

This presentation premiered at WaterSmart Innovations

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WaterSmart Innovations Conference
Las Vegas, NV

**Water Conservation or Water Efficiency:
What's the Difference?**

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October 9, 2008

Common Definitions

- **Demand management**
 - Change or reduction in water demand, though not necessarily water savings
- **Water productivity**
 - Goods, products, or services produced per unit of water used
 - “*Conservation boosts the productivity of water*”
- **“Save water”**
 - Preserve water supplies by reducing waste and eliminating unnecessary water use (e.g., hosing a sidewalk)
- **Water conservation**
 - “Beneficial” reduction in water loss, waste or use
- **Water efficiency**
 - Minimization of the amount of water used to accomplish a function, task or result

**“It’s not what you say, it’s
what people hear.”**

–Frank Luntz, “Words That Work”

Common Perceptions

- **“Water Conservation”**
 - Commonly used term but some now reject
 - “Sacrifice”
 - Thrift, personal denial
 - Dated concept, 19th century connotations
- **“Water Efficiency”**
 - Term that is growing in use
 - Technology-oriented
 - Cutting edge, modern
 - Green building

“True conservation of water is not the prevention of its use. Every drop of water that runs to the sea without yielding its full commercial returns to the nation is an economic waste.”

–Herbert Hoover (1926)

Does water have an intrinsic value besides its economic worth in the marketplace?

Where we cannot measure the economic value of water, should we conclude that it has no value?

conservation | ˌkɑːnsəˈrʌvən |

noun

the action of conserving something, in particular

- **preservation, protection, or restoration of the natural environment, natural ecosystems, vegetation, and wildlife.**

- **preservation, repair, and prevention of deterioration of archaeological, historical, and cultural sites and artifacts.**

- **prevention of excessive or wasteful use of a resource.**

—*Oxford American Dictionaries*

“Welcome to a brave new world of water-efficient practices, policies and products.... the premier venue for showcasing new water-efficiency technology to industry and business from around the globe.”

–www.watersmartinnovations.com/

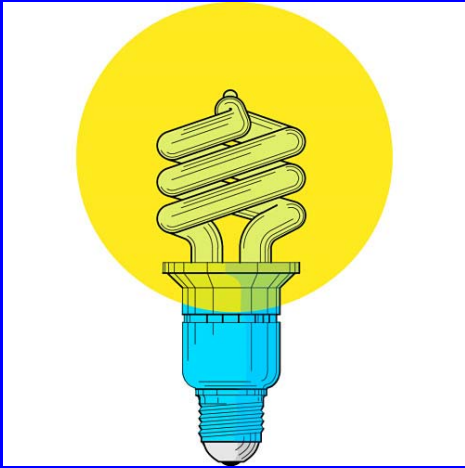
Two different definitions—and two different results.

Water Efficiency

- Better utilizing the volume of water applied, ***but not necessarily using less water***
- Product sales

Water Conservation

- Using less ***or no water***
- Limited or no product needs



Light bulb analogy

Replacing an incandescent light bulb with a compact fluorescent will *reduce* energy use. BUT simply not turning on the bulb will *eliminate* energy use.



“A smart controller will give you *a more efficient irrigation*, but it won't necessarily save you any water.”

–Irrigation Contractor (Jul08)

Jevons Paradox

As technological advances boost the efficiency by which a resource is used, total consumption of that resource may increase—not decrease.

- U.S. has achieved progress in energy end-use efficiency, but total and home per capita demand is rising!
- Similar phenomenon occurring with water
- GOAL: water efficiency or water conservation?

"It is wholly a confusion of ideas to suppose that the economical use of fuels is equivalent to a diminished consumption. The very contrary is the truth."

—William Stanley Jevons,
The Coal Question (1865)

“Efficiency is a ‘least bad.’”

*–William McDonough & Michael Braungart,
“Cradle to Cradle: Remaking the Way We Make Things”*

- “We would like to question the general goal of efficiency for a system that is largely destructive.”
 - An efficient Nazi?
- ‘Be less bad’ approaches are “a kind of guilt management for our collective sins, a familiar placebo in Western culture.”

Items

- Efficient lawn irrigation in a desert
- Plastic rain barrels
- Home snow-making kits, ice rinks and water features

Conditions for decisions . . .

- **Essential water uses: water efficiency approach**
 - *Minimize waste but don't eliminate use*
 - Nonshortage conditions, demand within safe yield and related environmental concerns
- **Nonessential water uses: water conservation approach**
 - *Allow conditionally or prohibit*
 - Shortage conditions, demand exceeding sustainable system yield and related environmental concerns, e.g., flow requirements

**“You can’t always get
what you want, but you
get what you need.”**

—Mick Jagger

Closing Thoughts

- *Water conservation* and *water efficiency* are **not** the same thing.
- Are you promoting
 - *water efficiency*, even though it may not always save water? OR
 - *water conservation*, reduction or elimination of water use?
- The words and definitions we embrace reflect our values and goals. And what we will accomplish.

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