and held fellowships from both the Ford and Guggenheim Foundations.

Dr. Livingston came of age as a citizen of The University of Texas when Harry Ransom was formulating a brightly ambitious vision for the University. Surely it resonated with a young Bill Livingston, for it was about graduate education, great libraries, special collections, quality in learning, and academic standards of the first order. Besides, Ransom had a gift for expression that could match up to Bill Livingston's love of the language. It was an exciting era, and Bill's dedication to the University must have been reinforced by his natural optimism that great things—indeed, these very things—could be achieved.

In fact, Bill played a very strong hand toward achieving them, especially directly in the life of the Harry Ransom Humanities Research Center and the British Studies seminar. He was also instrumental in the founding of the LBJ School of Public Affairs, the Michener Center for Writers, the Edward A. Clark Australian Studies Program, and the Normandy Scholars.

He was well known for his special warmth toward things British. Surely Bill loved Britain because of its ancient and venerable institutions, but also figuring into his regard must have been his unabashed fondness for style and ceremony, his pleasure in the proper use of the English language, and his ability to recognize—and very likely even to appreciate—British humor.

Livingston's commitment to Texas was augmented, in a different way, by serving as the recorded voice of "TEX," the telephone registration system used by every student for quite a few years. He was blessed with a wonderfully warm voice, and he cultivated diction and timing. Someone in the University had the courage to ask him to become the anonymous voice of the new registration system, and Livingston had enough of a sense of adventure to agree. He grew to love the new identity. Students would perk up when they heard Bill's voice as he spoke to them in groups, especially if he ever uttered the phrase that closed every telephone session with TEX: "*Good-bye and good luck.*" When those words left his lips before a crowd of students, a quick wave of recognition, then a cheer, would pass through the group. It was a little game, and Bill relished it.

William S. Livingston served Texas and Texans with verve, ambition, and style, with good will, and with fine humor. He pushed us, his colleagues, toward greater

heights, but also helped us to have some fun on the ride. He is remembered fondly and with gratitude.

Larry R. Faulkner

Wm. Roger Louis

AL LOWMAN

1935–2013

Al Lowman, bibliophile, author, and a member of the Philosophical Society of Texas since 2000, died on April 16, 2013, of progressive supranuclear palsy. As he wrote in his own obituary, on the morning of his death “a life-long lover of learning closed the cover of his final book and shortly thereafter the lid of his casket was closed with equal finality.” He is survived by his sister, Mellie Nicholas, his wife, Darlyne, their children, Todd and Cathy, and three grandchildren.

Al was born in Violet, Nueces County, on February 2, 1935. In 1944 he moved with his parents to San Marcos and made his home there the rest of his life. He always gave his residence as Stringtown, the historic name of the neighborhood in which he resided for 69 years before moving to a new home he built in 2009 on the back part of the family property with a separate building for his library in the back yard.

Al was a book collector for over fifty years. His appetite for collecting and his eclectic tastes were quite insatiable. Besides his interests in books, he was also a lover of music, particularly classical music, jazz, as well as bluegrass. He owned an extensive CD collection and enjoyed attending operas. He met Darlyne in a bookstore. He loved saying she was the most expensive bookstore acquisition and his most cherished first edition. She shared his interest through almost 46 years of marriage.

Al was educated in the public schools of San Marcos. He attended Southwest Texas State Teachers College and received the B.A. degree from the University of Texas at Austin in 1957 and the M.A. from the same institution in 1962. He served in the Texas National Guard for 20 years and retired from the United States Army Reserve with the rank of Lieutenant Colonel. He always said that this made him the “rankest” member of his family for all time.

Though his degrees were in government and economics, he spent his career in the Texas history field, the last 21 years working at the Institute of Texan Cultures in San Antonio coordinating their special exhibits and writing the catalogs that went along with the exhibits. He commuted to jobs in San Antonio and Austin for 35 years and once said if he ever wrote an autobiography, he would call it “35 Years on Interstate 35.”

He was a historian by avocation as well as vocation. He was a long-time member of the Hays County Historical Commission and the San Marcos Heritage Association and was instrumental in erecting markers along the route of the Camino Real in Hays County and in placing Jason Scull's statue of Jack Hays on the courthouse lawn in San Marcos. He served as a member of the Texas Committee on the Humanities from 1971 to 1975.

Al was a consummate bookman, a connoisseur and collector of fine printing and the author, in 1975, of *Printing Arts in Texas*. In 2008 he gave his fine printing collection to the Cushing Memorial Library at Texas A&M University and wrote the catalogue, *Fruits of a Gentle Madness: The Al Lowman Printing Arts Collection and Research Archive*. He gave a second collection of Texas books to the Texas State Historical Association to be sold at auction in order to benefit the Association. In 1972 Al, printer Bill Holman, and woodcut artist and designer Barbara Whitehead collaborated to produce the most beautiful book ever published in Texas, *This Bitterly Beautiful Land*, a commonplace book of quotations about Texas. Al also wrote numerous shorter pieces about Texas subjects, most of them dealing with bookstores, book dealers, and book collectors.

Al was particularly proud of his membership in the Philosophical Society of Texas and being a fellow and life member of the Texas State Historical Association. He served as president of TSHA in 2000-2001, president of the Texas Folklore Society in 1990-91, where he learned never to let facts get in the way of a good story. In the interregnum he served as president of the Book Club of Texas (1992-94). In the TSHA he quickly learned that the easiest way to make history was to write it. He was active in numerous historical organizations. He was also a member of the Grolier Club of New York City, which is the world's oldest organization for book collectors.

Al was eminently clubbable. He enjoyed the company of his peers and they enjoyed and appreciated him. He was a superb raconteur with a perfect sense of narrative structure and timing. Listening to Al tell a story was to listen to an artist at work. He was always one of the most popular speakers at the Texas Folklore Society, bringing forth much laughter as he gave tales of his family at Staples, Texas, with the elephant ears growing by the front porch. He was the sage of San Marcos and Staples, Texas and the purveyor of Staples' wit and wisdom, including a tour of Staples at the 1991 meeting in San Marcos where he showed the TFS members where a lot of the things he had talked about happened.

He was a delightful companion, and a great friend, whose life's motto was "give me levity, or give me death," as well as a source of knowledge and enlightenment. We will miss him.

Lonn Taylor

JOHN F. SUTTON

1918–2013

John was born in Alpine, Texas on January 26, 1918, to John F. Sutton and Pauline Irene Sutton. The family soon moved to San Angelo, Texas, where John attended school through graduation from the San Angelo High School in 1936. In high school, he flunked Latin, and to make up the credits he studied vocational agriculture, in which he excelled. John's father, while Judge of the 51st District Court, also operated a 10-section ranch in South Texas until it was lost by foreclosure in the 1930s depression. Later his father had a small ranch in Tom Green County. John thoroughly enjoyed working on the ranches, and particular enjoyed the several horses. This lasted until he entered The University of Texas at Austin in 1936.

John's love for agriculture was revived while he was a professor in Austin. He bought a small stock farm south of Austin, where he raised Black Angus cattle and maintained a couple of horses. In 1941, he received the LL.B degree with honors from the law school. As a law student, John was a Quizmaster and a member of the Law Review, Phi Delta Phi, and the Order of the Coif. John served as an editor of the *Law Review*. While in law school, John married his law school classmate and the love of his life, Nancy Ewing of Donna, Texas on June 1, 1940. They were married for 72 years.

John practiced law in San Antonio until he became a Special Agent of the Federal Bureau of Investigation at the start of World War II. As a Special Agent, he was assigned to many roles in many places in the United States. Following WWII and during the Korean War, John was a 1st Lt., JAGC, in the U. S. Army Reserves. As a reserve officer, he prosecuted two military court martials during tours of duty at Fort Sam in San Antonio.

John practiced law in San Angelo from 1950 until September 1957, practicing with his father, retired Judge J. F. Sutton and his wife, Nancy Ewing Sutton. John last practiced with the firm of Sutton, Steib and Barr.

In 1957, he was appointed as a tenured full professor in The University of Texas School of Law, even though he had never taught law and did not have an undergraduate degree. John taught at the law school for 46 years or until he retired in 2003 at age 85. During that time, he was the co-author of two editions of *Cases & Materials on Professional Responsibility* and co-author of several editions of *McCormick, Elliott & Sutton, Cases and Materials on Evidence*. John thoroughly enjoyed writing and also wrote several Law Review articles. He received the teaching excellence award early in his teaching career. Professor Sutton also taught at North Carolina, U.C.L.A., Tennessee, Texas Tech, and South Texas School of Law.

During 1965 to 1970, John was the originating draftsman, working with an ABA Committee, in writing the American Bar Association of the *ABA Code of Professional Responsibility*, which replaced the ABA's antiquated 1908 *Canons of Ethics*. Eight

or ten years later, he was a consultant to the ABA Commission on Evaluation of Professional Standards that was drafting the *Model Rules of Professional Conduct*, which replaced the *Code of Professional Responsibility*. Later, he served two terms on the ABA Standing Committee on Ethics and Professional Responsibility, which interprets those rules for lawyers. In 1977, he was the evidence advisor to the joint committee of the Texas House and Senate during its hearing of the address regarding Texas Supreme Court Justice Don Yarbrough.

John was appointed as the dean of the law school on Sept. 1, 1979. He served as dean until August 31, 1984. Dean Sutton was proud of the accomplishments of the law school during his tenure. As dean, he solved some but not all of the school's financial problems. He recognized that the history of our dollar is that it constantly loses value or purchasing power, indicating that the financial problems of the law school likely will continue.

Professor Sutton was a fellow of the American Bar Foundation, and a life member of the Texas Bar Foundation. In addition, the Law School Alumni Association awarded him its Outstanding Alumnus Award. In 1992, the Texas Law Review Association established the John F. Sutton Jr. Endowed Presidential Scholarship in Law in his honor. On John's 90th birthday, he was honored by the establishment of the Dean John F. Sutton Jr. Chair in Lawyering and the Legal Process. The chair was established by his former student, Mark Wawro, and Wawro's spouse, Melania Gray. John always was an active member of the State Bar of Texas. In 1995, he received the Texas Bar Foundation's "Outstanding Fifty-Year Lawyer Award." John served as a member of the State Bar of Texas Professional Ethics Committee for many years including having served several times as Chairman. This involvement in professional ethics for the legal profession continued for most of his life. When John was 90 years old, he was appointed by the State Bar President to a three-year term on the State Bar's Standing Committee on Disciplinary Rules of Professional Conduct.

John and Nancy loved to travel visiting every state in the United States. John long remembered the vicious, stinging mosquitoes at the Big Pipeline in Alaska. Their foreign visitations included Argentina, Brazil, Senegal, Madeira, Scotland, France, Switzerland, and other countries in Africa and Europe. They toured Italy with family members and spent time in Spain with friends. In July 1971, John was among a small group of American lawyers who upon invitation attended the Lord Chancellor's Reception in the Palace of Westminster in London and an afternoon garden party in the Gardens of Buckingham Palace, where John met the Queen.

Frances B. Vick

JAMES F. VENINGA

1944–2013

Dr. Jim Veninga of Bastrop passed away on January 10, 2014, from complications of cancer. He grew up in the Midwest and spent his first two years of college at Sioux Falls College, where he also worked as an announcer for KNWC Radio. After graduating from Baylor University in 1964, he earned a master's degree from Harvard Divinity School. He returned to Texas to earn a Ph.D. in history and religious studies from Rice University, also teaching at the University of St. Thomas, Houston.

He then became executive director of the Congressionally created Texas Council for the Humanities (now Humanities Texas), a state partner of the National Endowment for the Humanities, from 1974 to 1997. Jim helped found and give shape to a public humanities movement that expanded the civic life of Texas and the nation. His leadership is acknowledged throughout the country. Jim served on the boards of the Federation of State Humanities Councils and the Wisconsin Humanities Council and he directed the Salado Institute for the Humanities.

Also a leader in championing liberal arts education, Jim's passion found fulfillment while serving as CEO and dean at the University of Wisconsin Marathon County (Wausau). Working with former Congressman Dave Obey, local and state leaders, and faculty members, he worked to help fund and actualize the Center for Civic Engagement, a large facility that includes the new Wisconsin Institute for Public Policy and Service, a statewide organization dedicated to engaging citizens in timely public issues.

Jim was the author of numerous books, including *The Humanities and the Civic Imagination: Collected Addresses and Essays, 1978-1998*, *Standing with the Public: The Humanities and Democratic Practice* (with Noelle McAfee), *The Biographer's Gift*, and *Vietnam in Remission* (with Harry Wilmer).

