



**TWV Podcast #014**  
**Four Ways We Need to Think Differently About Water**  
Show Notes at <http://thewatervalues.com/pod14>

**Intro:** Welcome to The Water Values Podcast. This is the podcast dedicated to water utilities, resources, treatment, reuse, and all things water. Now here's your host, Dave McGimpsey.

**Dave:** Hello and welcome to another episode of The Water Values Podcast! Thanks for tuning in.

Today is a great show –Steve Maxwell is our guest today. Steve continues the lineage of great people to come on the podcast, and he doesn't disappoint. Many of you probably get his Water Market Review, which is an excellent publication, and so are familiar with the four issues he identifies for us today. Steve expands on those themes and gives us some great examples of how we'll need to change our mindset on water in the coming years. We're very fortunate to get some of Steve's time and vast knowledge about water issues in this interview.

Okay – you knew it was coming, so here are the disclaimers. I'm a lawyer licensed in Colorado and Indiana. And nothing in this podcast should be taken as providing legal advice or as establishing an attorney-client relationship with you or anyone else. Additionally, nothing in this podcast should be considered a solicitation for professional employment. I'm just a lawyer that thinks water issues are interesting and that public education about water issues is needed. And that includes educating myself about water issues because no one knows everything about water.

With that said, let's get on with it. Open the valves, fasten your seatbelts and here we go.

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**Dave:** Steve, thanks very much for joining us on The Water Values Podcast, greatly appreciate your time. I know you're very busy. If we could, could you please tell us a little bit about your background and how you got interested in water.

**Steve:** Sure and Dave, thanks. Thanks for having me. I had kind of a circuitous route, I suppose, to this business. I was originally trained in the field of geology and mineral economics. And in one of the early jobs that I had in my career, some thirty years ago now or so, I was working with the Union Pacific Corporation, obviously a big railroad company. At that time they were trying to diversify their business, this was sort of in the mid 80's. They were trying to diversify their business away from transportation and kind of energy businesses that they were in and were taking a hard look at the kind of emerging, nascent environmental business at that time. And they ask me to kind of help them build a business in that arena.

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So we spent a number of years building up a fairly large commercial environmental services, water, wastewater treatment company that we eventually sold. But I kind of got off into that angle of the business early on in my career. It always seemed like a pretty good business to be in, and I've sort of just stayed there ever since. Over the past several years, as I've had my own company here, moving more and more towards doing additional transactional and M & A related work and also kind of moving more and more towards the water and wastewater treatment sector of the broader environmental business.

**Dave:** Your company is TechKNOWLEDGEy Strategic Group. What does TechKNOWLEDGEy Strategic Group do?

**Steve:** It's a small group, basically myself and one other associate. But basically, I got started working more in the strategic planning, kind of market research areas within the broader environmental space. And over the years, as I got to know more and more people in the sector, and in particular as I started to publish one of the regular, kind of quarterly and now annual publications that I do following the industry, began to get to know a lot of people around the industry and soon found myself in position where people were asking for some help on where they might find this sort of a company or this sort of a business to acquire or looking to sell or divest of this sort of business over here.

And so I kind of gradually found myself acting as sort of a middle-man if you will, or the fancier name for that would be investment banker. But gradually found myself acting as sort of an intermediary or a middle-man in a lot of transactions. Today the bulk of my work is really more in assisting either a buyer or a seller of a water-related business. Kind of a specialty niche but it's been a real good business for a small firm like myself.

**Dave:** Good. You mentioned that annual publication that you have now. I assume that is your Water Market Review?

**Steve:** Yeah, we have had – I originally had published for many years something called the Environmental Benchmark. And back fifteen or twenty years ago, that was a quarterly publication that followed broader trends in the environmental industry. I've sort of narrowed that a bit to sort of focus more specifically just on the water sector.

