

This presentation premiered at WaterSmart Innovations

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U.S. Department of Energy
**Energy Efficiency
and Renewable Energy**

Bringing you a prosperous future where energy
is clean, abundant, reliable, and affordable

Federal Energy Management Program

FEMP Water Efficiency Program Strategic Action Plan

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Federal Energy Management Program

The mission of the Federal Energy Management Program is to facilitate the Federal Government's implementation of sound, cost-effective energy management and investment practices to enhance the Nation's energy security and environmental stewardship.





Federal Water Working Group

The Federal Water Working Group is an interagency advisory group with a charter to develop strong partnerships, promote new technologies and tools, develop guidance on Federal water related policy, distribute information on best practices, and provide recognition for exemplary performance.





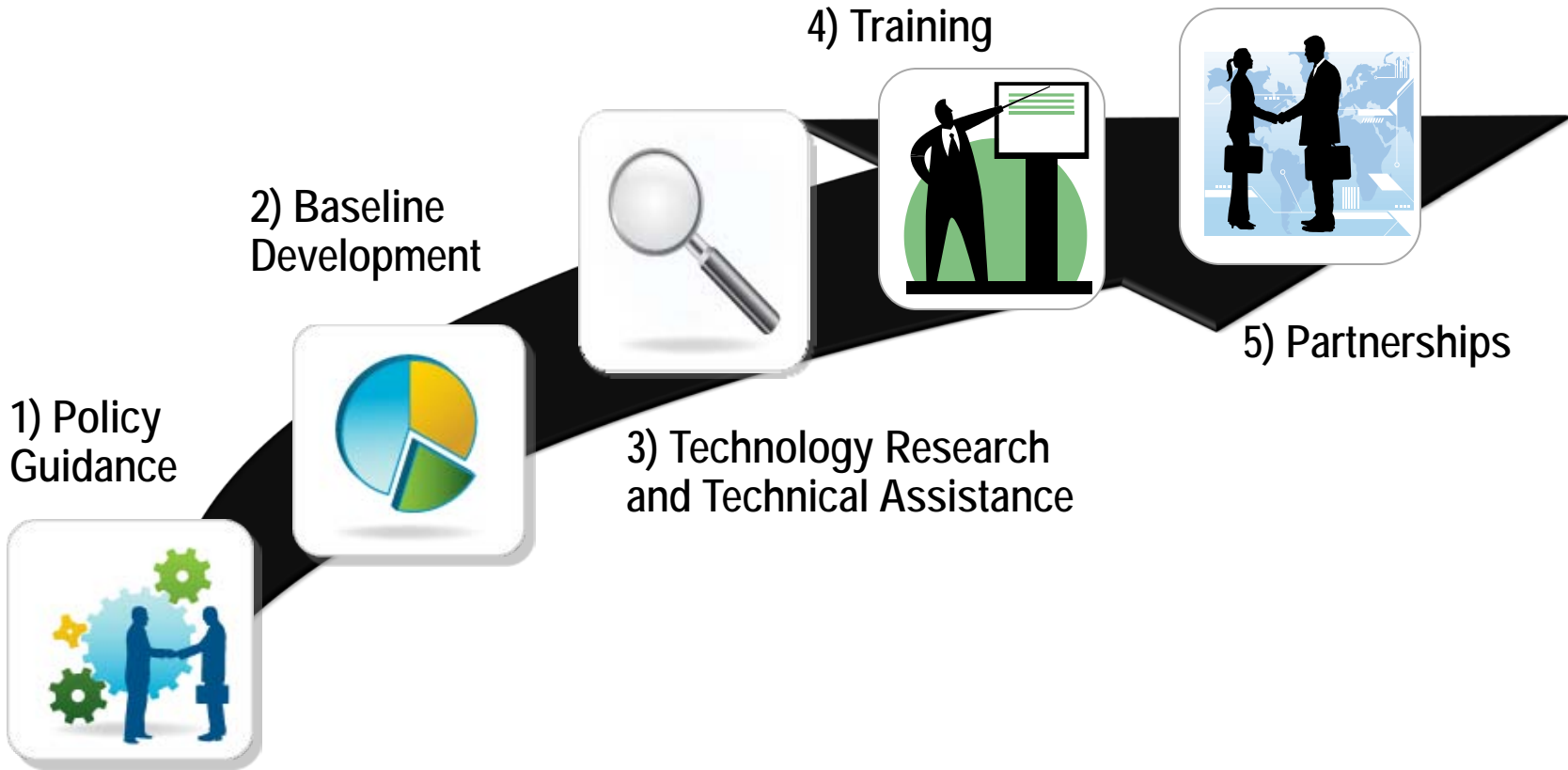
The Ultimate Goal....