His family, friends, and colleagues will always treasure his incomparable sense of humor, his warmth, his kindness and compassion, and his joy in living, especially in the north woods of Wisconsin on beautiful Tigercat Lake. However, since his family had so loved living in Smithville for 12 years, retiring in Bastrop brought him great happiness (and warmth!). Dr. Catherine Williams was his beloved partner in a mutual commitment to and passion for the humanities in their 44 years of marriage. Together, Catherine and Jim shared a great love of travel everywhere, but particularly in Mexico, which was always dear to their hearts.

The Veninga Family

PAST PRESIDENTS

* Mirabeau Buonaparte Lamar	1837-59
* Ira Kendrick Stephens	1936
* Charles Shirley Potts	1937
* Edgar Odell Lovett	1938
* George Bannerman Dealey	1939
* George Waverley Briggs	1940
* William James	1941
* George Alfred Hill Jr.	1942
* Edward Henry Cary	1943
* Edward Randall	1944
* Umphrey Lee	1944
* Eugene Perry Locke	1945
* Louis Herman Hubbard	1946
* Pat Ireland Nixon	1947
* Ima Hogg	1948
* Albert Perley Brogan	1949
* William Lockhart Clayton	1950
* A. Frank Smith	1951
* Ernest Lynn Kurth	1952
* Dudley Kezer Woodward Jr.	1953
* Burke Baker	1954
* Jesse Andrews	1955
* James Pinckney Hart	1956
* Robert Gerald Storey	1957
* Lewis Randolph Bryan Jr.	1958
* W. St. John Garwood	1959
* George Crews McGhee	1960
* Harry Hunt Ransom	1961
* Eugene Benjamin Germany	1962
* Rupert Norval Richardson	1963
* Mrs. George Alfred Hill Jr.	1964
* Edward Randall Jr.	1965
* McGruder Ellis Sadler	1966
* William Alexander Kirkland	1967
* Richard Tudor Fleming	1968

* Herbert Pickens Gambrell	1969
* Harris Leon Kempner	1970
* Carey Croneis	1971
* Willis McDonald Tate	1972
* Dillon Anderson	1973
* Logan Wilson	1974
* Edward Clark	1975
* Thomas Hart Law	1976
* Truman G. Blocker Jr.	1977
* Frank E. Vandiver	1978
* Price Daniel	1979
* Durwood Fleming	1980
Charles A. LeMaistre	1981
* Abner V. McCall	1982
* Leon Jaworski	1983
Wayne H. Holtzman	1983
* Jenkins Garrett	1984
* Joe R. Greenhill	1985
William Pettus Hobby	1986
* Elspeth Rostow	1987
John Clifton Caldwell	1988
J. Chrys Dougherty	1989
* Frank McReynolds Wozencraft	1990
* William C. Levin	1991
* William D. Seybold	1992
Robert Krueger	1993
Steven Weinberg	1994
* William H. Crook	1995
* Charles C. Sprague	1996
* Jack S. Blanton	1997
William P. Wright Jr.	1998
Patricia Hayes	1999
A. Baker Duncan	2000
Ellen C. Temple	2001
George C. Wright	2002
J. Sam Moore Jr.	2003
* Alfred H. Hurley	2004
Harris L. Kempner Jr.	2005
Roger Horchow	2006

*Isabel B. Wilson	2007
Boone Powell	2008
Michael L Gillette	2009
J. Mark McLaughlin	2010
Frances B. Vick	2011–12
Jon H. Fleming	2013

* Deceased

MEETINGS

of the Philosophical Society of Texas

- 1837 Founded at Houston, December 5
- 1840 Austin, January 29
- 1936 Chartered, January 18
- 1936 Dallas, December 5 - Reorganizational Meeting
- 1937 Dallas, January 29 - Meeting and Inaugural Banquet
- 1937 Liendo and Houston, December 4 - Texas at The End of a Century
- 1938 Dallas - *Whither Texas*
- 1939 Dallas - *Candid Portraits of Two Friends of Higher Education in Texas*
- 1940 San Antonio - *Law and its Leeways*
- 1941 Austin - *Life in the Republic of Texas*
- 1942 Dallas - *Some Relations of The Philosophical Society of Texas*
- 1943 Dallas - *The English Universities: Oxford and Cambridge*
- 1944 Dallas - *Ethicogenesis*
- 1945 Dallas - *Origin of Some Distinctive Features of Texas Civilization*
- 1946 Dallas - *Ex Scientia Tridens*
- 1947 San Antonio - *The Old Faith In a New World*
- 1948 Houston - *The Creative Arts in Texas*
- 1949 Austin - *Shall We Pioneer Too?*
- 1950 Houston - *Economic Planning: A Self Destructive Mechanism?*
- 1951 Lufkin - *The Prospect for Public Higher Education*
- 1952 College Station - *The Texas A&M Philosophy*
- 1953 Dallas - *Freedom Under Law*
- 1954 Austin - *Will There Be Too Many College Graduates?*
- 1955 Nacogdoches - *Philosophy in the 20th Century*
- 1956 Austin - *World Peace and The United Nations*
- 1957 Dallas - *Should Educational Policy in a Democratic Society Provide Freedom and Opportunity to Teach the Truth as the Teacher Finds the Truth to Be?*
- 1958 Austin - *Texas in Today's World: Obligations, Opportunities and Dangers*
- 1959 San Antonio - *To What Extent, if Any, Can the West and Particularly the United States, Engage in 'Competitive Co-Existence' with the U.S.S.R., Including the Problem of the So-Called Under-Developed Areas and 'Summit' Type Diplomacy?*
- 1960 Fort Clark - *Texas in 1960, and Where She Should, or Could, be in 1970?*
- 1961 Salado - *Texas and International Education*
- 1962 Salado - *Oil — Unguent or Irritant?*
- 1963 Nacogdoches - *State Senior Colleges and Universities and Their Future*

- 1964 Austin - *Upsurge of Historical Research, Preservation, Restoration, and Interest in Records*
- 1965 Salado - *The University in the Modern World*
- 1966 Salado - *The Southwest as a Racial and Cultural Crossroads*
- 1967 Arlington - *Thoughts About Cities*
- 1968 San Antonio - *Twenty Questions: Mineral, Vegetable, Animal or Man?*
- 1969 Salado - *The Campus and The Corporation*
- 1970 Salado - *Can We Reconcile Individual Freedom to The Requirements of Modern Society?*
- 1971 Nacogdoches - *Freedom and Free Enterprise*
- 1972 Dallas - *Toward A Redefinition of Progress*
- 1973 Austin (Lakeway Inn) - *Texas in Transition: Dimensions of Corporate Responsibility*
- 1974 Austin - *Social Equality and Human Diversity*
- 1975 Fort Worth - *The Desert is Blooming*
- 1976 San Antonio - *The Effect of Politics on Higher Education*
- 1977 Galveston - *Post Industrialist Texas: What Does the 21st Century Hold For Us?*
- 1978 Houston - *Science Technology and National Defense*
- 1979 Austin - *History Makers and Preservers of The Philosophical Society of Texas*
- 1980 San Antonio - *Can the U.S. Presidency Survive?*
- 1981 Dallas - *Health and Medicine in the 80s*
- 1982 Galveston - *Texas Courts and Criminal Justice*
- 1983 Fort Worth - *A Symposium on the Impact of Computers Upon Society*
- 1984 Houston - *Discoveries: Breakthroughs of Present Limitations of Knowledge and Their Significance to Our World*
- 1985 College Station - *The Texas Experience: Continuity and Change; Who are the Texans of 1985?*
- 1986 Austin - *Texas: Past, Present, Future/1836-2036, Texas and Texans: A Historical Perspective*
- 1987 Kerrville - *The Future of the Texas Past: The Society 150 Years Later*
- 1988 Dallas - *Future of School Finance in Texas*
- 1989 San Antonio - *The Arts in Texas: Launching into the 21st Century*
- 1990 Houston - *Texas and The Changing World*
- 1991 Galveston - *Turbulent Times for Healthcare*
- 1992 Dallas - *The Super Conducting Super Collider: Why?*
- 1993 Laredo - *U.S.A. Texas and Mexico: With Nafta or Without?*
- 1994 Austin - *The Controversial Cosmos*
- 1995 Corpus Christi - *The Oceans*
- 1996 Dallas - *What Price Designer Genes?: The Genetic Revolution*
- 1997 Houston - *The Arts in a Democratic Society-Past Present and Future*

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- 1998 Abilene - *Protecting America: The Changing Character of National Security*
1999 Austin - *Texas Values/Texas Future*
2000 San Antonio - *Population*
2001 Austin - *The Land*
2002 Fort Worth - *The Criminal Justice System in the United States and Texas: Is it Fair Is it Effective? What Needs Fixing?*
2003 El Paso - *Books and Libraries*
2004 Denton/ Fort Worth - *Texas Military History*
2005 Galveston - *Medicine and Medical Policy in the 21st Century*
2006 Dallas - *Texas Tomorrow: The Impact of Immigration*
2007 Houston - *United States Energy in a Global Context*
2008 San Antonio - *Texas and Architecture*
2009 Austin - *The Creative Arts in Texas*
2010 San Angelo - *Stewardship: The Careful and Responsible Management of Things Entrusted to One's Care*
2012 Dallas - *Texas Writers Talk*
2013 College Station - *The American Presidency*



PREAMBLE

to the Society's constitution adopted on December 5, 1837

in the Capitol of the Republic of Texas at Houston

by the founders of

The Philosophical Society of Texas for the Collection and Diffusion of Knowledge

We the undersigned form ourselves into a society for the collection and diffusion of knowledge—subscribing fully to the opinion of Lord Chancellor Bacon, that “knowledge is power”; we need not here dilate on its importance. The field of our research is as boundless in its extent and as various in its character as the subjects of knowledge are numberless and diversified. But our object more especially at the present time is to concentrate the efforts of the enlightened and patriotic citizens of Texas, of our distinguished military commanders and travelers—of our scholars and men of science, of our learned members of the different professions, in the collection and diffusion of correct information regarding the moral and social condition of our country; its finances, statistics and political and military history; its climate, soil and productions; the animals which roam over our broad prairies or swim in our noble streams; the customs, language and history of the aboriginal tribes who hunt or plunder on our borders; the natural curiosities of the country; our mines of untold wealth, and the thousand other topics of interest which our new and rising republic unfolds to the philosopher, the scholar and the man of the world. **Texas having fought the battles of liberty, and triumphantly achieved a separate political existence, now thrown upon her internal resources for the permanence of her institutions, moral and political, calls upon all persons to use all their efforts for the increase and diffusion of useful knowledge** and sound information; to take measures that she be rightly appreciated abroad, and acquire promptly and fully sustain the high standing to which she is destined among the civilized nations of the world. She calls on her intelligent and patriotic citizens to furnish to the rising generation the means of instruction within our own borders, where our children—to whose charge after all the vestal flame of Texian liberty must be committed—may be indoctrinated in sound principles and imbibe with their education respect for their country’s laws, love of her soil and veneration for

her institutions. **We have endeavored to respond to this call by the formation of this society**, with the hope that if not to us, to our sons and successors it may be given to make the star, the single star of the West, as resplendent for all the acts that adorn civilized life as it is now glorious in military renown. **Texas has her captains, let her have her wise men.** (emphasis added)

—Mirabeau B. Lamar, Ashbel Smith, Thomas J. Rusk,
William H. Wharton, Joseph Rowe, Angus McNeill,
Augustus C. Allen, George W. Bonnell, Joseph Baker,
Patrick C. Jack, W. Fairfax Gray, John A. Wharton,
David S. Kaufman, James Collinsworth, Anson Jones,
Littleton Fowler, A. C. Horton, I. W. Burton, Edward T. Branch,
Henry Smith, Hugh McLeod, Thomas Jefferson Chambers,
Sam Houston, R. A. Irion, David G. Burnet, and John Birdsall.

