An Advocate for Water Efficiency



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Irrigation engineer becomes EPA's 2009 WaterSense Partner of the Year



As the president of Irrigation Consulting in Pepperell, Mass., Brian Vinchesi has set an industry example by utilizing water-efficient technologies for his clients and integrating the Environmental Protection Agency's (EPA) WaterSense program into his company's staff development. The EPA recently acknowledged his actions by naming him the 2009 Irrigation Partner of the Year. Vinchesi, who has been in business for 21 years, along with his 11 employees provide engineering consulting in irrigation design, evaluation and auditing. The company, the largest such firm east of Denver, Colo., also does water supply development for irrigation systems.

Clients include private owners, developers, municipalities and other government agencies, the golf industry, high-end residential and agriculture sites. In designing systems, his company utilizes smart controllers, pressure-regulating sprinklers and valves and multiple-stream, multipletrajectory irrigation systems. By incorporating such technologies, Irrigation Consulting works to achieve a minimum of 80 percent water efficiency and adhere to national green building program principles, says Vinchesi, noting that his company has focused on these practices for some time.

"By using the right technologies, 80 percent or even more can be achieved," he says. "The green building practices are relatively recent because the LEED program hasn't been around all that long, but we've simply tried to follow their recommendations, such as doing the planting design."



Brian Vinchesi, president of Irrigation Consulting in Pepperell, Mass., has been named EPA's 2009 WaterSense Partner of the Year. Photo courtesy of Brian Vinchesi. TOP photo courtesy of stock.xchng.

Vinchesi has been a WaterSense partner since 2007 and has four WaterSense certifications through the Irrigation Association. Seven members of his staff are WaterSense partners. Vinchesi's integration of WaterSense into staff development comes through a requirement that his employees complete at least one WaterSense-labeled certification program.

"It's important because it shows that our employees know irrigation," he says. "I use that label to show that we're engineers, but we know how to do irrigation and we know what we're talking about."

Vinchesi has been a tireless advocate for water efficiency and sustainable irrigation systems, speaking about WaterSense at conferences and classes and writing about it for trade journals. He also is the chairman of the Irrigation Association Education Foundation. He has headed up Irrigation Association's Smart Water Application Technologies (SWAT) initiative since it started in 2001, and has met with legislators and EPA officials in his state of Massachusetts to promote WaterSense.

Additionally, the SWAT committee has been developing testing protocols to measure the performance of weather-based irrigation controllers and soil moisture sensors, a critical part of WaterSense specifications for irrigation controllers.

While areas such as the arid Southwest and other regions throughout the nation that suffer from drought work to develop approaches to water conservation, Vinchesi says the idea of water conservation is critical even in areas that have a lot of water, such as his own state of Massachusetts. That state, as well as Connecticut, can be "very rigid and very restrictive" with respect to irrigation, Vinchesi says.

"Water conservation is extremely important," he says. "The amount of water we have is not going to increase. There are more people who need it."

Vinchesi encourages the use of effluent water, gray water, raw water, river water and stormwater.

"Using potable water for irrigation is inefficient," Vinchesi says. "That being said, those other sources of water have to be available. "One of the problems in Massachusetts is they don't want us to use potable water, but the state doesn't allow us to use any of the other source," he adds. "That makes it difficult."

Of all of the alternate water sources, gray water and stormwater are most likely to be in the biggest supply in the future, Vinchesi says. In some states, such as Colorado and Utah, using rainwater is illegal due to prior appropriation, which gives the right to physically remove water from a stream or underground aquifer to the first person in the stream system decreed by court as the senior water rights holder on that stream. That person takes the water for a beneficial use, which must be satisfied before any other water rights are fulfilled.

"That's changing a bit," notes Vinchesi. "There is at least one town in Colorado where you can do it. I think that's going to end up in court."

One of the challenges of those promoting water conservation is to overcome the long-held belief that green grass must come at any cost.

"Any homebuilder will tell you a person wants a roof that doesn't leak, a driveway and a green lawn," says Vinchesi. "I think the message is you can get a green lawn without watering it five times more than it needs to be watered. Let their systems be less automatic, and if they insist on having an automatic system, then put in a smart controller that changes the time. If they're not going to do that, they need to go out and decide what needs to be watered instead of just watering it every day no matter what."

In areas of the country with water restrictions, while it may be that people use less water, that's not necessarily the case across the board, Vinchesi says.

"There are studies that show you probably use even more water because people overcompensate for not being able to water every day," he says. "If you just watered correctly and when the lawn needed it, you'd save lots of water and you wouldn't have to have such restrictions."

"What you're seeing in the business and what you're going to be seeing more and more is that you have to put in technology that basically takes the irrigation control and schedule away from the homeowner and even the contractor and lets it decide on its own using smart sensors," says Vinchesi. Vinchesi believes that lawn and landscape contractors haven't come far in terms of utilizing sustainable practices for irrigating client's properties, and because of that, they may not be able to stay in business.

"Most of them, especially the maintenance contractors, don't understand how much regulation they're about to see if they don't do a better job of embracing new technologies and changing the ways they do business," he says.

"Coming out of this recession, you cannot do irrigation the way you used to," says Vinchesi. "The days of slapping down 20 rotors and 10 spray heads are gone. You have to be thinking out of the box. You have to be thinking green, sustainable and water-conserving, and you've got to be doing things as efficiently as possible and talking your customer into the efficient way of doing things."

Vinchesi says manufacturers are doing a good job of bringing out new watersaving technologies, but he thinks they need to do a better job in not only marketing water-conserving technologies, but also training contractors to use them properly.

While smart controllers are effective, "they could certainly use some better options on their default settings, so when they default, they don't go back to wasting water," he says.

Vinchesi encourages municipalities to consider using technology to save water rather than merely instituting restrictions, and he also believes municipalities need to price water for what it's worth. Another critical factor is using contractors who understand the technology, says Vinchesi. He believes installers need to be licensed.

"They are dealing with all of this water. There's a large number of them who really don't know what they're doing," he says. "When [municipalities] are doing these rebate programs, say they want to put out 500 smart controllers, they award the job to the low bidder, who doesn't know how to install them."

Vinchesi warns that companies that do not embrace water-conserving technologies will soon find themselves out of business.

"My big message to the irrigation industry from the contractors' side is you need to change the way you do things or you're going to be out of business," he says. "The average contractor has no idea of what is going on out there and how restrictive things could become. That's just the start of things to come."

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