

# Thank You, USEPA!

Dr. John T. O'Connor, PE

Reflecting on the 47 years that you have served in protecting America's environment, it seems appropriate that we, your clients and beneficiaries, give thanks both for the foundation on which you were created and for the specific benefits you have conferred on all Americans.

You were born as a result of intense public angst over sewage-polluted waterways, threatened drinking water supplies, open landfills, oil spills, fish kills, acid rain, industrial waste residues, and the virtually unchecked ravaging of America's forests and streams following World War II. It took legislators more than a decade, but nationwide concerns ultimately culminated in the bipartisan National Environmental Policy Act (NEPA) of 1969, thanks largely to the efforts of Wisconsin Senator Gaylord Nelson, later the recipient of the National Medal of Honor in 1995.

As a result of NEPA, in 1970, (also the year of Senator Nelson's first 'Earth Day' when 20 million Americans rallied), you were formally created to defend our nation against those assaults that could significantly impair our nation's water, air, and land. You would also be called on to protect our endangered wildlife species and to guard the health of all Americans against the improper use and land disposal of toxic chemicals and hazardous materials.

In retrospect, it is remarkable to think that such protections were not already in place in a civilized, first-world, prosperous, mid-twentieth-century nation.

All grateful Americans, who recognize that we and our families now enjoy higher standards of living and health, thank you for the benefits you have bestowed to the nation.

## **So, what did USEPA accomplish over the past 47 years?**

Surprisingly, prior to USEPA, there were no enforceable U.S. drinking water standards.

Still, as the nation's first health-based limits on toxic contaminants (e.g., arsenic, cadmium, chromium, mercury, lead, ...) were promulgated, opposition to advanced treatment and regulation arose. The American Water Works Association and related

water utility groups cited cost concerns as the basis for opposing virtually every proposed drinking water standard. Electric utility management and many other industrial entities whose cavalier land use, atmospheric discharges, and waste disposal practices were brought into question followed suit. Just as self-righteous scofflaws who are unwilling to obey speed limits, fasten seat belts, don motorcycle helmets, pick up after pets, or pay taxes, those who transferred the costs of their environmental insults to their fellow citizens expressed outrage over-protective regulations.

### **Specifically, what did USEPA do for Missourians?**

#### *Drinking Water:*

Although Missouri has a Department of *Natural Resources* (MDNR was created in 1974 to “develop mineral, oil and gas resources in an environmentally safe manner”), its satellite ability to ensure drinking water quality and safety through inspection and regulation has traditionally been hampered by lack of financial resources, inadequate laboratory facilities, and, most significantly, by the constant threat of political reprisals from legislators whose recalcitrant constituencies have been cited or simply inconvenienced by efforts to ensure basic water sanitation and treatment compliance.

This became most dramatically evident when Missouri infamously entered the national waterworks literature as the state in which a large segment of the water consumers in two rural communities were hospitalized - some, even killed - owing to their unwillingness to disinfect their water supplies. (Cabool, 1989; Gideon, 1993). (These tragic Missouri episodes are detailed in *Microbial Quality of Water Supply in Distribution Systems*, Edwin E. Geldreich, CRC Press, Lewis Publishers, 1996 - pp. 377-392.)

Funding and oversight by USEPA, as well as water treatment plant operator training, subsequently helped insure, at least, the minimal safe treatment of the State’s drinking waters.

#### *Wastewater Treatment and Stream Protection:*

There is little doubt that tourism (for fishing, hunting) is a major contributor to Missouri’s economy. Absent USEPA funding for the construction of wastewater treatment facilities, it is almost certain that protection of Missouri’s rural Ozark streams would remain minimal. In addition to enabling development of waste treatment facilities in rural areas,

every major Missouri city has benefited from critical and generous USEPA subsidies for wastewater treatment and storm drainage control projects.

Despite these many subsidies, ingratitude toward USEPA persists. The City of Columbia, Boone County, and, indeed, the University of Missouri-Columbia teamed up to vigorously oppose USEPA-proposed storm water control measures even as they continued to pour still more concrete, thereby further exacerbating the impact of urban runoff on our local streams. Alternately, the City accepted and repeatedly enjoyed substantial subsidies for wastewater treatment system expansions - and even wetlands development.