MEMBERS OF THE SOCIETY

*Members of The Society
for the years 2013-14
(Name of Spouse Appears in Parenthesis)*

Aboussie, Marilyn (John A. Hay, Jr.), chief justice (retired), Texas Third Court of Appeals, *Austin and San Angelo*

Adams, Phil, chairman, Board of Regents, Texas A&M University System; director, American Momentum Bank; Texas Public Policy Foundation Board, *Bryan*

Agather, V. Neils (Elaine), executive director, Burnett Foundation, *Fort Worth*

Ainslie, Ricardo C. (Daphny), author; professor of educational psychology, The University of Texas at Austin, *Austin*

Allison, Sharon Wilson (Sam), former board president, International Planned Parenthood Federation/Western Hemisphere Region; member, Governing Council, International Planned Parenthood Federation; board member, Guttmacher Institute and Americans for UNFPA; board of visitors member, Johns Hopkins School of Public Health and Pathfinder International; member, College of Liberal Arts Advisory Council, The University of Texas at Austin, *Waco*

Appleman, R. Gordon (Louise), attorney, Thompson & Knight L.L.P., *Fort Worth*

Arnold, Daniel C. (Beverly), private investor, *Houston*

Ashby, Lynn C. (Dorothy), former editor, editorial page, *Houston Post*; member, Houston Philosophical Society; author, columnist, *Houston*

Atlas, Morris (Rita), lawyer; senior managing partner, Atlas and Hall, *McAllen*

Babcock, Charles L. (Nancy Hamilton), partner, Jackson, Walker, LLP; general counsel, Texas Association of Broadcasters; chairman, Texas Supreme Court Advisory Board Committee, *Houston*

Barnes, Susan J. reverend, rector, St. John's Episcopal Church, *Minneapolis, MN*

Barnett, Lynn (Randy), director, Abilene Cultural Affairs Council, *Abilene*

Barnhill, John W. (Jane), former executive vice president and general sales manager and current board member, Blue Bell Creameries: chairman, Bank of

- Brenham: former member, The University of Texas System Board of Regents; past president, Texas Exes; past chair, The University of Texas System Chancellor's Council Executive Committee, *Brenham*
- Barr, Alwyn** (Nancy), author; historian; board member, Humanities Texas; professor emeritus, Texas Tech University, *Lubbock*
- Bash, Frank N.**, retired director, McDonald Observatory, The University of Texas at Austin, *Austin*
- Bass, James** (Hong), manager, Trinity Summits, LLC; board member, Communities Foundation of Texas, The Trinity Trust Foundation, and SMU Maguire Center for Ethics and Public Responsibility, *Dallas*
- Bass, Richard D.** (Alice) co-author, "Seven Summits"; first person to climb highest mountain on each continent; former director, American Himalayan Foundation; member, Bohemian Club, American Alpine Club; recipient, Lifetime Achievement Award, National Ski Areas Association; developer-operator, Snowbird Ski & Summer Resort, *Dallas*
- Beaumont, Penny** (Roger), retired associate director, formerly Texas Transportation Institute, Texas A&M System; president, Foundation for Women's Resources, *Bryan*
- Beckham, John L.** (Carolyn), rancher, attorney, Beckham, Rector, & Eargle, *Abilene*
- Bell, Paul G.** (Sue), retired general contractor, *Houston*
- Berry, Nancy** (Len), mayor, College Station, *College Station*
- Biggs, Glenn** (Ann) former chairman, Baylor University Board of Regents and First National Bank; former director, Valero Energy Central & Southwest Corp., Kansas Gas & Electric, and Bolivian Power, *San Antonio*
- Blanton, Jack S.** (Leslie), chairman, Nicklos Drilling Company, former chairman and CEO, ADCOR-Nicklos Drilling Company, chairman and CEO, JEM Group, *Houston*
- Bobbitt, Philip C.** professor of law, The University of Texas at Austin; author, *Austin*
- Boles, John B.** (Nancy), William Pettus Hobby Professor of History, Rice University; managing editor, *Journal of Southern History*, *Houston*
- Branch, Daniel H.** (Stacey), member, Texas House of Representatives, *Dallas*
- Braniff, Martha Marty** (David Rubenstein), poet; author; child advocate, *Houston*
- Brinkerhoff, Ann B.**, founding trustee, Children's Museum/Houston, St. Francis Episcopal Day School, and Texas Division National Museum of Women in the

Arts, Washington D.C.; chair, Malacology Committee, Museum of of Natural Science, Houston; member, emeritus board, Institute of Texan Cultures, San Antonio and Health Museum, Houston, *Houston*

Brock, Michelle K., oil and gas exploration, G. W. Brock, Inc., *Midland*

Brown, Michael S., (Alice), professor of molecular genetics and director, Jonsson Center for Molecular Genetics, University of Texas Southwestern Medical Center; 1985 Nobel laureate in physiology or medicine, *Dallas*

Brownell, Blaine A. (Mardi), former provost, University of North Texas; former president, Ball State University; higher education consultant and author, *Charlottesville, VA*

Brumley, Rebecca (Jon), executive director, Red Oak Foundation; educator; former vice-chairman, Texas State Board of Education, *Granbury*

Bryan, J. P. (Mary Jon), CEO, Torch Energy Advisors, Inc.; former president, Texas State Historical Association, *Houston*

Burger, Edward B., president, Southwestern University, *Georgetown*

Burka, Paul J. (Sarah), senior executive editor and co-creator of biennial Best and Worst Legislators feature, *Texas Monthly*; former attorney, Texas Legislature, *Austin*

Burns, Scott (Carolyn), author; syndicated columnist; founder and chief investment strategist, Asset Builder, Inc., *Dripping Springs*

Burns, Fred C. (Pat), retired chairman, John L. Wortham & Son; president, Wortham Foundation, Inc.; board of directors, JP Morgan Chase Bank of Texas, *Houston*

Burton, W. A. (Carol) attorney; adjunct professor, The University of Texas School of Law; National Conference of Bar Examiners' Multistate Professional Responsibility Examination, *Austin*

Bush, George W. (Laura), former president, United States of America, *Dallas*

Bush, Laura W. (George), former first lady, United States of America, *Dallas*

Butt, Charles, chairman, HEB, *San Antonio*

Calder, J. Kent (Tara Carlisle), acquisitions editor, University of Oklahoma Press, *Norman, OK*

Caldwell, Clifton (Shirley), rancher; former chairman, Texas Historical Commission; former president, Texas State Historical Association, *Albany*

Calgaard, Ronald (Genie), chairman and trustee, Ray Ellison Grandchildren Trust; president emeritus, Trinity University, *San Antonio*

Calhoun, Frank W. attorney; chairman, board of directors, Harry Ransom Humanities Research Center, *Austin*

Calhoun, Kirk A. (Jeanette), president, University of Texas Health Science Center at Tyler, *Tyler*

Callender, David L. (Tonya), president, The University of Texas Medical Branch at Galveston, *Galveston*

Campbell, Randolph B. (Diana Snow), Regents Professor of History, University of North Texas, *Denton*

Campbell, Bonnie A., director, Bayou Bend Collection and Gardens, Houston Museum of Fine Arts; former executive officer, Bob Bullock Texas State History Museum; former curator, Texas State Capitol, founding board member, Center for the Advancement and Study of Early Texas Art, *Houston*

Cantrell, Gregg, professor of history at Texas Christian University; author, *Fort Worth*

Capper, Robert S. (Joyce) president, Fort Worth Chapter of the American Heart Association; chairman, Harris Methodist Health Foundation, *Fort Worth*

Capper, Joyce P. (Robert), founder, Abraham Lincoln Appreciation Society; honorary consular, Grand Duchy of Luxembourg; organized first Edna Gladney Auxiliary in 1965; opened Pate Museum of Transportation in Cresson, Texas, *Fort Worth*

Card, Andrew (Kathleene), former acting dean, Bush School of Government and Public Service, Texas A&M University; former chief of staff, President George W. Bush; former secretary of transportation, *College Station*

Carleton, Don E. (Suzanne), executive director, Dolph Briscoe Center for American History, The University of Texas at Austin, *Austin*

Carlson, Paul H. (Ellen), retired history professor, Texas Tech University; former director, Texas Tech Center for the Southwest; author *The Plains Indians*, *Pecos Bill: A Military Biography of William R. Shaffer*, and *Empire Builder in the Texas Panhandle: William Henry Bush, Ransom Canyon*

Carson, Ronald A. (Ute), independent scholar and adjunct professor, Plan II Honors Program, The University of Texas at Austin, *Austin*

Castro, Julián (Erica), U.S. secretary of housing and urban development, former mayor, San Antonio, *San Antonio and Washington, D.C.*

Cavazos, Lauro F. (Peggy Ann), former U.S. secretary of education; former president, Texas Tech University and Texas Tech University Health Sciences Center, *Port Aransas*

Chew, David W. (Mandy) chief justice, Eighth Court of Appeals, 2006 to present; 8th Court of Appeals Justice, 1996-2007; past representative, City Council of El Paso; practicing attorney specializing in immigration and nationality law, 1978-1995; U.S. Naval Officer, 1971-1978, *El Paso*

Christian, Jo Anne, attorney, community activist, *Austin*

Cigarroa, Francisco G., chancellor, The University of Texas System; pediatric and transplant surgeon, *Austin*

Cigarroa, Joaquin G. (Barbara), physician, internal medicine and cardiology, *Laredo*

Cockrell, Ernest H. (Janet), chairman, Cockrell Interests Inc.; president, Cockrell Foundation, *Houston*

Coers, Donald, provost, vice president, academic affairs, Angelo State University; award winning author and international expert on the works of John Steinbeck; state president, Texas Council of Faculty Senates, *San Angelo*

Cormier, Rufus (Yvonne), attorney and partner in the Houston office of Baker Botts, LLP, *Houston*

Cornyn, John (Sandy) U.S. senator; member, Armed Services, Judiciary, Budget, Small Business and Entrepreneurship, and the Joint Economic Committees; chair, Judiciary Committee's subcommittee on Immigration, Border Security and Citizenship and Armed Services Committee's subcommittee on Emerging Threats and Capabilities, *Texas and Washington, D.C.*

Costa, Fernando (Ann), assistant city manager, City of Fort Worth; professor of practice of regional and city planning, University of Oklahoma, *Fort Worth*

Cox, Patrick L. (Brenda) associate director, The Dolph Briscoe Center for American History, The University of Texas at Austin; historian; writer, *Austin*

Crain, John W. (Mimi), president, Summerlee Foundation; honorary director, Texas State Historical Association; president, Friends of the Governor's Mansion Commission, Texas Historical Commission, *Dallas*

Craven, Judith L. (Moritz), past president, United Way of the Texas Gulf Coast; regent, The University of Texas System, *Houston*

Crim, William R., investments, *Kilgore*

Crisp, James E. (Lynn), associate professor of history, North Carolina State University; author, *Sleuthing the Alamo: Davy Crockett's Last Stand and Other Mysteries of the Texas Revolution*, Raleigh, NC

Crook, Elizabeth (Marc Lewis), author; member, Texas Institute of Letters, Austin

Crutcher, Ronald (Betty), president, Wheaton College; cellist, Norton, Massachusetts

Cruz, R. Ted (Heidi), former solicitor general, Texas; partner, Morgan, Lewis & Bockius LLP; adjunct professor of law, The University of Texas School of Law, Austin

Cullum, Lee, journalist contributing columns to *Dallas Morning News*, commentaries to National Public Radio's *All Things Considered*, and *NewsHour* with Jim Lehrer; author of *Genius Came Early: Creativity in the Twentieth Century*, Dallas

Cummins, Light T. (Victoria), Texas state historian; Guy M. Bryan Professor of History, Austin College; fellow, Texas State Historical Association, Sherman

Cunningham, William H. (Isabella), former president, The University of Texas at Austin; former chancellor, The University of Texas System, Austin

Curtis, Gregory B. (Tracy), editor, *Texas Monthly*, 1981-2000; author, Austin

Dailey, Maceo C. director, African American studies, and assistant professor of history at The University of Texas El Paso; board chair, Humanities Texas, El Paso

Daniel, David E. (Susan), president, The University of Dallas; member, National Academy of Engineering; board member and past president, The Academy of Medicine, Engineering, and Science of Texas, Dallas

Davis, D. Jack (Gail), professor and dean emeritus, College of Visual Arts and Design, University of North Texas, Fort Worth

Davis, Ramona, former executive director, Greater Houston Preservation Alliance, Houston

de la Teja, Jesus F. (Magdalena), Jerome H. and Catherine E. Supple Professor of Southwestern Studies and director of the Center for the Study of the Southwest, Texas State University; appointed first state historian of Texas 2007-2009 by the governor; former president, Texas State Historical Association, Austin

de Wetter, Margaret B. author, *The Sand Writer*, *The Sand Glass*, *The Sand Castle*, *Incognito: An Affair of Honor*, and *Letters from Texas 1837*; recipient, Daughters of the Republic of Texas' Mamie Wynne Cox award; distinguished alumnus, The University of Texas at El Paso; member, Huntington Library Live Poets Society; inductee, El Paso Women's Hall of Fame, El Paso

