

# Colorado's

## 2008 INFRASTRUCTURE REPORT CARD

**ASCE**  
American Society of Civil Engineers

**ASCE**  
American Society of Civil Engineers

## Colorado's 2008 Infrastructure Report Card



Dam Safety	B
Water Supply	C
Drinking Water	C
Wastewater Treatment	C+
Aviation	B+
Roads	D+
Environmental Cleanup	B-
Solid Waste	B-
Air Quality	C+
Bridges	B-
Education	C
Energy	C+
Mass Transit	C
Colorado's Infrastructure GPA	C+

[www.coloradoreportcard.org](http://www.coloradoreportcard.org)

Connecting Colorado  
Government, Business, and Industry

[www.coloradoreportcard.org](http://www.coloradoreportcard.org)

© 2008 Colorado Section of the  
American Society of Civil Engineers



**Dam Safety****B**

There are more than 3400 dams in Colorado, including over 300 high hazard dams. Colorado Division of Water Resources (DWR) administers dam safety, and has restricted operation of 9.6% of the state's dams (193 dams) because of deficiencies. DWR and federal dam safety programs are doing a good job of ensuring public safety through adequate inspection, review, and enforcement actions. However, public funding in the form of low-interest loans or grants is needed to facilitate owner responsiveness in repairing or upgrading to current standards their deficient and aging dams.

**Water Supply****C**

The recent drought has exposed the state's vulnerability to severe water supply shortages. By 2010, the state will have 20% more residents, while reservoir storage capacity has fallen behind since 1970 from 1.5 to below 1 acre-foot per person. Municipal conservation efforts have succeeded but only freed enough water for only a few years of growth. Due to the state's legacy of water rights, the state can have little influence on water resources planning and there is typically little coordination between water providers. Ideally, the state will continue to foster dialogue, smart storage, and provide financial incentives for resource allocation within the property and water rights structure.

**Drinking Water****C**

Colorado's drinking water infrastructure is satisfactory condition currently, with the future dependent on continued funding and establishment and implementation of asset management plans. With a user-fee income base, this sector is more immune to budget uncertainties. Water distribution systems continue to age and deteriorate.

**Wastewater Treatment****C+**

The current treatment infrastructure is in adequate condition, while the future state of this sector is dependent on continued funding. Tracking needed maintenance and system improvements, supported by appropriate asset management practices will ensure that utilities can continue to maintain sufficient levels of service. With a user-fee income base, this sector is more immune to budget uncertainties.

**Aviation****B+**

The investment in DIA has clearly paid-off and provides Front Range communities excellent connections to the world. Funding for aviation at the federal and state level has increased in recent years and should provide sustainable funding for operations. Future access to commercial service at secondary airports appears to be waning as airlines restructure operations for financial viability.

**Roads****D+**

Colorado investments in the roadway network are not keeping up with growing demand. Over 40% of highways are rated as having poor condition. There is a significant backlog of bridges needing reconstruction or expansion. Congestion problems are well known. State and federal funding has been impacted by the current recession and increase in price of fuel. Additional funding is needed to maintain and expand the roadway system.

**Mass Transit**

Though the Regional Transportation District has made recent investments in the Denver area that have been effective and well received, much of the remainder of the state suffers an acute lack of access to transit. This primarily impacts the elderly, poor, and disabled that are not able to drive. State funding to supplement local efforts is required to provide a basic and functioning transit network.

**Environmental Cleanup****B-**

Cleanup of high-risk active hazardous waste sites in Colorado has historically been slow, but the pace of cleanup has quickened. Cleanup of inactive sites is good, about one-third complete. Leaking underground storage tank site cleanup is good but funding is marginal. Mine land reclamation proceeds at a steady pace, but at current projections it will require more than 25 years and \$75 million to be completed.

**Solid Waste****B-**

Land filling is the most widely used solid waste disposal method in Colorado, with 186 landfills operating statewide. The Colorado Department of Public Health and Environment (CDPHE) estimates that over 27 million cubic yards of municipal solid waste was generated in Colorado in 2002, with per capita daily waste production in the state exceeding national averages. The CDPHE estimates that there are about 50 years of life remaining in Colorado landfills. Improvements could be made in procedures for tracking current and remaining landfill volumes, and recycling efforts in the state to reduce the state's high per capita waste production.

**Air Quality****C+**

The Colorado Air Quality Control Commission reports that billions of pounds of air pollution are generated every year across the state of Colorado from natural and man-made sources. Some of these pollutants are known to cause respiratory irritation and long-term health impacts in humans and can even cause far-reaching environmental impacts to agriculture and drinking water across the U.S. However, since 1995, despite population growth, Colorado's air quality has improved. The U.S. Environmental Protection Agency recently tightened the air quality standard for ozone. Resulting in the creation of a front range non-attainment area.

**Bridges****B-**

As of 2007, 17% of Colorado's bridges are structurally deficient or functionally obsolete. This number is expected to increase dramatically in the next 10 years as the bridges that were built in the 1950's during the construction of the Interstate System reach their 50-year life span.

**Education****C**

Declining college enrollment and graduation rates are a concern. A significant number of engineers are eligible for retirement in the next ten years and will have to be replaced

**Energy****C+**

Although Colorado currently meets its electrical needs with a 15% reserve margin, existing transmission lines to other regions are limited, isolating our state from the region's power grid. With increasing growth in our state, lawmakers and the general public must eliminate their "NIMBY" (Not In My Backyard) attitudes to allow for new generation and transmission capacity that will keep up with Colorado's increasing urbanization.

**C**