#### *Water and Energy Use Reductions:*

Many beneficial USEPA programs are less evident, but of enormous economic impact. In your home, there is a good chance that you have a low-flow toilet, designed to save drinking water and generate less wastewater. These new devices also discharge less heated water from your home, saving each householder on energy costs. (Thanks to the continuous discharge of heated water from residences, wastewater plants rarely experience freezing in the winter.) Under whose initiatives were these low-flow toilets developed? Care to guess?

As a result of the emergence of passive water conserving devices (USEPA *Water Sense*), the City of Columbia, despite steady population growth and expansion, has not experienced an increase in annual water demand in the last decade. The result is that water and wastewater plant expansions have been avoided and major capital expenditures in treatment facilities foregone.

How about energy use? Do you have *Energy Star* kitchen, furnace, and air conditioner appliances? If so, thanks to USEPA, you may have contributed to another remarkable achievement. Columbia's annual electrical power use has also not increased in a decade. Are you beginning to see a benefit to sensible conservation design related to environmental regulation here?

We have just recently learned, that, in the current political climate, fuel efficiency standards will not make it to your local refueling station. Conservative politicians have been strongly warned that motor vehicle manufacturers, among other influential industry leaders, are against it. So, the administration has terminated efforts to achieve better fuel efficiencies.

But wouldn't you agree that improved fuel efficiency is basically a good idea, - even if only for your neighbors? (My modest electric vehicle is rated at approximately 114 mpg (city/highway equivalent) while my Prius checks in at 46 mpg. A neighbor's Silverado yields 15 mpg. Which behavior leads our nation toward energy self-sufficiency?)

#### *Chemicals and Water Contamination:*

*In 2012, Syngenta, manufacturer of atrazine, was the defendant in a class-action lawsuit concerning the levels of atrazine in human water supplies. Syngenta agreed to pay \$105 million to reimburse more than one thousand water systems for "the cost of filtering atrazine from drinking water". The company denied all wrongdoing. (Wikipedia).*

Litigation avoided: Before the loss of atrazine to drinking water sources was brought under control, major Missouri water utilities (e.g., St. Louis County Water) were preparing to bring suit for reparations in the event they were required to install costly additional treatment technology (granular activated carbon adsorbers) to reduce atrazine to safe levels in finished drinking water.

#### *Remember Dioxin? We kill horses, don't we?*

Dioxin is incidentally formed as a highly toxic by-product in the production of 2,4,5 trichlorophenol. Concentrated in the waste 'still bottoms' from this process, the chemical manufacturer had these dangerous residues shipped to a facility in Louisiana for incineration. That is, they did until the manufacturer found a cheaper solution that led to the waste being mixed with motor oil and transported to and spread over various areas throughout Missouri. The toxic blend was spread on soils, dirt roads, and in horse barns, nominally for dust control, until it was noted that horses, by the dozens, were dying.

As it pursued clean-up efforts, USEPA would later determine that there were a total of fourteen and, possibly, as many as forty-one contaminated sites in the state of Missouri.

One, now an abandoned ghost town, was Times Beach. The homes of 800 residents plus 30 businesses were purchased by the federal government so that the town could be evacuated and the structures demolished. USEPA then installed an incinerator at the Times Beach site that burned contaminated soils brought from throughout the State.

Missouri's misadventures with hazardous waste management had cost the nation over \$200 million.

There are many other direct benefits that states, local communities, and individual citizens have derived from USEPA programs. (Most of USEPA program grant funds actually go to state and local entities, often to support salaries for state agency regulators.) Some of the local work supported is in high profile remediation, such as those required after major oil spills or improper hazardous waste disposal, but many of USEPA's efforts might be considered humble, such as their *'clean bus'* and *'environmental justice'* programs. Taken together, USEPA programs have improved, protected and extended ordinary people's lives.

## **2017 - The Future of Environmental Protection**

Progress toward a safer, saner, healthier, and more environmentally compassionate society is clearly diminishing in our chaotic political landscape that now promises environmental deregulation as a means of supporting unrestrained economic growth.

### **Crippling the USEPA - We could have seen it coming.**

2005: President Bush proposed cutting the EPA's budget by almost a half-billion dollars, mostly from clean-water programs. He wanted to decrease spending on replacing aging water facilities by 83 percent.

2011: Former House Speaker Newt Gingrich proposed total elimination of the EPA.

2016: Candidate Donald Trump would *"scrap"* USEPA - or *"DEP, the Department of Environment."* He vowed to get rid of the EPA *"in almost every form,"* leaving only *"little tidbits"*.

