

MODERN MEGADROUGHT: POPULATION, DENIAL AND CRISIS IN THE AMERICAN SOUTHWEST

An NPG Forum Paper
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In the 1990s and early 2000s, as a correspondent for a major New Mexico newspaper, I reported the first warnings by scientists, including those at Los Alamos National Laboratory, about the vulnerabilities the American Southwest – part of the Mojave, Chihuahuan and Sonoran deserts – will face if the region returns, even without climate change, to far-drier norms.

After a prolonged wet spell, the “modern megadrought” hit the Southwest in 2000 and 2001, a lingering, uncompromising, monstrous thing, like no drought in centuries.

It ignited wildfires of unbelievable size and intensity. It triggered die-offs from insects and disease in millions of drought-weakened trees. It emptied reservoirs – in deserts and in mountains. It transformed once-green, productive places, where my family has lived since 1862. (My great-great grandparents’ fields, at the base of Colorado’s Pike’s Peak, helped inspire the “amber waves of grain” reference in Katharine Lee Bates’ *America the Beautiful*,” though today – a defining metaphor of our times – those fields are paved over or subdivided.)

Los Alamos scientists often say, “To solve a problem, you must be absolutely certain that you understand the problem.”

In the United States today, we seem not to want to fully understand environmental or resource-depletion problems, because to do so doesn’t jive with our political or economic agendas. The theme – driven by a now-deregulated media no longer adhering to journalistic standards¹ – is that there is nothing we can do about drought, meaning we should all just hunker down and hope plug-in cars will eventually solve climate change and, by extension, drought. And yet:

1. The Southwest’s Colorado River system, essential to 45 million people, could collapse as

early as 2025, which might set into motion what some say would be a “doomsday scenario.”

2. Every Southwest aquifer is now depleted and cannot make up surface-water shortages.²
3. The Southwest needs, but is not getting, science-based, strong leadership to address all causes of the crisis, **including population**.
4. The region’s huge agricultural industry, the source of over 90 percent of winter produce,³ might collapse even as ours, the 3rd most populated nation behind only China and India, heads toward 400 million people by 2067 – perhaps millions more than that if Title 42 is revoked.⁴
5. Population growth worsens every resource problem: a Mississippi River so low that barges can’t run, floods ravaging Kentucky, hurricanes wiping out Florida communities, tornadoes sweeping across plains now rife with development or drought searing the Southwest and, incidentally, the Northwest, where wildfires raged during 2022. Of note, recent much-ballyhooed California rains have only mildly alleviated drought in central California, while the rest of the state remains in severe drought, as does most of the Colorado River drainage, while an unprecedented winter wildfire burned briefly in the high mountains of northern New Mexico in January 2023.

We need leaders, urgently, who understand, absolutely, that drought equals the amount of water divided by the number of people (and other “interests,” like wildlife) who need water, and that the higher the population, the greater the problem.

THE “WINTER WITHOUT SNOW”

The worst 20-plus-year drought in 800 years began with the “winter without snow.”⁵ No snow fell in most of the Colorado, Utah, New Mexico, Arizona and Wyoming high country during the winter of 2000-2001. That December, I stood at over 10,000 feet above sea level along U.S. Highway 550 in southwestern Colorado’s San Juan Mountains, an area that should have had 20 to 30 feet of snow but only a layer of dust-covered frost blanketed the ground.

Tree-ring studies, including those of logs used in buildings over a thousand years ago by indigenous people, provide a detailed precipitation record. (Growth rings far apart, reflect heavy moisture; close together, drought.) Studies defining prolonged weather trends, not just drought episodes, found:

- 275 C.E. to 525 C.E. saw over **200 years** below even the paltry norms of 14.5 inches of precipitation.
- From 650 C.E. to about 1025 C.E. only three brief periods of relatively normal precipitation occurred during a nearly 400-year drought.
- 1125 C.E. to about 1175 C.E. saw a **50-year** drought.
- 1250 C.E. to about 1300 C.E. saw a **50-year** drought.
- 1350 C.E. to about 1625 C.E. – nearly **200 years** – saw below-normal precipitation, including two roughly 30-year extreme-drought episodes.
- Of far greater significance – because it caused dangerous misconceptions about precipitation in the region – 1950 to 1995, despite a brief drought in the 1950s, was **the wettest time in the Southwest since the time of Christ**, with moisture 35 percent above norms. But then, drought hit.⁶