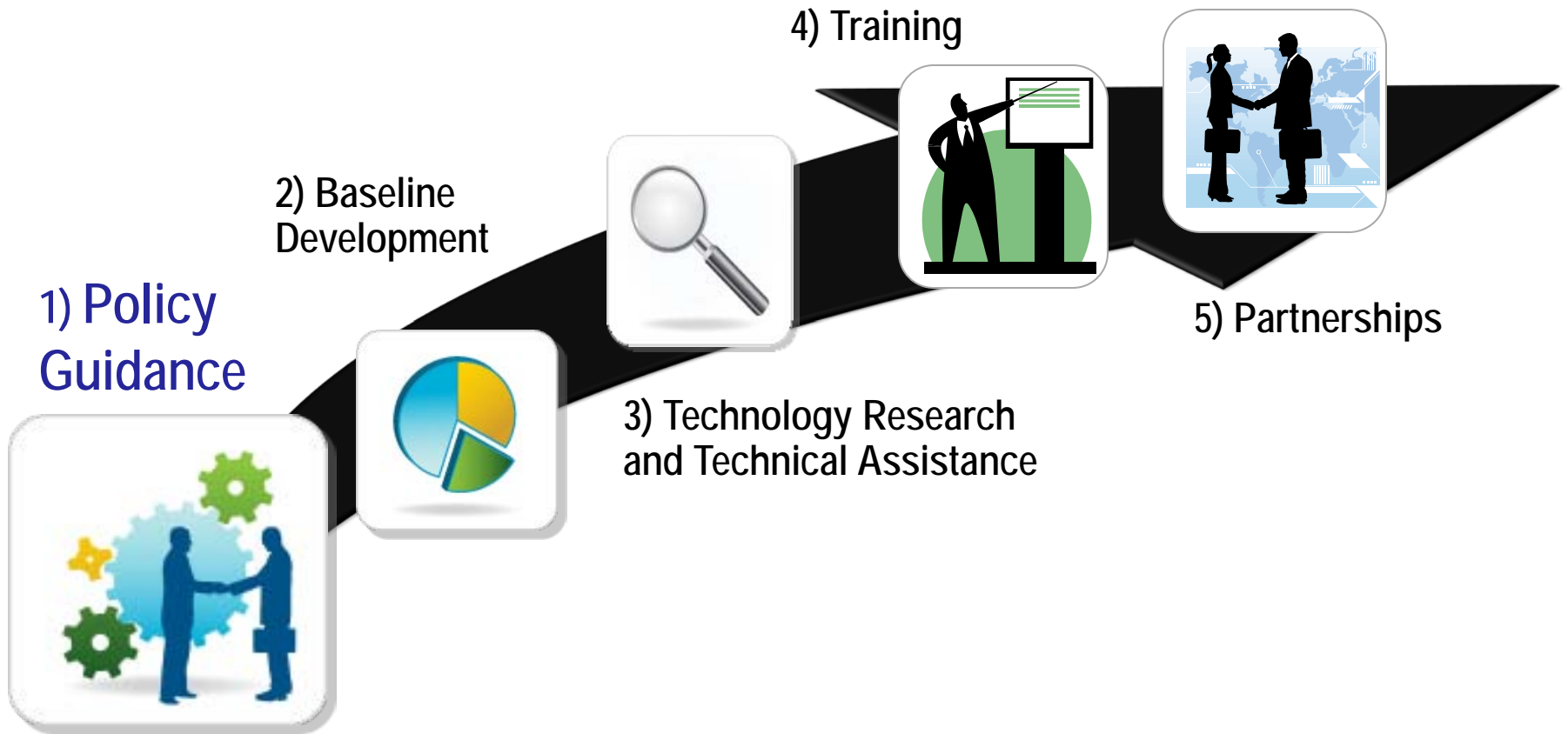


Increase water use efficiency and reduce
water use for Federal Agencies!



