Zurn Industries, LLC
LEED Qualification Products Guide

The Leadership in Energy and Environmental Design (LEED™) Green Building Rating System represents the US Green Building Council's (USGBC) effort to provide a national standard for what constitutes a "green building." Through its use as a design guideline and third party certification tool, it aims to improve occupant well-being, environmental performance and economic returns of buildings using established innovative practices, standards and technologies.

Application for LEED credits starts with the architects and other building designers. Through the use of carefully calculated floor-plans, environmentally friendly building materials, energy efficient products, and innovative system designs, buildings can obtain a high ranking LEED certification. That certification process can produce buildings that are not only great environments to be in, but will save energy and resources everyday that they are in use.

LEED is a point-based rating system. The LEED for New Construction (LEED-NC), Existing Buildings (LEED-EB) and Commercial Interiors (LEED-CI) rating systems are arranged in four certification levels:

	Points Required		
Rating System	**LEED-NC™**	**LEED-EB™**	**LEED-CI™**
Certified Level	26 – 32 points	32 – 39 points	21 – 26 points
Silver Level	33 – 38 points	40 – 47 points	27 – 31 points
Gold Level	39 – 51 points	48 – 63 points	32 – 41 points
Platinum Level	***52 – 69 points***	***64 – 85 points***	***42 – 57 points***

LEED provides education and training for all industry professionals – architects, facility managers, engineers, interior designers, construction managers, landscape architects, and government officials.

The program also includes a LEED Professional Accreditation Programs (LEED APs) which encourages individuals to gain the knowledge of the LEED™ certification process and skills required to oversee a design project.

LEED awards buildings with a plaque at the end of the certification process. This plaque is recognized nationwide as proof that a building is environmentally responsible and has provided it's occupants with a healthy safe place to live and work.

What does "**Green**" mean? "Green" has become the shorthand term for the concept of sustainable development as applied to the building industry. Also known as high-performance buildings, green buildings are intended to be environmentally responsible, economically profitable, and healthy places to live and work. (Source: USGBC www.usgbc.org)

The USGBC does not certify or endorse products of individual companies. Products and services play a role and can help projects to achieve LEED certification. However, Zurn is continuing to provide architects many water conservation products so they can design "green" and earn as many LEED points as possible. Zurn has obtained GreenSpec Listed status on a number of its products from the Environmental Business News as a result of this endeavor. GreenSpec Listed means that Environmental Business News' Building Green organization recognizes that a product is a "green" product and lists it on their site for members to view. Those listed products should be used in building design to promote energy and natural resource conservation.

LEED Water Efficiency Categories

The LEED for New Construction (LEED-NC) and LEED for Existing Buildings (LEED-EB) rating systems both award up to 5 points in the Water Efficiency Category. The LEED for Commercial Interiors (LEED-CI) only awards up to 2 points for water efficiency.

Water conservation fixture systems would contribute to credits WE 3.1, WE 3.2 and depending upon how much water is saved overall in a building, WE 2 as it can be considered an innovation.

Credit	Description/Point Value	Requirements
WE 1.1 (LEED-NC) (LEED-EB)	Water Efficient Landscaping **1 point**	Reduce potable water consumption for irrigation by 50% from a calculated mid-summer baseline case.
WE 1.2 (LEED-NC) (LEED-EB)	Water Efficient Landscaping **1 point**	Achieve WE 1.1 and 95% to no potable water use for irrigation or no irrigation.
WE 2 (LEED-NC) (LEED-EB)	Innovative Wastewater **1 point**	Reduce potable water use for sewage conveyance by 50% through use of water technologies conserving fixtures or non-potable water OR treat 50% wastewater onsite.
WE 3.1 (LEED-NC)	Water Use Reduction **1 point**	Use 20% less water than the water use baseline calculated for the building (not including irrigation) after meeting the Energy Policy Act, 1992, for fixture performance requirements.
WE 3.2 (LEED-NC)	Water Use Reduction **1 point**	Use 30% less water than the water use baseline calculated for the building (not including irrigation) after meeting the Energy Policy Act, 1992, for fixture performance requirements.
WE 3.1 (LEED-EB)	Water Use Reduction **1 point**	Attain a 10% reduction in fixture water use from baseline calculation of the building.
WE 3.2 (LEED-EB)	Water Use Reduction **1 point**	Attain a 20% reduction in fixture water use from baseline calculation of the building.
WE 1.1 (LEED-CI)	Water Use Reduction **1 point**	Based on tenant occupancy requirements, employ strategies that in aggregate use 20% less water than the water use baseline calculated for the tenant space (not including irrigation) after meeting Energy Policy Act of 1992 fixture performance requirements.
WE 1.2 (LEED-CI)	Water Use Reduction **1 point**	Based on tenant occupancy requirements, employ strategies that in aggregate use 30% less water than the water use baseline calculated for the tenant space (not including irrigation) after meeting Energy Policy Act of 1992 fixture performance requirements.

Baseline Calculations Using EPAct Standards (LEED-NC)

Baseline calculations, as referenced in the requirements to achieve LEED Water Efficiency Credits, assume that all fixtures in the building are performing according to EPAct national standards. The U.S. Energy Policy Act, 1992, was designed to save water through normal fixture replacements. Using tools such as water usage calculators, the design team can compare the efficiency of water fixture systems and specify the right system for a project. Projected water use covers the water use of an entire building, not just specific areas. It is this amount that is compared to the baseline calculation. Many manufacturers can deliver innovative products and solutions which perform better than the national standard.

EPAct sets the national standard and requires that all fixtures manufactured in the U.S. restrict maximum flow rates, as identified in the chart below.

