

Click here to
subscribe today!
Manufacturing.net
Management News Now

Resources

[Bookstore](#)
[Career Center](#)
[Events Calendar](#)
[Links](#)
[White Papers](#)

News

[Featured Articles](#)
[Financial News](#)
[Global Manufacturing](#)
[Government News](#)
[Mergers & Acquisitions](#)
[News Archive](#)
[People in the News](#)

Browse Featured
Manufacturing.net
Management News Now
WHITE PAPERS

Market Sectors

[Aerospace](#)
[Automotive/Transportation](#)
[Chemical/Petroleum](#)
[Food/Beverage](#)
[Material Handling](#)
[Pharmaceuticals/Biotech](#)
[Utilities](#)
[Other Manufacturing](#)

Industry Focus

[Design & Development](#)
[Case Studies](#)
[Electrical & Electronics](#)
[Energy](#)
[Environmental](#)
[Facilities & Operations](#)

Water: The Next Major Concern

By Klaus Reichardt, Managing Partner, Waterless Co. LLC
Manufacturing.Net - August 28, 2007

We often hear how businesses and manufacturing facilities are trying to “Green” their operations. Indeed, many of the U.S. factories built by companies like Toyota, Texas Instruments, and Intel are among the most sustainable and environmentally preferable plants ever constructed. This is because they have incorporated a number of building components, designs, and materials that help reduce energy use, minimize the facility’s impact on the environment and provide an overall healthier atmosphere in which to work.

However, there’s one area of sustainability not discussed as frequently that many scientists and astute business leaders believe will grow in concern in the near future — water, and more specifically, water efficiency and security. Along with governments, people, and all living things, businesses need water to survive.

Unfortunately, most governments and business communities around the world are either unaware of this growing problem, or worse, trying to ignore it. Changes in population, climate, water management, and pollution are already affecting water availability, access, affordability and quality.

Governments and manufacturers need to be concerned about the availability of water for a variety of reasons. Some factors that are creating these water challenges include:

- People — Populations are growing quickly in many areas of the world, often in vicinities with the least efficient water management systems. Demographic, economic and lifestyle changes are also affecting the quantity of water used throughout the world. For instance, the average American family uses considerably more water today than they did ten or fifteen years ago.
- Planet — Climate changes are occurring worldwide. Although there may be some debate among politicians as to if or why this is happening, most scientists agree it is occurring mostly because of the pollution that has been, and continues to be, released into the atmosphere. This causes rainfall patterns to change, so some areas of the world that normally experience ample rainfall amounts suffer droughts. Additionally, the reverse can happen and flooding may occur in some typically dry areas resulting in overflow conditions and a breeding ground for contamination.
- Infrastructure — Many water management facilities around the world are old and poorly maintained. Others were never intended to handle the increased water demands they now have to manage. The problem is compounded because financing for new or renovated water management facilities is often difficult to find in rich and poor countries alike.
- Politics — When it comes to water management, many countries do not work well with their neighbors. In some countries, formerly potable and dependable

[Supply Chain Management](#)
[Collective Brands Finds Its Footing](#)

[Companies Rethink Operations After Toy Recall](#)

[Toyota Reportedly Sets 10.4M Production Target](#)

[EU: U.S. Cargo Scanning Would Disrupt Trade](#)

[Coke Merges German Bottling Operations](#)

[Executives on the Move](#)
[Pfizer Hires Alcatel-Lucent Exec As CFO](#)

[MetoKote Names New Manager](#)

[Littelfuse Names New VP Of Global Operations](#)

[Owens Corning Names CFO](#)

[Campbell Appoints VP Corporate Strategy](#)



Advertise with Us

[Manufacturing Technology](#)
[CAT To Build Diesel Engines In China](#)

[ODIN Gets Patent For New Technology](#)

[AMETEK Acquires Systems Manufacturer CAMECA](#)

[Eaton Producing Hybrid Systems For Trucks](#)

[ERCO Cuts Mercury Use In Manufacturing](#)

[Labor Relations](#)
[Manufacturing Technology](#)
[Materials](#)
[Quality](#)
[Safety](#)
[Supply Chain](#)

Career Center

powered by
careerbuilder.com

About Us

[Editorial Contacts](#)
[Advertise with Us](#)

Our Partner Sites

[Chem.info](#)
[ECN](#)
[Food Manufacturing](#)
[IMPO \(Industrial Maintenance & Plant Operation\)](#)
[Medical Design Technology](#)
[Medical Production Technology](#)
[Pharmaceutical Processing](#)
[Product Design & Development](#)
[R & D Magazine](#)
[Wireless Design & Development](#)
[Wireless Week](#)

downstream waterways from one country carry water that is polluted and unusable for human consumption into neighboring countries. Similar conflicts arise between states within the United States.

- Manufacturing — Manufacturers require a sure source of water for their processes. If droughts and poor water availability or quality become an issue, manufacturers may need to move to other areas, necessitating large costs and the loss of a tax base for the cities.

There also appears to be a lack of policy for water. Many countries around the world have policies for trade, transportation and even the access and use of other natural resources. But few policies regarding water exist, which will likely make using water efficiently and prudently even more complex in the future.

Although solutions to many of these water-related challenges appear grim at the moment, businesses and industries can and are taking steps to use water more efficiently. One way they accomplish this is through innovation. Older toilets and urinals that once used several gallons of water per flush have been replaced with new low-flow fixtures that use about a gallon to a gallon of half of water per flush.

However, just one conventional urinal still uses as much as 40,000 gallons of water annually, prompting many businesses and manufacturing plants to replace water-using urinals with waterless urinal systems.

Along with low-flow toilets and urinals and waterless urinals, sinks and showers are now designed to use considerably less water as well. All of these innovations have, and will continue to have, a growing impact and help businesses and countries around the globe use water more efficiently.

Ensuring the security of water supplies around the world is another way to better conserve water and use it efficiently. Currently, we have a protectionist or risk-management system for a few countries, which protects their water supplies and businesses while putting other areas at risk.

Businesses can play a major role in making water supplies more inclusive and secure by continuing to develop and employ new water technologies. They can also create new water management systems and technologies to help reduce the cost of water and assure its availability wherever needed.

When water security is incorporated and maintained, it helps build trust between nations. Businesses, especially manufacturing facilities, are directly affected because they depend on trust to do business with each other and with countries worldwide. Plus, when there is a “trust deficit” with water — as well as with many other natural resources — businesses and countries become tainted by corruption and unethical behavior.

When we start using water more efficiently, we can also expect a variety of other benefits. Proper use and allocation of water usually means steps have been incorporated to protect it from pollution and harmful contaminants — which helps protect people, fish and animals, as well as the food supply for all living things.

When businesses and countries work together to minimize or eliminate water conflicts, it is likely they will use the same techniques to resolve other issues. As a result, the world may become a more peaceful place in which to live and do business.

[Waterless Co. LLC](#) is a member of the [U.S. Green Building Council](#) and actively promotes the concept of sustainability of natural resources and water conservation through its high efficiency products for building owners.

[Printer Friendly Version](#) | [E-mail to a Colleague](#)

[Advertise with Us](#) | [Update Your Profile](#)

[Contact Manufacturing.net](#) | [Terms & Conditions](#) | [Privacy Statement](#)



Use of this web site is subject to its [Terms and Conditions](#) of Use.
Copyright 2007 [Advantage Business Media](#). View our [Privacy Policy](#).