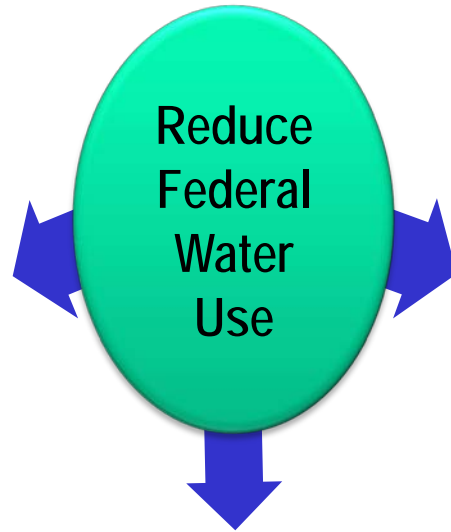
Strategic Action Plan







EO 13423
2% annual potable
water use intensity
reduction –
16% by 2015



EO 13514
Extends EO
13423 plus non-
potable water use
reduction

EISA
25% of facilities
evaluated for
water and energy
annually



1

- Reduce Potable Water Intensity

2

- Reduce Industrial, Landscaping, and Agricultural (ILA) Water Use Reduction

3

- Implement Water Reuse

4

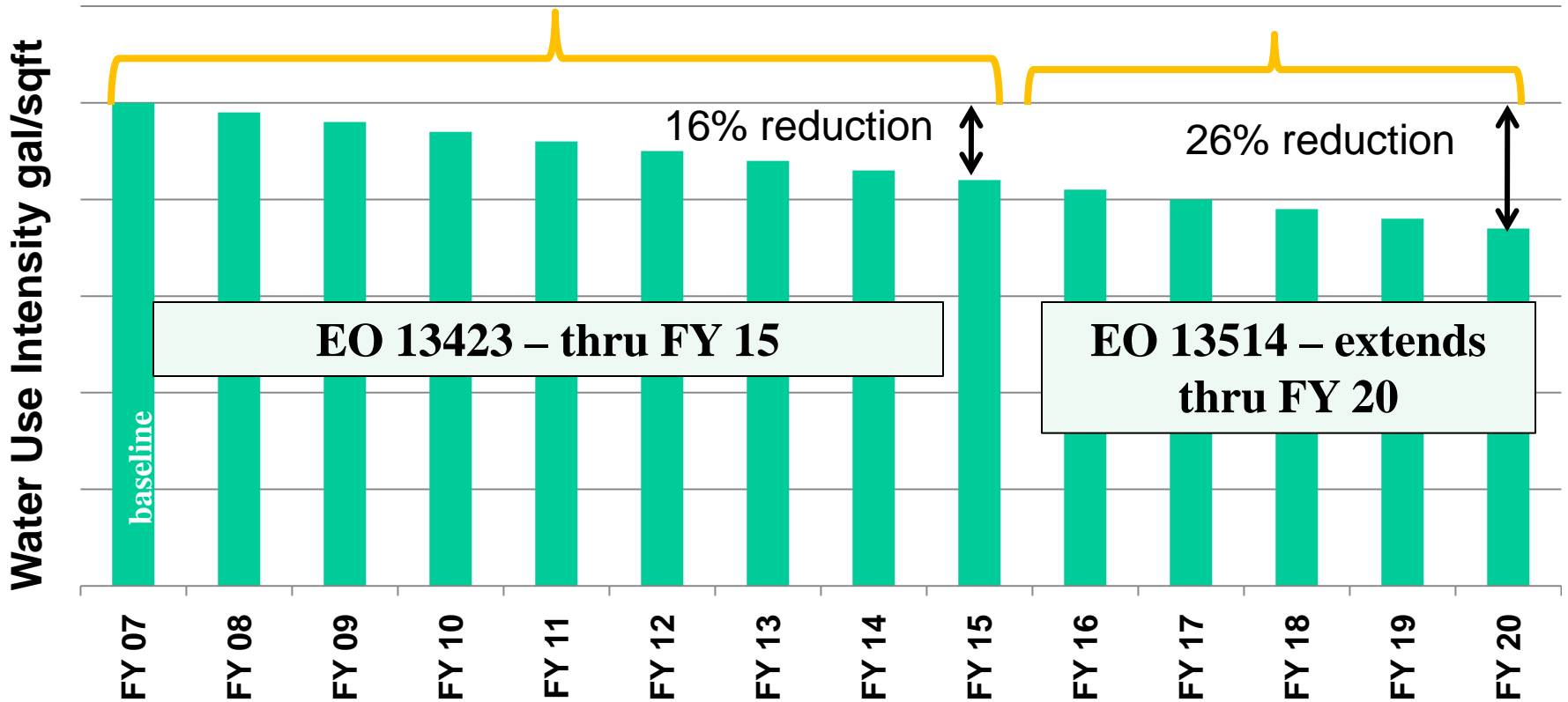
- Follow EPA Stormwater Guidance





Potable Water Reduction

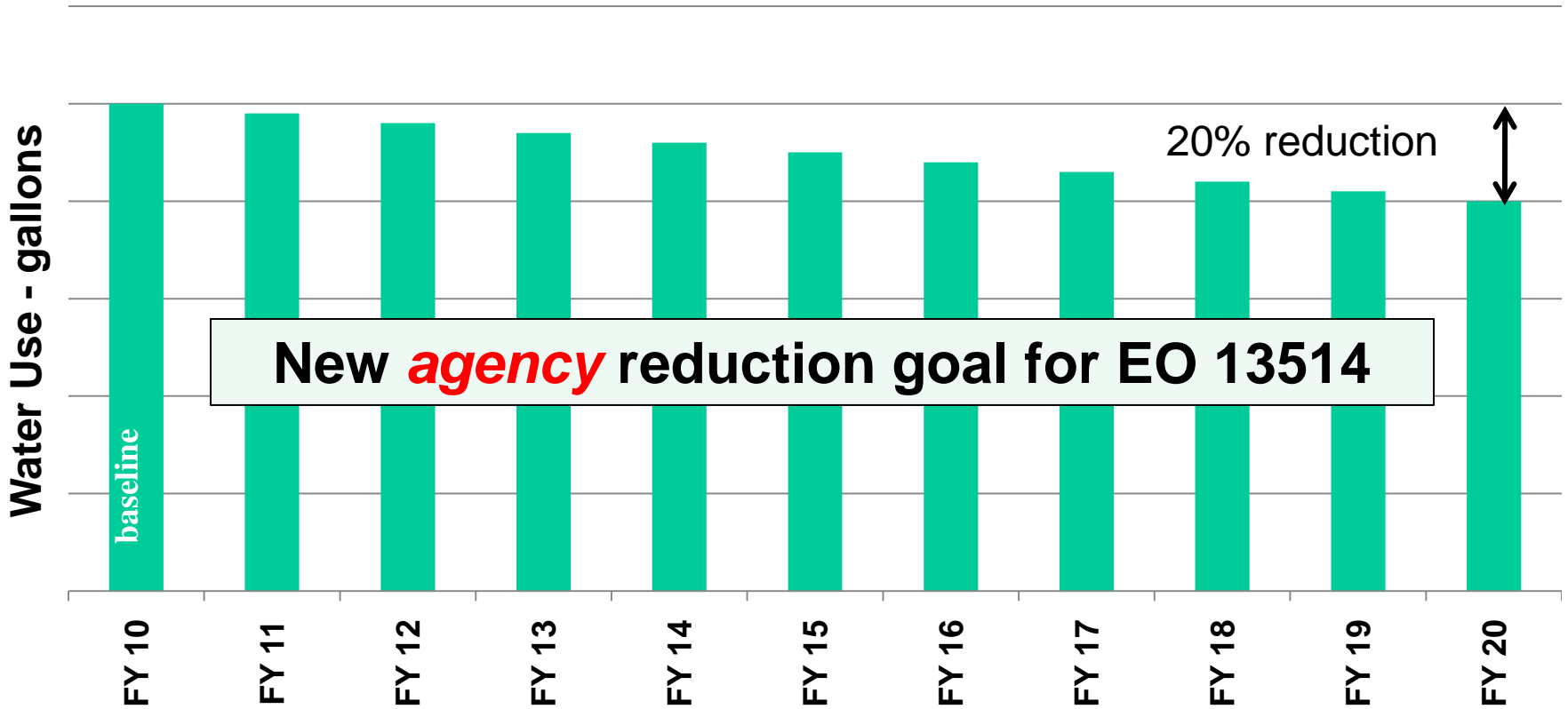
Water Use Intensity Reduction -- gallons/sqft 2% per year from FY 2007 through FY 2020