Fixture	Maximum Flow Rate
Toilets	1.6 GPF
Urinals	1.0 GPF
Showerheads	2.5 GPM @ 80 PSI; 2.2 GPM @ 60 PSI
Replacement Aerators	2.5 GPM
Faucets - commercial	2.5 GPM @ 80 PSI
Faucets – standard	2.2 GPM @ 60 PSI
Metering Faucets	0.25 gallons per cycle at 80 PSI

GPF = gallons per flush; GPM = gallons per minute; PSI = pounds per square inch

Baseline Calculations For LEED-EB and LEED-CI

In regards to LEED water efficiency credits for Existing Buildings, the initiative is to reduce fixture potable water usage to a level equal to or below water use baseline, calculated as 120% of the water usage that would result if 100% of the total building fixture count were outfitted with plumbing fixtures that meet the Energy Policy Act of 1992 fixture performance requirements. If the building does not have separate metering for each water use (fixture use, process use, irrigation and other uses); the water use reduction achievements can be demonstrated with calculations. At least one meter for the overall building water use is required and metering for cooling towers and other process water uses are encouraged but not required.

FUN WATER FACTS

75% of the earth is covered with water.

97% of earth's water is in the oceans. Only 1% of the earth's water can be used as drinking water. 75% of the world's fresh water is frozen in the polar ice caps.

Although a person can live without food for more than a month, a person can only live without water for approximately one week.

The average person in the United States uses 80 to 100 gallons of water each day. During medieval times a person used only 5 gallons per day.

It takes 2 gallons to brush your teeth, 2 to 7 gallons to flush a toilet, and 25 to 50 gallons to take a shower.

We drink very little of our drinking water. Generally speaking, less than 1% of the treated water produced by water utilities is actually consumed. The rest goes on lawns, in washing machines, and down toilets and drains.

LEED Credits Zurn Products Qualify For…

Qualification For LEED Credits WE 3.1 and WE 3.2 - Water Use Reduction

Using Zurn Commercial Brass products that are rated below the baseline fixture performance requirements as stated by the Energy Policy Act of 1992 would contribute to the following credits as long as the building as a whole reduces water consumption below the baseline by the given percent. For example, the building installs all faucets with 0.5 GPM aerators, HET 1.28 GPF closet fixtures and 0.5 GPF, 1/8th Gallon or waterless urinal fixtures would help contribute to the desired credit below.

LEED-EB Credit 3.1 – Water Use Reduction: 10%

LEED-NC Credit 3.1 – Water Use Reduction: 20%

LEED-EB Credit 3.2 – Water Use Reduction: 20%

LEED-CI Credit 1.1 – Water Use Reduction: 20%

LEED-NC Credit 3.2 – Water Use Reduction 30%

LEED-CI Credit 1.2 – Water Use Reduction 30%

Using Zurn's products can contribute up to 2 points toward LEED Certification for New Construction or Existing Buildings.

LEED Credits Zurn Products Do Not Qualify For…

Qualification For LEED Credits MR 4.1 and MR 4.2 - Recycled Content

LEED-NC Credit 4.1 – Recycled Content: 10% (Post Consumer + ½ Post Industrial)

Plumbing, mechanical and electrical components are not eligible for this credit under the new LEED Certification Version 2.2 that is in effect as of November 1, 2006.

LEED-NC Credit 4.2 – Recycled Content: 20% (Post Consumer + ½ Post Industrial)

Plumbing, mechanical and electrical components are not eligible for this credit under the new LEED Certification Version 2.2 that is in effect as of November 1, 2006.

Qualification For LEED Credits MR 5.1 and MR 5.2 - Local/Regional Materials

LEED-NC Credit 5.1 – Regional Materials: 20% Manufactured Regionally

Plumbing, mechanical and electrical components are not eligible for this credit under the new LEED Certification Version 2.2 that is in effect as of November 1, 2006.

LEED-NC Credit 5.2 – Regional Materials: 50% Extracted Regionally

Plumbing, mechanical and electrical components are not eligible for this credit under the new LEED Certification Version 2.2 that is in effect as of November 1, 2006.

Please note that if a building does happen to fall under previous version of LEED Certification, the Specifications Development Department can provide the above information to help a building qualify for those credits.

Zurn Product Offerings for LEED Certification

The following are various Zurn products from different divisions that can help earn credits for a building's LEED certification.

Water Use Reduction By Up To 20%

Zurn High Efficiency Toilet (HET) Using EcoVantage™ Technology

The Z5615 system comes complete with exposed ZTS6200EV high efficiency flushometer valve and vitreous china wall-hung toilet. The system is designed to perform to industry standards with as little as 1.28 gallons per flush. The sensor flush valve and toilet are an engineered system designed to provide optimal performance and 20% water savings over 1.6 GPF conventional toilets.

The Z5655 system comes complete with exposed ZTS6200EV high efficiency flushometer valve and vitreous china floor-mount toilet. The system is designed to perform to industry standards with as little as 1.28 gallons per flush. The sensor flush valve and toilet are an engineered system designed to provide optimal performance and 20% water savings over 1.6 GPF conventional toilets.

The Z5665 system comes complete with exposed ZTS6200EV high efficiency flushometer valve and vitreous china floor-mount toilet. The system is designed to perform to industry standards with as little as 1.28 gallons per flush. The sensor flush valve and toilet are an engineered system designed to provide optimal performance and 20% water savings over 1.6 GPF conventional toilets. This system is ADA compliant.

Water Use Reduction By 30% Or More

Intent: Maximize water efficiency within buildings to reduce the burden on municipal water supply and wastewater systems. These systems would meet both WE 3.1 and WE 3.2 water use reduction criteria.

