

BEYOND

SMART CITIES

WATER EFFICIENCY - GREEN BUILDING TECHNOLOGY

TRAINING PROGRAM

FOR GREEN BUILDING AND SUSTAINABILITY SPECIALIST

KRISHNAJI PAWAR, LEED AP BD+C, GSAS CGP, ISO 14001:2015, GCP

WATER EFFICIENCY SPECIALIST CURRICULUM

CERTIFIED WATER EFFICIENCY SPECIALIST

• CWES •



BEYOND

SMART CITIES

WATER EFFICIENCY SUMMARY AND RESOURCES

TRAINING PROGRAM

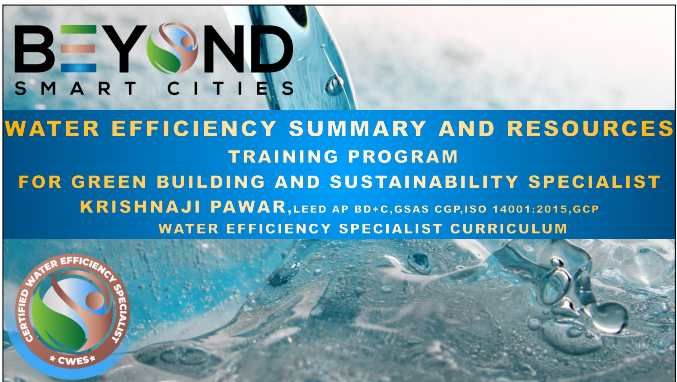
FOR GREEN BUILDING AND SUSTAINABILITY SPECIALIST

KRISHNAJI PAWAR, LEED AP BD+C, GSAS CGP, ISO 14001:2015, GCP

WATER EFFICIENCY SPECIALIST CURRICULUM

CERTIFIED WATER EFFICIENCY SPECIALIST

• CWES •



LEARNING OBJECTIVES



Water Efficiency Summary

Resources



CERTIFIED WATER EFFICIENCY SPECIALIST

• CWES •

SUMMARY

Learn Water Efficiency in Building

Overview of Water Efficiency

Recognize ways to reduce water use inside and outside the building and implement water metering to support better water management.

Understand Cooling tower water use

Water Demand Performance

Learn about water reuse performance and sub metering

Water Efficiency Summary and Synergies with respect to Green Building Rating System



OVERVIEW OF WATER EFFICIENCY

Water efficiency is concerned with interior and outdoor water conservation.

The natural water cycle is a constant movement of water resources between the atmosphere, soil water, surface water, ground water, and plants. This cycle purifies and replenishes freshwater resources. In light of the fact that human consumption of fresh water exceeds the natural cycle, water cannot be considered a renewable resource.

The environmental implications of water scarcity and depletion are mitigated by sustainable practices for the effective use of water and the collection, recycling, and reuse of water.



WHY IS THIS IMPORTANT FOR BUILDINGS?

According to the U.S. Geological Survey, the United States consumes more than 400 billion gallons of water daily. The operation of buildings, including landscaping, consumes approximately 47 billion gallons of water per day, or 12 percent of total water consumption.

As residential, commercial, industrial, and other growth increases, so does the need for the limited supply of potable water, water that is fit for human use. The majority of structures rely on municipal sources of potable water for their purposes, such as flushing toilets, washing dishes, and irrigating landscapes. Extreme conditions need water rationing as a result of the strain that high demand places on available supply.



WHY IS THIS IMPORTANT FOR BUILDINGS?



The untreated overflow can damage rivers, lakes, and the water table with bacteria, nitrogen, harmful metals, and other pollutants. Additional municipal supply and treatment facilities must be constructed at public expense in order to prevent this damage to the ecology. Pumping and treatment of water, both towards and away from the project, require additional energy, the production of which causes additional greenhouse gas emissions.



RESOURCES



<https://www.usgbc.org/resources>



BEYOND
SMART CITIES

THANK YOU
Water



**THE WORLD'S 1ST GREEN
TECHNOLOGY MARKETPLACE**