ILA Water Reduction

Volumetric Reduction -- gallons
2% per year from FY 2010 through FY 2020





EO 13514 Interpretation

Definitions

Baseline
guidance

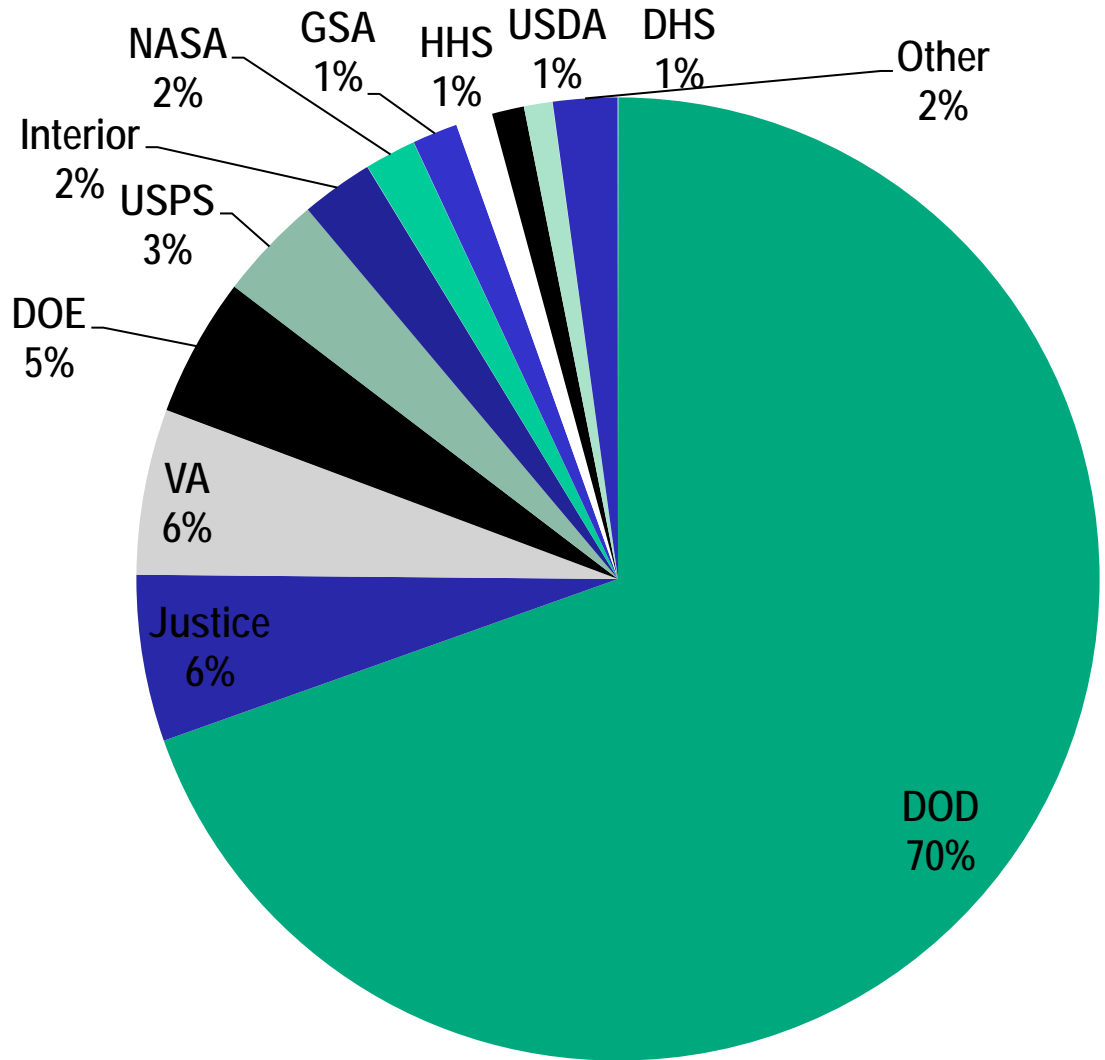
Exemption
requests







FY09 Federal Potable Water Use

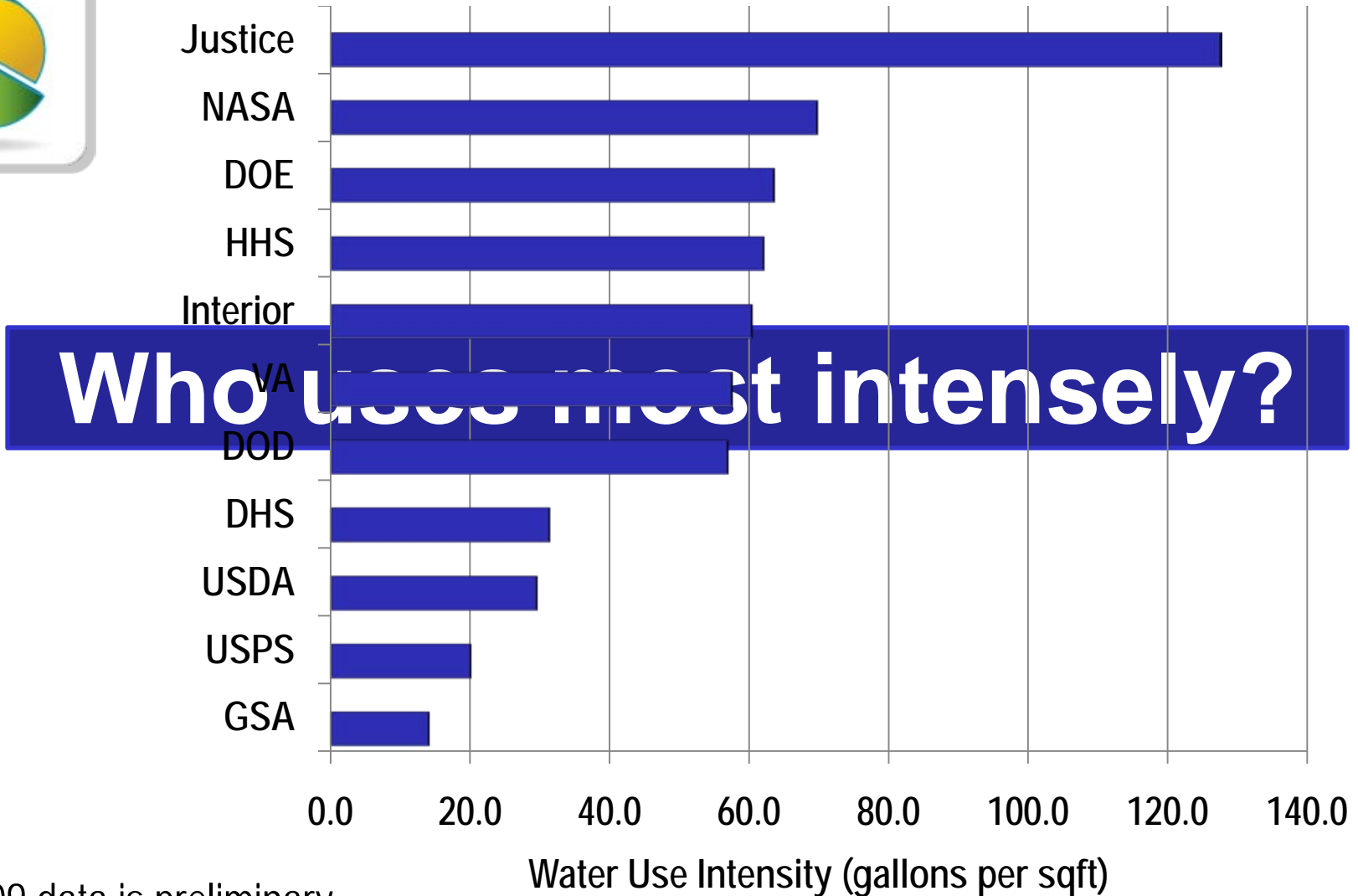


Total Federal FY 2009
Water Use:
160 Billion Gallons

FY 09 data is preliminary



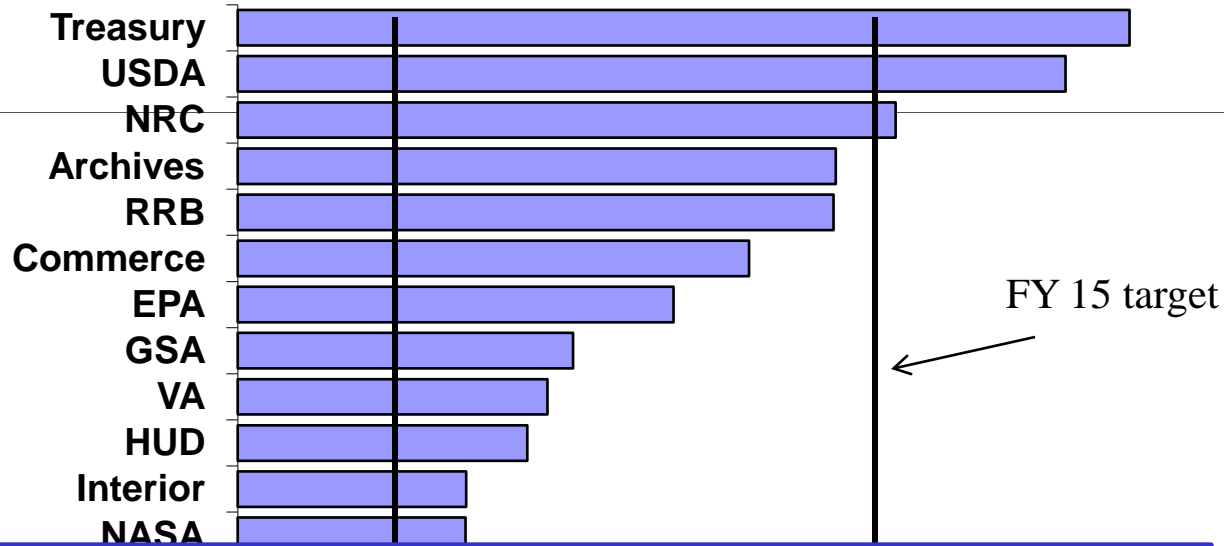
FY09 Federal Potable Water Use



FY 09 data is preliminary

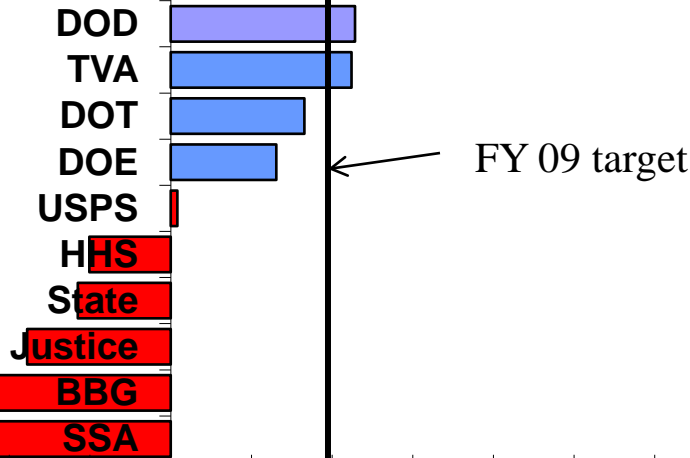


FY 09 Progress towards Potable Water Intensity Goal



FY 15 target

How are agencies doing?