Zurn Ultra Low Flow "Pint" Urinal

Zurn Commercial Brass Eighth Gallon Urinal – Z5798

Zurn's new Z5798 Eighth Gallon Urinal is a marvel of water saving efficiency that provides an 88% savings of water over the standard 1.0 gallon urinal or 30% savings of water over the 0.5 gallon urinals in use today.

Alternate Styles

- Z5738 – The Small Pint. Small Footprint 0.125 Urinal
- Z5758 – The Retro-Fit Pint. Top Spud Enlarged Retro-fit 0.125 Urinal
- Z5759 – The Retro-Fit Pint. Back Spud Enlarged Retro-fit 0.125 Urinal
- Z5799 – Back Spud Pint Urinal

Zurn Waterless Urinal

Zurn Commercial Brass Z5795

The Z5795 waterless urinal is a wall-hung vitreous china urinal with integral trap and drain line connection. The Zurn green sealant used maintains a sanitary, environmentally friendly and odor free installation.

Alternate Style

- Z5796 – Small Footprint Waterless Urinal

Zurn Sensor Faucets

Z6915-F

Z6920-F

Sensor faucets like the Zurn *Z6915* and *Z6920* battery powered sensor faucets with optional hardwire capability contribute to significant water savings when used in conjunction with the –F 0.5 GPF aerator. Just switching aerators from standard 1.0 GPM to 0.5 GPM on sensor faucets is a great way to save 50% water when users wash their hands.

Also, sensor technology allows for hands-free use while washing giving the user additional cleanliness over manual faucets. Coupled with sensor flush valves and sensor hand dryers, the user has little to worry about in regards to germ contact.

Zurn High Efficiency Toilet (HET) Using EcoFlush™ Technology

Zurn Commercial Brass and Fixtures Z5561

1.0 GPF ADA vitreous china pressure assisted High Efficiency Toilet (HET) using EcoFlush™ technology with a chrome handle and elongated front rim. These fixtures offer improved water conservation, superior line carry and bowl cleaning due to the pressure involved from its innovative pressurized tank technology. The tank requires no external power source nor increased line size. These fixtures are designed for ADA stall use.

Zurn Commercial Brass and Fixtures Z5562

Dual 1.6 GPF or 1.0 GPF ADA designed vitreous china pressure assisted High Efficiency Toilet (HET) using EcoFlush™ technology with a chrome handle and elongated front rim. These fixtures offer improved water conservation, superior line carry and bowl cleaning due to the pressure involved from its innovative pressurized tank technology. The tank requires no external power source nor increased line size. It also offers the user to take part in water conservation by allowing them the opportunity to make a choice to save water depending on use. The user can push down for a full 1.6 GPF flush and save 30% water when the handle is pushed upward (1.12 GPF).These fixtures are designed for ADA stall use.

Zurn Commercial Brass and Fixtures Z5571

1.0 GPF vitreous china pressure assisted High Efficiency Toilet (HET) using EcoFlush™ technology with a chrome handle and elongated front rim. These fixtures offer improved water conservation, superior line carry and bowl cleaning due to the pressure involved from its innovative pressurized tank technology. The tank requires no external power source nor increased line size.

Zurn Commercial Brass and Fixtures Z5572

Dual 1.6 GPF or 1.0 GPF vitreous china pressure assisted High Efficiency Toilet (HET) using EcoFlush™ technology with a chrome handle and elongated front rim. These fixtures offer improved water conservation, superior line carry and bowl cleaning due to the pressure involved from its innovative pressurized tank technology. The tank requires no external power source nor increased line size. It also offers the user to take part in water conservation by allowing them the opportunity to make a choice to save water depending on use. The user can push down for a full 1.6 GPF flush and save 30% water when the handle is pushed upward (1.12 GPF). This unit does not meet ADA requirements.

Zurn Dual Flush Handle

Zurn Commercial Brass P6000-M-ADA-DF

Dual Flush Handle can either flush at full capacity for evacuation of solid waste by pushing down or at 30% water saving reduction for evacuation of liquid waste by pulling up. The Dual-Flush handle is also available as a kit that comes with a 1.6 GPF AquaVantage Diaphragm kit.

Zurn 0.5 Gallon Urinal Diaphragm Kits

Zurn Commercial Brass P6000-EUA-EWS

0.5 gallons per flush AquaVantage drop-in urinal repair kit. This kit is also made of an innovative chloramine resistant material providing superior longevity and its triple filtered bypass system offers reduced maintenance costs against line debris clogs.

Zurn Commercial Brass P6000-EUR-EWS

0.5 gallons per flush AquaFlush drop-in urinal repair kit. This kit is also made of an innovative chloramine resistant material providing superior longevity. .

Zurn 0.5 Gallon Urinal Flush Valves

Zurn Commercial Brass ZER6003AV-EWS

AquaVantage Battery Powered Sensor Operated Exposed Flush Valve with Top Spud Connection for 3/4" Urinals with 0.5 GPF diaphragm kit. They provide not only water savings, but very low maintenance costs as well as improved cleanliness for restroom users.

Zurn Commercial Brass ZER6003-EWS

Aquaflush Battery Powered Sensor Operated Exposed Flush Valve with Top Spud Connection for 3/4" Urinals with 0.5 GPF diaphragm kit. They provide not only water savings, but very low maintenance costs as well as improved cleanliness for restroom users.

Zurn Pre-Rinse Unit

Zurn AquaSpec Z80000-PR1 Commercial "Jet Spray" Washer
Self-closing 1.24 GPM @ 60 PSI (4.7 l/min @ 400 kPa) pre-rinse valve.
Save up to $1,000 Every Year or up to 80% water use reduction
Its vigorous spray pattern increases performance and water saving efficiency over older models. The Zurn Jet Spray Washer uses only 1.24 gallons per minute compared to standard 2 to 6 GPM valves.