- Dean, David A.** (Jean), lawyer; former secretary of state, Texas, *Dallas*
- Decherd, Robert W.** (Maureen), chairman of the board, president and chief executive officer, A. H. Belo Corporation, *Dallas*
- Delco, Wilhelmina R.** (Exalton), former member, Texas House of Representatives; civic leader; adjunct professor, Community College Leadership Program, The University of Texas at Austin, *Austin*
- Denius, Franklin W.** (Charmaine), lawyer; former president, The University of Texas Ex-Students' Association; member, Constitutional Revision Committee; distinguished alumnus, The University of Texas at Austin; decorated veteran of World War II, *Austin*
- Denton, P. Lynn** (Mark), director of the public history program, Texas State University, founding director, Bob Bullock Texas State History Museum; past president, Texas Association of Museums, *Dripping Springs*
- Dewhurst, David** (Patricia), lieutenant governor of Texas; former Texas land commissioner; veteran; businessman; rancher, *Houston*
- Dick, James**, founder-director, International Festival-Institute at Round Top; concert pianist and teacher, *Round Top*
- Diehl, Randy L.** (Mary), dean, College of Liberal Arts, The University of Texas at Austin, *Austin*
- Djerejian, Edward P.** (Francoise Haelters), founding and present director, James A. Baker III Institute for Public Policy at Rice University; former U.S. Ambassador to Israel and former U.S. Ambassador to the Syrian Arab Republic, *Houston*
- Dobie, Dudley R.** (Saza), trustee, Clayton Foundation for Research; shareholder, Brorby, Crozier, & Dobie, P.C., *Austin*
- Dougherty, J. C.** (Mary Ann), senior research scientist, National Center for Educational Achievement and ACT, Inc., *Austin*
- Dugger, Ronnie**, reporter, writer, editor, poet; activist, *Austin*
- Duncan, Charles W.** (Anne), chairman, Duncan Interests; former secretary, U.S. Energy Department; deputy secretary, U.S. Defense Department; president, The Coca-Cola Company; chairman, Rotan Mosle Financial Corp., *Houston*
- Duncan, John H.** (Brenda), businessman, *Houston*
- Duncan, A. Baker** (Sally), chairman, Duncan-Smith Investments, Inc., *San Antonio*
- Earvin, Larry L.**, president, Huston-Tillotson University; political scientist, *Austin*

- Emanuel, Victor L.**, naturalist; founder, Victor Emanuel Nature Tours, *Austin*
- Farabee, K. Ray**, former vice-chancellor and general counsel, The University of Texas System; former member, Texas Senate, *Austin*
- Faulkner, Larry R.** (Mary Ann), president emeritus, The University of Texas at Austin, *Austin*
- Fisher, Richard W.** (Nancy), recipient, Service to Democracy Award and Dwight D. Eisenhower Medal for Public Service from the American Assembly; president and CEO, Federal Reserve Bank of Dallas; member, Federal Open Market Committee; former vice chairman, Kissinger McLarty Associates; former deputy, U.S. trade representative; laureate, Dallas Junior Achievement Business Hall of Fame, *Dallas*
- Flato, Edward C.** (Katy), architect, Lake/Flato, *San Antonio*
- Flawn, Peter T.** (Priscilla), president emeritus, The University of Texas at Austin, *Austin*
- Fleming, Jon H.** (Cheryl), president, Texas Wesleyan University (1978-84); member, Governor's Select Committee on Public Education (1983-84) and Executive Committee, Governor's Criminal Justice Task Force (1985-87); chairman and chairman emeritus, Texas Education Reform Foundation; rancher, *North Zulch*
- Fleming, Cheryl L.** (Jon), operatic soprano, director, and producer; former dean, Margaret Petree School of Performing Arts, Oklahoma City; former managing director, Tulsa Opera; advisor-consultant, Metropolitan Opera, National Endowment for the Arts, and the National Endowment for the Humanities; award winning poet; arts education writer; children's books author, *North Zulch*
- Flores, Eduardo D.** (Cristela Hernandez), cardiologist, *Edinburg*
- Flores, Dionicio**, member, Texas State University Board of Regents; executive vice president and editor, *El Paso Times*, *El Paso*
- Flowers, Betty S.**, former director, Lyndon Baines Johnson Presidential Library, *Austin*
- Francis, James B.** (Debbie), president, Francis Enterprises, Inc; board of directors, Silverleaf Resorts, Inc; trustee, Southwest Research Institute, *Dallas*
- Francis, L. Frederick** (Ginger), chairman, Bank of the West, El Paso, Texas; director, chairman of the compensation committee for Western Refining, Inc; member, Board of Regents, Texas Tech University System, *El Paso*
- Frazier, Donald S.** (Susan), professor of history, McMurry University; president and CEO, Grady McWhiney Research Foundation, *Abilene*

Frazier, O. H. (Rachel), chief, Cardiopulmonary Transplantation, program director and chief, Center for Cardiac Support, and director, Cardiovascular Surgery Research, Texas Heart Institute; chief, Transplant Service, St. Luke's Medical Center; professor of surgery, University of Texas Health Science Center in Houston; clinical associate professor of surgery, University of Texas M.D. Anderson Cancer Center; tenured professor, Baylor College of Medicine in Houston, *Houston*

Friedman, Walker C. (Joan), attorney, Friedman, Suder, & Cooke; trustee, Mary Potishman Land Trust; trustee, Amon Carter Museum, *Fort Worth*

Frost, Pat (Kelley), president, Frost National Bank; serves on over ten non-profit boards in San Antonio, *San Antonio*

Frost, Tom C. (Pat), chairman emeritus, Frost National Bank, *San Antonio*

Furgeson, William R. (Marcellene), U.S. district judge, Northern District of Texas, Dallas Division, *Dallas*

Galbraith, James K. (Ying Tang), professor, Lyndon B. Johnson School of Public Affairs, The University of Texas at Austin, *Austin*

Galvan, Israel J. (Marsha Ann Perlman), founder and president, GHG Corp., *League City*

Garcia, Juliet V. (Oscar E.), president, The University of Texas at Brownsville and Texas Southmost College, *Brownsville*

Garner, Bryan A., author; lecturer; lawyer; president, LawProse, Inc., *Dallas*

George, R. James (Cheryl), trial lawyer; founding partner, George and Brothers, LLP, *Austin*

Geren III, Preston M. (Rebecca), president and CEO, Sid Richardson Foundation, *Fort Worth*

Gillette, Michael L. (LeAnn), director, Humanities Texas; retired, National Archives, *Austin*

Gillis, Malcolm (Elizabeth), president, Rice University, *Houston*

Glickman, Julius (Suzan), distinguished alumnus, The University of Texas at Austin; past chair, Chancellor's Council, The University of Texas System, development board, The University of Texas, and Texas Humanities Council; board of directors, Jack S. Blanton Museum of Art; chair, advisory board of directors, UT Health Science Center; member, Liberal Arts Council, The University of Texas; past board chairman and president, Houston Public Television; past director, executive committee, Houston Symphony and Greater Houston YMCA;

recipient, Pro Bene Meritus, College of Liberal Arts, The University of Texas and Leon Jaworski Award for Public Service, Houston Bar Auxiliary, *Houston*

Goldstein, Joseph L., professor of medicine and molecular genetics, University of Texas Southwest Medical Center; Nobel laureate in medicine or physiology, *Dallas*

Gordon, William E., (Elizabeth B.), distinguished professor emeritus, Rice University; foreign secretary (1986-1990); member, National Academy of Sciences, *Ithaca, NY*

Granof, Michael H. (Dena Hirsch) professor of accounting, McCombs School of Business and LBJ School of Public Affairs, The University of Texas at Austin; specialist in government accounting; member of several committees involved in setting accounting and auditing standards for state, local and federal government, *Austin*

Grant, Joseph M. chairman emeritus, Texas Capital Bancshares, Inc., *Dallas*

Gruben, William C. (Marilu) vice president, senior economist, and Center for Latin American Economics director, Federal Reserve Bank of Dallas; adjunct professor, Department of Economics, Southern Methodist University, and Department of International Studies, The University of Texas at Dallas, *Dallas*

Guerra, Fernando A. (Beverly), director, San Antonio Metropolitan Health District; Clinical Professor of Pediatrics, University of Texas Health Science Center-San Antonio; member, Institute of Medicine, National Academy of Sciences; member, Commonwealth Fund and National Commission for a High Performing Public Health System; recipient, Ashbel Smith Distinguished Alumnus Award, The University of Texas Medical Branch and the Bronze Star U.S. Army Commendation Medal, *San Antonio*

Guest, William F., attorney; chairman, American Capitol Insurance Company (ret.), *Houston*

Gullett, John H. (Marilyn), physician; associate clinical professor of medicine (infectious disease), Western Michigan University School of Medicine, *South Yarmouth, MA*

Gunter, Pete A. (Elizabeth), Regents Professor of Philosophy, University of North Texas; member, Texas Institute of Letters; member, board of directors, Southwest Philosophy Review and Texas Committee on Natural Resources; president, Society for Process Philosophy of Education; permanent board member and past president, Big Thicket Association, *Denton*

Guthrie, Judith K. (Matthew Watson), retired United States magistrate judge, U.S. District Court, Eastern District of Texas, *Tyler*

Hamilton, Ann T., senior grant officer, Houston Endowment Inc.; vice president, Jacob W. & Terese Hershey Foundation, *Houston*

Harrigan, Stephen M. (Sue Ellen), author; contributing editor, *Texas Monthly*, *Austin*

Harte, Christopher M. (Katherine Stoddard Pope), investments, *Austin and Spicewood*

Hass, Marjorie (Larry), president, Austin College, *Sherman*

Hatfield, Thomas (Carol) director, Military History Institute, Dolph Briscoe Center for American History, The University of Texas at Austin, *Austin*

Hay, Jess, retired chairman and CEO, Lomas Financial Group; chairman, Texas Foundation for Higher Education; former member, Board of Regents, The University of Texas System, *Dallas*

Hayes, Patricia A., retired CEO, Seton Healthcare Network, *Austin*

Hecht, Nathan L., chief justice, Supreme Court of Texas, *Austin*

Hershey, Terese T., civic leader; board member, National Association of Flood Plain Managers Foundation and National Recreation Foundation; inductee, Texas Women's Hall of Fame; former board member, National Audubon Society, Houston Parks Board, Trust for Public Lands, Texas Parks and Wildlife Commission, and National Recreation & Park Association; founder, fellow, advisory board member, Lady Bird Johnson Wildflower Center; recipient, Frances K. Hutchison Medal for distinguished service to conservation, Garden Club of America, *Houston*

Heyer, George S., professor emeritus, history of doctrine, Austin Presbyterian Theological Seminary, *Austin*

Higginbotham, Patrick E. (Elizabeth), judge, U.S. Court of Appeals, Fifth Circuit, *Austin*

Hilgers, William B., attorney; former chairman, Supreme Court of Texas Grievance Oversight Committee, *Del Valle*

Hill, Lyda, president, LH Holdings and Lyda Hill Foundation, *Dallas*

Hines, Gerald D., (Barbara), chairman, Hines Interests, *Houston*

Hixon, Sarita A. (Robert) former member, board of directors, Texas State Historical Association; commissioner, Texas Historical Commission; past chair, San Jacinto Museum of History; Kenedy County Commissioner, Precinct 3, *Armstrong*

Ho, James C. (Allyson) partner, Gibson Dunn & Crutcher LLP; solicitor general of Texas; law clerk, U.S. Supreme Court Justice Clarence Thomas; chief counsel, U.S. Senator John Cornyn, *Dallas*

Hobby, William P., lieutenant governor, Texas (1973-1991); Radoslav A. Tsanoff Professor, Rice University; Sid Richardson Professor, Lyndon B. Johnson School of Public Affairs, The University of Texas at Austin (1991-1997); chancellor, University of Houston System (1995-1997), *Houston*

Hobby, Diana Stallings (William), managing editor, *Studies in English Literature*, Rice University, *Houston*

Hoggard, James M. (Lynn), author; playwright; Perkins-Prothro Distinguished Professor of English, Midwestern State University; member, Board of Directors, American Literary Translators Association *Wichita Falls*

Holtzman, Wayne H. (Joan), professor emeritus of psychology and education; past president, Hogg Foundation for Mental Health, The University of Texas at Austin, *Austin*

Hook, Harold S. (Joanne), retired chairman and chief executive, American General Corporation; trustee, Baylor College of Medicine; former national president, Boy Scouts of America; inductee, Texas Business Hall of Fame, *Houston*

