



**Boulder County
Land Use Department
Publications**

Indoor Air Quality

Land Use Department
Courthouse Annex Building
2045 13th Street
PO Box 471
Boulder, CO 80302

**Building Safety & Inspection
Services Division:**
t: 303-441-3925
f: 303-441-4856
e: building_official@bouldercounty.org
w: www.bouldercounty.org/lu/

Office Hours:
Monday – Friday 8:00 AM to 4:30 PM

Building Permits can be applied for
and issued until 4:00 PM

Indoor Air Quality

BuildSmart code changes affect all new residential construction and additions throughout unincorporated Boulder County and went into effect May 1, 2008.

Why is Indoor Air Quality (IAQ) an issue?

Current research indicates that indoor air is often more polluted than outside air. Concerns about indoor air pollution are amplified by the fact that most people spend 80 to 90 percent of their time indoors, and that the young, aged, and health-compromised are at greater risk.

Formaldehyde, asbestos, radon, and tobacco smoke are common indoor air quality pollutants in Boulder County. Other indoor pollutants that can be associated with health or irritating effects are carbon monoxide, nitrogen oxides, household and personal care products, microorganisms, and allergens. Also, increased use of synthetic building materials contribute to an indoor air environment that has a higher potential to cause adverse health effects.

What does better IAQ mean to residents?

The EPA lists poor indoor air quality as one of the top five environmental threats to public health.

Individuals who suffer from asthma, or have other respiratory illness may be at a greater risk for health complications associated with poor air quality in their homes. With an estimated 42.6 million Americans living with hay fever and/or asthma, learning how to control a home's environment to reduce allergen levels is important for managing allergies and asthma.

It's estimated that 25 percent of preventable illness worldwide can be attributable to poor environmental quality, and that air pollution alone is associated with 50,000 premature deaths and more than \$40 billion dollars in health-related costs. Indoor air pollution is one of the environmental causes of these illnesses.

Note: Inspection occurs at rough mechanical inspection



Required Elements

See Boulder County BuildSmart Requirements
www.BoulderCountyBuildSmart.org

Resources

EPA Indoor Air Quality Publications Database
www.epa.gov/iaq/pubs/

Washington State Department of Health - Indoor Air Quality
www.doh.wa.gov/ehp/ts/IAQ/IAQPrimer.htm

Indoor Air Quality presented by Seattle and King County
www.metrokc.gov/health/hazard/indoorair.htm





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Indoor Water Conservation

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Indoor Water Conservation

BuildSmart code changes affect all new residential construction and additions throughout unincorporated Boulder County and went into effect May 1, 2008.

Why is this important to our community?

Boulder County's growing population puts pressure on water resources and can endanger water quality. Major impacts from residential construction and home use include degradation of water quality from surface runoff and wastewater generation. Research indicates that a typical household wastes between 8,000 and 10,000 gallons of water a year while waiting for hot water to arrive at the tap.



Typical household water use:

Consumer Benefits of Indoor Water Efficiency.

- Enhanced stability of groundwater and municipal water sources.
- Data on low-flow water devices indicate a per capita water use reduction of 6.4 percent after installation.
- Graywater reuse systems reuse water from showers, sinks, and washing machines to reduce as much as 60 percent of the wastewater generated in homes.

Economic Advantage

- Water heating can account for up to 1/3 of residential energy consumption – reducing water use reduces energy bills.
- Lower overall water use bills – 10 to 50 percent reduction in water use from available technology, with no disruptions to lifestyle.
- Lower sewage bills or increased life of septic system.
- Enhanced recreational and economic opportunities in the community.

Note: Inspection occurs at final plumbing inspection.



Required Elements

See Boulder County BuildSmart Requirements
www.BoulderCountyBuildSmart.org

Resources

Residential Water Conservation
www.sahra.arizona.edu/programs/water_cons/index.html

Residential Indoor Water Conservation Study
www.ebmud.com/about_ebmud/publications/technical_reports/residential_indoor_wc_study.pdf