Usage	Hours of Spray Valve Usage	Water Savings (Gallons Per Day)	Wastewater Savings (Gallons Per Day)	Gas Savings (Therms Per Day)	Annual Dollar Savings
Light	2 hours per day	100	100	0.7	$300 - $400
Medium	4 hours per day	200	200	1.3	$700 - $900
Heavy	6hours per day	300	300	2	$1000 - $1300

Zurn Low-Flow Showerheads

Zurn AquaSpec Z7000-S8 (1.75 GPM) and Z7000-S9 (1.5 GPM)

1.75 gallon and 1.5 gallon chrome finish deluxe shower head with brass ball joint connector and volume control with integral tamper resistant flow control. Saves over 30% water as compared to normal shower valves at 2.5 GPM at 80 PSI.

Zurn AquaSpec Z7301-SS-MT-DV2P-HW-1.50-S9

1.5 gallon white plastic hand-wall shower unit with metal hose, tamper resistant water conserving handset. Saves over 30% water as compared to normal shower valves at 2.5 GPM at 80 PSI.

Zurn AquaSpec Z7301-SS-MT-S9

1.5 gallon chrome plated single handle pressure balancing mixing shower unit with ceramic control cartridge and polished nickel chrome plated surface. Saves over 30% water as compared to normal shower valves at 2.5 GPM at 80 PSI.

Zurn AquaSpec Z7302-SS-MT-S9

1.5 gallon chrome plated single handle pressure balancing mixing shower valve with tub spout diverter and ceramic control cartridge that comes with a nickel chrome plated surface. Saves over 30% water as compared to normal shower valves at 2.5 GPM at 80 PSI.

Zurn Temp-Gard Hand/Wall Shower

Zurn Temp-Gard Z7000-HW-1.75

Hand/wall shower unit consisting of hand held shower head with swivel connection, 60" flexible metal hose, 24" mounting bar wall connection, with supply elbow & flange. Non-adjustable spray pattern, with 1.75 GPM pressure compensating flowrate regulator. This shower saves 30% of water compared to regular 2.5 GPM showers at 80 PSI". ie. 1 - 1.75/2.5 = 30%.

Zurn Temp-Gard Z7000-HW-1.5

Hand/wall shower unit consisting of hand held shower head with swivel connection, 60" flexible metal hose, 24" mounting bar wall connection, with supply elbow & flange. Non-adjustable spray pattern, with 1.5 GPM pressure compensating flowrate regulator. This shower saves 40% of water compared to regular 2.5 GPM showers at 80 PSI". ie. 1 - 1.5/2.5 = 40%.

Other Showerhead/Valve products that should be considered as Greenspec Listed as they combine the GreenSpec Listed –S9/S8 Showerhead with the Z7000 hand sprayer head include:

Z7300-SS-MT-HW-1.50
Z7300-SS-MT-HW-1.75
Z7301-SS-MT-DV2P-HW-1.50-S9
Z7301-SS-MT-DV2P-HW-1.75-S8
Z7302-SS-MT-DV2P-HW-1.50-S9
Z7302-SS-MT-DV2P-HW-1.75-S8

Zurn 0.5 Gallon Aerators

Zurn AquaSpec G62620
3F manual faucet female 0.5 GPM vandal resistant aerator.

Zurn AquaSpec G63507
3M manual faucet male 0.5 GPM vandal resistant aerator.

Zurn Commercial Brass P6900-20F
Sensor faucet 0.5 GPM vandal resistant aerator.

Zurn Commercial Brass P6900-20F-GN
Sensor faucet 0.5 GPM gooseneck vandal resistant aerator.

Zurn's "Green" Product Offerings

Not all products contribute enough to justify LEED certification points. However, the building is certified as an overall entity and every savings opportunity helps. Zurn has other low water consumption products available for the Green conscious building owner.

Zurn Energy Efficient Hand Dryer (reduces dry-time by over 50%)

Zurn Commercial Brass Z6704

This energy efficient hand dryer is a sensor operated hot air hand dryer and incorporates an internally mounted infrared sensor, and electric heating element. Its energy efficient motor delivers a powerful blast of heated air at a much lower energy cost as compared to other sensor hand dryers. It is also quieter than other existing models.

Zurn Energy Efficient Hydro-Electric Power Generator

Zurn's new AquaSense® Hydro-electric Power Generator for sensor faucets is an in line power generator that connects between the faucet shank and solenoid box and generates power while faucet is in use. When used in conjunction with Zurn's low flow 0.5 GPM aerators, the sensor faucet provides substantial water savings and energy savings over standard faucets and even standard sensor faucets that use either battery or hardwire power.