Water's obviously a much more healthy and robust and sort of growing business than many of the other sectors of the environmental business. So it has been sort of a natural place for a lot of people to migrate towards in terms of providing services. So over the course of time I kind of changed the focus of that publication more and more to water. Today, I call it the Water Market Review. It's a pretty comprehensive summary, sort of market trends in the world water market,

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and it is usually sort of a twenty-five or thirty page document. So that's the primary publication, regular kind of recurring publication that I produce for the water industry today.

**Dave:** You are right. It is comprehensive. Can you take us through, just walk us through some of the big themes that you see in the water industry today?

**Steve:** Sure. I guess the sort of key themes that I see, I mean, there's a lot of ways to look at this. There are numerous kinds of trends, and I guess I would say smaller scale developments or trends in the industry, and I deal with those in my publication. I think we have, I think I've kind of dealt with twelve or fifteen different kind of specific trends on the order of more regulation, greater investment needed, greater emphasis on recycling and reuse, trends toward conversation, technology trends. Those sorts of things we dealt with in detail in the publication.

I guess when you step back and look at the industry from a much broader perspective, I have come to four different kinds of key themes that I see as categorizing the world water market that I see repeated in different context or in different settings over and over as I kind of wander around this business and talk to a lot of people. And there's a lot of companies at different markets niches and so forth. I have kind of identified what I consider to be four key themes or refrains, if you will, in the market. So let me deal with those, if that makes sense.

**Dave:** Yes, take us through that.

**Steve:** Ok, let me kind of identify what these are and then we can maybe go back and discuss each one of them. The first one is that I think that water is really going to become what the economists call a true factor of production. In other words, it's going to attain a status similar to historical or classical factors of production and economics, which included land, labor and capital. And I think that over time, we'll see water increasingly being considered in a similar light. That's the first trend.

The second one I think is that we will gradually start to look at our consumption and our water usage behavior with respect to the kind of virtual consumption or our total water footprint. And I'll get into explaining a little bit more about that for people who maybe don't know that term yet too well - a more effective and a more all-encompassing way of looking at consumption.

The third point I think is that we and we hear more and more about this today from a lot of sources, but this concept of one water or total water management wherein we start to look at water more as a single resource rather than categorizing or defining it in terms of a bunch of different types of silos. You know, water, wastewater, sea water, groundwater, dirty water, clean water, but begin thinking about all different types of water as just a single resource to be utilized

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in the future, or what a lot of people call this concept of “one water”. So that would be the third main theme that you see everywhere today being considered in the industry.

And the fourth one is just, and to me this is the one kind of inescapable conclusion that one has to come to if you look at and study and observe the water industry. And that is that we are going to be paying far more for water in the future and that we’re entering into an era of, I think consistently, and I think in some cases, of sharply increasing water prices. And as that happens, these other trends will be reinforced. We’ll see lots of positive impacts in terms of decision-making and resource allocation as water prices rise. So I often make the argument that not only is this coming, but that we need to see it coming sooner and that a move toward higher water prices will help to resolve a lot of the problems that we face today as we begin to treat water as something of value, as a commodity that is worth something, as opposed to the kind of historical sense that we all have of treating it has sort of a free good.

**Dave:** Ok. So you’ve identified the four key themes. The first one was water as a true factor of production, more as it’s getting more recognized for its importance in the business world. Can you just expand on that, how businesses are going to be looking at that?

**Steve:** Sure, in sort of the economics 101 course that a lot of us took many years ago, the classical economic theory says any kind of commodity, product or service that is produced is made from some combination of capital and labor and what they called land. Land really was taken to mean not just soil or the land that we grow our food in but sort of better discussed, maybe, natural resources. So land included minerals, timber all the other physical resources that you use in the production of a good.

So, the economists have typically looked at those three factors as driving industrial production and manufacturing. And there’s always been some sense that there was a combination of those factors needed to produce any kind of good or service. And if you look at the history, many of the kind of economic empires of the past several hundred years have been based on the location or the richness of a particular natural resource. We’ve seen variable labor costs around the world drive a lot of the sort of outsourcing and globalization controversies and issues we see today. They’re obviously a few key centers of capital concentration and centralized capital control. And so these factors have traditionally been considered to be the economic determinants of a growing world economy.

