

Boulder prides itself on being at the forefront of environmental initiatives. By taking swift action to make unleaded fuel both available and attractive to pilots, the City of Boulder can significantly reduce leaded aviation fuel consumption by 50% or more with a simple, available solution. Adoption and implementation of an unleaded fuel strategy puts Boulder far ahead of the vast majority of community airports across the country, turning this issue from a technical challenge into a straightforward budgetary decision. The City has the opportunity to address this concern now and set an inspiring example for a safer, healthier future.

How Boulder can become a leader in making the switch to unleaded fuels.

Piston-powered airplanes have historically relied on 100LL “low lead” to prevent detonation, engine damage and catastrophic failure. The FAA and fuel suppliers have committed to phasing out leaded fuel by 2030.



Fifty percent of aircraft at Boulder Airport can use UL94, a currently available, fully unleaded fuel, but the airport lacks the required dedicated fuel storage tank. For wider adoption, the introduction of not yet released G100UL or other “universal” replacement for all leaded aviation fuel, is in progress, and eliminates the need for



dedicated storage tanks. To use UL94, aircraft owners must obtain a Supplemental Type Certificate (STC) for a one-time fee of \$100 to \$200 per aircraft.

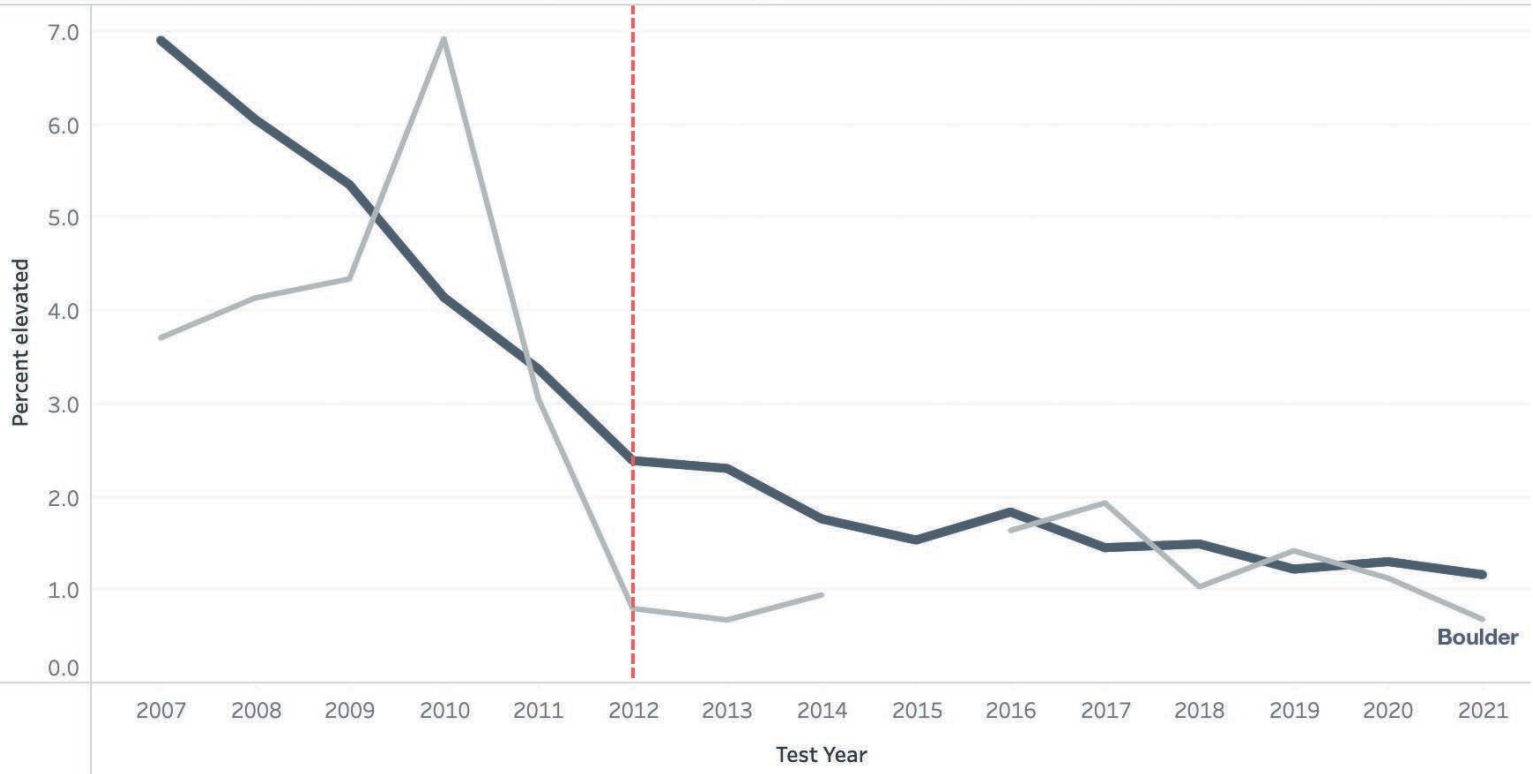
How we can overcome the barriers.