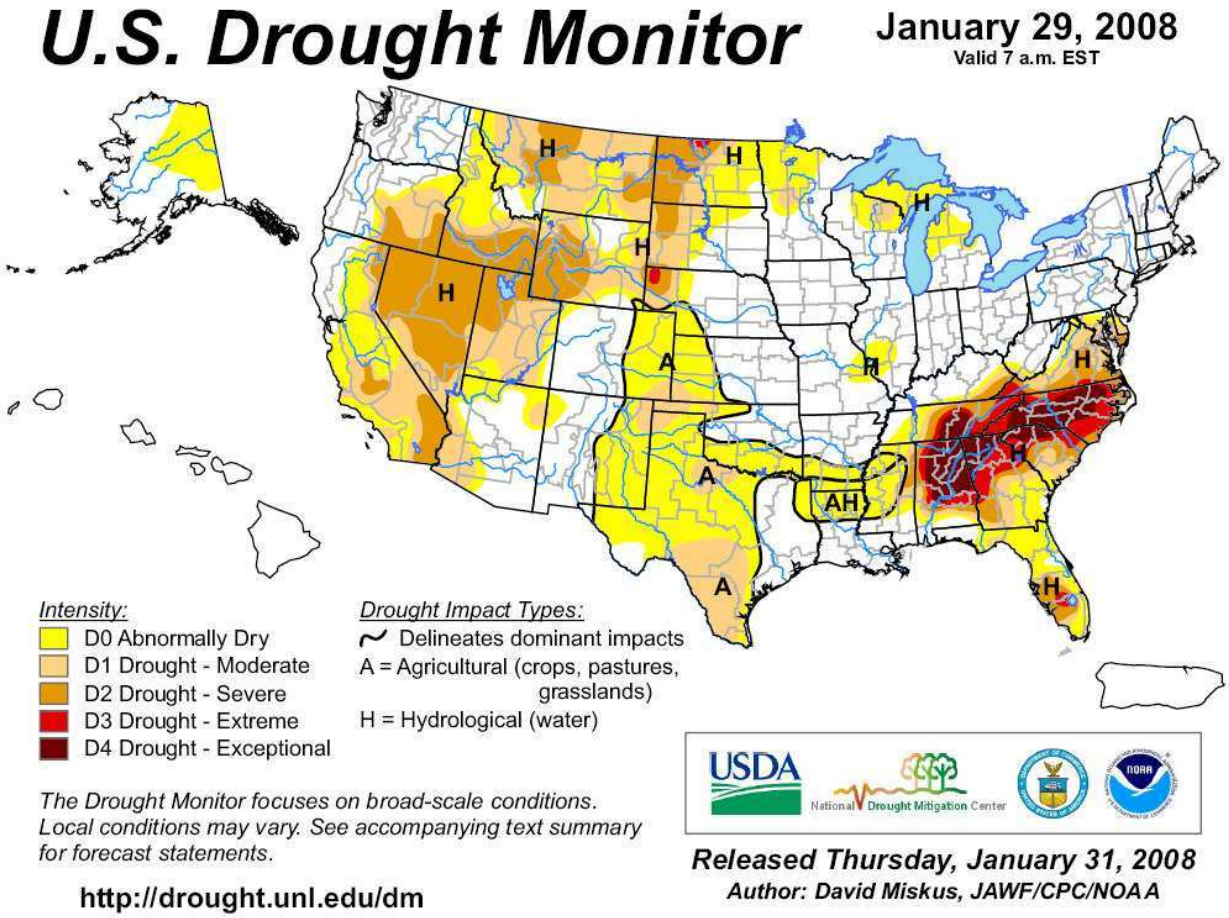
Wilkins Pressure Reducing Valves

Wilkins pressure reducing valves can reduce water usage up to one third for landscaping.

Wilkins direct acting pressure regulators models BR4, 70, 600, and 500 all contribute to water conservation. Wilkins pressure reducing control valve model ZW109 will also contribute for this water saving credit.

US Drought – A Serious Problem Needing Serious Solutions

Learn More About the US Drought Conditions and Water Conservation Importance



The US Drought affects everyone. States that are drought ridden pull water from neighboring states which reduces water in the source state for consumption, but also increases the water rates for everyone involved. Learn more about drought conditions at http://drought.unl.edu/dm/about.html.

Measuring The Drought: Southeast Drought Hits Crisis Point

"The Southeast's worst drought in more than a century is forcing parched states and communities into crisis measures to conserve water and fight for access to more. A region accustomed to plentiful rain from tropical storms and hurricanes is experiencing its second straight year of less rain in the summer and fall.

"This idea of wait-and-see, because some (rain) might be around the corner, can really suppress timely responses," says Mike Hayes, director of the National Drought Mitigation Center.

Urgent efforts range from shutting down small-town car washes in North Carolina to a total ban on outdoor watering in Atlanta. Georgia's top water official, environmental Commissioner Carol Couch, says industrial and commercial water users very likely will have to make "across-the-board reductions" next.

Outdoor watering bans already cover the northern third of Georgia and dozens of cities, counties and towns in surrounding states. Farmers are selling cattle because pastures have dried up. Alabama's Elmore County had to bring in floating pumps and barges to extend its water intake pipe farther out into shrinking Lake Martin. Georgia might have to do the same at Lake Lanier, Atlanta's main water source.

Although rain is due today across parts of the region, it will barely dampen the 16-month drought. Through September, it is the region's driest year in 113 years of record-keeping. In five of the six worst-hit states, rain totals

this year are close to a foot below normal. It is the driest year on record for North Carolina and Tennessee, second-driest in Alabama and third-driest in Kentucky. A tree-ring study this summer of Tennessee's rainfall history shows this is the third-driest year for the state in at least 350 years, behind only 1839 and 1708.

Georgia Gov. Sonny Perdue said this week that he will sue the Army Corps of Engineers unless the federal agency holds back more water in Lake Lanier. The corps, which by law must release water downstream to protect endangered aquatic species, says it is "exploring possible drought contingency options." By various estimates, the lake has only two to four months' supply left. Couch says if the water releases are not curbed, metro Atlanta could need water deliveries from the Federal Emergency Management Agency.

In Tennessee, towns below Normandy Dam south of Nashville convinced the Tennessee Valley Authority this week to begin "winter pool" storage of water a month and a half ahead of its usual Dec. 1 start to protect their dwindling supply. Monteagle, Tenn., is buying 350,000 gallons a day from three neighboring towns and enforcing mandatory curbs in water use.

Hayes says the severe conditions in the Southeast are busting myths that drought strikes only semiarid regions and that the West is more vulnerable than the rainy East.

"If it can happen there, it can happen anywhere," he says."

