



Industrial, Commercial, and Institutional  
Water Conservation

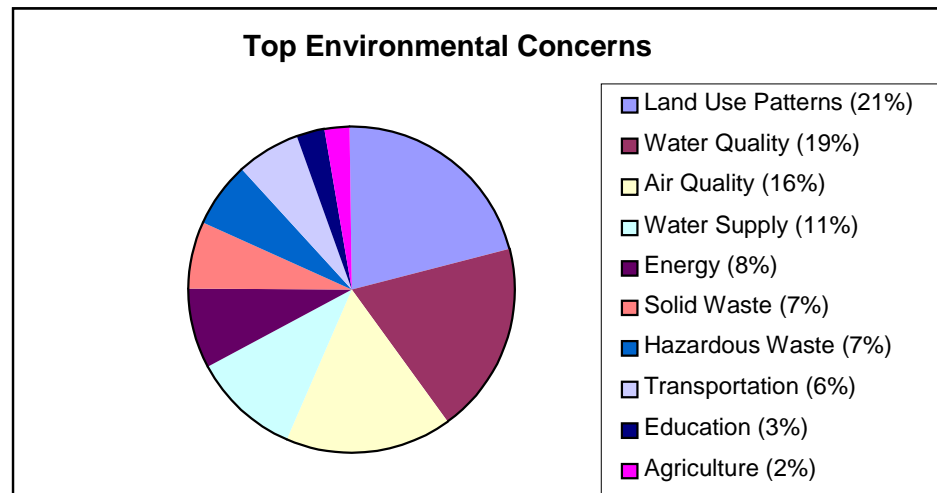
Collaborative efforts of northern Colorado water providers

# **ICI Water Use Benchmarks**

## **July 2007**

# Background

Water Quality + Water Supply = top priority!



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# Project Highlights

**Goal:** Inform conservation efforts for industrial, commercial, and industrial sector.

**Process:**

- ✓ Gather water use data by sector
- ✓ Analyze and normalize data
- ✓ Disseminate benchmarks to water providers and users

**Website:** [www.water.brendlegroup.com](http://www.water.brendlegroup.com)



# Task Force Participants

- Aurora Water
- City of Fort Collins
- City of Westminster
- Colorado State University
- City of Loveland
- City of Boulder
- City of Greeley
- Denver Water
- Colorado Springs Utilities
- Northern Colorado Water Conservancy District
- City of Thornton



# Task Force Sponsors and Technical Facilitator

- Colorado Department of Public Health & Environment's Pollution Prevention Board (PPAB)
- The Brendle Group, Inc.



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# Task Force Objectives

- Determine high-priority ICI sectors
- Gather relevant water use data within these sectors
- Develop useful benchmarks on the basis of gathered data and other resources



# High-priority ICI Sectors

- Restaurants
- Schools
- Hotels/motels
- Nursing/assisted living facilities



# Participant Response

- Participants invested in excess of 200 hours and gathered data from 631 accounts
- Many made calls to individual accounts to collect data



# Results

Restaurants	0.17-0.21 kgal/sqft 10.6-14.3 kgal/seat
Schools (K-12)	0.012-0.019 kgal/sqft 1.7-2.7 kgal/student
Hotels/motels	0.079-0.165 kgal/sqft 30.2-39.5 kgal/room
Nursing/assisted living	0.062-0.101 kgal/sqft 32.9-40.7 kgal/bed 25.4-39.6 kgal/apartment



# Potential Applications

- Conservation planning and implementation
- Budgeting
- Tap fee evaluation and development



# Future Work

- Continued regional benchmarking
- Development of standards for water use benchmarking
- A national database providing benchmarks for other regions and industries

