

Dr. Pete Foley

Perspectives on “Water in the Southwest US”

ZQ Letters: from ZQ34

Dr. Pete Foley (submitted 2024-05-04)

I'd like to add a few comments about the article “Water in the Southwest US” by Ray Lucchesi and Michael Ogden, especially from a Las Vegas perspective.

The featured Southern Nevada Water Authority (SNWA) has historically done an excellent job of both building infrastructure to recycle water and in educating the public on the importance of treating water as a precious resource and conserving it. As a result of this, Las Vegas is one of, if not the most efficient user of water in the US. A wonderfully graphic way of illustrating this is to compare aerial photos of, for example, Las Vegas and San Diego, which share a similar water source, but have vastly different vegetation footprints; bluntly, from the air, one is green, one is brown.

But unfortunately, the wheels are now starting to fall off in Las Vegas, and the lessons may be at least as enlightening for the conservation movement as the examples shared. Part of the reason for this is that, to use a water analogy, the sponge has been squeezed dry. Much of our current water policy in Las Vegas assumes that we can continue to reduce per capita water usage at similar rates to those achieved in the past, and that we can do this simply by applying education and behavioral modifiers such as pricing and fines. But with an essential resource such as water, this is simply not possible. At some point, once the wet sponge has been squeezed dry, additional savings become exponentially more difficult to achieve, as the most basic of human needs come under pressure, and people therefore become far more resistant.

A second problem is that the conservation framing has lost much of its authenticity. Las Vegas is in the middle of a substantial building boom and population increase, with massive housing developments and luxury housing enclaves spreading rapidly into what was once the surrounding wilderness. While new construction is regulated to minimize its water usage, that's obviously not zero. New residents still have pools, even desert landscaping still uses some water, while the new businesses that come with increased population

use water, some very substantial amounts. So while the message is conservation, the reality is that much of the ‘water conservation’ is really a redistribution of a limited resource to support new construction and new population, often to the detriment of older neighborhoods. And that new construction also comes with numerous environmental and social drawbacks, including loss of wilderness, increased pollution and traffic, and increased utility costs to support the necessary new infrastructure. It's one thing to ask people to conserve for their community, but another to ask them to sacrifice to support a very lucrative construction industry.

Perhaps as a result of this increased challenge. SNWA has changed from a primarily ‘carrot’ approach of education and subsidies, to wielding a large stick. Punitive water fines are currently being imposed on up to 1 in 6 residents in Vegas. Because this targets older neighborhoods, it is in turn causing the urban forest to die off at an alarming rate, creating a heat sink that will ultimately increase water usage. Property values are dropping for people with plots that contain mature trees, and there are examples of genuine hardship. I have seen elderly neighbors reduced to tears because they are having to cut down desert adapted trees that they have nurtured for decades. I've even heard from grandmothers who are rationing flushing of toilets, because the cost of water is so high for their multi-generational families.

Conservation has to be a team sport, and the reality is that we are all going to have to make some sacrifices and changes in our lifestyles in addition to new technologies. Behavioral manipulation and education will therefore have a critical role to play as we try to adapt our civilization to a changing climate. This applies to water, but also energy, transport, diet, and pretty much every aspect of our existence.

But if behavioral change is going to ‘stick’, nudging needs to be perceived as fair, honest, authentic, and broadly in the best interest of those who are being nudged. Conversely, in Las Vegas, there is growing resistance to some of the more draconian enforcement, driven by both perceived unfairness and an increasing perception of ‘greenwashing’.

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Greenwashing: SNWA marketing is often pitched as conservation, supported by alarming pictures of a dried-up Lake Mead. But this narrative is undermined by the ubiquitous large-scale construction across the region. If savings are used to support growth instead of being banked and used to increase resilience for a drier future, this is clearly inconsistent with the marketing content. And this lack of authenticity is compounded because SNWA is effectively a politically managed organization, whose board of Directors comprises entirely of elected officials. Those elected officials are largely very supportive of growth, with publicly stated goals of bringing a million new people to the area.

Water Police: SNWA is spending many millions on marketing, but faced with an increasingly difficult task of nudging and persuasion, what was once a largely educational and collaborative approach has become far more confrontational with the public. Marketing now features literal water police patrolling and punishing people for overuse, or even visuals of people being physically assaulted for using too much water by local athletes. Customers are literally portrayed as criminals. This confrontational approach is amplified by the punitive fines mentioned earlier, and recent legislation enables water to be cut off for up to 1 in 5 residents in the future if they exceed certain, somewhat arbitrary limits - an alarming prospect in the desert.

Unfairness comes from the unequal way these punishments are metered out. Random water patrols fine some individuals and not others, often for tiny transgressions. The article mentions that in California water limits were imposed based on property size. In Las Vegas a less well thought out, one-size fits all policy discriminates heavily against large multigenerational families, and against older properties (and often senior residents on fixed incomes) with mature trees. The latter is directly causing the rapid die-off of our urban forest, which will in turn have a long-term negative impact on conservation. Fines and usage limits are also unevenly imposed, with areas containing newer developments often not subjected to the same limits as more established areas of town.

In conclusion, conservation is challenging, and changing behaviors is difficult, even when people want to do so. But if people think they are being treated unfairly or being misled, reluctance will quickly change to conscious opposition. That in turn leads to the types of pendulum policies that are the last thing we need when addressing a long-term issue such as climate change.

The ZQ34 article focuses on some of the past and laudable successes of SNWA in deploying both technology and education. Water management in Las Vegas has long been a poster child for this. But as the proverbial sponge has been squeezed dry, and the pressure to continue growth has

increased, Las Vegas is now in real danger of becoming an example of what not to do. And this is important for all conservation efforts. We can nudge behavior, but once policy is perceived as unfair, misleading, and not in the interest of those we are manipulating, we risk not just stalling progress, but creating active resistance.

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