(Source: USA TODAY http://www.usatoday.com/weather/news/2007-10-19-drought_N.htm Measuring The Drought: Southeast Drought Hits Crisis Point October 19, 2007)

Additional Information

Zurn – Information on innovative water conservation fixture systems and applicable LEED™ credits. www.zurn.com

Stand Up For The Earth – Zurn sponsored site dedicated to partnering with other corporations to spread the Green Movement and help organizations reduce their environmental impact and to recognize those that achieve this commitment. www.standupfortheearth.org

Energy Policy Act – Information about the Act and baseline water use calculations
http://www.energy.gov/about/EPAct.htm

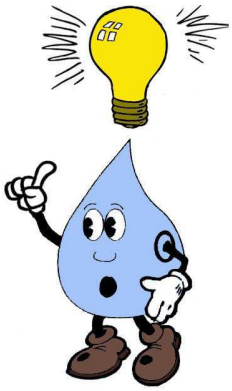
US Green Building Council – Information about green building and LEED™ certification. www.usgbc.org

American Water Works Association – Information and news about water efficiency. www.awwa.org

U.S. Environmental Protection Agency – Information about water saving programs, products, ideas.
http://www.epa.gov/ebtpages/water.html

U.S. Department of Energy – Information about water efficiency technologies.
http://www1.eere.energy.gov/femp/water/water_faqs.html

Hundreds of ways to save water…



#1. There are a number of ways to save water, and they all start with you.

#2. When washing dishes by hand, don't let the water run while rinsing. Fill one sink with wash water and the other with rinse water.

#3. Evaporative coolers require a seasonal maintenance checkup. For more efficient cooling, check your evaporative cooler annually.

#4. Check your sprinkler system frequently and adjust sprinklers so only your lawn is watered and not the house, sidewalk, or street.

#11. Check your water meter and bill to track your water usage.

#16. If your shower can fill a one-gallon bucket in less than 20 seconds, then replace it with a water-efficient showerhead.

#24. Install low-volume toilets.

#28. Put food coloring in your toilet tank. If it seeps into the toilet bowl, you have a leak. It's easy to fix, and you can save more than 600 gallons a month.

#42. Before you lather up, install a low-flow showerhead. They're inexpensive, easy to install, and can save your family more than 500 gallons a week.

#56. Encourage your school system and local government to help develop and promote a water conservation ethic among children and adults.

#60. Make sure there are aerators on all of your faucets.

#67. Do one thing each day that will save water. Even if savings are small, every drop counts.

#78. Support projects that use reclaimed wastewater for irrigation and other uses.

#80. Encourage your friends and neighbors to be part of a water-conscious community.

#81. If your toilet was installed prior to 1980, place a toilet dam or bottle filled with water in your toilet tank to cut down on the amount of water used for each flush. Be sure these devices do not interfere with operating parts.

#109. Have your plumber re-route your gray water to trees and gardens rather than letting it run into the sewer line. Check with your city codes, and if it isn't allowed in your area, start a movement to get that changed.

More found at www.wateruseitwisely.com ; http://www.wateruseitwisely.com/100ways/se.shtml

MORE FUN WATER FACTS

It takes about 1 gallon of water to process a quarter pound of hamburger.

It takes 2,072 gallons of water to make four new tires.

Sources of water pollution include: oil spills, fertilizer and agricultural run-off, sewage, storm-water, and industrial wastes.

Ancient Egyptians treated water by siphoning water out of the top of huge jars after allowing the muddy water from the Nile River to settle.

Hippocrates, known as the father of medicine, directed people in Greece to boil and strain water before drinking it.

In the 1950's scientists began to suspect that water might carry diseases. Although earlier treatment of water could make the water safer, it was mainly done to improve the taste, smell or looks of the water.

The first United States water plant with filters was built in 1872 in Poughkeepsie, New York.

In Altona, Germany in 1892, the water from the Elbe River filtered before drinking. At the time, hundreds of people from nearby Hamburg (which did not filter their water) died from cholera. The citizens of Altona were untouched by this waterborne disease.

In 1908, Jersey City, New Jersey and Chicago, Illinois were the first water supplies to be chlorinated in the United States.

Start the Water Conservation Revolution With Zurn's EcoVantage Products

How Zurn Can Save You Water and Money Easily

Urinals - 1.0, 1.5, 3.0 GPF	**When a facility replaces or retro-fits its existing urinals with 1/8th GPF, waterless urinals or 0.5 GPF flush valve diaphragm kits in pre-existing urinals, they can save up to almost 90% water over their standard urinal fixtures.**
Toilets – 1.6 GPF	**When a facility replaces or retro-fits its existing 1.6 GPF toilets with 1.28 GPF EcoVantage toilets, their average savings can exceed another 20% savings over standard toilet fixtures. If an existing building still uses 3.5 GPF fixtures, these savings can exceed the 30% savings criteria for LEED certification easily.**
Faucet Aerators	**When a facility replaces or retro-fits its existing faucet aerators with 0.5 GPM or 1.0 GPM aerators, they can swiftly save over 50% of their water use over the current 2.0 GPM standard aerator faucets.**
Faucets	**When a facility replaces or retro-fits its existing manual faucets with low-flow consumption metering faucets or low-flow sensor consumption faucets, not only will the facility see immediate water savings, but the overall cleanliness of the restroom will increase.**
Flush Valves	**Installing sensor retro-fit kits on a facility's manual flush valves or even installing dual-flush handles are great ways to save water and money. Sensor Flush Valves have evolved and can also be easily retro-fitted onto your existing valves for enhanced cleanliness and provide consistent water conservation. Dual-flush handles gives the user the power to save and gives them a sense of contribution.**
Food Services Pre-Rinse Devices	**Replacing existing pre-rinse devices with a 1.24 GPM @ 60 PSI pre-rinse unit for commercial kitchen sinks is an impressive water saver. Most standard pre-rinse units use between 2 and 6 gallon per minute at 60 PSI. The savings is more than 60% and still provides impressive cleaning capabilities.**