My granddaughter, Cora Rose – of the 7th generation

of my family in the Southwest – was born in May 2022 as dust-laden winds raked our Jemez Mountains town of Los Alamos – the Atomic City – where 20,000 people live on the volcanic Pajarito Plateau, as it towers 1,500 feet above the Rio Grande. The winds toppled trees, wilted spring blossoms and fanned a wildfire, in the Sangre de Cristo Mountains across the Rio Grande Valley from Los Alamos, into a 90-mile-long monster so huge that it burned for weeks and cost four lives.

Based on climate history, this drought might be ongoing as Cora’s grandchildren grow old, assuming anyone still lives in such a drought-seared Southwest!

THE GREAT ABANDONMENT

When settlers arrived in the Sonoran desert in the 1870s, near where the Salt River flows southwest into central and southern Arizona, they realized they were building on the ruins of some long-ago civilization and named their village, Phoenix, after the bird of Egyptian mythology that arose from the ashes of another.⁷ (The Phoenix metropolitan area today has a population of 5 million – despite drought – up from “only” 4 million in 2010.)

Phoenix was built on the ruins of the Hohokam civilization, that originated in Mexico and moved north 2,000 years ago. Theirs evolved into an advanced agricultural society that spread throughout the Phoenix and Tucson basins. The Hohokam – in the language of today’s Akimel O’otham (Pima) people, meaning “all used up” – diverted water from the Salt River as it flowed off the pine-carpeted Mogollon Rim of central Arizona, down into the desert around today’s Theodore Roosevelt Reservoir near Globe, Arizona. Using the most sophisticated irrigation system north of Peru in prehistory, they irrigated over 110,000 acres of the sun-blistered Arizona desert. Yet, as their population increased so too did their vulnerability.⁸

Ultimately, they were forced to migrate – part of what we call the Great Abandonment – not one concerted movement of everyone out of the Southwest at once, but separate abandonments as whichever civilization center could no longer endure. The Great Abandonment eventually brought a wholesale emptying of much of the region of long-present populations. The Hohokam abandonment, likely back into Mexico, happened during the 1350-to-1625 drought.⁹

Meanwhile, the Anasazi – ancestors of the modern Pueblo people – abandoned their great trade and religious center at Chaco Canyon, New Mexico, during the 1125-to-1175 drought. Those we know today as the Mesa Verde Anasazi, who lived on the Mesa Verde and, many thousands more of them, in the nearby Montezuma Valley, abandoned their cliff dwellings and huge pueblos during the 1250-to-1300 drought. They moved southward to settle near dependable water sources in or near New Mexico’s Rio Grande Valley, where today 19 “living” pueblos continue the Anasazi culture. One, San Ildefonso, at the base of Los Alamos’ Pajarito Plateau, has a Chaco-like, above-ground great kiva, or religious structure. Other Anasazi (the Hopi), moved to the spring-blessed, but sun-blistered mesas of northern Arizona.¹⁰

The Mogollon people lived along Arizona’s Mogollon Rim and throughout New Mexico’s evergreen-covered Gila Mountains, south into Texas and Mexico, but were gone from the Southwest by 1450.¹¹

PAPER WATER VERSUS REAL WATER

The Colorado River flows southwest from the Wyoming and Colorado high country – cutting the great, gaping Grand and other canyons of Colorado, Arizona and Utah – 1,450 miles to the Gulf of California. It is one of the most dammed – some say “damned” – and diverted rivers in the world, today functioning more as a giant plumbing system than as a river.

For decades, massive diversion projects have taken Colorado River water into Phoenix, Tucson, Los Angeles, San Diego, Salt Lake City and Las Vegas – towns that morphed into megacities – while transmountain diversions transported its water under or through the Rocky Mountains into the Atlantic watershed and Fort Collins, Denver, Boulder, Greeley, Colorado Springs, Pueblo (and plains-area farmlands) and into Santa Fe and Albuquerque.