Senator Ted Cruz has called USEPA a *"radical"* agency, adding *"I think states should press back using every tool they have available."* *"We've got to rein in a lawless executive that is abusing its power."*

*Senator James M. Inhofe, (R) Oklahoma, Chairman of the Committee on Environment and Public Works, denounced the (Clean Water Act) rule as a federal power grab.*

Marco Rubio vowed to scale back the Clean Water Act. *“Regulations in this country are out of control, especially the Employment Prevention Agency, the EPA.”*

*As of 2016, “... the \$100 million annual budget of the E.P.A.’s drinking water office has fallen 15 percent since 2006, and the office has lost more than a tenth of its staff. States are equally hard hit. In 2013, the Association of State Drinking Water Administrators said federal officials had slashed drinking-water grants, 17 states had cut drinking-water budgets by more than a fifth, and 27 had cut spending on full-time employees.”*

*2017 (March): President Trump’s administration plans to call for a 24% reduction in USEPA budget, laying off about 20% of the agency’s staff and targeting climate programs and those that impact the mining and drilling industries.*

*“The man he chose to lead the agency, former Oklahoma attorney general Scott Pruitt, sued it more than a dozen times in recent years, challenging its legal authority to regulate such things as mercury pollution, smog and carbon emissions from power plants”. (Washington Post, March 1, 2017)*

### **Slum or Gated Community?**

Most of us spend most of our time living, working, and playing in a circumscribed environment. Exiting a front door, for some, may entail walking into a lovely floral garden; for others, into a degraded urban landscape. The sights, sounds, smells, and dangers that confront us during our daily activities are, in part, a significant element of the value of our lives as measured by the quality and safety of the immediate environment surrounding us.

Whenever one casts a vote for a politician that promises to relieve industry of the onerous regulatory burdens placed on it by federal environmental and consumer protection agencies, such as USEPA, OSHA, FDA, CPSC, EEOC, NLRB, that voter is almost certainly valuing, or devaluing, their very own life.

An example of AWWA opposition to USEPA efforts to protect water consumers from lead leached from lead service lines as reported in the Michigan Governor's Flint Water Advisory Task Force report. (FWATF, March, 2016):

### **Water Utility Industry Intransigence and Political Opposition to USEPA Regulation**

**FWATF** *“Historically, water industry groups have maintained that removing lead from water and plumbing systems is not necessary and would involve significant difficulty and expense (see, for example, “Controlling Lead in Drinking Water,” Water Research Foundation, 2015). Notably, when EPA’s Lead and Copper Rule (LCR) was published in 1991, it required replacement of entire LSLs, and in 1994 the water industry sought in court to limit this requirement to only the publicly owned portions of service lines (40 F.3d 1266, AWWA vs. EPA, 1994). In response, EPA revised the LCR in 2000 to allow for partial service line replacement—a practice the CDC later maintained was associated with increases in blood lead levels (“Important Update: Lead-Based Water Lines,” Howard Frumkin, MD; CDC, May 2010). The water industry historically has focused on controlling lead exposure risks through use of chemical corrosion control methods and has offered a number of related studies (as compiled in “Lead and Copper Corrosion: An Overview of WRF Research,” Jonathan Cuppett, Water Research Foundation, updated January 2016). The American Water Works Association (AWWA) also has published communications guides on lead-in-water issues (see, for example, “Communicating About Lead Service Lines: A Guide for Water Systems Addressing Service Line Repair and Replacement,” AWWA, 2014; and “Strategies to Obtain Customer Acceptance of Complete Lead Service Line Replacement,” AWWA, 2005). Yet industry guidance has taken the position that managing lead-related risks associated with LSLs and plumbing fixtures on private property is largely the utility customers’ responsibility. Many water utilities have not informed customers proactively (if at all) about the presence of LSLs. As a result, customers generally have limited awareness of the potential need to take action to protect themselves from lead in drinking water.”*

*“Notwithstanding the water industry’s historical reluctance to advocate for full LSL replacements, the state should develop a funding mechanism and program to evaluate and replace LSLs statewide...”*

March 8, 2016 - Apparently chastened, AWWA offers a press release in response:

*“AWWA Board supports recommendation for complete removal of lead service lines.”*