Everybody has sort of assumed during all this time that water was there, water was available, water was abundant, and it wasn’t really a factor. But as we begin bump up against scarcity in certain parts of the world and particularly around here where you and I live in the more arid West, water is starting to become a factor and in some cases, a fairly critical factor in the determination of these sorts of business and economic decision making efforts.

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And so my contention is that over time, and you know obviously, this is not going to happen overnight, and it will happen in some places much sooner than it happens in other places, but the trend will be the same. And over time we will begin to realize that water is a pretty critical input to a lot of our both business and personal decision-making and that as it becomes more and more scarce in certain regions, it will take on that kind of importance in decision-making.

We're already beginning to see that happen in certain types of businesses where access to abundant clean water is important. You think of the food and beverage industries. You think of the pharmaceutical businesses where very, very, ultra-pure waters are needed for the manufacturing processes. You think about semi-conductor and ship manufacturing where there is a need for large volumes of very clean water. In some cases, those types of industries are already beginning to make locational or business decisions based on the availability of water.

There was a pretty famous case here a few years ago, about an Intel plant and a decision of whether or not to build an expansion in the Albuquerque, New Mexico, area primarily due to concerns about access to clean water. So we are beginning to see this be a factor in business decision-making, and we are beginning to see a lot of areas, geographic areas or cities begin to promote themselves on the basis of availability of clean water. Perhaps the most famous or well-known case of this is the City of Milwaukee, which has a very active kind of civic or municipal effort to attract business to their area, promoting the access to abundant clean water there in the Great Lakes Region.

Even today, in Colorado here, we see in new home construction, the cost of a new water tap running as much as \$20,000 or \$25,000, and that may not be a huge number, but let's say it might be 5 or 10% of the price of a new house and as that number continues to creep upwards, we're going to see water availability being reflected in housing prices and living expenses in areas like this and my contention, I guess, is that over the longer term future we may see the availability of water and the cost of water begin to impact more personal decision-making or demographic trends, as well, to the point we may see this kind of impact of availability of clean water and the cost of clean water getting to the point where it starts to have some impact on personal decision-making or demographic and migration trends.

We might get to the point in one hundred years from now or some point down the road in the future, where we see a trend in the migration patterns in this country away from people moving out of the humid, water rich kind of Great Lakes Area, the old "rust belt" part of this country to the Southwest, we may see that reverse a little bit as water becomes more and more scarce. I don't want to try and put a specific forecast or date on this, but I think that those sorts of effects are the trends that we're seeing now and that could become more and more, as they accelerate, could become more and more important, farther down the road in the future.

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**Dave:** Right. Steve, I was going to bring your book up, *The Future of Water*, a little later, but it sounds to me that, what you just described, is kind of the hypothetical situation that you wrote about in the prologue.

**Steve:** Yeah, I guess in that book we were trying to maybe dramatize the situation a little bit to make people think about what life could actually be like in the future if our populations continue to increase and continue to migrate to areas that are naturally arid and that are naturally dry. As we run out of new sources for those areas, and this includes the Front Range here in Colorado and the Rio Grande Valley and all along the Colorado River and Southern California, etc., we all face similar kinds of water issues and challenges. And over the last twenty years they have gotten more and more serious and have garnered more and more attention. And today everybody is pretty much aware of the problem or aware of the longer term challenge.

But it hasn't yet really affected people's decision-making much. For most of us, if we pay \$20 a month for water or \$40 or \$60 a month for our water bills, it's not a huge impact. It may obviously be a hardship for certain parts of the population but it is not a driver of decision-making. And I think that down the road, in the future, it's not going to happen overnight, but I think at some point in the future in the next several generations, let's just say, that these types of considerations are going to become much more important and that we may, in fact, begin to see some of these effects starting to happen.