In the 1990s, the massive Central Arizona Project (CAP) began diverting 1.4 million acre-feet (m.a.f.) of the Colorado River (an acre-foot covers an acre of ground one-foot deep) into south, central Arizona via 336 miles of tunnels, pumping stations and reservoirs. A recent CAP promotional piece boasted that the CAP is what allowed Arizona to “nearly double its population in the roughly 30 years since ... 1993,” something likely

unwise in megadrought.¹²

Another diversion carries 3.1 m.a.f. of water onto 500,000 acres of the Imperial Valley and 131,000 acres of the Palo Verde Valley in southern California, while 180,000 acres of southwestern Arizona’s Yuma Valley are watered directly from the Colorado.

In August 2022, the Southwest’s other iconic river, the Atlantic-bound Rio Grande – which flows from southern Colorado south to the Gulf of Mexico – ran dry at Albuquerque. Media reported on a dry Rio. Media ignored why: The Rio, long augmented by Colorado River water diverted under the Rocky Mountains, has seen, in drought, no diversions since 2011, meaning reservoirs are finally giving out, as is their hydropower that serves Los Alamos and its laboratory.

The Southwest’s 2022 summer monsoon season – a brief, wonderful respite from drought – was nearly unprecedented. Yet reservoir levels barely budged as drought-parched soils soaked up the deluges. Experts warn that, with climate change, drought is transitioning into general “aridification,” meaning far above-average precipitation might bring only average or below-average runoffs.



Source: https://mediad.publicbroadcasting.net/p/kunc/files/styles/x_large/public/201806/1-USBR.jpeg

THE COLORADO RIVER COMPACT: 100 YEARS OLD! 100-YEARS WRONG!

The Colorado River was “allocated,” or legally divided at a meeting of Colorado River Basin states near Santa Fe in 1922. An earlier attempt to divide the river had failed, but with then-Commerce Secretary Herbert Hoover directing negotiations, the Colorado River Compact, just three-pages long and known in the region today as simply “the Compact,” was finally signed on November 24, 1922. (The U.S. population – the Southwest was only about 5 million – was about 110 million.)

The Compact allocated – based on incorrect river-flow estimates – 7.5 m.a.f. to the Upper Basin states of Colorado, Wyoming, Utah and New Mexico and 7.5 m.a.f. to the Lower Basin states of Arizona, Nevada, and California. (Dividing the drainage into lower- and upper-basin states was Hoover’s idea.) In 1944, Mexico was allocated 1.5 m.a.f. Or, 16.5 m.a.f. were allocated from a river usually carrying only 15.3 m.a.f.!

California – already using Colorado River water and, therefore, with “senior” or “priority” water rights under complicated “first in use” ownership provisions of Western water law – was allocated a whopping 4.40 m.a.f., Arizona, 2.8 m.a.f., Nevada, with a then-small population, .30 m.a.f. Upper Basin Colorado was allocated 3.86 m.a.f., Utah 1.71 m.a.f., Wyoming 1.04 m.a.f. and New Mexico, .84 m.a.f. So, the Compact also set the stage for endless infighting based on perceptions (largely accurate) that some states – especially California, in recent years exceeding even that allocation – were getting more than their share.^{13,14}

Also, there is an inability, or unwillingness, by some to grasp that, just because water rights exist on paper does not mean that, in drought, real water exists in rivers. One Colorado water official recently said the Upper Basin states “live within the means of the river every day.” No, they live within their legal allocations, not within their rightful **percentage** of the river in drought.¹⁵

In the 1960s, as the Southwest grew – California alone had 20 million residents, the U.S. about 200 million – more huge reservoirs were built: Flaming Gorge in Wyoming and Utah; Blue Mesa in Colorado; Navajo along the Colorado-New Mexico border, partly to irrigate a 110,000 acres desert agricultural project

owned by the Navajo Nation; and 120-mile-long Lake Powell, in Arizona and Utah, the second largest reservoir in North America behind only Lake Mead. Lake Powell took 20 years to fill, during the wet years, and was loathed by many for flooding some of the most spectacular geology on Earth. By 1995, Lake Powell was 95-percent full, and Lake Mead was 100-percent full.