# A Lesson Trump and the E.P.A. Should Heed

**WILLIAM D. RUCKELSHAUS** NYT MARCH 7, 2017

In March 1983, President Ronald Reagan asked me to return to Washington to run the Environmental Protection Agency. I had been the E.P.A.'s first administrator, from 1970 to 1973, and over the agency's first 10 years, it made enormous progress in bringing the country's worst pollution problems under control despite resistance from polluting industries and their lobbyists. A worried and outraged public had demanded action, and the government responded. Yet the agency and its central mission came under attack during the 1980 presidential campaign. The Clean Air Act was criticized as an obstacle to growth. The agency was seen as bloated, inefficient, exceeding its congressional mandates and costing jobs. The Reagan administration and its new administrator were going to fix that. [Sound familiar?](#)

The E.P.A. I returned to in the spring of 1983, some 28 months into President Reagan's first term, was dispirited and in turmoil. Its administrator, Anne M. Gorsuch, had been cited for contempt of Congress. Its budget had been reduced by almost 25 percent, with more cuts promised. Staffing had been slashed.

There were internal conflicts, resignations of key officials, complaints of documents being destroyed and reports of secret meetings with officials from companies under investigation by the agency. One political appointee, Rita Lavelle, was facing accusations of lying to Congress, [for which she would later be convicted](#). And voters were taking notice. President Reagan discovered that government backsliding on protecting Americans' health and the environment would not be tolerated by an awakened, angry and energized public.

While I awaited Senate confirmation hearings that April, several chemical industry chief executives asked to meet with me. I expected to hear complaints that over-regulation was stifling economic growth, just as I had heard 10 years earlier.

Instead, I was stunned by their message. The public, they told me, was spooked about the turmoil at E.P.A. Americans didn't believe anything was being done to protect their health and the environment. They didn't believe the E.P.A., and they didn't believe the chemical industry. These executives had concluded that they needed a confident, fair and independent E.P.A. They knew that an environmental agency trusted by the public to do its job gave their businesses a public license to operate.

A strong and credible regulatory regime is essential to the smooth functioning of our economy. Unless people believe their health and the environment are being safeguarded, they will withdraw their permission for companies to do business. The chemical industry executives who

came in to see me that day felt this loss of public support and were asking me to reassure Americans that the government would do its job to protect them.

Our collective freedom and well-being depends on a set of restraints that govern society and how it operates. Those restraints need to be clear and effective. They were not in 1983.

The E.P.A.'s new administrator, Scott Pruitt, comes to his job with this historical backdrop. Are there changes that can be made to improve how the agency operates? Certainly. But those changes can never be seen as undercutting or abandoning the E.P.A.'s basic mission. That was the mistake made during the early Reagan years and why I was asked to return.

One of the factors leading to the creation of E.P.A. was the recognition that without a set of federal standards to protect public health from environmental pollution, states would continue to compete for industrial development by taking short cuts on environmental protection. The laws that the E.P.A. administers create a strong federal-state partnership that has worked well for over 40 years. The federal government sets the standards and the states enforce them, with the E.P.A. stepping in only if the states default on their responsibilities.

Budget cuts that hurt programs that states now have in place to meet those duties run the risk of returning us to a time when some states offered industries a free lunch, creating havens for polluters. This could leave states with strong environmental programs supported by the public at a competitive disadvantage compared to states with weak programs. In other words, it could lead to a race to the bottom.

Voters may have supported Donald J. Trump believing his campaign rhetoric about the E.P.A. But they don't want their kids choking on polluted air or drinking tainted water any more than Hillary Clinton voters, and as soon as the agency stops doing its job, they're going to be up in arms.

To me, the E.P.A. represents one of the clearest examples of our political system listening and responding to the American people. The public will tolerate changes that allow the agency to meet its mandated goals more efficiently and effectively. They will not tolerate changes that threaten their health or the precious environment.

These are the lessons President Reagan learned in 1983. We would all do well to heed them.

