INSIGHTS

Water, Water, Water

San Fernando Valley, California. Orange and lemon groves. Eucalyptus wind breaks as tall as skyscrapers, as big around as 1957 Cadillacs. I rode to the corners of that valley on my bicycle and unicycle. Sprinklers ran, we had popsicle stick races in the gutters. It rained hard in winter.

An arid region turned lush with the importation of water from anywhere it could be channeled. Farming the central San Joaquin Valley transformed a virtual desert into the hub of world food production. But…

The times they do change and we are here. Now. Never to return. Technology is making it possible that we might continue largely unencumbered, only requiring slight modifications to how we live, but more importantly, how we *think*. And the greatest challenge will be the latter: How we THINK…about our water.

With the world's surface 70 percent water, and those glorious shots of our blue sphere enticing us to dive into its vast depths, it's difficult to imagine that water—potable water—is becoming scarce. We've heard and read of cutbacks and have been encouraged by people doing *more* than asked. Encouraging for sure. We have seen dramatic conservative irrigation techniques and practices implemented in Big Agriculture. But we're on the threshold of another page about to be turned that could transform this *finite* liquid gold into an asset far greater than, well, gold.

SOME INSIGHT

Over the past several decades, populations in the south—and every arid region for that matter—have blossomed. Migration and immigration and the demands on water have simply outstripped supplies. Cities such as Las Vegas (and many others) have implemented a native landscaping mandate with the once manicured lawns relinquishing their historic splendor to colorful pages in coffee table books. Of course the 'low-flow' showers, et. al., are a way of life. Still, the supply faucet can't keep up. California is about to follow suit as El Niños simply can't compensate for growing demand.

Big Agriculture and the ubiquitous Rain Bird circle automated overhead watering is being forced out of existence as the 25% evaporation rate is finally being understood to be akin to watching dollars float away into the ether. Sophisticated drip irrigation is slowly making significant headway into production.

Housing, as we know it, *single-family housing*, is being transformed into *multi-family housing* with two, three and four families living under one roof. Again, demand concentration.

Finally, *production manufacturing*. We've heard the numbers for years but they're hitting us with far more vigor of late: It takes X gallons of water to: grow a walnut, an almond, wash a glass, make a plastic bottle, create glass…and the list goes on and on and on. So much so that we begin to feel a bit helpless.

Our miniscule part (reducing water usage in toilets and showers) does help somewhat but there must be something 350 million U.S. citizens can contribute to mitigate the need for new clean potable water. Well, there is. And we have technology to thank for it.

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Q1 2016

Next Issue: *Oil; Whoda Thunk?*

INSIGHTS

FILTERS, FILTERS AND MORE FILTERS

Each day we consume water in homes, offices, gyms, factories, and each day that consumed, flushed water makes its way through a labyrinth of underground thoroughfares to [hopefully] waste treatment plants then out into a nearby waterway. And every single day, the demands on both the supply of new water and the treatment plants, increase. We're at the tipping point on both fronts. The requirements on both, however, are about to change; dramatically. But we won't like it at first. Because it will require us to change the way we think about water.

Current technology in waste treatment plants is not fully utilized. Specifically, there are better weapons in the war chest than are currently being implemented. We are using 22 caliber technology when we have nuclear capabilities an arm's reach away. And it's largely because cultural stigma and fear and ignorance have duped us. Technology is on the shelf, now, to further filter our water. To further filter it to water lawns, to water golf courses, to water trees…*to drink*. And, here's the kicker: Countries around the world currently enjoy water that has, well, been around the block. That helps us with how we *think* about our water.

Current practices here in the states are doing an end-around on this notion of water reuse. In some areas it is being filtered then pumped back down underground where it will comingle with ground water which is then extracted as 'ground water'. But this is at some expense. How we *think* is about to change.

The next step—a required step—will be to put a 90-degree elbow and the OUTFLOW from the waste plant and another 90-degree elbow at the INFLOW line to the water supply, and connect the two. The technology already exists to create water equal to—if not better than—the water we currently enjoy. The technology exists to filter out anything: wastes (of course), pharmaceuticals, chemicals, lead, arsenic, and poisons. Technology is here now. Technology is expensive. Technology is required.

WHERE DO WE GO AS INVESTORS?

From an investment perspective, there are many companies—some very large, some much smaller—working on continued improvement in this very pressing issue of 100% water reuse. The notion that millions, no, billions of gallons of water, each day, can be filtered and reused with 100% success, is already being done…but not here. How we *think* about water needs to change.

How does this affect both how we live and how we then invest? Despite the corporations being depicted as money hungry, I see them more as technologically striving for bigger, better, faster, smaller in ways that are both mind boggling and very, very encouraging. Corporations are looking 10 and 20 years down the road for the very reasons discussed above: The demands not only on water, but also in infrastructure, rail, transportation, power generation, food production, etc., while extremely pressing, currently have the best minds working—and succeeding—in some of the most innovative developments I have ever seen.

Do we invest in these companies now? We most certainly do. Who are these companies working on the water front? There are many and this is not a sales pitch for a company or companies. But my mind is riding shotgun with corporations looking ahead; way ahead. And I'm encouraged to no end.

I'm here, reading as always, if you'd like to know more.

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