Then, drought hit and Colorado River flows fell to 12.3 m.a.f. – or less:

- 2001, after the winter without snow, saw flows of only 3.8 m.a.f., continuing through 2002-2003, with flows averaging 5.3 m.a.f.
- Future flows from 2036 to 2060 might be as low as 7 m.a.f., though some say 9 m.a.f.¹⁶
- Flows in “water year” 2023, beginning in October 2022, will likely be 24-percent of normal, or 3 m.a.f. to 4 m.a.f.¹⁷

Yet, U.S. Bureau of Reclamation (USBR) data shows that the Basin states, during better years – rather than let reservoirs recharge – overused the Colorado by 1.2 m.a.f., but (stating the obvious) it was the USBR, which “manages” the river, that allowed that to happen!¹⁸

In June 2001, as enormous Sikorsky helicopters churned overhead fighting Colorado’s 72,000-acre Missionary Ridge Fire, I stood in the dry lakebed of Vallecito Lake, about 30-miles northeast of my hometown of Durango, Colorado. What should have been a roughly 4-mile-wide, 12-mile-long mountain reservoir was nothing but blowing dust and mudflats.

A few days before, driven on high winds through the drought-equivalent of kiln-dried timber, the Missionary Ridge Fire exploded against the lake’s western shore at night – when fire should instead “lay down” – and as terrified residents and wildlife hovered in the dry lakebed for safety, it blew over the lakebed to burn another 50 miles eastward. All that remained of Vallecito, in drought, was a pond near the dam, so small it appeared the giant helicopters’ water buckets might dip it dry.

What happened at Vallecito (in terms of drought), as two subsequent dry winters followed, happened to most of the 200 reservoirs along the Colorado’s drainage, as “50-years of water in storage” – the region’s “water

savings account” – mostly disappeared.¹⁹

THE MIGHTY (EMPTY) COLORADO

A 2012 USBR study predicted “droughts lasting 5 years or more, 50 percent of the time over the next 50 years.” The USBR, an ever-optimistic agency, didn’t mention the possibility of one **unending** drought.

It also predicted that 76.5 million people (double that of 2012) would live in the region by 2060, shifting the highest water consumption from agriculture to cities.²⁰ They did not define where the nation will get its produce, nor mention that, in 2008, the Scripps Institute of Oceanography – calling population a critical variable – warned that Lake Mead “might run dry in the early 2020s.”²¹

But in 2022, the USBR’s long-standing “plenty of water” optimism began to fade.

In 2021, the Basin states finally managed to forge a compromise of sorts. Upper Basin states would allow an additional 500,000 acre-feet of water to flow from Flaming Gorge Reservoir to infuse into drought-stressed Lake Powell. Lower Basin states would leave 480,000 acre-feet in Lake Powell.

But in June 2022, USBR commissioner Camille Calimlim Touton sent shockwaves through the region when she ordered the Basin states, within 60 days, to find ways to cut usage by **an additional 2 m.a.f.** to 4 m.a.f. – as one reporter stated, merely “to prop up Lake Powell” through 2023.²² Lacking that, Touton warned, power generation at lakes Powell and Mead will cease (further stressing a maxed-out grid) and water would no longer flow from them. Lacking state action, she warned, “The federal government is prepared to do it for them,” though she did not clarify what the federal government will do about immigration exploding population, or why it is that the states should be able to resolve long-ongoing disputes about the Colorado absent federal leadership.

The deadline was not met, nor did the feds act.

Instead, everyone seems hunkered down hoping for a 2022-2023 winter like one in 1982-1983 (during wet years), that brought 70-foot accumulations of water-saturated spring snow. So much runoff hit so fast that the USBR affixed plywood to the top of Glen Canyon

Dam’s floodgates, in effect, increasing Lake Powell’s storage capacity. Yet, they had to release so much water through the two spillways so fast that the water ate into the sandstone walls supporting the dam, nearly taking out the dam.²³

Yet, today, it would take several such years, consecutively, to recharge reservoirs.