Some of these broader scale reversals in migration trends, business decision-making based on water availability, and as businesses move and as that becomes a greater concern for large companies, it is going to be translated into a similar impact on people, individual people. I think that while that may sound a little bit overly dramatic or extreme to many of us today, I think that it is quite feasible that we will see those sorts of things happening somewhere in the not real distant future.

**Dave:** Ok. So we've talked about true factor of production and how that's going to look. The next thing you identified was virtual water and the water footprint. Could you expound on that a little please?

**Steve:** Sure. I think most of us are now, today aware of the importance of water conservation and using water wisely and so forth. To most of us today, that means things like low flow toilets and showerheads and things like not overwatering our yards or leaving the water on while we are brushing out teeth, all of those sorts of things people are beginning to be well aware of.

And to give proper credit, I think, a lot of cities, particularly here in the West, where these issues have had a higher visibility, many of these regions have made substantial gains in terms of direct

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water conservation. We used to see average figures twenty years ago in the one hundred fifty to two hundred gallons per day per person type of figures. Today in a lot of cities like in Denver and Albuquerque, we see figures almost half that. So there has been, the low hanging fruit, if you will, has been harvested to some extent in this whole area of water conservation and so there certainly have been gains.

But, in my argument, that is not really the true statistic or metric we should be looking at. We should be looking at a broader figure of our total water consumption or virtual water consumption, as people call it today, which is looking at the amount of water that is necessary to produce the products that we buy or to allow us to engage in the different behaviors or activities that we engage in and try to understand what the total amount of water that went into those products or behaviors adds up to. And that's really the amount of water that we are theoretically consuming.

It's a very similar, in fact, it's basically perfectly analogous to the concept of the carbon footprint that we're all, I think, more familiar with today, trying to understand how much of a fossil energy impact our different behaviors, such as driving a car around all day or flying to Europe in the summertime or using chemical fertilizers on our yards, and so forth have in terms of their impact in emitted carbon to the atmosphere. What we are talking about here is very similar in nature and looking at each of our purchases or each of our activities in terms of the amount of the original water that it took to allow those activities to occur or those products to be manufactured.

And, when you look at that, there are some very interesting conclusions, particularly in terms of the agricultural and food commodities that we all use. There's a huge amount of water required, for an example, to raise a pound of beef. The requirement of keeping a pasture well-irrigated and grazing an animal to be slaughtered for beef at some point in the future takes a huge amount of water. There are figures that kind of break down the total contained water in all kinds of different foods and vegetables and products that we consume. And it's highly variable, and so there are some distinct decisions that we can make which have a very large impact on the amount of consumed or virtual water that we are actually responsible for consuming.

And although it's kind of embryonic science, people are looking at this water footprint concept in much more detail and trying to put figures on the amount of contained water and all sorts of different things: in our clothing, in a pair of shoes that we might buy, in a tee shirt that we might buy that was made in southern India, for an example, and in all the other products. It's a rather inexact science at this point but trying to put a figure on that so that we can say "oh, if we ate more fish or more chicken and less beef, here's the amount of water, virtual water that we would be saving".

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The concept is just sort of beginning to catch on now and obviously has major impact for some of the global commerce patterns. Many economists are starting to look at international trade patterns in terms of contained water and obviously countries that are large agricultural exporters can be viewed as being exporters of contained water. In some instances, that makes a lot of sense, such as food and grains and meat products exported from places like Southern Argentina or the United States. It may not make so much sense in the case of a very arid country like Australia being the largest rice exporter in the world, which at one time it was, surprisingly.

So these kinds of considerations, again, as water becomes more expensive and as we have a greater awareness of the value of water we are going to start to see more logical behavior and trade patterns emerge. And as we think about these things in terms of virtual water consumption, it sometimes helps us to make better and smarter decisions.

**Dave:** Yeah. It's interesting you're bringing up the trade issue. It almost sounds like, going back to an economic concept of, that comparative advantage could shift based on the resource of water amongst trade between nations.