Horchow, S. Roger, founder and former CEO, Horchow Collection; author; theatrical producer, *Dallas*

Howe, John P., physician; president and CEO, Project Hope, *Washington, D.C.*

Hudson, Edward R. (Ann Frasher), independent oil producer; board member, Kimbell Art Foundation, Burnett Foundation, Modern Art Museum of Fort Worth, National Council of the Aspen Art Museum, Aspen Center for Physics, and Friends of Art and Preservation in Embassies, *Washington, DC*

Huey, Mary E., president emerita, Texas Woman's University, *Denton*

Huffines, James R. (Patty), former chairman and current vice chairman, board of regents, The University of Texas System; chairman, Central & South Texas for Plains Capital Bank, *Austin*

Hughes, Vester T., lawyer; partner, K&L Gates, *Dallas*

Hunt, Woody L. (Gayle), chairman and CEO, Hunt Building Corporation; former member, board of regents, The University of Texas System; member of numerous local and state business and charitable boards, *El Paso*

Hutchison, Kay Bailey, former U.S. Senator; former Texas State Treasurer, *Dallas*

Inman, Bobby R. (Nancy), admiral, U.S. Navy (retired); investor, *Austin*

Ivey, Robert Charles (Susan Elaine), chemical physicist; fellow, Texas Academy of Science; member, The American Institute of Physics' National Student Honor Society, *Abilene*

Jack, Janis G. (William David), U.S. district judge, *Corpus Christi*

Jackson, Lee F. (Margaret), chancellor, University of North Texas System; former member, Texas House of Representatives; four-time Dallas County judge, *Dallas*

Jacobs, Gary G. (Jessie), chairman, Cabo Capital, Advisors, Ltd., *Laredo*

Jamail, Joseph D., attorney; philanthropist, *Houston*

Jefferson, Wallace B., (Rhonda), partner, Alexander, Dubose, Jefferson, & Townsend LLP; former chief justice, Texas Supreme Court, *Austin*

Johnson, Luci B. (Ian Turpin), chair, LBJ Asset Management Partners, *Austin*

Johnson, Clay (Anne), former director, management, Office of Management and Budget, and Presidential Personnel, *Washington D.C.*

Jordan, Bryce (Barbara), president emeritus, Pennsylvania State University, *Austin*

Karotkin, Jane, historian; administrator and curator, Friends of the Governor's Mansion, *Austin*

Katz, Neal (Jennifer), rabbi, Congregation Beth El, Tyler; musician; Most Outstanding Citizen 2005 and Outstanding Community Service Award 2012, Tyler Chamber of Commerce; board member, Hospice, Discovery Science Place, PATH, and Texas Jewish Historical Society; founding board member, Samaritan Counseling Center of Tyler; faculty member, Tyler Junior College and The University of Texas at Tyler, *Tyler*

Keck, Ray M. (Patricia), president, Texas A&M International University, former provost and vice president for academic affairs, *Laredo*

Kelleher, Herb, cofounder and former executive chairman, Southwest Airlines; board member, Federal Reserve Bank of Dallas; recipient, Wright Brothers Memorial Trophy, INC magazine's U.S. Master Entrepreneur, and the Bower Award for Business Leadership, Franklin Institute, *Dallas*

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- Kelly, Dee J.** (Janice), attorney, *Fort Worth*
- Kempner, Harris L.** (Hetta), trustee, H. L. Kempner Company; president, Kempner Capital Management, Inc., *Galveston*
- Kessler, James L.** (Shelley), rabbi, Temple B'nai Israel; founder and first president, Texas Jewish Historical Society, *Galveston*
- King, Robert D.**, professor of linguistics and founding dean, College of Liberal Arts, The University of Texas at Austin, *Austin*
- King, Carolyn D.** (Thomas M. Reavley), circuit judge, U.S. Court of Appeals, Fifth Circuit, *Houston*
- Kleberg, Scott M.** (Julie McGaughy), principal, CA Partners LLC, *Fort Worth*
- Kleberg, Sally S.**, financial educator, family office manager, *New York and San Antonio*
- Klein, Melvyn N.** (Annette), founder, Melvyn N. Klein Interests; attorney; adjunct professor, Texas A&M University-Corpus Christi, *Corpus Christi*
- Krier, Cyndi Taylor** (Joseph), former member, Texas Senate; partner, Vallejo Ranch, *San Antonio*
- Krueger, Robert C.** (Kathleen), former U.S. senator and congressman; former ambassador to Burundi and Botswana; former ambassador at-large to Mexico; former Texas Railroad commissioner; former vice-provost and dean of arts and sciences, Duke University; author; president, Krueger Associates, *New Braunfels*
- LaBoon, Robert B.** (Ramona), of counsel, Locke Lord LLP, *Austin*
- Lane, Neal** (Joni), Malcolm Gillis University Professor and senior fellow, James A. Baker III Institute for Public Policy, Department of Physics and Astronomy, Rice University; former director, White House Office of Science and Technology Policy; former director, National Science Foundation, *Houston*
- Lariviere, Richard W.** (Janis), dean, College of Liberal Arts, The University of Texas at Austin, *Austin*
- Lasater, Garland M.** (Mollie), member, board of visitors, McDonald Observatory of The University of Texas; member, Aspen Center for Physics; director, Aspen Science Center, *Fort Worth*
- Lee, Elizabeth M.** (William), head of school, Columbus School for Girls, Columbus, Ohio; former executive director, Foundation for the Education of Young Women; founder, Irma Rangel Leadership School for Young Women, *Dallas*

- Leebron, David W.** (Y. Ping Sun), president, Rice University; former dean, Columbia University School of Law, *Houston*
- LeMaistre, Charles A.** (Andreae), president emeritus, The University of Texas M. D. Anderson Cancer Center; former chancellor, The University of Texas System, *San Antonio*
- Leshin, Richard L.** (Pamela), attorney, Welder Leshin; past president, The University of Texas Exes Association, *Corpus Christi*
- Lindsey, John H.** (Sara), businessman; art collector; civic leader; former member, board of directors, Museum of Fine Arts Houston; director, Alley Theatre; member, board of regents, Texas A&M University System; member, board of directors, George H.W. Bush Presidential Library Foundation, former member, board of directors, U.S. Military Academy at West Point, *College Station and Houston*
- Lochridge, Lloyd**, lawyer; former president, State Bar of Texas; former member, board of governors, American Bar Association, *Austin*
- Locke, John P.** (Ramona), president, Locke Holdings, Inc., *Dallas*
- Loftin, Richard Bowen** (Karin), chancellor, University of Missouri; member of panel or committee, National Academies, American Association for the Advancement of Science, and National Research Council, *Columbia, MO*
- Low, Gilbert I.**, lawyer, *Beaumont*
- Lowe, Richard G.** (Kathy), Regent's Professor, University of North Texas; author, *Walker's Texas Division, CSA: Greyhounds of the Trans-Mississippi* and others; winner, Jefferson Davis Award of the Museum of the Confederacy, *Denton*
- Mackintosh, Prudence** (John), author; member, Texas Institute of Letters, *Dallas*
- Madden, Wales H.** (Abbie), attorney; former member, board of regents, The University of Texas System, *Amarillo*
- Maestas, Ricardo** (Annette), president, Sul Ross State University, *Alpine*
- Marcus, Nancy Cain**, professor, Southern Methodist University; former professor, University of Dallas and American Academy in Rome; board member, Dallas Center for the Performing Arts Foundation, Trinity Trust, Dallas Committee on Foreign Relations, and Dallas Institute of Humanities and Culture; member, Commission on 21st Century Colleges and Universities and Humanities Texas Board of Directors; presidential appointee, United States Public Delegate to the United Nations General Assembly in 2001, *Dallas*

Margo, Adair Wakefield (Donald R. “Dee”), president, Tom Lea Institute; past chairman, President’s Council on the Arts and Humanities (2001-2009), *El Paso*

Mark, Hans (Marion), professor of aerospace engineering, The University of Texas at Austin, *Austin*

Marsh, Wendy, civic volunteer active in arts and education, *Amarillo*

Martin, Jack (Patsy), global executive chairman, chief executive officer, Hill+-Knowlton Strategies; board member, Smithsonian National Museum of American History; member, boards of trustees, Baylor College of Medicine and Scott and White Healthcare, *Austin*

Martin, J. C., former associate director, Center for American History, The University of Texas at Austin; former executive director, San Jacinto Museum of History, Department of Special Collections, The University of Texas, Arlington, and the Texas State Historical Association, *Austin*

Martin, Robert S. (Barbara), former director, Institute for Museum and Library Services; former director, Texas State Library, *The Villages, FL*

Martinez, Philip R., United States district judge, Western District of Texas; former judge, 327th District Court; member, American Law Institute; former member, board of directors, El Paso Legal Assistance Society, El Paso Holocaust Museum, El Paso Cancer Treatment Center, and Hispanic Leadership Institute, *El Paso*

Martinez, Vidal G. (Debbie); managing partner, Martinez Partners LLP; former chairman, State Bar of Texas; former regent, University of Houston; former commissioner, Port of Houston Authority; former chairman, Texas Education Reform Foundation/Caucus, *Houston*

Martinez, Octavio N. (Clarissa Moreno), executive director, Hogg Foundation for Mental Health, *New Braunfels*

Matthews, Julia J., president, Dodge Jones Foundation, *Abilene*

Matthews, Kathleen S., Stewart Memorial Professor, BioSciences, and former department chair and dean, Wiess School of Natural Sciences, Rice University; electee, American Association for the Advancement of Science, *Houston*

McCall, James Brian, chancellor, Texas State University System; founder, The Empowerment Project, Inc.; former member, Texas House of Representatives, *Austin*

McCombs, Red (Charline), owner, McCombs Enterprises, *San Antonio*

McCorquodale, Robin H. writer of fiction and poetry, *Houston*

McCown, F. Scott (Maura), executive director, Center for Public Policy Priorities; retired judge, 345th District Court, Travis County, Texas; named by *Texas Monthly* one of “The 25 Most Powerful People in Texas Politics”, *Austin*

McDermott, Margaret, distinguished alumna, The University of Texas at Austin; patron of the arts, education, and medicine in various community involvements; member, International Council of Museum of Modern Art in New York and the Dallas Shakespeare Club; honorary alumnae, Massachusetts Institute of Technology, *Dallas*

McFadden, Joseph M., president emeritus, professor of history, University of St. Thomas, *Houston*

McHugh, M. C., member, The University of Texas System Board of Regents, *Corpus Christi*

McKnight, Joseph W. (Mimi), professor, Southern Methodist School of Law; legal historian; law reformer, *Dallas*

McLaughlin, John M., manager, Double M Ranch, Ltd; lawyer; chairman, Texas State Bank, *San Angelo*

McNeill, Larry, past president, Texas State Historical Association; president, Texas Supreme Court Historical Society; president, Clark, Thomas & Winters, P.C., *Austin*

McRaven, William H. (Georgeann), chancellor, The University of Texas System, *Austin*

McReynolds, Jim (Judy), member, Texas House of Representatives; former faculty member, Stephen F. Austin State University; owner, Chapparral Energy, Inc., *Lufkin*

Meadows, William W. (Pati), executive vice president, secretary, and treasurer, Wm. Rigg Co.; president, endowment fund, Fort Worth Nature Center; member, board of directors, Fort Worth Country Day School and Museum of Science and History, *Fort Worth*

Mendelsohn, John (Anne), past president, The University of Texas MD Anderson Cancer Center (1996 to 2011); director, Institute of Personalized Cancer Therapy at MD Anderson; board member, Center for Houston’s Future, BioHouston; chairman, Houston Grand Opera, *Houston*

Middleton, Harry J. (Miriam), director emeritus, Lyndon Baines Johnson Presidential Library and Museum; executive director, Lyndon Baines Johnson Foundation, *Austin*

Miller, Charles (Beth), investment adviser; former chairman, board of regents, The University of Texas System; former analyst and portfolio manager, Teacher Retirement System of Texas, *Houston*

Mithoff, Virginia Lynn McTaggart (Richard), civic leader; board member, Humanities Texas; member, School of Education Foundation Advisory Council of The University of Texas Development Board, The University of Texas School of Public Health Advisory Council of The University of Texas Health Science Center at Houston Development Board; development chair, Collaborative for Children, *Houston*

Monday, Jane C. (Charles), author; former regent, Texas State University System; former mayor, City of Huntsville, *Huntsville*