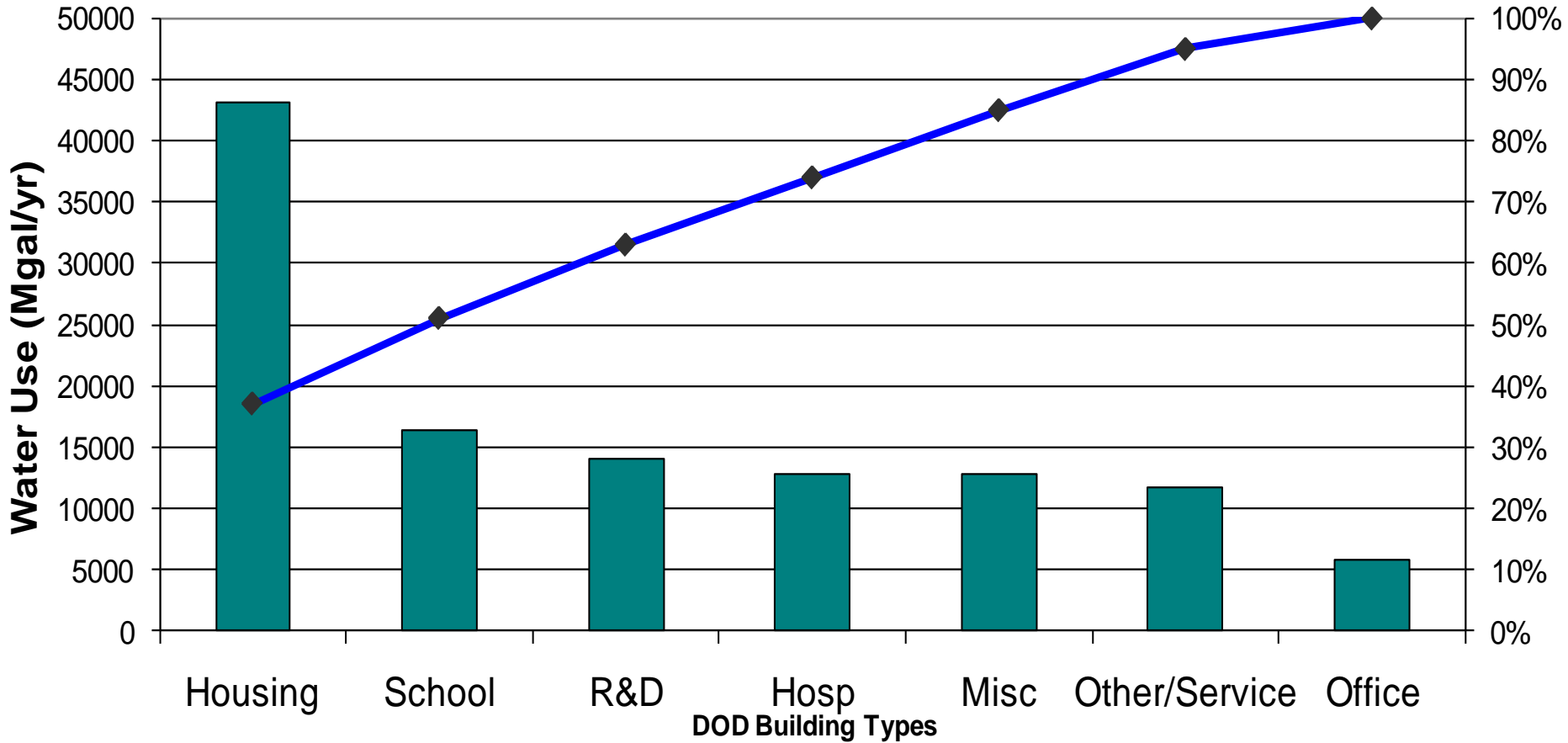


FY 09 target

-18% -16% -14% -12% -10% -8% -6% -4% -2% 0% 2% 4% 6% 8% 10% 12% 14% 16% 18% 20% 22% 24% 26%
FY 2009 Reductions in Gallons per Square Foot from FY 2007