After Touton’s ultimatum, an executive of the Southern Nevada Water Authority – calling the situation on the Colorado “a slow-moving train wreck” – scolded the Basin states for their lack of action and warned of a “catastrophic collapse on the Colorado.” He also boasted that Las Vegas had, through conservation, cut consumption even as it increased population by 750,000.

“This year alone,” he wrote, “We will leave 65,000 acre-feet of water in Lake Mead – water we are entitled to consume,” though that 65,000 acre-feet looks suspiciously like “paper water” in a nearly empty Lake Mead, while 750,000 more people in sun-blistered southern Nevada – the hottest, driest part of the Mohave Desert – in megadrought is beyond the pale.²⁴

In 2021, to keep Lake Mead from falling below a trigger point for the first-ever federal water emergency, the USBR increased flows from upstream Lake Powell. Still, Lake Mead hit the trigger in August 2021, bringing cuts to Arizona of 523,000 acre-feet; Nevada, 21,000 acre-feet and Mexico, 80,000 acre-feet.

In 2022, the USBR increased releases from Upper Basin Blue Mesa, Flaming Gorge and Navajo reservoirs, hoping to infuse enough water into Lake Powell for it to keep nursing Lake Mead along. Instead, Lake Powell, at only 25-percent full, is now in the greater crisis, while Lake Mead, at 28-percent full, hit the next trigger in August 2022, meaning Arizona will lose another 80,000 acre-feet, Nevada, another 4,000 acre-feet, and Mexico, another 24,000 acre-feet.²⁵ U.S. Sen. Mark Kelly (D.-AZ) warned that if Arizona – with highly vulnerable “junior” water rights – continues to lose water, that will “wipe out” deliveries to Phoenix and Tucson.²⁶

The bottom 20 percent of reservoirs – mud and water below outlets – is unusable. Lake Mead was modified, by Nevada, in the 2010s, to allow Las Vegas to draw water to the last bitter drop. Engineers are studying a far more dangerous problem at Lake Powell. But now,

Upper Basin Blue Mesa, in late 2022, was 33 percent full, its lowest ever; Navajo, 52-percent; and Flaming Gorge, in December 2022, was 70-percent full.^{27,28,29}

Yet, as media focused endlessly on long-dead bodies turning up at a shrinking Lake Mead, they gave little coverage when the Southern Nevada Water Authority warned that the region is, "...a step closer to the catastrophic collapse of the (Colorado River) system,"³⁰ nor when the Water for Arizona Coalition stakeholders warned, "With one more dry winter, there may not be enough water in storage to stave off a major water-system failure for Arizona and the Southwest,"³¹ nor when the United Nations called the Colorado "one of the starkest cases of a major water source that is being ravaged" by climate change and drought.³²

One grim possibility is that if Lake Powell's level falls another 38 feet, or below "minimum power pool" – perhaps by July 2023 – water will no longer flow into the dam's hydroelectric plant and power production for 4.5 million people will cease, as will production used to reduce brownouts in a power-strapped region.

Worse, Glen Canyon Dam – not designed for drought – has spillways far above current water levels. If levels fall another 120 feet, the reservoir will be at "dead pool" and "a complete doomsday scenario" might begin. Only four dam-bottom ducts – built as temporary bypasses for water during dam construction – will remain, as once-iconic Glen Canyon Dam morphs into an inglorious chunk of concrete blocking flows, however feeble, downstream. In December 2022, Lake Powell was just 156 feet above dead pool and that in V-shaped Glen Canyon, with diminished ability to store water near canyon bottom. Despite a USBR increasingly under fire for underestimating the drought's duration and severity and for not planning for worst-case scenarios, they seem to be doing that again by saying there is "zero chance" of dead pool through 2027."³³

Yet, others, disagreeing with that optimism, say the tubes must be modified, quickly, to allow flows through the dam; others say the dam, once considered an engineering miracle, should be demolished!³⁴

ALICE'S ADVENTURES IN A VERY DRY WONDERLAND

The Southwest's and the federal government's

response to drought has been too little, too late, seemingly interwoven with outright denial. Actions seem focused mostly on maintaining a long-gone status quo or rushing to react to the next long-expected, but unprepared for, crisis. There seems no comprehension of the broad draconian actions required or that the Southwest cannot exist in the future as it has in the past.