Moore, J. Sam, retired lawyer; former chairman, Texas Committee for the Humanities; former member, Texas Law Review Association, *El Paso*

Mosle, Paula M., life trustee, former chairman, Hockaday School; former dean of women, Rice University; former governor, current trustee advisor, Rice University; trustee, The St. Michael Foundation, *Dallas*

Mullins, Charles B. (Stella), executive vice chancellor for health affairs emeritus, Ashbel Smith Professor Emeritus, and consultant, Southwestern Medical Center, *Dallas*

Murdock, Steve H. (Mary Zey), professor, Department of Sociology, Rice University; presidential appointee, United States Census Bureau; Allyn and Gladys Cline Chair in Sociology, Rice University; state demographer, Texas, *San Antonio*

Murphy, Ewell E., lawyer, retired partner, Baker Botts, LLP; adjunct professor, University of Houston Law Center, *Houston*

Natalicio, Diana S., president, The University of Texas at El Paso; member, Texas Women's Hall of Fame; author, *El Paso*

Ness, Roberta B. (David), author; dean and M. David Low Chair in Public Health, The University of Texas School of Public Health; vice president for innovation, The University of Texas-Houston, *Houston*

Newton, W. Frank (Nancy Jo), president, Beaumont Foundation of America; past president, State Bar of Texas; former dean and professor of law, Texas Tech Law School, *Beaumont*

Nicklaus, Carol (Ted), The University of Texas Liberal Arts Foundation Advisory Council; recipient, Jim Veninga Award for Excellence in Humanities; Texas Council for the Humanities, *Amarillo*

Nye, Erle A. (Alice) chairman emeritus, TXU Corp; former chairman, current regent, Texas A&M University System, *Dallas*

O'Toole, Thomas F. (Jane) managing partner, Glenhest, Ltd; director, National Alliance for Mental Illness, *Dallas*

Olson, Lyndon L. (Kay), former U.S. ambassador to Sweden, *Waco*

Oshinsky, David M. (Jane), Jack S. Blanton Chair in History, The University of Texas at Austin; recipient, Pulitzer Prize for History (2006) for *Polio: An American Story*; specialist in 20th century U.S. political and cultural history; frequent contributor to the *New York Times* and other national publications, *Austin*

Oxford, Patrick C., Chairman, Bracewell & Giuliani LLP; member, board of regents, The University of Texas System; board member, M.D. Anderson, Outreach, Inc., and Texas Medical Center, *Houston*

Palaima, Thomas G. (Lisa Laky), professor of classics, The University of Texas at Austin; commentary writer and book reviewer, *Austin*

Patterson, Patricia M., president, Patterson Investments; member, Council on Foreign Relations, New York and Dallas Committee on Foreign Relations; former chair, World Affairs Council of Dallas/Fort Worth, *Dallas*

Perkins, Judith Ann Watson (Richard), president, J.W.P. Properties, Inc., *Houston*

Pfeiffer, Fred N. (Ann Maria), professional engineer; attorney; former general manager, San Antonio River Authority, *San Antonio*

Phillips, Thomas R. (Lyn), attorney, Baker Botts, LLP, *Austin*

Phillips, Jeanne J., senior vice president, corporate affairs and international relations, Hunt Consolidated, Inc., *Dallas*

Podolsky, Daniel K. (Carol), president, The University of Texas Southwestern Medical School, *Dallas*

Pope, Jack, former chief justice, Supreme Court of Texas, *Austin*

Porter-Scott, Jenny L. (Lawrence E.), poet and educator; former poet laureate of Texas, *Austin*

Powell, Boone (Dianne), president, Ford, Powell & Carson, Architects; fellow, College of Fellows, American Institute of Architects; former president, Texas Society of Architects; peer professional, U.S. General Services Administration, *San Antonio*

Powers, William C., president, Hines H. Baker and Thelma Kelly Baker Chair, and University Distinguished Teaching Professor, The University of Texas at Austin, *Austin*

Prado, Edward C. (Maria), U.S. circuit judge, U.S. Court of Appeals; former U.S. district court judge, Western District of Texas; former U.S. attorney, Western District of Texas, *San Antonio*

Pressler, H. Paul (Nancy), justice (retired), Court of Appeals of Texas, Fourteenth Supreme Judicial District, *Houston*

Prothro, Caren H., member, board of trustees, Southern Methodist University; board member, AT&T Performing Arts Center and Medical Foundation, *Dallas*

Ramey, Tom B. (Jill), lawyer; chief justice, Twelfth Court of Appeals, *Tyler*

Ramirez, Mario E. (Sarah), physician; past member, board of regents, The University of Texas System, vice-president for south Texas/border initiatives, The University of Texas Health Science Center at San Antonio, *McAllen*

Randall, Edward (Ellen), private investor, *Houston*

Randall SR., Risher (Fairfax), former senior vice-president and director, American General Investment Corp.; manager, family trusts, investments, and real estate, *Houston*

Reasoner, Harry M. (Macey), attorney; senior partner, Vinson & Elkins, *Houston*

Reaud, Wayne A., attorney and philanthropist; member, The University of Texas System Chancellor's Council, *Beaumont*

Reavley, Thomas M. (Carolyn D. King), judge, U.S. Court of Appeals, Fifth Circuit, *Houston*

Ritter, Gretchen, Harold Tanner Dean of Arts and Sciences, Cornell University; former vice provost and professor of government, The University of Texas at Austin; former director, Center for Women and Gender Studies and former co-chair, Gender Equity Task Force, The University of Texas at Austin; former member, Program Committee, foundation of the Ann Richards School and the Intercollegiate Women's Athletics Committee for Y Sports, *Ithica, NY*

Roach, Joyce G., retired professor, Texas Christian University; author; folklorist; grassroots historian; rancher; naturalist; lifetime member and fellow, Texas State Historical Association and Texas Folklore Society; member, Texas Institute of Letters; lifetime member, West Texas Historical Association; member and past president, Horned Lizard Conservation Society; honoree, National Cowgirl Hall of Fame and Museum, *Keller*

Robinson, Mary L., U.S. district judge; former state appellate and trial judge, *Amarillo*

Rodriguez, Eduardo R. (Paula), attorney; partner, Atlas, Hall, & Rodriguez, *Brownsville*

Rogers, Elizabeth, assistant federal public defender (retired), Western District of Texas (1984-2013); development director, Marfa Public Radio, *Alpine*

Rogers, Regina J., board member, The University of Texas M.D. Anderson Cancer Center, Harris County Hospital District Foundation, Anti-Defamation League Southwest Region, Pauline Sterne Wolff Memorial Foundation, Holocaust Museum Houston, and Babe Didrikson Zaharias Foundation; advisory board member, Children's Defense Fund Texas; president, Joe Louis International Sports Foundation, *Beaumont*

Rogers, Jesse W. (Karen) president, Midwestern State University; member, executive council and chair, state delegation, Southern Association of Colleges and Schools Commission on Colleges, *Wichita Falls*

Romo, Ricardo (Harriett), president, The University of Texas at San Antonio, *San Antonio*

Rove, Karl C. (Karen), contributor, Fox News; columnist, *Wall Street Journal* and *Newsweek*, *Washington, D.C.*

Russell, Jan Jarboe (Lewis), author; journalist, *Texas Monthly* and *The New York Times*; member, Texas Institute of Letters; member, board of trustees, Gemini Ink, *San Antonio*

Rutford, Robert H. (Marjorie Ann), Excellence in Education Foundation Chair in Geoscience and former president, The University of Texas at Dallas; former director, Division of Polar Programs, National Science Foundation; president, Scientific Committee on Antarctic Research, *Richardson*

Sansom, Andrew (Nona), executive director, The Meadows Center for Water and the Environment and professor of practice in geography, Texas State University; former executive director, Texas Parks & Wildlife Department; executive director, Texas Nature Conservancy; founder, The Parks and Wildlife Foundation of Texas, *Austin*

Schrump, Jake B. (Jane), president, Emory & Henry College, *Emory, VA*

Schwitters, Roy F. (Karen), S. W. Richardson Regents Chair in Physics, The University of Texas at Austin; former director, Superconducting Super Collider, *Austin*

Seldin, Donald W., William Buchanan and The University of Texas System Professor of Internal Medicine, The University of Texas Southwestern Medical Center, *Dallas*

Sharp, John (Charlotte Han), chancellor, Texas A&M University System; former comptroller, State of Texas; former commissioner, Texas Railroad Commission; former senator, Texas State Senate; former representative, Texas House of Representatives, *College Station*

Sherman, Max R. (Gene Alice), professor and dean emeritus, Lyndon B. Johnson School of Public Affairs, The University of Texas at Austin; former president, West Texas State University, *Austin*

Shilling, Roy B. (Margaret), president emeritus, Southwestern University, *Austin*

Shine, Kenneth I. (Carolyn), executive vice chancellor for health affairs, The University of Texas System Administration, *Austin*

Shipley, George (Donna) President and CEO, Shipley & Associates, Inc., *Austin*

Shivers, Allan (Robin), chairman, Shivers Group, Inc.; chairman, Seton Fund, *Austin*

Shockley, Thomas Valcour (Dorothy), chief executive officer, El Paso Electric Company; member, advisory committee, College of Natural Science, The University of Texas; trustee, Southwestern University, *El Paso*

Smith, Evan (Julia), CEO and editor-in-chief, *The Texas Tribune*; member, board of directors, Public Broadcasting System, St. Stephen's Episcopal School, Waller Creek Conservancy, and Austin Community Foundation, *Austin*

Smith, Bea Ann, justice (retired), Texas Court of Appeals Third District; mediator and appellate consultant; adjunct professor, liberal arts and School of Law, The University of Texas at Austin, *Austin*

Smith, Cullen, attorney; former president; State Bar of Texas; of counsel, Naman, Howell, Smith & Lee, LLP, *Waco*

Smith, Frank C. (Katherine), electrical engineer; specialist in data processing and geosciences, *Houston*

Sonnenberg, Stephen M. (Dale), psychiatrist; psychoanalyst; member of faculty, Baylor College of Medicine; fellow-in-residence, Humanities Institute, The University of Texas at Austin, *Austin*

Speck, Lawrence W., W.L., dean, School of Architecture (1992-2001) and Moody Centennial Professor in the School of Architecture, The University of Texas at

Austin; principal, Page Southerland Page; fellow, American Institute of Architects, *Austin*

Spector, Rose, former justice, Supreme Court of Texas; trial judge and district judge, *San Antonio*

Spivey, Broadus A. (Ruth Ann), past president, State Bar of Texas; shareholder, Spivey & Ainsworth, P.C., *Austin*

Staley, Thomas F. (Carolyn), director, Harry Ransom Humanities Research Center, Harry Ransom Chair of Liberal Arts, and professor of English, The University of Texas at Austin, *Austin*

Stark, Lois F. (George), documentary filmmaker for NBC Network News in the Middle East, Africa, Europe, and the USA; member, Global Women's Leadership Board, Harvard Kennedy School; former trustee, The Alley Theatre, Texas Children's Hospital, St. John's School, Sarah Lawrence College, Texas Humanities, Texas Commission on the Arts, and the Harry Ransom Center, *Houston*

Starr, Kenneth W. (Alice), president, Baylor University; former dean, School of Law, Pepperdine University; former U.S. solicitor general; former judge, U.S. Court of Appeals, District of Columbia, *Waco*

Steen, John (Weisie), Texas secretary of state, *San Antonio*

Steiner, Frederick R. (Anna), dean, School of Architecture and Henry M. Rockwell Chair in Architecture, The University of Texas at Austin, *Austin*

Stephens, F. L. (Pollyanna), former chairman, CEO, and co-founder, Town & Country Food Stores, Inc., *San Angelo*

Steves, Edward G. (Nancy), CEO, Steves & Sons, Inc., *San Antonio*

Steves, Marshall T. (Jane), president and CEO, Crest Doors, Inc.; member, McDonald Observatory Board of Visitors; past managing partner, Mathews and Branscomb; past clerk, Federal Judge John H. Woods; amateur astronomer; regional modern art collector, *San Antonio*

Stobo, John D. (Mary Ann), president, The University of Texas Medical Branch, *Galveston*

Stoff, Michael B. (Rachel Schuster), director, Plan II Honors Program, The University of Texas at Austin, *Austin*

Storey, C. P. (Gail), physician; author; executive vice-president, American Academy of Hospice and Palliative Medicine; palliative care consultant, Colorado Permanente Medical Group, *Boulder*