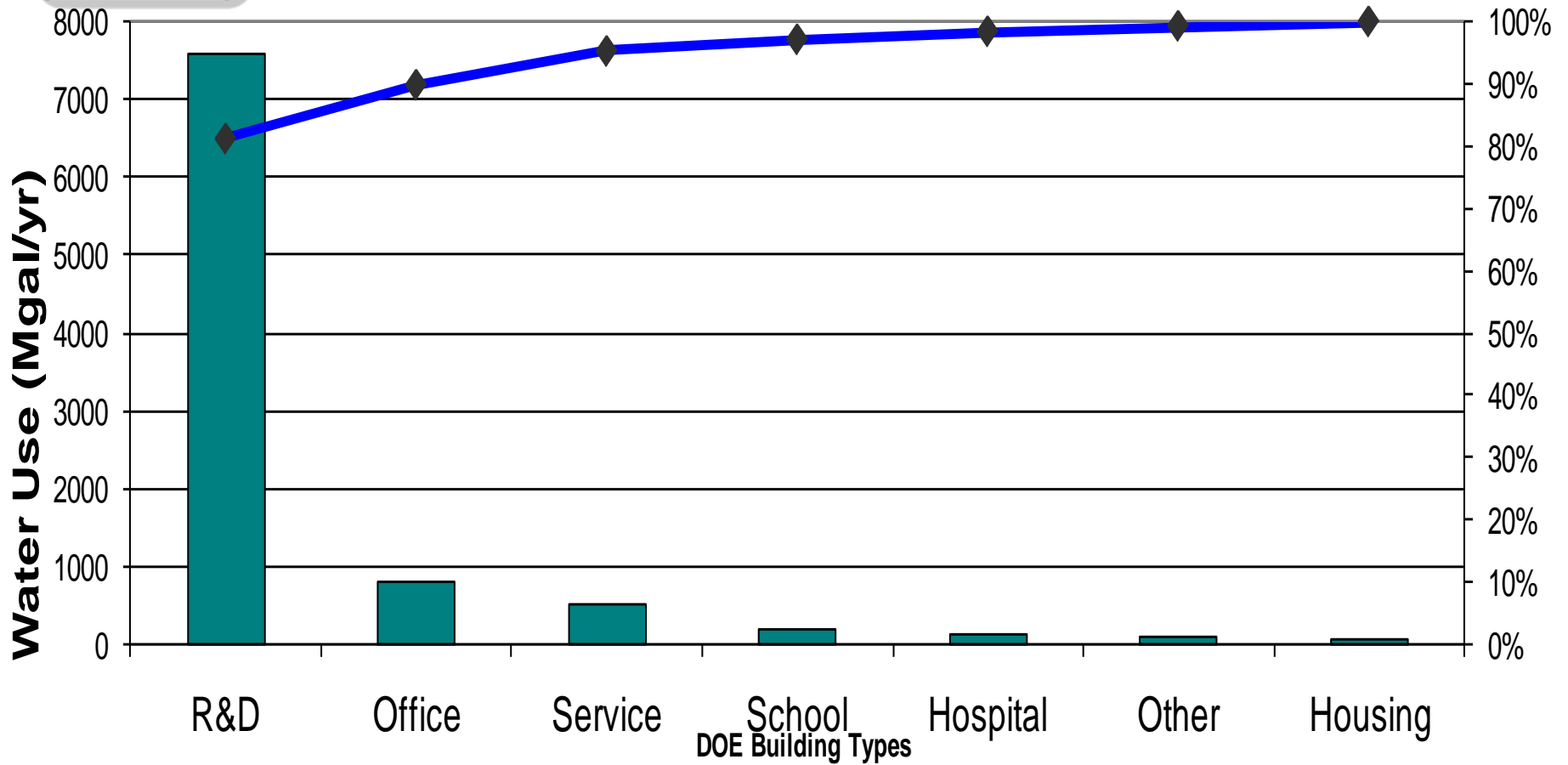


DOD Potable Water Use by Building Type



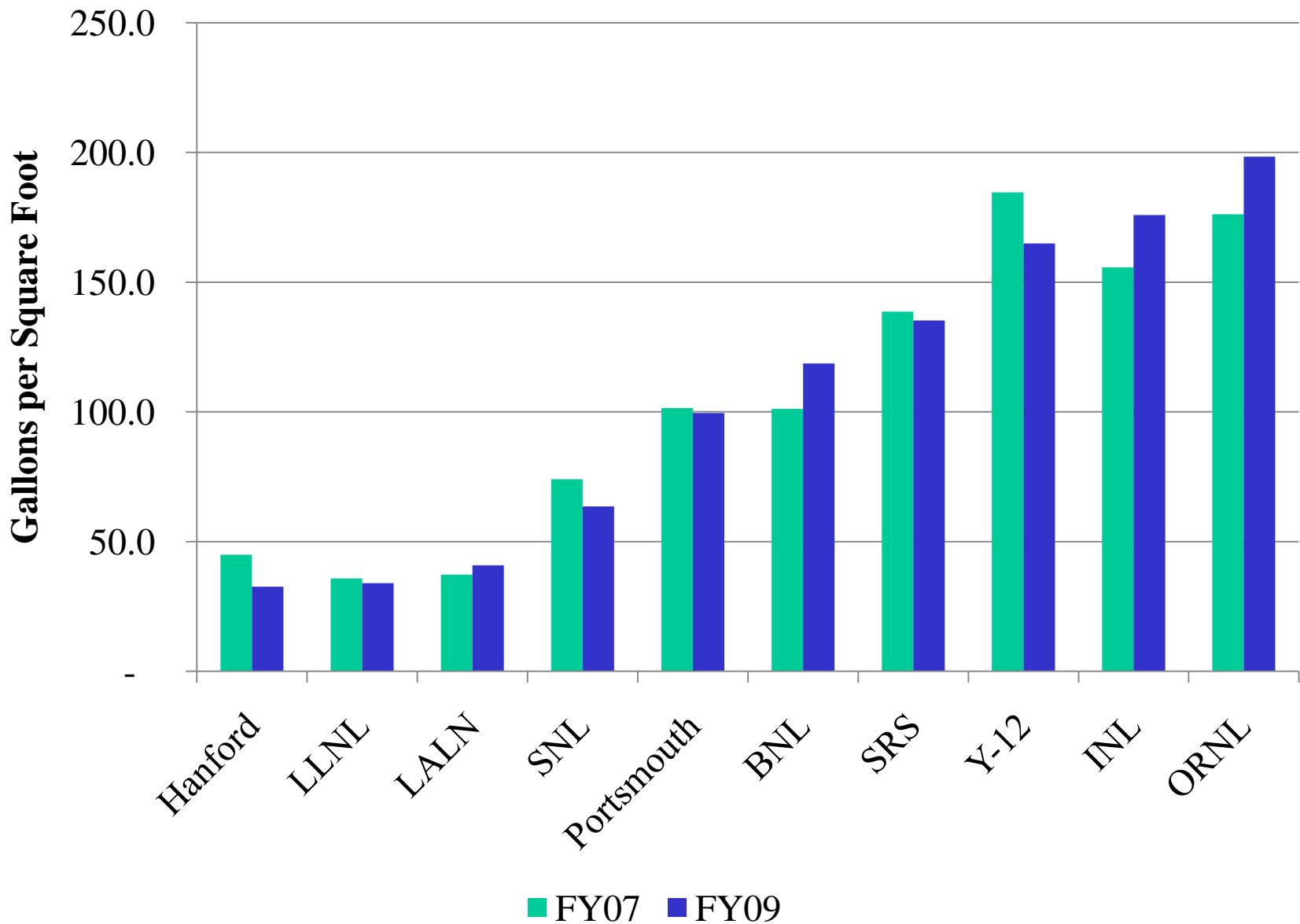


DOE Potable Water Use by Building Type





DOE Water Use Intensity Top Ten Water Using Sites







Best Management Practice Federal Case Studies

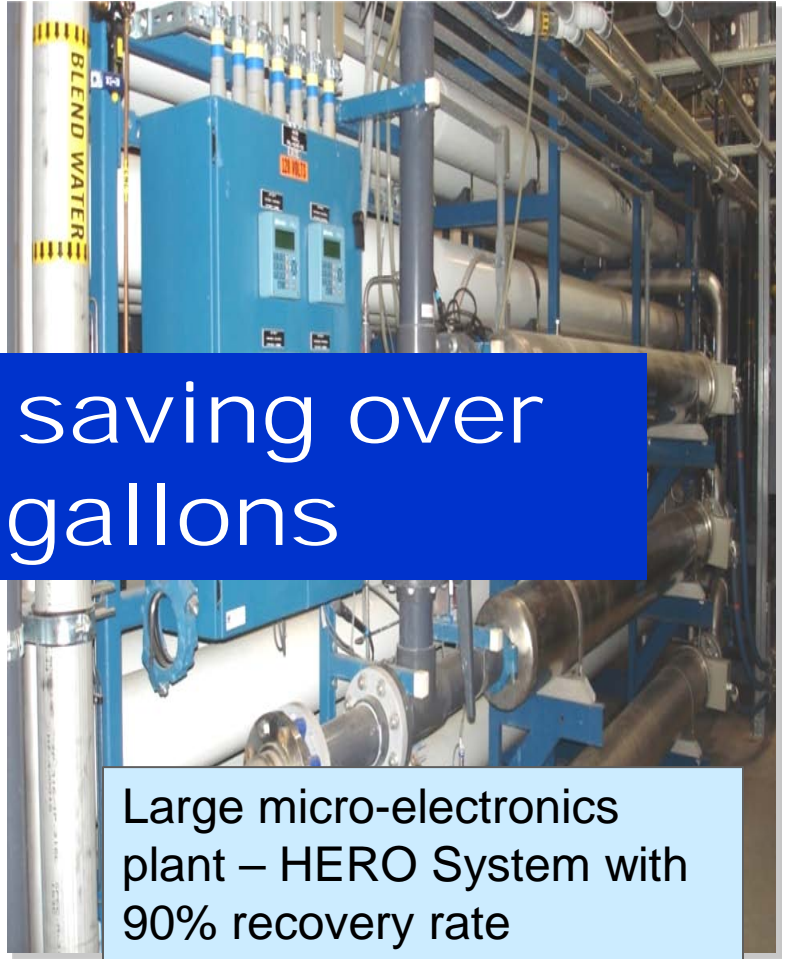




Case Study: Sandia National Laboratory Microelectronics Plant



Reuse HERO reject water – store in tanks and used as cooling tower make-up



Results: Annual saving over 140 million gallons



Large micro-electronics plant – HERO System with 90% recovery rate



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Case Study: Fort Carson, Colorado

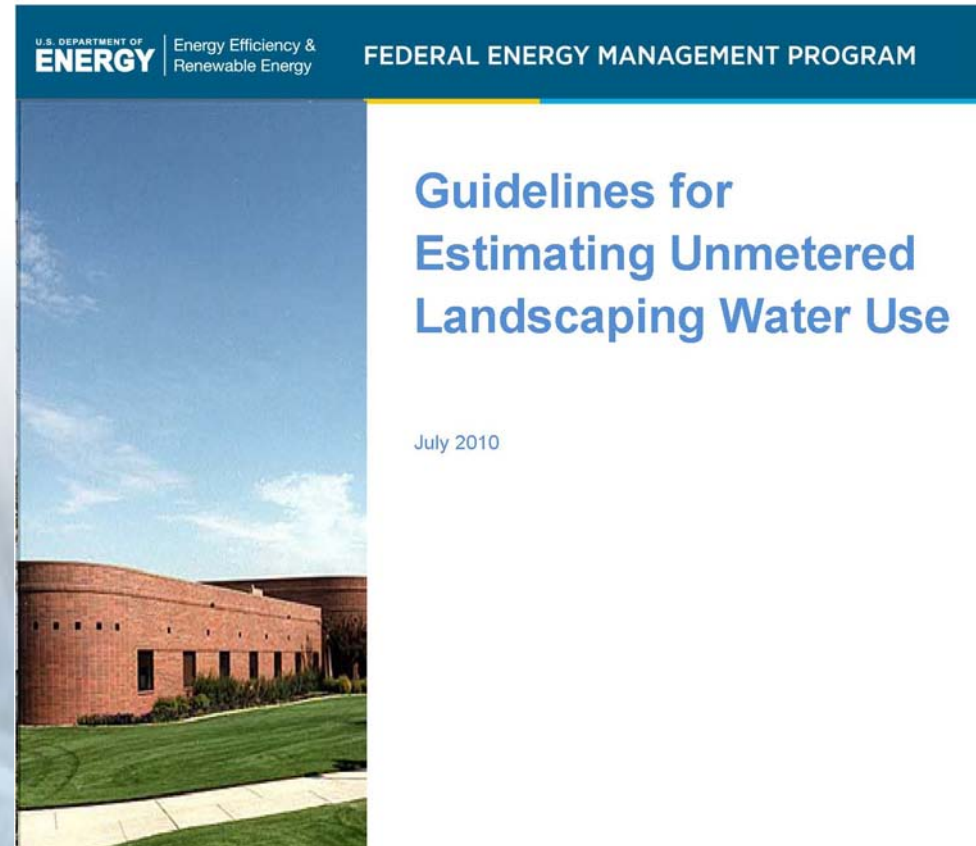


Results: 100 million gallons of water reused annually



Products in 2010

