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Reducing Water Use In Buildings

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The Collaboration

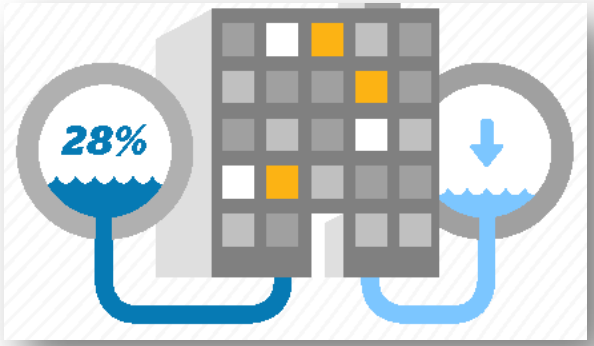
AT&T Water Footprint

- AT&T water footprint: 3.3B gallons of water annually
- 2012 budget: Water expenditures 2% of energy expenditures
- AT&T internal water activities: Scorecard, training, pilots

< 2 percent of portfolio (125 facilities) = 50 percent of total water use

31 in high or very high water stress regions

All had one thing in common: high evaporative cooling demands



28%

Amount of total water in an office building devoted to cooling

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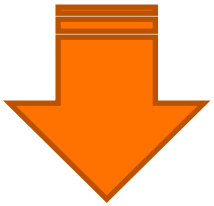
The Project

Technical, Operational, and Free Air Cooling



Technical and Free Air Cooling

- **Technica**l: One cooling tower filtration system upgrade costs less than $100,000 to install but promises more than $60,000 in annual water and sewer savings—paying for itself in less than two years.

- **Free Air Cooling**: A minor $4,000 equipment upgrade to expand free air cooling promises nearly $40,000 in annual savings.

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The Results

Water Savings

- **Our pilots achieved water reduction savings ranging between 14-40%.**

14 – 40%

Amount this can be reduced through water scorecards, cooling towers and more

- **Potential scalability in the U.S:**
  - 28 billion gallons of water could be saved per year.

28 billion gallons

Water U.S. companies could save annually

*Calculated based on the fact that more than one-in-six people worldwide lack access to the necessary 20-50 liters of fresh water needed to meet basic daily needs (International Fund for Agricultural Development).

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Beneficiaries

Free Tools to Jumpstart a Water Management Program

www.edf.org/attwater

WaterMAPP

The **Water Management Application (WaterMAPP)** is an Excel-based, multi-tabbed spreadsheet with two primary components:

- The **Water Scorecard** helps you assess your company's water efficiency and can be used to create visibility for water performance at facilities. The Water Scorecard Guide offers an overview of the score card concept, calculations used by AT&T in developing their first scorecard, and provides detailed information about how you could develop your own scorecard.

- The **Water Efficiency Calculator** estimates water and financial savings from cooling tower or free-air cooling improvements — key data for making the water-efficiency investment business case.

Download the WaterMAPP tool

Cooling System Efficiency Guide & Videos

The Cooling System Efficiency Guide [PDF] and 12-video series on YouTube can be used by anyone in your organization to learn more about the fundamentals of how a cooling system works, and how it can be managed to minimize an organization's use of water, energy and chemicals.

Sample Water Audit Forms

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The Impact

Expansion and Adoption – AT&T

Goals

1. **Realize 150 million gallons – roughly 15 percent of cooling tower water use and 5 percent of total water use – of annualized water savings by the end of 2015**

2. Realize 400 million kWh in annualized electricity savings from free air cooling projects by the end of 2015

3. Include water goal question in Supplier Survey by the end of 2013 with the intent of motivating suppliers to reduce their water use

4. Develop regional water outreach plan for five water-stressed regions to expand awareness, increase use of the water efficiency toolkit and begin outreach to key stakeholders by the end of 2013

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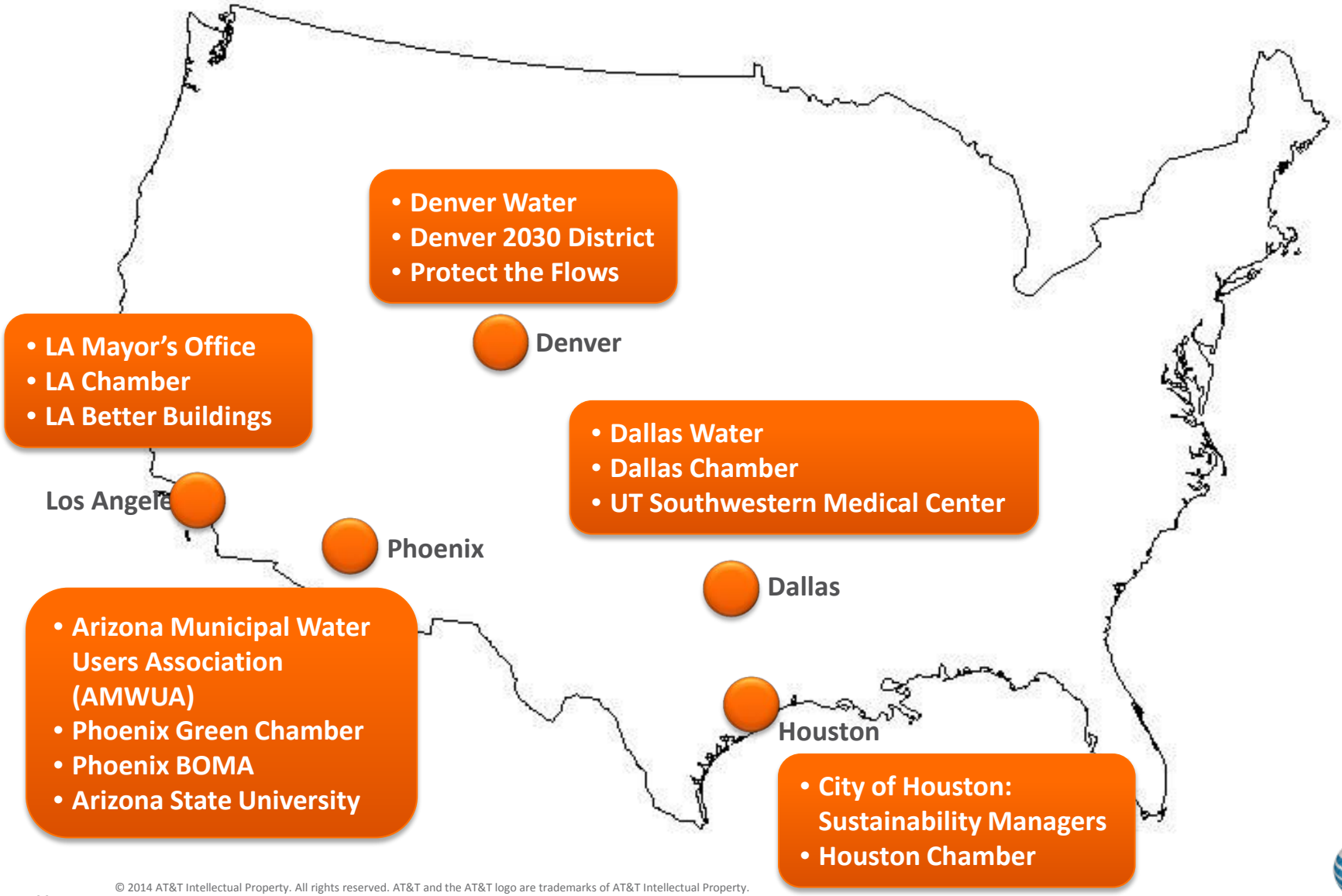
2014 Outreach In Key Regions



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Thank you.

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