

Building Safety is Global

Week 5 – Solving Challenges Together (May 29th – 31st)

Week 5 of Building Safety Month elevates to a global scale and addresses some of the issues that we face as a global community including extreme weather events and water scarcity. Safety Tips and Information is provided by the International Code Council. Go to www.buildingsafetymonth.org for more awareness about building safety. Join the Building Safety Month conversation – tag the International Code Council on social media and use #BuildingSafety365 to help spread the word!



Global Water Scarcity

Clean water is the world's most precious commodity, and public health depends on safe and readily available water. The [World Health Organization](#) estimates over two billion people live in water-stressed countries, which is expected to worsen in some regions due to a changing climate and population growth. Water conservation and efficiency issues have become crucial conversations amongst building safety professionals in recent years. The building industry looks to increase water efficiency through innovative practices and technologies not just domestically, but worldwide. Here are some examples of countries in water-scarce areas that are innovating:

- Israel is leading the world through their policies, practices and technologies for its water resources and conservation, most notably through reclaiming over 80 percent of its wastewater and stormwater for agricultural operation.
- Saudi Arabia boasts the highest production of desalinated water worldwide (removes salt out the Red Sea and Arabian Gulf) and are in the process of converting their desalination plants to solar.
- Cape Town, South Africa, is incorporating automated domestic water metering installations to set a target water usage for each resident per day, leveraging alternative water sources and is updating their supply network infrastructure.
- The United Kingdom is cutting water use through water metering, incentives for water-saving technologies, hosepipe bans and investing in updating the country's water supply equipment.
- The North China Plain has addressed increasing agricultural demands on water through increased monitoring institutionalized water conservation practices, ground leveling and more efficient drainage and irrigation sprinklers.

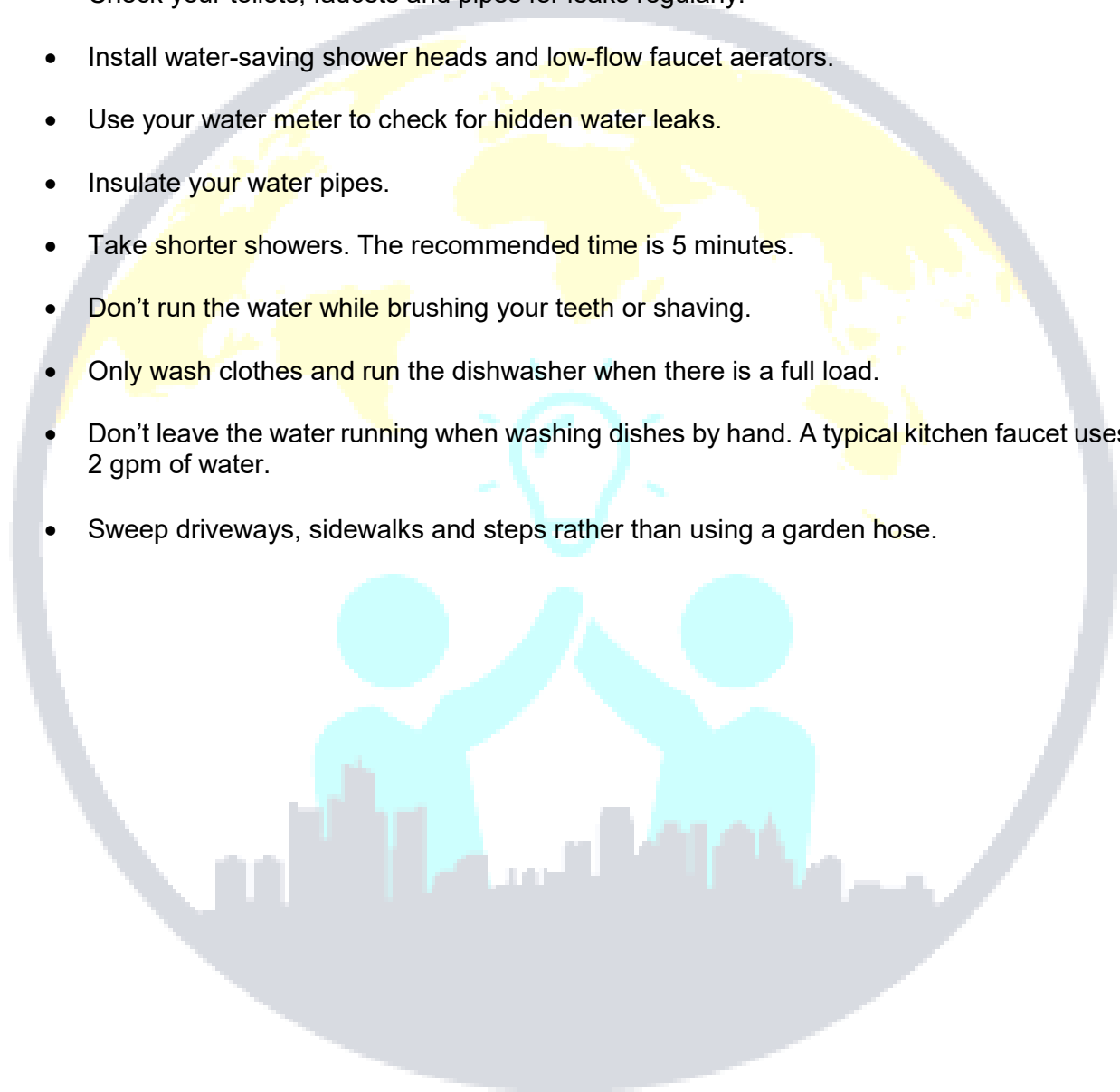
For more information on Global Water Scarcity:

- Pulse Podcast Episode 49 – [Flowing Forward: Solving America's Water Challenges](#)
- [EPA's WaterSense Program](#)
- [ICC Water: Standards for a Resilient Future](#)
- [Water Conservation & Efficiency Toolkit](#)

Conserving Water at Home

IMPORTANT TIPS – For Conserving Water at Home

- Don't flush trash down your toilet. One to three gallons of water are wasted every time you flush a cigarette butt, facial tissue or other small bits of trash.
- Check your toilets, faucets and pipes for leaks regularly.
- Install water-saving shower heads and low-flow faucet aerators.
- Use your water meter to check for hidden water leaks.
- Insulate your water pipes.
- Take shorter showers. The recommended time is 5 minutes.
- Don't run the water while brushing your teeth or shaving.
- Only wash clothes and run the dishwasher when there is a full load.
- Don't leave the water running when washing dishes by hand. A typical kitchen faucet uses 2 gpm of water.
- Sweep driveways, sidewalks and steps rather than using a garden hose.



Building Resiliency Solutions Around the World

Communities worldwide are experiencing an increase in disaster events that are significantly impacting their societies, economies and cultures. Here are a few resiliency success stories that we can all learn from:

- Copenhagen, Denmark is combatting flooding in one neighborhood by replacing asphalt with innovative tiles that allow rainwater to seep back into groundwater aquifers.
- After severe earthquakes in 2011 and 2016, New Zealand has incorporated base isolation systems that allow a building's foundation to move horizontally to dissipate seismic forces.
- The Netherlands have addressed their vulnerability to flooding by creating a "Room for the River" program that creates diversions, restores riverine landscapes and removes silt to combat river floods.
- Bialystok, Poland has built green bus stops designed to withstand intense rainfall, strong winds, drought and heat waves. They feature vegetation on the roof and walls and can retain up to 250 liters of rainfall.
- Canada's Zibi waterfront city is a 34 acre master-planned community that relies on post-industrial waste energy for heating and the Ottawa River for cooling, and the urban design prevents local flooding.

For more information on Building Resiliency Solutions Around the World:

- Pulse Podcast Episode 48 – [Building Safety, a Global Mission](#)
- [Global Building Resilience Guidelines](#)
- [Global Building Codes Tool](#)
- [COP26 Presentation: The Global Resiliency Dialogue](#)

Modern Building Codes Support Sustainability

Globally, buildings and building construction sectors combined are responsible for over one-third of global final energy consumption and nearly 40 percent of total direct and indirect CO2 emissions. Modern building codes are at the core of conversations on increased energy efficiency and the reduction of greenhouse gas emissions. Here are a few ways that building codes and sustainability intersect:

- Energy codes like the International Energy Conservation Code (IECC) are highly effective in reducing energy use and GHGs while also saving building owners and tenants money and enhancing their resilience.
- The adoption of electric vehicles (EVs) and implementation of EV infrastructure through building codes supports the national goal of achieving net-zero GHG emissions by 2050.
- Off-site construction is popular around the world for its affordability and sustainability. ICC/MBI Standards [1200](#) and [1205](#) support off-site construction consistency and efficiency in planning, design, fabrication, assembly, inspection, and regulatory compliance.
- Energy codes can reduce the impacts of extreme heat events through provisions for efficient building envelopes and heating, ventilation, air-conditioning and refrigeration equipment, plus guidance on shading and reducing solar heat gain.
- Zero-energy buildings typically combine energy efficiency and renewable energy in a building to result in net zero energy consumption over the course of a year. The [2021 IECC](#) includes Zero Code appendices for both residential and commercial buildings.

For more information on Modern Building Codes Support Sustainability:

- [Leading the Way to Energy Efficiency](#)
- [The Central Role of Building Codes in Climate Adaptation and Mitigation](#)
- [2022 Moving Forward Report](#)
- [Energy Efficiency and Carbon Reduction](#)
- [What is Off-Site Construction?](#)