**Steve:** I think that's exactly right. That concept of comparative advantage, or different countries or different trading partners naturally starting to do the things they are best at or that they have the best resources for, I think that water will begin to be viewed in that way. And so water-intensive crops or water-intensive industries will tend to be focused or located where there is more water.

And this hasn't always been the case in the past. In fact, we've never considered water to really be an input to that decision. We've always just assumed that if there was a factory in some place or a community being built in some place without much water, that we just, by God, go and find the water and deliver it. And that's worked for two or three hundred years in this country, but we're now getting to the point where building a new city or a new industrial factory in the middle of Arizona or Nevada, it doesn't make sense and the primary reason is that there's no water available.

So I think you're right. This idea of comparative advantage or agricultural production being focused in countries where there is abundant rainfall rather than in countries that require extensive groundwater mining or irrigation, that will make sense. Over time, just like a lot of these other trends, it is not something that will happen overnight but there is a very, very strong and sort of immovable pressure forcing things in that direction.

**Dave:** All right, let's talk about the third element or big trend that you've seen coming and that's the total water management issue.

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**Steve:** Yeah, I guess the quick point there is that, we've all historically thought of ourselves as being specialists in different parts of the water business, wastewater guys versus drinking water guys, groundwater lawyers versus surface water lawyers. That sort of distinction has always been there, but over time, I think, we're beginning to realize this kind of stovepipe or siloed way of thinking is not only kind of not accurate or not a realistic way of looking at it, but in some cases may actually be detrimental to moving ahead and analyzing and solving our water issues.

For example, a lot of our legal and sort of policy institutions in this country were kind of constructed with these sort of different siloes or different types of water classifications in mind. Here in Colorado, there are distinctly different legal and political systems and regulatory systems governing surface waters versus groundwaters. We have found over time as science has progressed that surface waters and groundwaters are often, not always, but often, interconnected, even though it might take years to recognize this. And we've got legal systems here which are really predicated on their being separate or different types of water when in reality, that's not the case.

We have one sort of famous incident in the State of Colorado where groundwater pumpers were over-pumping to the extent that they were beginning to impact the flow in the surface waters and impacting the legal rights of the senior water rights holders for the surface water and were hence in a very controversial decision, forced to shut down their groundwater wells, which essentially put them out of business. That wouldn't have happened had we not had quite this legal distinction between surface and ground water.

So there's other examples like this that underline or demonstrate the shortcomings in looking at water in different sort of categories to the exclusion of a single resource. The other example that I cite is the City of San Diego simultaneously trying to build permit and build, a very large and very expensive desalination facility on the coast there to desalinate sea water for drinking purposes. While at the same time, it was busily working on a storm water collection system to collect and aggregate and transport storm waters from throughout the city and dump those storm waters into the ocean, not recognizing that they had a resource there in front of them that they were considering a waste.

So, we all have to think about any kind of water is there as a potential future resource, whether it's storm water, whether it is dirty, contaminated sewage, whether it's groundwater sitting underground someplace, all of these are resources that can be utilized in the future by us. Some of them require a lot more extensive treatment than others, but we have to kind of move to that idea of thinking of all water as sort of a single water resource. I guess I would cite the U.S. Water Alliance there. A kind of an over-arching public interest group and association based in Washington with really trying to promote that way of thinking or that kind of philosophy with respect to our water resource management.

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**Dave:** Yeah, I agree with you. Traditionally, the way many of us have grown up in the U.S., those silos exist and I think it is going to take a lot to wrap our minds around it as a country, but I absolutely think you are right, that that's the way we need to start thinking about water management.

**Steve:** Yeah, it takes people, it takes a while to get people to change their thinking or to get outside those kinds of silos.

**Dave:** The last element you had or the last big trend was higher water prices. That we are going to have to pay more for water in the future. Could you expand on that a little?