What the Savings Mean With Zurn EcoVantage Products

Zurn 1.28 EcoVantage Closets Water and Cost Savings

- Industry statistics say the average water-closet uses per year
  - 1.6 gallons – 43,200 gallons
  - 3.5 gallons – 94,500 gallons
- Average cost of water $7.00/1,000 gallons
- Closet cost per year
  - 1.6 gallons = $ 302.00/year
  - 3.5 gallons = $ 662.00/year
- Average yearly cost of Zurn 1.28 EcoVantage Closet
  - 2250 flushes x 12 months x 1.28 gallons = 34,600 gallons
  - 34,600/1,000 x $7.00 = $242.20/year
- Average yearly savings with the Zurn 1.28 EcoVantage Closet

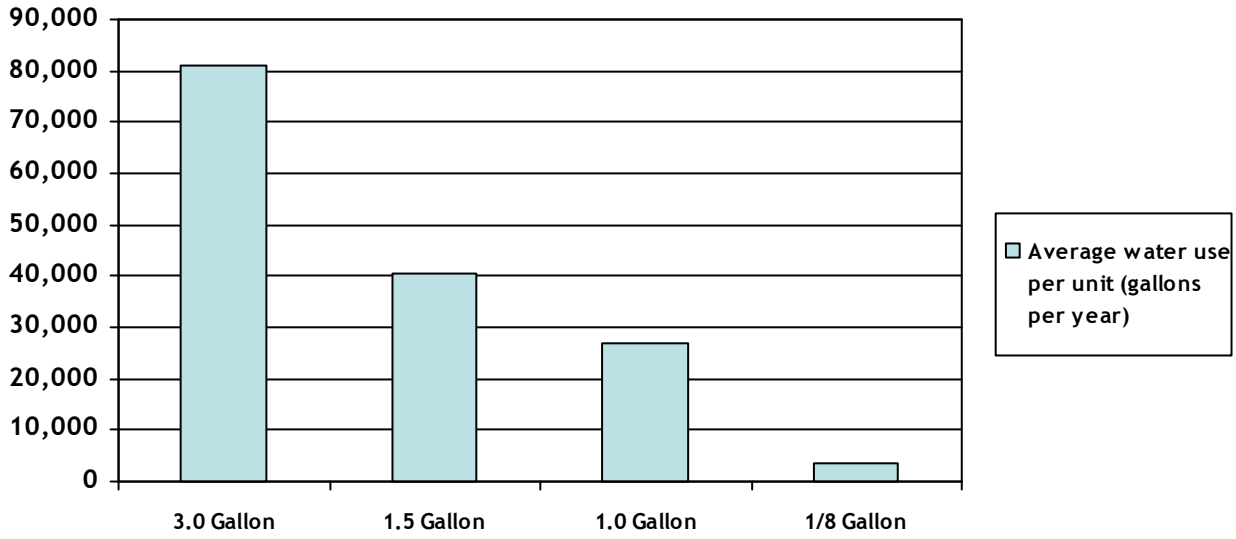
Cost Savings $$$	Water Savings
Vs. 1.6 gallon = $ 60.00	8,600 gallons
Vs. 3.5 gallon = $ 420.00	60,000 gallons

Zurn 1/8 Gallon Urinal Z5798 Water and Cost Savings

- Industry statistics say the average urinal uses per year
  - 1.0 gallon – 27,000 gallons
  - 1.5 gallon – 40,000 gallons
  - 3.0 gallon – 81,000 gallons
- Average cost of water $ 7.00/1,000 gallons
- Watered urinal cost per year
  - 1.0 gallon - $ 189.00/year
  - 1.5 gallon - $ 283.50/year
  - 3.0 gallon - $ 562.00/year
- Average yearly cost of Zurn Z5798 1/8 gallon urinal
  - 2250 flushes x 12 months x .125 gallons = 3375 gallons
  - 3375/1,000 x $ 7.00 = $ 23.63/year
- Average yearly savings with the Zurn 1/8 gallon urinal

Cost Savings $$$	Water Savings
Vs. 1.0 gallon - $ 165.00	24,000 gallons
Vs. 1.5 gallon - $ 260.00	37,000 gallons
Vs. 3.0 gallon - $ 543.00	78,000 gallons

Water and Cost Savings Analysis: Urinals



Compared to this type of urinal	***Cost savings per year to use 1/8 gallon***	***Water Savings per year to use 1/8 gallon***
1.0 Gallon	$165.00	23,600 gallons
1.5 Gallon	$259.87	37,125 gallons
3.0 Gallon	$542.37	77,625 gallons

Typical Water Conservation – Industrial / Commercial Fixtures Application

Fixture	Frequency of Use*	Flow Rate		Water Consumption (Total Gallons)		
		EPAct, 1992 (LEED baseline)	Low Flow System	EPAct, 1992 (LEED baseline - Gallons)	Low Flow System Use (Gallons)	Low Flow System Savings (Gallons)
Water Closet – male	1	1.6 GPF	1.28 GPF	80	64	16
Urinal - male	2	1.0 GPF	0.125 GPF	100	12.5	87.5
Water Closet - female	3	1.6 GPF	1.28 GPF	240	192	48
Daily Total				420	268.5	151.5
Yearly Total				109,200	69,810	39,390
Water Savings (Total savings over baseline criteria)						36.07%

*Frequency of Use – Source: *Water Use and Conservation*, by Amy Vickers, Waterplow Press 1992