Straus III, Joe (Julie), speaker, Texas House of Representatives, *San Antonio*

Stream, Kathryn S. (Richard), former senior vice-president and director (retired), National Center for Human Performance, Texas Medical Center; advisor, National Center for Human Performance and the Women's Health Network; namesake, Kathryn S. Stream Leadership Award, The Greater Houston Women's Chamber of Commerce; board member, Schull Institute Foundation, *Denton*

Strong, Louise C. (Beeman), professor of medical genetics; Sue and Radcliffe Killiam Chair, The University of Texas M.D. Anderson Cancer Center; Phi Beta Kappa, *Houston*

Stuart, Claudia D. (Harold), professor, sociology and criminal justice, West Texas A&M University; author and poet, *Amarillo*

Stuart, Ann, chancellor and president, Texas Woman's University; past president, Rensselaer at Hartford, Connecticut, *Dallas*

Sullivan, Teresa A. (Douglas Laycock), president, University of Virginia, *Charlottesville, VA*

Suri, Jeremi (Alison Alter), Mack Brown Distinguished Chair for Leadership in Global Affairs, Department of History and the LBJ School of Public Affairs, The University of Texas at Austin, *Austin*

Sutton, John F. (Nancy), The W. Walker Centennial Chair in Law Emeritus, University of Texas at Austin; former dean, The University of Texas School of Law; former practicing attorney, San Antonio and San Angelo, *Austin and San Angelo*

Tatum, Stephen L., (Nenetta), attorney, *Fort Worth*

Taylor, Lonn W. (Dedie), board member, Texas State Historical Association; former historian, National Museum of American History and the Smithsonian Institution, *Fort Davis*

Temple, Larry E. (Louann), lawyer; former chairman, Texas Higher Education Coordinating Board, *Austin*

Temple, Ellen C. (Arthur "Buddy" III), former member and vice-chair, board of regents, The University of Texas System; retired publisher, Ellen C. Temple Publishing, Inc.; conservationist, *Lufkin*

Thomas, Gail G. (Robert), president, The Trinity Trust Foundation, Dallas; founder, Dallas Institute of Humanities and Culture, *Dallas*

Thomasson, Charles W. (Willa), lawyer, *Corpus Christi*

Tortorice, Joseph Vincent (Shelly), president, Deli Management, Inc.; director, Mid-South Bank Corporation, *Beaumont*

Totten, Herman L., dean, School of Information, Library Sciences and Technologies, University of North Texas, Denton; member, National Commission on Library and Information Science; former president, Texas Library Association, *Denton*

Trauth, Denise M. (John Huffman), president, Texas State University, *San Marcos*

Trotter, Billy B. (Peggy), pathologist; director emeritus, Laboratories of Hendrick Medical Center, *Abilene*

Tyler, Ron (Paula), former director, Amon Carter Museum; former director, Texas State Historical Association and the Center for Studies in Texas History; former professor of history, The University of Texas at Austin, *Fort Worth*

Untermeyer, Charles G. (Diana), U.S. vice chairman, Strategic Real Estate Advisors; former United States ambassador to Qatar; former assistant secretary of the Navy; former director of presidential personnel under George H. W. Bush; former vice president for government affairs and professor of public policy, UT Health Science Center, *Houston*

Updegrove, Mark (Evie) director, Lyndon Baines Johnson Presidential Library and Museum; author; journalist; publisher, *Austin*

Vennema, Diane S. (Peter Vennema), author and illustrator, *Santa Fe, NM*

Vick, Frances B., former president, E-Heart Press; former director and founder, University of North Texas Press; past president, Texas Institute of Letters and Texas State Historical Association; fellow, Texas State Historical Association and Texas Folklore Society, *Dallas*

Volcansek, Mary L., professor of political science, Texas Christian University; executive director, Center for Texas Studies, TCU; board chair, Humanities Texas; board member, Texas Map Society and TCU Press, *Fort Worth*

von Eschenbach, Andrew C. (Madelyn), former commissioner, US FDA; former director, National Cancer Institute; former executive vice-president and chief academic officer, The University of Texas M.D. Anderson Cancer Center; Roy M. and Phyllis Gough Huffington Clinical Research Distinguished Chair in Urologic Oncology, The University of Texas M.D. Anderson Cancer Center in Houston; instructor, urology, University of Pennsylvania School of Medicine; Lieutenant Commander (ret.), US Navy, *Montgomery*

Wainerdi, Richard, president emeritus, Texas Medical Center, *Houston*

Warner, David (Phyllis), professor, Lyndon B. Johnson School of Public Affairs, The University of Texas at Austin, *Austin*

Weddington, Sarah C., lawyer; adjunct professor, The University of Texas at Austin; former member, Texas House of Representatives; former assistant to the president of the United States; former general counsel, U.S. Department of Agriculture; author, *Austin*

Weinberg, Louise (Steven), William B. Bates Chair for the Administration of Justice and professor of law, The University of Texas at Austin, *Austin*

Weinberg, Steven (Louise), Josey-Welch Foundation Chair in Science and Regental Professor, The University of Texas at Austin; Nobel laureate in physics; research and publications in physics and astronomy, *Austin*

White, L. Michael (Becki Brinkerhoff), Ronald Nelson Smith Endowed Chair in Classics, founder of Religious Studies Program, and director, Institute for the Study of Antiquity and Christian Origins, The University of Texas at Austin, *Austin*

Whitmore, Jon (Jennifer), chief executive officer, ACT; former president, San Jose State University; former provost, University of Iowa, *Iowa City, IA*

Whittenburg, George A. (Ann), lawyer; member, Council of the American Law Institute; life fellow, American Bar Foundation, *Amarillo*

Wildenthal, Kern (Marnie), president, Southwestern Medical Foundation, *Dallas*

Wilhelm, Marilyn, founder-director, Wilhelm Schole International; author, *Houston*

Wilson, Rosine M., historian and author; former president, Texas Historical Foundation; vice-chairman, Texas Historical Commission; president, board of directors, McFaddin-Ward House Museum; trustee, McFaddin-Ward Foundation and San Jacinto Museum of History, *Beaumont*

Wilson, Laura (Robert), photographer; author; member, Texas Institute of Letters, *Dallas*

Wilson, Wallace S. (Jeanie), philanthropist; rancher, *Houston*

Winters, J. S., attorney, *Austin*

Wittliff, William D., (Sally), typographer and publisher; president, Encino Press; scriptwriter and film producer; councilor, Texas Institute of Letters, *Austin*

Wood, Jane Roberts (Judson W.), novelist; professor, Dallas County Community College District and Southern Methodist University; fellow, National Endowment

of the Arts and National Endowment of Humanities; recipient, Texas Institute of Letters Short Story Award, *Argyle*

Woodruff, Paul B. (Lucia), professor of philosophy and dean of undergraduate studies, The University of Texas at Austin; author, *Austin*

Wright, William P., “Bill” (Alice), investments; author, photographer; former chairman, Western Marketing, Inc.; former member, National Council on the Humanities; former chairman, Texas Council for the Humanities; member, advisory council, UT Press; former commissioner, Texas Commission on the Arts, *Abilene*

Wright, Lawrence G. (Roberta), author; staff writer, *The New Yorker*; screenwriter, *Austin*

Wright, James S. (Mary), architect; retired senior partner, Page Southerland Page, *Dallas*

Wright, George C. (Valerie), president, Prairie View A&M University, *Prairie View*

Wynn, Will, former mayor, Austin, TX; energy/environmental consultant, *Austin*

Yeager, Elizabeth, trustee, Wichita Falls ISD; director, Perkins-Prothro Foundation; member, Harry Ransom Center Advisory Council; board member, Wichita Falls Symphony Orchestra, *Wichita Falls*

Yeager, Kathryn P. (Frank), former mayor, Wichita Falls, TX, *Wichita Falls*

Young, Barney T. (Sally), founding partner, Rain Harrell Emery Young & Doke; of counsel, Locke Lord Bissell & Liddell LLP, *Dallas*

Young, Jay T. (Laurie) director, business development, Perot Systems Corp; Lt. Commander, U.S. Naval Reserve; member, board of directors, Admiral Nimitz Foundation; book reviewer, *Dallas Morning News*; *Plano*

Zaffirini, Judith (Carlos), senator, twenty-first district of Texas; owner, Zaffirini Communications, *Laredo*

IN MEMORIAM

*(Date indicates year of Proceedings in
which memorial is published.)*

SAMUEL HANNA ACHESON (1971)	WILLIAM BARTHOLOMEW BATES (1974)
NATHAN ADAMS (1966)	DEREK H. R. BARTON (1998)
CLAUDE CARROLL ALBRITTON JR. (1997)	WILLIAM JAMES BATTLE (1955)
JAMES PATTERSON ALEXANDER (1948)	WILLIAM BENNETT BEAN (1989)
JOSEPH LEWIS ALLBRITTON (2013)	HENRY M. BELL JR. (1999)
AUGUSTUS C. ALLEN	WARREN SYLVANUS BELLOWS (1966)
WINNIE ALLEN (1985)	HARRY YANDELL BENEDICT (1937)
DILLON ANDERSON (1973)	JOHN MIRZA BENNETT JR. (1993)
ROBERT BERNERD ANDERSON (1990)	LLOYD M. BENTSEN (2006)
ANNE LEGENDRE ARMSTRONG (2008)	GEORGE JOHN BETO (1991)
THOMAS D. ANDERSON (2007)	JOHN HAMILTON BICKETT JR. (1947)
JESSE ANDREWS (1961)	WILLIAM CAMPBELL BINKLEY (1970)
MARK EDWIN ANDREWS (1992)	JOHN BIRDSALL
THOMAS REEVES ARMSTRONG	CHARLES MCTYEIRE BISHOP (1949)
JAMES WILLIAM ASTON	WILLIAM BENNETT BIZZELL (1944)
WILLIAM HAWLEY ATWELL (1961)	JAMES HARVEY BLACK (1958)
KENNETH HAZEN AYNESWORTH (1944)	ROBERT LEE BLAFFER (1942)
BURKE BAKER (1964)	JACK S. BLANTON SR. (2014)
HINES HOLT BAKER	TRUMAN G. BLOCKER JR. (1984)
JAMES ADDISON BAKER (1941)	ROBERT LEE BOBBITT
JOSEPH BAKER	MEYER BODANSKY (1941)
KARLE WILSON BAKER (1960)	HERBERT EUGENE BOLTON (1953)
WALTER BROWNE BAKER (1968)	CHARLES PAUL BONER (1979)
CLINTON STANLEY BANKS (1991)	CHARLES M. BONJEAN (2008)
EDWARD CHRISTIAN HENRY BANTEL (1964)	GEORGE W. BONNELL
REX GAVIN BAKER JR. (2004)	JOHN GUTZON DE LA MOTHE BORGLUM (1941)
EUGENE CAMPBELL BARKER (1956)	HOWARD TANAY BOYD (1991)
THOMAS DAVIES BARROW (2012)	PAUL LEWIS BOYNTON (1958)
MAGGIE WILKINS HILL BARRY (1945)	EDWARD T. BRANCH
RICHARD C. BARTLETT (2012)	EDWARD N. BRANDT (2007)
	LEO BREWSTER (1980)