**Steve:** Yeah, sure. I think, as I said, the main conclusion that you come to after you study this industry for a while is that we don't really have a realistic way of pricing water. Water has always been, number one, it's either been, you know, essentially free to users as it was to farmers and settlers two hundred years ago in most parts of the country. You just kind of took what you needed and it didn't cost you anything. To a situation today where we all have a water bill that we pay but it's often completely distorted or obfuscated by various types of federal or state level subsidies, and where the true or full life cycle or sustainable cost of producing that water is not really reflected by the price.

We have just a very distorted market place for water prices across this country where they are highly variable. Sometimes they make no sense. For an example, does it seem like water should be cheaper in Tucson, Arizona, than it is in say, Philadelphia where the natural amount a precipitation and available water in the areas are vastly different? And these things, the data you see for these sorts of measurements often doesn't make much sense and it often is due to the intervention of the Federal Government into the market, particularly in the West with the construction of a lot of these huge water projects that those of us out here are kind of living on today.

So, I guess my contention is that water prices, number one, often times, don't really reflect the true cost of sustainably producing that water on an ongoing basis and that even more significantly, water prices don't really reflect the value of that water to the end consumer. It's pretty easy to cite examples of that when the city comes and turns off your water for a day or two to reconstruct a water main or something like that and people have to go without water for a whole day, suddenly the impact hits home or the value of having that water there to flip on at a moment's notice or to flush your toilets with or to take a shower in, suddenly becomes pretty darn valuable to people. Whereas today, most of us are paying fifteen or twenty bucks a month for that kind of privilege. When push comes to shove, people quickly realize that there's very few things out there that are more valuable than water.

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So I think that the main point that a lot of people see about this whole industry and where it is going in the future is tied one way or another around this concept of rising prices and the kind of positive and self-reinforcing impact that higher water prices will have on all of these other issues of concern in the industry of underinvestment, of poor conservation, poor recycling and reuse rates, all those sorts of things will start to respond more positively as water prices start to get higher and higher. I would say my main one takeaway, if I had to say about the overall industry, is that we will definitely be seeing a period, a long period of gradually increasing prices.

**Dave:** Right. I got into this with David Zetland in session nine of The Water Values Podcast and his answer, I thought, was a very good one. He talked about how the cost of scarcity is not priced into what we pay for water and if we did price that into the cost of water, we'd get a truer cost for that water.

Let me ask another question. What happens when water rates increase? Where does all the revenue generated by a rate increase go?

**Steve:** Yeah, that's one of the big, I think, kind of problems or challenges or misperceptions that a lot of the public has about this that in a case of a public utility, which most of us are served by, that somehow or another price increases are going to be lost in the bureaucracy or the red tape or big governments, or all these sorts of popular political issues today. Or in the case of private water utilities, which service about 12-15% of the population, that you know, it's a bunch of for-profit, private corporations that are trying to line their pockets for their shareholders. There's something suspicious about water prices going up sharply because there's falling out of the sky and running in the rivers. Why should we pay so much more for water all of a sudden.

I think the answer to that is in order to continue to provide that service, going forward and particularly to provide it in areas where there's a growing population without a growing source of water, we have to be reinvesting in our infrastructure at a high and a consistent rate well above what we typically are doing in this country. So the real need for rising water prices is to help finance, not only to help fix or repair and maintain the existing infrastructure, which we are doing a lousy job at as a country today, or in some cases, to build new infrastructure, new reservoirs, new pipelines, new desalination plants, whatever it may be in the future, to continue to supply clean water to a growing or an expanding population or industrial base. So, yeah, the perception is often well, who's going to get this money? Or where is it going to go? But, I think the answer to that question is the reason we need this is that it costs money to clean and to gather and collect and distribute water, and we're not reinvesting in that kind of infrastructure at anywhere near the rate that we should be.

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**Dave:** Well, Steve, you have provided a very enlightening talk today. I really appreciate your time. Where can people go to find out more about you and TechKNOWLEDGEY Strategic Group.