As a University of Colorado fellow said, speed is needed. "It's just not clear that the river will allow the current pace of discussions to continue without devastating consequences."³⁵

Yet – Alice's adventure – the Colorado River Users Association met in December 2022. Though they engaged in a lot of handwringing, "limiting population growth was not discussed," because, according to a CAP manager, market forces, not government, should dictate who moves where.³⁶

As to "too little, too late," the USBR is being increasingly criticized for being overly optimistic about what might happen, when it might happen, a lack of preparedness for long-expected crises and a lack of leadership.

The USBR should have, in 2001 – when "50 years of water in storage" disappeared – issued 2022's ultimatum, as it should have in 2008 when the Scripps Institute warned that Lake Mead might run dry. It should, today, have a "default plan" ready to define (A.) what its own no-holds-barred actions will be within specific timeframes and, (B.) (if for no other reason than to underline the urgency of the situation), make clear that reservoirs in the future will be operated only so as to prevent further depletions. (Despite years of drought, the USBR is only now doing feasibility studies to determine if Glen Canyon Dam can be modified.)

Media have mostly not – under the required "jaundiced eye" of journalism – scrutinized how well the USBR or others are handling the crisis. Nor have they acknowledged that two major news stories—border policy and megadrought—are irrefutably related. Media before deregulation—when news was more competitive and honest than today—would have asked, "Is so much growth—during a megadrought—wise?"

Rather than tell the Basin States to just find solutions, the USBR should lead the way. The challenge

is far greater – far less water, far more people – than in Herbert Hoover’s day. A Hoover equivalent is needed – former Interior Secretary and Arizona governor Bruce Babbitt comes to mind – to lead the Basin states in crafting a river plan.

There are, increasingly, calls to redraft the 100-year-old compact. That fixed allotments – **millions of acre-feet of non-existent water**, rather than sliding-scale allotments based on **real water in the river** – are still the “law of the river,” is right out of the Mad Hatter’s tea party.

Agriculture in the Southwest uses over 70 percent of the Colorado and should have, long ago, been converted to laser-leveled fields, drip irrigation and computer-managed irrigation. Wasteful sprinklers and flood irrigation have no place in a desert. Agriculture in the Imperial, Palo Verde and Yuma valleys of the Sonoran Desert, areas often below sea level where temperatures exceed 110 degrees and where only 3.5 inches of rain falls annually, should never have happened. But now, the world’s 3rd most populated nation requires their crops. Congress – also not providing sufficient leadership – has eagerly funded more water projects in a drought-parched Southwest while doing little to fund conservation technologies or to finance the removal of lands from agricultural production. Congress should have, long ago, banned the “export of water” in the form of alfalfa sold to China, Japan and Saudi Arabia.³⁷

Meanwhile, the federal government should warn the Southwest that, in the worst drought in centuries, growth must stop. Oh, but wait! It’s government policies that drive that growth!

If the Colorado River system collapses – meaning lakes Mead and Powell effectively empty, drastically reduced upstream reserves, the Colorado at half normal flows and its tributaries equally depleted (**largely where we are now**) – things could get nasty, quickly.

As the *Washington Post* understatedly said, “River experts say the current (Touton) ultimatum from the federal government is the start of a period of unprecedented drama along the river,”³⁸ or as a Utah official warned, we’re entering “the most tumultuous time” in 100-years.³⁹ More, if a plan isn’t forged, soon,

a federal judge could intervene to administer the river.

My question: Will the Colorado River Compact or USBR management even survive if, in drought-driven desperation, states refuse to let water leave reservoirs within their borders, as some Upper Basin Native Americans – along the Colorado and its tributary headwaters – say might happen?

Conservation on a scale never imagined must happen, although not – as in the past – the water conserved just used to fuel more growth!

Frontier-era Western water law must be brought into the 21st century! I know of desert golf courses – in one development, two golf courses – heavily irrigated solely to put water to “beneficial use” under archaic “use it or lose it” provisions of Western water law, one of the region’s leading disincentives to conserve.

If drought continues – as it likely will – there will be staggering economic losses to agriculture, tourism, recreation and construction. There will be likely economic collapses as Southwest cities can no longer base their economies on the land development and construction industries.