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|---------------------------------|---------------------------------|
| GEORGE WAVERLEY BRIGGS (1957) | THOMAS STONE CLYCE (1946) |
| ALBERT PERLEY BROGAN (1983) | CLAUDE CARR CODY JR. (1960) |
| GEORGE RUFUS BROWN (1983) | HENRY COHEN (1952) |
| JOHN R. BROWN (1994) | HENRY CORNICK COKE JR. (1982) |
| ANDREW DAVIS BRUCE (1968) | MARVIN KEY COLLIE (1990) |
| JAMES PERRY BRYAN (1975) | JAMES COLLINSWORTH |
| LEWIS RANDOLPH BRYAN JR. (1959) | ROGER N. CONGER (1996) |
| BOB BULLOCK | JOHN BOWDEN CONNALLY JR. (1994) |
| JOHN W. BUNTON | TOM CONNALLY (1963) |
| RICHARD FENNER BURGESS (1945) | ARTHUR BENJAMIN CONNOR |
| WILLIAM HENRY BURGESS (1946) | C.W.W. "TEX" COOK (2003) |
| EMMA KYLE BURLESON (1941) | JOHN H. COOPER (1993) |
| JOHN HILL BURLESON (1959) | MILLARD COPE (1963) |
| DAVID G. BURNET | CLARENCE COTTAM (1974) |
| CHESTER R. BURNS (2006) | MARGARET COUSINS (1996) |
| I. W. BURTON | MARTIN MCNULTY CRANE (1943) |
| GEORGE A. BUTLER (1992) | CAREY CRONEIS (1971) |
| JACK L. BUTLER (1990) | WILLIAM H. CROOK (1997) |
| CHARLES PEARRE CABELL (1970) | JOSEPH STEPHEN CULLINAN (1937) |
| CLIFTON M. CALDWELL | NINA CULLINAN |
| GEORGE CARMACK (2002) | ROBERT B. CULLOM |
| JOHN WILLIAM CARPENTER | MINNIE FISHER CUNNINGHAM |
| MARY ELIZABETH SUTHERLAND | THOMAS WHITE CURRIE (1943) |
| CARPENTER (2010) | JEAN HOUSTON BALDWIN DANIEL |
| EVELYN M. CARRINGTON (1985) | (2003) |
| PAUL CARRINGTON (1989) | PRICE DANIEL (1992) |
| H. BAILEY CARROLL (1966) | WILLIAM E. DARDEN (1998) |
| MARY JO CARROLL (1994) | HARBERT DAVENPORT |
| EDWARD HENRY CARY (1954) | MORGAN JONES DAVIS (1980) |
| ALBERT V. CASEY (2004) | GEORGE BANNERMAN DEALEY (1946) |
| CARLOS EDUARDO CASTAÑEDA (1958) | JAMES QUAYLE DEALEY |
| HENRY E. CATTO, JR. (2012) | MICHAEL ELLIS DEBAKEY (2008) |
| THOMAS JEFFERSON CHAMBERS | EVERETT LEE DEGOLYER (1957) |
| ASA CRAWFORD CHANDLER (1958) | GILBERT DENMAN (2004) |
| MARION NELSON CHRESTMAN (1948) | EDGAR A. DEWITT (1975) |
| EDWARD A. CLARK (1992) | ROSCOE PLIMPTON DEWITT |
| JOSEPH LYNN CLARK (1969) | ADINA DEZAVALA (1955) |
| RANDOLPH LEE CLARK (1993) | FAGAN DICKSON |
| TOM C. CLARK | CHARLES SANFORD DIEHL (1946) |
| WILLIAM LOCKHART CLAYTON (1965) | FRANK CLIFFORD DILLARD (1939) |
| WILLIAM P. CLEMENTS, JR. (2012) | J. FRANK DOBIE (1964) |

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| EZRA WILLIAM DOTY (1994) | MARY EDNA GEARING (1946) |
| GERRY DOYLE (1999) | SAMUEL WOOD GEISER (1983) |
| HENRY PATRICK DROUGHT (1958) | EUGENE BENJAMIN GERMANY (1970) |
| FREDERICA GROSS DUDLEY | ROBERT RANDLE GILBERT (1971) |
| KATHARYN DUFF (1995) | GIBB GILCHRIST (1972) |
| J. CONRAD DUNAGAN (1994) | WILLIAM H. GOETZMANN (2010) |
| CLYDE EAGLETON (1958) | WILLIAM E. GORDON (2010) |
| DWIGHT DAVID EISENHOWER | JOHN WILLIAM GORMLEY (1949) |
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| EDWIN A. ELLIOTT | HOWARD DWAYNE GRAVES (2003) |
| ALEXANDER CASWELL ELLIS (1948) | IRELAND GRAVES (1969) |
| JOE EWING ESTES (1991) | MARVIN LEE GRAVES (1953) |
| HYMAN JOSEPH ETTLINGER (1986) | WILLIAM FAIRFAX GRAY |
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| WILLIAM STAMPS FARISH (1942) | NEWTON GRESHAM (1996) |
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| CHARLES W. FERGUSON | WALTER GARNER HALL (2000) |
| WILLIAM CARRINGTON FINCH (2007) | GEORGE F. HAMM (2010) |
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| STERLING WESLEY FISHER | RALPH HANNA |
| LAMAR FLEMING JR. (1964) | HARRY CLAY HANSZEN (1950) |
| LAWRENCE DURWOOD FLEMING | FRANKLIN ISRAEL HARBACH (1998) |
| (2007) | ROBERT L. HARDESTY (2014) |
| RICHARD TUDOR FLEMING (1973) | THORNTON HARDIE (1969) |
| FRED FARRELL FLORENCE (1960) | HELEN HARGRAVE (1984) |
| JAMES LAWRENCE FLY | JAMES M. HARGROVE (2004) |
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| LITTLETON FOWLER | MARION THOMAS HARRINGTON |
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| JOE B. FRANTZ (1993) | TINSLEY RANDOLPH HARRISON |
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| JESS JENKINS GARRETT (2010) | FRANK LEE HAWKINS (1954) |
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| WILMER ST. JOHN GARWOOD (1989) | ERWIN HEINEN (1997) |

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 GEORGE W. HILL (1985)
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 SAM HOUSTON
 WILLIAM VERMILLION HOUSTON
 (1969)
 WILLIAM EAGER HOWARD (1948)
 LOUIS HERMAN HUBBARD (1972)
 JOHN AUGUSTUS HULEN (1957)
 WILMER BRADY HUNT (1982)
 FRANK GRANGER HUNTRESS (1955)
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 ALFRED F. HURLEY (2014)
 HOBART HUSON
 JOSEPH CHAPPELL HUTCHESON JR.
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 PATRICK C. JACK
 HERMAN GERLACH JAMES (1966)
 THOMAS N. JAMES (2010)
 LEON JAWORSKI (1982)
 JOHN LEROY JEFFERS (1979)
 JOHN HOLMES JENKINS III (1991)
 HERBERT SPENCER JENNINGS (1966)
 CLAUDIA T. JOHNSON (2007)
 LYNDON BAINES JOHNSON (1973)
 WILLIAM PARKS JOHNSON (1970)
 MARGUERITE JOHNSTON (2005)
 ANSON JONES
 CLIFFORD BARTLETT JONES (1973)
 ERIN BAIN JONES (1974)
 EVERETT HOLLAND JONES (1996)
 HOWARD MUMFORD JONES
 JESSE HOLMAN JONES (1956)
 JOHN TILFORD JONES JR. (1993)
 MARVIN JONES (1977)
 MRS. PERCY JONES (1978)
 JOHN ERIK JONSSON (1996)
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 EDWARD KILMAN (1969)
 FRANK HAVILAND KING
 WILLIAM ALEXANDER KIRKLAND
 (1988)

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| ROBERT JUSTUS KLEBERG JR. (1974) | MALCOLM MCCORQUODALE JR. |
| DOROTHY W. KNEPPER (1998) | (1990) |
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| POLYKARP KUSCH (1993) | JOHN HATHAWAY MCGINNIS (1960) |
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| UMPHREY LEE (1958) | LEWIS WINSLOW MACNAUGHTON |
| DAVID LEFKOWITZ (1956) | (1969) |
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| DENTON RAY LINDLEY (1986) | HENRY NEIL MALLON |
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| ABNER VERNON MCCALL (1995) | PETER MOLYNEAUX |
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| JAMES WOOTEN MCCLENDON (1972) | (1939) |
| L. F. MCCOLLUM (1996) | DAN MOODY (1966) |
| CHARLES TILFORD MCCORMICK | DAN MOODY JR. (2000) |
| (1964) | BERNICE MILBURN MOORE (1993) |
| IRELINE DEWITT MCCORMICK | FRED HOLMSLEY MOORE (1985) |

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| MAURICE THOMPSON MOORE | CHARLES WILLIAM RAMSDELL (1942) |
| TEMPLE HOUSTON MORROW | EDWARD RANDALL (1944) |
| JOHN D. MOSELEY (2009) | EDWARD RANDALL JR. (1970) |
| JAMES M. MOUDY (2004) | KATHARINE RISHER RANDALL (1991) |
| WILLIAM OWEN MURRAY (1973) | LAURA BALLINGER RANDALL (1955) |
| FRED MERRIAM NELSON | JO STEWART RANDEL (2002) |
| CHESTER WILLIAM NIMITZ (1965) | HARRY HUNTT RANSOM (1976) |
| PAT IRELAND NIXON (1965) | EMIL C. RASSMAN |
| MARY MOODY NORTHEN (1991) | FANNIE ELIZABETH RATCHFORD |
| JAMES RANKIN NORVELL (1969) | SAM RAYBURN (1961) |
| CHILTON O'BRIEN (1983) | JOHN SAYRES REDDITT (1972) |
| DENNIS O'CONNOR (1997) | HERBERT H. REYNOLDS (2007) |
| MACONDA BROWN O'CONNOR (2013) | LAWRENCE JOSEPH RHEA (1946) |
| CHARLES FRANCIS O'DONNELL (1948) | WILLIAM ALEXANDER RHEA (1941) |
| JOSEPH GRUNDY O'DONOHUE (1956) | JAMES OTTO RICHARDSON |
| LEVI ARTHUR OLAN (1984) | RUPERT NORVAL RICHARDSON (1987) |
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| JOHN ELZY OWENS (1951) | A.W. "DUB" RITER (2003) |
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| GLORIA HILL PAPE (2002) | CURTICE ROSSER |
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| ADLAI MCMILLAN PATE JR. (1988) | ELSPETH DAVIS ROSTOW (2007) |
| ANNA J. HARDWICK PENNYBACKER
(1939) | JOSEPH ROWE |
| HALLY BRYAN PERRY (1966) | JAMES EARL RUDDER (1969) |
| NELSON PHILLIPS (1966) | THOMAS J. RUSK |
| GEORGE WASHINGTON PIERCE (1966) | MCGRUDER ELLIS SADLER (1966) |
| EDMUND LLOYD PINCOFFS (1991) | JEFFERSON DAVIS SANDEFER (1940) |
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| GEORGE FRED POOL (1984) | EDWARD MUEGGE "BUCK" SCHIWETZ
(1985) |
| CHARLES SHIRLEY POTTS (1963) | VICTOR HUMBERT SCHOFFELMAYER
(1966) |
| HERMAN PAUL PRESSLER JR. (1996) | ARTHUR CARROLL SCOTT (1940) |
| CHARLES NELSON PROTHRO (2000) | ELMER SCOTT (1954) |
| HARRY MAYO PROVENCE (1996) | JOHN THADDEUS SCOTT (1955) |
| MAURICE EUGENE PURNELL | WOODROW BRADLEY SEALS (1991) |
| CHARLES PURYEAR (1940) | TOM SEALY (1992) |
| CLINTON SIMON QUIN (1956) | GEORGE DUBOSE SEARS (1974) |
| COOPER KIRBY RAGAN | WILLIAM G. SEARS (1997) |
| HOMER PRICE RAINEY (1985) | |

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- ELIAS HOWARD SELLARDS (1960)
 WILLIAM DEMPSEY SEYBOLD (2004)
 DUDLEY CRAWFORD SHARP
 ESTELLE BOUGHTON SHARP (1965)
 JAMES LEFTWICH SHEPHERD JR.
 (1964)
 MORRIS SHEPPARD (1941)
 JOHN BEN SHEPPERD (1989)
 STUART SHERAR (1969)
 PRESTON SHIRLEY (1991)
 ALLAN SHIVERS (1985)
 RALPH HENDERSON SHUFFLER (1975)
 RALPH HENDERSON SHUFFLER II
 (2002)
 D.J. SIBLEY (2005)
 JOHN DAVID SIMPSON JR.
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 ASHBEL SMITH
 FRANK CHESLEY SMITH SR. (1970)
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 HENRY NASH SMITH
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 HARRIET WINGFIELD SMITHER (1955)
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 HENRY GARDINER SYMONDS (1971)
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 JAMES U. TEAGUE (1996)
 ROBERT EWING THOMASON (1974)
 J. CLEO THOMPSON (1974)
 BASCOM N. TIMMONS (1987)
 LON TINKLE (1980)
 CHARLES RUDOLPH TIPS (1976)
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 MARGARET LYNN BATTS TOBIN (1994)
 VIRGIL W. TOPAZIO (1999)
 JOHN G. TOWER (1991)
 HENRY TRANTHAM (1961)
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 FRANK E. VANDIVER (2005)
 THOMAS WAYLAND VAUGHAN (1952)
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 LESLIE WAGGENER (1951)
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 (1988)
 EVERETT DONALD WALKER (1991)
 RUEL C. WALKER
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 ALONZO WASSON (1952)
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 ROYALL RICHARD WATKINS (1954)
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 HARRY BOYER WEISER (1950)

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 ELIZABETH HOWARD WEST (1948)
 CLARENCE RAY WHARTON (1941)
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 FRANK WILSON WOZENCRAFT (1967)
 WILLIAM EMBRY WRATHER (1963)
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