There are two obstacles to embracing fully unleaded UL94:

1. The City of Boulder owns the airport, its facilities, and the associated fuel tanks, but currently lacks the required storage tank for unleaded fuel. Several options exist for the City to add the required tank, with costs ranging from \$50,000 to \$75,000 for a used tank and \$125,000 to \$150,000 for a new tank. Temporary solutions, which require repurposing existing private equipment could be achieved for \$15,000 to \$25,000.
2. Unleaded 94UL is approximately 20% more expensive than existing leaded 100LL fuel. The cost difference can be a barrier to pilot adoption. This financial disincentive can be overcome through modest price differential subsidies until cost-effective G100UL (universal unleaded) becomes available. Subsidization eliminates any financial disincentive and can be accomplished until introduction of G100UL for minimal cost.

The Colorado Department of Public Health (CDPH) diligently tracks lead levels across the state, with childhood testing and reporting of elevated levels by each county. This meticulous approach allows for clear risk assessment and comparison of exposure. Remarkably, the latest statewide data reveals a significant achievement: childhood lead levels have plummeted by a staggering 90% in recent years and Boulder levels are one half (½) that of the state's average.

Percent elevated blood lead levels for ages <3 years (≥ 5 mcg/dL)
Boulder County vs. Statewide



<https://coepht.colorado.gov/childhood-lead-poisoning>

Boulder County lead exposure rates are well below many Front Range communities. For 2021 (last year data is available), there were zero confirmed cases of toxic blood lead levels (≥ 5 mcg/dl).

CDPH Data: Total Confirmed Elevated Blood Levels for Children ≤ 3 years of age, ≥ 5 mcg/dl 2021

<https://coepht.colorado.gov/childhood-lead-poisoning-data>

State wide	47
County (representative Front Range samples):	
Adams	4
Arapahoe	11
Denver	12
Garfield	6
Jefferson	4
Pueblo	4
Weld	6
Boulder	0

While toxins, both natural and man-made, pose potential threats, their dangers can be mitigated through proper monitoring and prevention. Lead in Boulder County is no exception; traditional sources of exposure, such as lead paint and lead pipes, have been largely addressed. Monitoring data convincingly indicates that, despite the presence of Boulder Airport, lead toxicity is currently a minimal risk. This does not diminish the importance of continuing efforts to reduce risk; it merely highlights that current exposure is low.

Pilots can only purchase those fuels available. Waiting for the FAA and industry to complete their transition would be a poor choice. The following organizations petition the City of Boulder to immediately make unleaded fuel both available and cost effective for use at Boulder Airport.

- Antique Aircraft Association of Colorado
- Vintage Aircraft Association of Colorado
- Experimental Aircraft Association Chapter 1627
- Soaring Society of Boulder
- Boulder Airport Association
- Boulder Aviation Association
- Journeys Aviation, Inc.
- Mile High Gliding