- Guidance on estimating unmetered industrial water use and landscape irrigation
- Innovative strategies for cooling tower water management





Water Reclaim Fact Sheet: Step by step guide on how to get started on a water reclaim project

<http://www1.eere.energy.gov/femp/program/waterefficiency.html>

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FEDERAL ENERGY MANAGEMENT PROGRAM

Methodology for Use of Reclaimed Water at Federal Locations



A traditional use of reclaimed water is irrigation. Using native plants such as these with irrigating with reclaimed water will reduce a site's potable water and water demand in general.

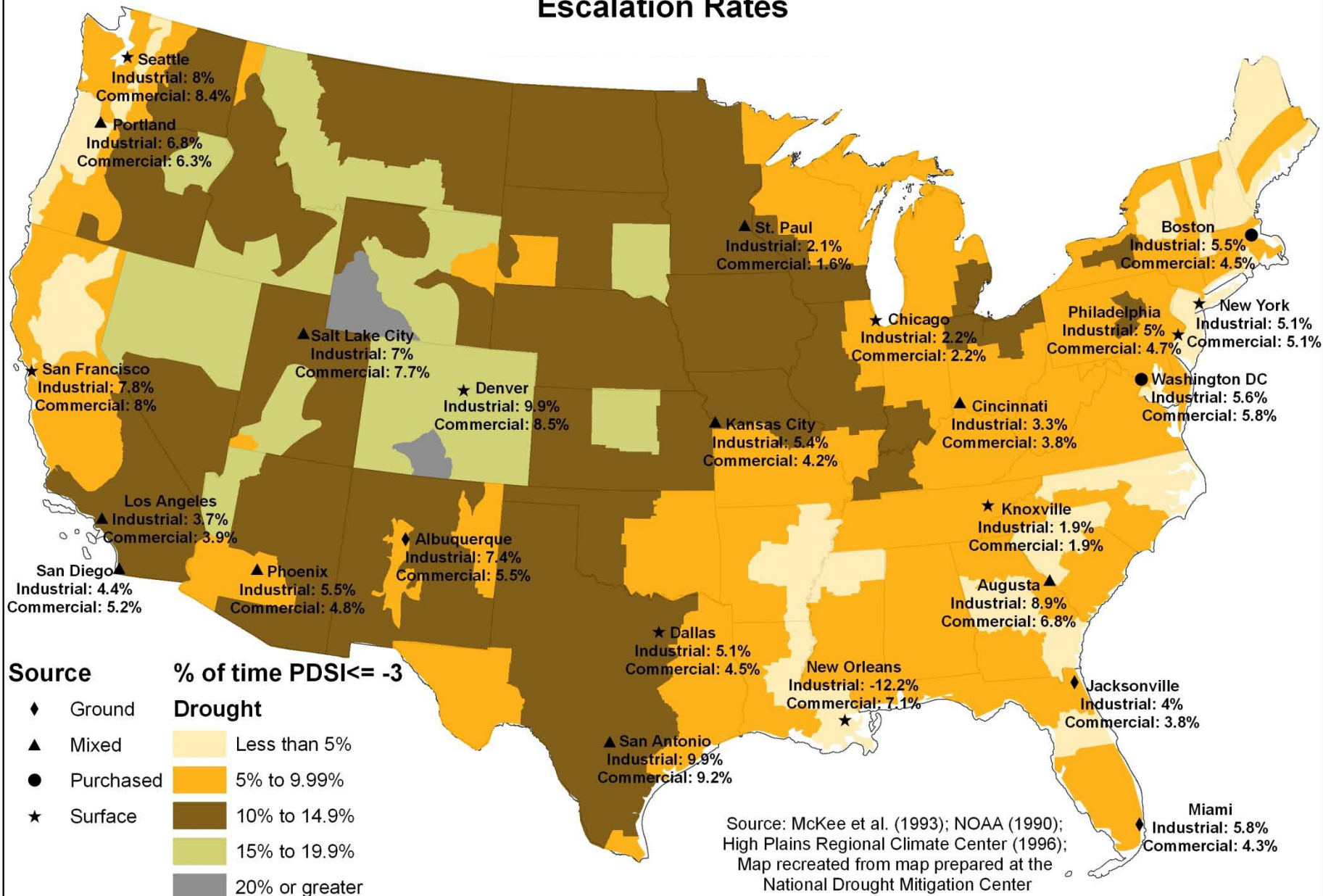
The supply of freshwater has become a resource of concern on a global scale, whether because of future availability or