**William D. Ruckelshaus was the administrator of the Environmental Protection Agency under Presidents Richard M. Nixon and Ronald Reagan.**

Response from Ron Powell, retired Director of Water, Columbia (MO) Water and Light:

*Thanks for sending this John. I have been thinking about this subject since the recent announcement the the EPA would be essentially defunded.*

*I worked for the Missouri Division of Health water program(Now part of MoDNR) and then with water, electric and railroad utilities I have crossed paths with the majority of the EPA regulations and quite a few regulators. Being a fisherman, I also am extremely interested in protecting water quality.*

*I can relate to you some of my personal experience related to EPA activity.*

*In my high school days, friends and I occasionally would sneak into the city dump on late summer evenings. We brought our .22 rifles to shoot bottles, cans and rats. Smelly, slimy water ran from the dump into a small stream, a tributary of the Salt River. As a youngster, I spent many summer days at my grandparents often wandering off to the Salt River to swim and fish. It was a sobering thought to learn later that the dump runoff eventually flowed to my swimming hole.*

*After I enrolled at MU I occasionally had a reason to haul a load of trash to the old Columbia city dump. After graduation, I worked at the MoDNR and learned that people there in the solid waste program referred to the Columbia dump not as a landfill but a "lakefill" because the loads of waste were dumped into old abandoned strip pits filled with acidic water.*

*I became interested in Environmental Engineering while in school. I read about the Cuyahoga River catching on fire. I saw the photos of massive fish kills in Lake Erie and elsewhere. I wanted to work in a field that would help with these problems.*

*While working at MoDNR, our staff conducted a sanitary survey of the Lake of the Ozarks. We identified hundreds of failing sewage systems and straight sewage effluent pipes that emptied into the lake. The study later led to a citizens group forming and successfully getting grants from the EPA to build a state of the art central sewage treatment system that has dramatically improved the water quality in the lake.*

*Also, while at the MoDNR our staff added several hundred public water systems to the list of regulated systems that were required to submit water samples regularly to the Missouri Division of Health Lab. These water systems consisted of mobile home parks,*

*subdivisions, and resorts with private water supply systems that had not been previously been included in the public water supply testing program. More than a few of these water systems were found to be unsafe and either had to rebuild or connect to a approved system that complied with the U.S. Public Health Service drinking water regulatlions. (Pre EPA)*

*Later, in my 32 years with the Columbia Water and Light Utility, nearly every activity or ours and other utilities around the country was affected by EPA.*

*The safe Drinking Water Act guided all water system activities.*

*The Clean Water Act limited Water Plant lime sludge disposal and Power Plant wastewater disposal.*

*Leaking Underground Storage Tanks were replaced with better designed equipment.*

*PCBs in transformers and capacitors were eliminated from our system.*

*Particulate emissions were virtually eliminated from the power plant with the installation of a baghouse filter.*

*Sulfur emissions in Columbia were dramatically lowered by burning low sulfur coal. Sulfur and acid rain were reduced nationwide by an EPA regulation that incrementally lowered allowable sulfur emissions over time. In Columbia we were initially allowed a base amount of sulfur emissions. This amount were called our "allowance" The amount of allowances nationwide were lowered each year but during that time utilities and industry could buy and sell allowances on a market system. Columbia was able to use fewer allowances than our maximum and we sold the excess to other places who needed more. Over time, utilities were able to change generating methods and install sulfur capture systems. Huge reductions in sulfur were achieved under this "cap an trade" system in relatively short time without a sudden disruption to the entire economy dependent on power supply.*

*Such a system is proposed by EPA to reduce carbon dioxide emissions but our nation hasn't the political will to proceed.*

*Although we have a way to go, I have witnessed safer drinking water, cleaner air, cleaner streams and the end of rat hunting in city dumps. Sulfuric acid rain is rare and Lake Erie is a world class walleye fishery.*

*You will always hear stories of overzealous regulators, EPA contractors who are paid according to fines they access. I have some tales of my own. But overall we are a better country because of the EPA.*

*The above is only from my own personal experience and observations. I appreciate and agree with your analysis that because of the EPA, "our families enjoy a higher standard of living and health."*

*I also agree that those wanting to dismantle government environmental protections can and should be called "self-righteous scofflaws" I intend to borrow that phrase for future use.*

*I noticed a couple of other things as I read your comments:*

*You wrote Marcos Rubio. I think his name is Marco. Or as Trump calls him, Little Marco.*

*And last: Although the USEPA Drinking Water Regs didn't exist until 1974, Missouri's Division of Health, administered a very good public water supply regulatory program under the leadership of Robert S. Miller. Water quality limits were set by the U.S. Public Health Service and the State approved plans for design of water systems along with field inspection and water sampling. Of course, after the Safe Drinking Water Act was effective, and MoDNR was created, the program was improved and expanded. But then and now, State funding always places limits on what can be done.*

*My apologies for allowing this to go on so long,*

*Ron Powell*