Typical Water Conservation – Industrial / Commercial Faucets/Showers Application

	Frequency of Use	Flow Rate		Water Consumption (Total Gallons)		
		EPAct, 1992 (LEED baseline)	Low Flow System	EPAct, 1992 (LEED baseline - Gallons)	Low Flow System	
					Use (Gallons)	Savings (Gallons)
Lavatory Faucets	3 mins.**	2.2 gpm	0.5 gpm	660	150	510
Kitchen Faucets	1 min.**	2.2 gpm	1.5 gpm	220	150	70
Showers	5.3 mins.**	2.6 gpm	1.5 gpm	331.28	198.77	132.51
Daily Total				1211.28	498.77	712.51
Yearly Total				314,932.8	129,680.2	185,252.6
Water Savings (Total savings over baseline criteria)						58.83%

*Frequency of Use – Source: Water Use and Conservation, by Amy Vickers, Waterplow Press 1992
**100 uses on Lavatory Faucets, Kitchen Faucets and Showers are calculated.

Typical Water Conservation – Industrial / Commercial Application Total

Fixtures	Water Consumption (Total Gallons)		
	EPAct, 1992 (LEED baseline - Gallons)	Low Flow System	
		Use (Gallons)	Savings (Gallons)
Water closets (male & female) & Urinals (male)	420	268.5	151.5
Faucets (Kitchen & Lavatory) & Showers	1,211.28	498.77	712.51
Daily Total	1,631.28	767.27	983.51
Yearly Total	424,132.8	199,490.2	255,712.6
Water Savings (Total savings over baseline criteria)			**60.29%**

Calculated totals from charts above: Typical Water Conservation – Industrial / Commercial Fixtures Application and Typical Water Conservation – Industrial / Commercial Faucets/Showers Application

EVEN MORE FUN WATER FACTS

The Safe Drinking Water Act (SDWA) of 1974 represents the first time that public drinking water supplies were protected on a federal (national) level in the United States. Amendments were made to the SDWA in 1986 and 1996.

New Jersey Legislature approved the New Jersey Safe Drinking Water Act, which authorized the New Jersey Department of Environmental Protection to assume primacy and enforcement responsibility for the Federal Safe Drinking Water Program.

Without water, the earth would look like the moon.

All living things need water to live. People can live several weeks without food, but only a few days without water. We should drink six to eight glasses of water each day!

Water makes up 83% of our blood, 70% of our brain, and 90% of our lungs. Overall, our bodies are 70% water.

A tomato is about 95% water. An apple, a pineapple, and an ear of corn are each 80% water.

Zurn Waterless Urinal Z5795 Water and Cost Savings Analysis

- Industry statistics say the average urinal uses per year
  - 1.0 gallon – 27,000 gallons
  - 1.5 gallon – 40,500 gallons
  - 3.0 gallon – 81,000 gallons
- Average cost of water $ 7.00/1,000 gallons
- Watered urinal cost per year
  - 1.0 gallon - $ 189.00/year
  - 1.5 gallon - $ 283.50/year
  - 3.0 gallon - $ 567.00/year
- Average yearly cost of Zurn Z5795 Waterless Urinal
  - 12 months x $ 2.50 (4 oz. of Zurn AquaGreen trap sealant) = $ 30.00
- Yearly savings with Zurn Z5795
  - 1.0 gallons - $ 189.00 - $ 30.00 = $ 159.00/Year
  - 1.5 gallons - $ 283.50 - $ 30.00 = $ 263.50/Year
  - 3.0 gallons - $ 567.00 - $ 30.00 = $ 532.00/Year

Water Saving Diaphragm Type Flush Valve Kits

P6000-ECR-PWS (2.4 GPF Closet Kit)

P6000-ECR-2.7 (2.7 GPF Closet Kit)

P6000-ECR-EWS (0.5 GPF Urinal Kit)

***The Zurn Water Saving flush valve kits can be used in all of Zurn's diaphragm type flush valves and can be retro-fitted to most competitors' diaphragm type flush valves.

Typical Savings – Just Using the 2.7 Kit

(Assumes an existing building still has 3.5 GPF fixtures. New buildings require 1.6 GPF by law.)

3.5 GPF – 2.7 GPF = 0.8 GPF

0.8 GPF X 2,250 = 1,800 Gallons

1,800 Gal x 12 Mo. = 21,600 Gallons

21,600/1000 x $7.00 = $151.20 Saved/Year

Zurn Water Conserving, Pressure Compensating Aerators

AquaSpec G62620

3F Manual Faucet Female 0.5 GPM Vandal-Resistant Aerator

AquaSpec G63507

3M Manual Faucet Male 0.5 GPM Vandal-Resistant Aerator

Commercial Brass P6900-20F

Sensor Faucet 0.5 GPM Vandal-Resistant Aerator

Commercial Brass P6900-20F-GN

Sensor Faucet 0.5 GPM Gooseneck Vandal-Resistant Aerator

Quick Water Savings

Assumption 100 occupants

Existing Aerators 2.5 gallons

Each person washes 3 times per day for 15 seconds each.

100 people x 3 = 300 x 15 sec. = 4500y 60 = 75 min/day

52 weeks x 5 days = 260 days x 75 min = 19,500 min

2.5 GPM x 19,500 = 48,750 gallons / year

1.0 GPM x 19,500 = 19,500 gallons / year

0.5 GPM x 19,500 = 9,750 gallons / year

At $7.00 / 1,000 gallons of water

2.5 GPM Aerator	48,750 gal/yr	$341.25
1.0 GPM Aerator	19,500 gal/yr	$136.50
0.5 GPM Aerator	9,750 gal/yr	$ 68.50

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