As a Stanford University water expert said, “Water is the bleeding edge for climate adaptation, where people and economies are going to be hurt.”⁴⁰ But, considering a “possibly civilization-ending” drought, economic losses might be the least of it!⁴¹

DOWN THE RABBIT HOLE...

Though a shrinking Great Salt Lake sends arsenic-and-salt-laden dust over Salt Lake City, it remains one of the nation’s fastest growing cities. Utah is still demanding another Colorado River diversion to fuel growth around the nation’s fastest growing municipality, St. George. Denver, citing water rights it “is not getting,” wants another diversion. A project under construction will divert 4,000 additional acre-feet from a faltering Rio Grande, while Albuquerque is building nearly 3,000 new homes, even as the only other water source, an aquifer, is being depleted too.

Some say, “just desalt the oceans.” Some projects are being built, but desalination requires huge amounts of energy in an energy-strapped region and desalted

water is expensive. Cities most needing water are thousands of feet above sea level and hundreds of miles inland, while such projects require lead times the Southwest likely doesn't have. (Arizona is in discussions about a project that, if built, will use green energy to desalt Gulf of California water – eventually.)⁴²

Some say reuse sewage, the glorious state where we drink our own processed wastes, with the tragedy being that sewage returned to rivers is often the only water remaining for wildlife. Some say divert water from the Mississippi or Columbia rivers, never mind drought there too. Others say “just” dry up lawns and agriculture, “solutions” – at the risk of mixing metaphors – dependent upon goring someone else's ox or what the late population activist Dr. Al Bartlett called, “Disney's First Law: Wishing will make it so!”

VOICES OF REASON

“This seems to be some level of insanity to me that you continue to allow unabated growth at the same time you're dealing with this unprecedented drought,” said Don Fawson, president of a water users' association in St. George, Utah.⁴³

Clinton's Council on Sustainable Development advised 30 years ago that immigration should not fuel growth, especially critical to the rapidly growing Southwest. Yet, post-1965, the U.S. added – predominately from immigration – nearly 30 million people a decade, though 2010 to 2020 produced an increase of “only” 22 million, something that is causing growth advocates to scream that population is “flatlining.”⁴⁴ But it does nothing of the sort. The **rate of increase has merely slowed**, while the current “low” .5-percent growth rate could, nonetheless, double our population in 95 years! Clearly, some would have us believe that we “need” an unending population explosion.

In October 2006, the U.S. became the **300 million** that the Nixon-era Rockefeller Commission's “Population and the American Future” report warned against! Yet – just 16 years later – we are, based on United Nations data (which I believe is the most accurate data) – at over **339 million**, though the U.S. Census says we are at **334 million** – itself an enormous 16-year increase.⁴⁵

Nothing – nada, zip – has more shaped our nation or our lives (nor been more ignored for doing so) – socially, environmentally, economically – than explosive post-1965 immigration-driven population growth. Why haven't – as many believe federal law requires – National Environmental Policy Act studies been done, particularly of border-policy impacts on the Southwest? A federal judge ruled in August 2022 that a lawsuit brought by the Massachusetts Coalition for Immigration Reform can proceed, in part, to test that question.⁴⁶

The U.S. Census Bureau's “population clock” shows a net gain of one person every 41 seconds, but U.N. data says one every 20 seconds! The U.N. also showed we became **339,000,000 on December 13, 2022, though by December 24th, we were already 339,051,560**,⁴⁷ an increase, net, of over 4,300 per day, though El Paso, Texas' mayor says 5,000 arrive daily just through the Juarez crossing.⁴⁸ If Title 42 is overturned, Homeland Security estimates border crossings at **18,000 a day, or 6 million a year, incidentally, into the highest per-capita carbon nation on Earth!**⁴⁹

In 2000, the U.S. population was 282,398,554 (U.S. Census), meaning, as ill-advised as that is, we've added nearly 60 million to the U.S. population just since the modern megadrought began.

As Alice might say, “Oh, the **problem** of so **very many, very thirsty** people!”

NOTES

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NOTE: The views expressed in this article are those of the author and do not necessarily represent the views of NPG, Inc.



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