Water can be reused in three main ways:

1. Water Recycle: Discharge water from an application or process is

There are other legislative acts that Federal sites must comply with that do not delineate water reuse as a water source. To learn

Industrial and Non-manufacturing/Commercial Escalation Rates





- leak detection
- water reuse
- c
- food service

Research technologies

What's Next?

Disseminate information

Conduct demonstrations



4) Training

1) Policy Guidance



2) Baseline Development



3) Technology Research and Technical Assistance



5) Partnerships



- First Thursday Seminar

http://apps1.eere.energy.gov/femp/training/first_thursday_seminars.cfm



FEMP
FIRST THURSDAY
SEMIN@RS

- Classroom course via GovEnergy



Mark Your Calendars!
GovEnergy 2010
August 15-18, 2010
Dallas, Texas
www.govenergy.com



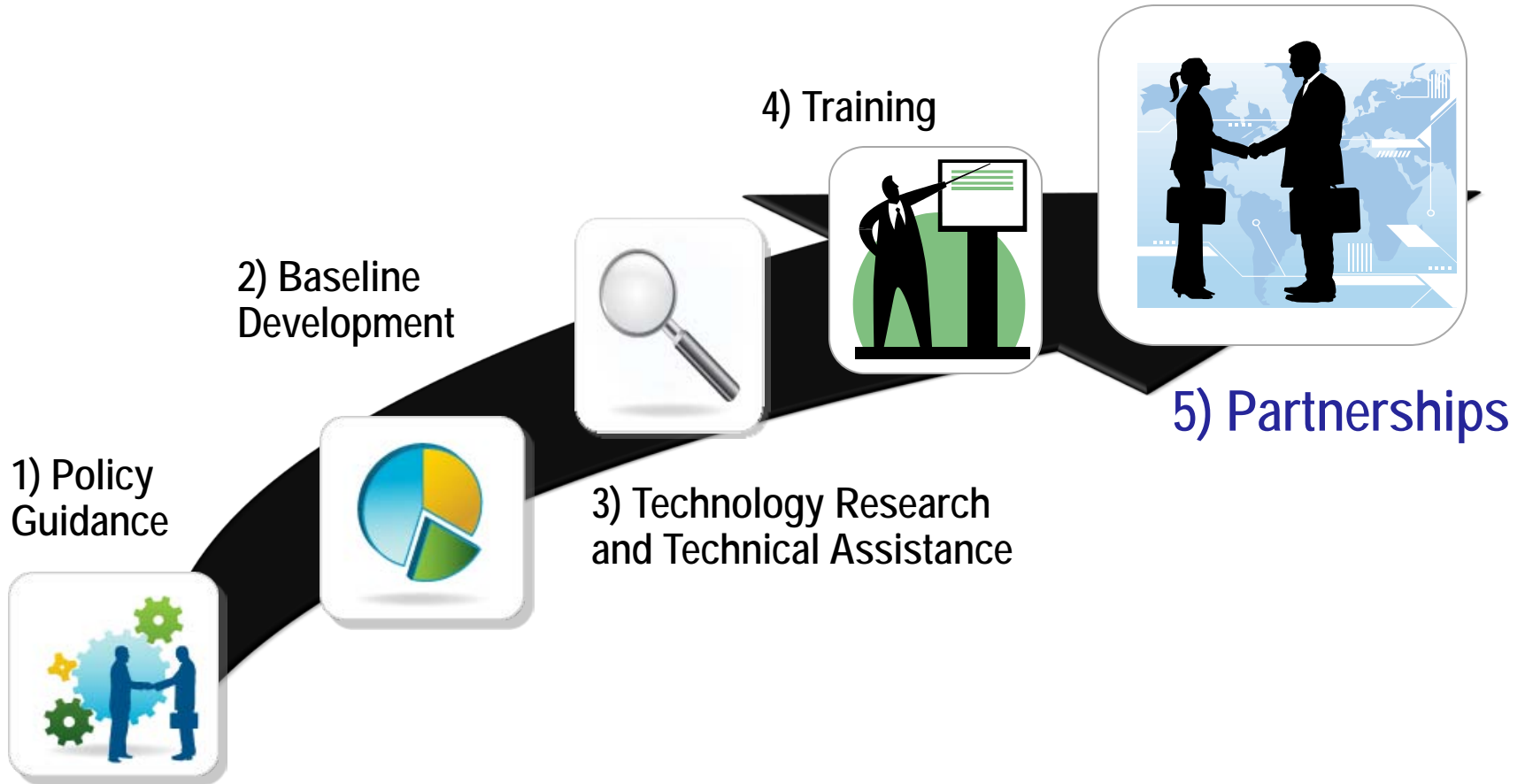
Web-based Water Management Training

<http://femptraining.labworks.org/>

- Policy
- Planning
- Auditing
- Technologies
- Metering
- Project economics



FEMP Water Efficiency Program





Partnerships



- EPA WaterSense Program
- Navy TechVal
- Alliance for Water Efficiency
- American Water Works Association



The Authoritative Resource on Safe Water®



FEMP Water Efficiency Program Website:

<http://www1.eere.energy.gov/femp/program/waterefficiency.html>

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