**Steve:** Yeah. I think we have a pretty good website at [www.tech-strategy.com](http://www.tech-strategy.com), and you can download my annual report that we discussed earlier there. The book that we mentioned earlier, *The Future of Water*, is published by the American Water Works Association, and I think is available on Amazon and most of the regular book sites. And I am always happy to talk to people on the phone, and I am located here in Boulder, Colorado, and I am always happy to talk to folks on the phone about these sorts of issues as well.

**Dave:** Good deal. And you can follow Steve on Twitter @smaxwell\_water. Steve, thanks very much again. Greatly appreciate your time.

**Steve:** Ok, Dave, thanks. I enjoyed talking with you.

**Dave:** You bet.

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**Dave:** That was my interview with Steve Maxwell of TechKNOWLEDGEy Strategic Group. He was terrific, and you can see from the interview that has a great depth and breadth of understanding of water issues. And he conveyed the information in bite-sized pieces that most people would find easy to grasp and understand.

So, here are my key takeaways. First, the four key themes on how we'll need to change how we think about water in the future: (1) water will become more of a factor of production, similar to the land, labor and capital of classical economics that Steve described; (2) we'll begin to look more at our water footprints or "virtual" water as it is sometimes called; (3) water will need to be viewed more holistically – not as stormwater or wastewater but as "one water"; and (4) we'll pay much more for our water in the future as infrastructure demands and the cost of scarcity become factored into water rates.

We saw the first theme in Will Sarni's discussion in Session 10 of The Water Values Podcast. Businesses are increasingly looking at water as an integral element to their businesses and treating water more like that factor of production that Steve identified.

As to the second theme, you've probably heard of virtual water by now, even before this podcast. But as Steve indicated, it's still in its relative infancy. I suspect we will hear a lot more about

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virtual water, and I'm very interested to see how the modeling and formulas for calculating virtual water are refined in the future.

The third theme of "one water" has received some attention, too. We need a greater push towards looking at water as one single resource, in contrast to seeing water as storm water, groundwater or wastewater. Developing that mindset is one of the big keys to the future of water, I think.

The fourth theme that Steve identified was the price of water increasing, and that's inevitable. That theme really went to countries needing to develop their water infrastructure and price water scarcity in to the cost of water. In the United States, in particular, there is a gaping hole in infrastructure funding, and we need to invest more in our infrastructure. The investment on a per customer basis is not significant when compared to the amount of money we spend on other things of less importance. In other words, we need to truly value water; we need to pay more for our water because we do value water more than it's costing us.

I'll mention just one more takeaway, as there were a lot of important lessons in this episode, and that's the impact of water on international trade. Steve talked about how water scarcity will impact international trade and will likely cause the comparative advantage that some countries enjoy to shift away from them due to water scarcity issues. Steve described this as a gradual trend, which I think is entirely accurate – it will be the result of a lot of business decisions made by individual companies that add up to the bigger trend. It will be fascinating to see how that plays out in the future.

Well, as always, the Show Notes will be online at <http://thewatervalues.com/pod14>.

Please let me know what interested you about the interview with Steve by leaving a comment on <http://thewatervalues.com> or by emailing me at [david@thewatervalues.com](mailto:david@thewatervalues.com). You can also tweet at me @DTM1993.

Finally, if you've been enjoying the podcast, please consider leaving a rating and a review on iTunes and Stitcher and any other podcast directory on which you download the podcast. We picked up another 5-star rating on iTunes, so thank you very much for that. We're up to 14 5-star ratings, and we've still got that one 1-star rating. Providing a rating and a review would be so very helpful in spreading the word about the podcast. And don't forget to tell your friends about the podcast and sign up for The Water Values Newsletter, which can be done at <http://thewatervalues.com>.

In closing, please remember to keep the core message of The Water Values Podcast in mind as you go about your daily business. Water is our most valuable resource. So please join me by going out into the world and acting like it.

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**Outro:** You've been listening to The Water Values Podcast. Thank you for spending some of your day with us.

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