

Book Review: **The Big Thirst: The Secret Life and Turbulent Future of Water**

by Charles Fishman

What did you get out of this book?

This book gives a good overview about the history of water, what, why, where it is, and why cities and their locations have sprung up. Water is a multibillion dollar business and so much is happening in the world especially when it comes to dealing with water. Water is the most vital substance in our lives but more amazing and mysterious, people have argued and fought over it for many years and will continue to do so for years to come. The key lesson to learn; it is critically important to learn from the past, but fighting over it won't solve the problem or issues for the future, especially when dealing with water.

Water is the basis of life as we know it. We simply cannot survive without it and it is part of everyone's, everyday life which includes; our clothes, our shoes, our vehicles, our food, and even our cell phone. Water cannot be used up; it can be made clean enough to be used again and again—water can be made so clean that it's toxic to consume (high-tech IBM plant that makes pure water found nowhere in nature.) We commonly recognize water in three states- liquid, ice, and vapor (steam) – however, there is a fourth state of water called, “molecular water.” Found fused into rock 400 miles deep into the Earth. Realize the water we drink today is the same water that has been on the planet for eons. As a result, the water we drink today was, at one time, the toilet water of ancient civilizations and was where dinosaurs drank, bathed, and went to the bathroom. For some people this is disturbing, it has been that way for eons and provides us with a method for reusing today's water to become tomorrow's water. The book describes a serious water issue for Toowoomba, Australia, and a significant question about drinking water: “What exactly is clean water?” For Toowoomba the issue was political in addition to being serious.

The book looks at the state of water, particularly as it affects humans. The author — from the wet moons of Saturn to the water-obsessed hotels of Las Vegas, where dolphins swim in the desert, and from a rice farm in the parched Australian outback. Atlanta came within ninety days of running entirely out of clean water. California is in a desperate battle to hold off a water catastrophe. Australia nearly ran out of water—and scrambled to reinvent the country's entire water system. We do not value water. All of the water that has ever been on earth is still here, major changes in infrastructure to produce clean water will be necessary. There are challenges, but there is no good reason for us to be overtaken by a global water crisis. We have more than enough water. We just don't think about it, or use it, smartly.

Due to climate change, water that once may have been easy to get, may become even more important. Cities that were thought to have substantial supplies are drying up and don't have enough water to supply growth or the demand. Las Vegas, for example, is reusing and capturing every possible drop of water since the supply at Lake Mead is dwindling day by day. Officials with Las Vegas are looking at the possibility of putting down a pipeline to retrieve the flood waters from the midwestern states. Cities in Asia and the middle east and Australia draw salty water and depend on desalinization plants.

We complain about costs and our water bills, but we buy bottled water for drinking that equates to more than the cost of a gallon of gas. Water (or lack of it) is a social issue, in addition to a critical natural resource. In my opinion, it is hard to not be concerned about water, but reading this book gives me hope as the book is filled with optimism with a broad perspective regarding water, and I like that!

Would you recommend it to class members?

Absolutely, I highly recommend this book to all. As the water we take for granted becomes harder to supply, we will need to develop new strategies for handling water supply to citizens and corporations. This book is the beginning step in a new way to think about it.

What 3-5 key points would you like to discuss with the class?

- The US uses more water in a single day than it uses oil in a year.
- Companies are ahead of the public, and many with the government are looking at innovations for water and water uses. A company like Monsanto is genetically engineering crops to use less water. Coke, Intel, IBM, GE have created water divisions to turn managing water.
- **Water is more indispensable than we appreciate – it is an essential resource needed to launch a space shuttle, it's the reason a microwave oven can cook, the manufacturing of microchips requires an exotic "clean" water, yet this water is not safe for humans to drink.**
- The economics of water are irrational. Americans spend almost as much buying bottled water as maintaining the nations water system
- "In fall of 2007, metropolitan Atlanta came within 81 days of running out of water. The potential for catastrophe was staggering. City, state, and federal officials had no plan what to do if Atlanta did run dry."
- **"Atlanta's water crisis was really a function of twenty years of refusing to consider water as a limiting factor in growth." The problems magnified by a refusal to see our relationship to water, refusal to pay attention to how water supply is changing, i.e. climate change and what's in our water.**
- What we take for granted is not the water itself, rather the work, and the money to provide instant, safe water.
- When we buy a bottle of water, of course, what we're often buying is the bottle itself, as much as the water.
- One out of six people in the world has no dependable, safe drinking water.
- Supplying clean water has been a straight forward engineering task. But the politics of water scarcity often turn out to be surprising, emotional, and confounding.
- **If we are going to manage our water, we must avoid water debates that are emotional, scary, helpful, and need good science about water, beyond alarming headlines.**
- How do you make choices that are fair when those needs are competing directly against each other for the very same water?
- **Water envy, what is it? Australia is experiencing the first wave of water envy. No one thinks they indulge in water, but everyone sees water gluttony upstream, downstream, or next door. Water envy seems like an all-new phenomenon. Water envy is like social/class envy or even racial envy. It is often the result of ignorance of our inability to look at it from perspective of poor person. Water is a natural resource, a basic material, a commodity like petroleum, copper, lumber, or wheat. But we rarely experience oil envy. Water envy has no price attached to it that has any market meaning.**
- Water is over allocated (shortage) and is too common – often there is enough water to camouflage the shortage. IE, The Colorado River, Chattahoochee River