

Dedicated to protecting and improving the health and environment of the people of Colorado

July 2026 Report from the Air Pollution Control Division to the North Front Range Transportation and Air Quality Planning Council Thursday, August 6, 2026

[Air Pollution Control Division](#) (Division) Public Participation Opportunities:

- **Stationary Source Control Fund meeting:** The division is holding additional meetings on the Stationary Source Control Fund. It is the primary source of funding for the division's work to manage air quality regulations and initiatives to address air pollution. Stationary sources of air pollution pay into the fund through fees on required emissions reports or air permit applications.

Learn more about the fund, share your feedback, and ask questions. Your feedback will help inform future actions and ensure that stakeholder perspectives continue to inform the division's work. Register to join an upcoming meeting: [Monday, July 27, 10-11:30 a.m.](#)

- **Small Business Assistance Program 101:** Join an upcoming 101 session for small businesses to learn about our free, confidential, and neutral environmental assistance services and how we can best support you. Discover tools for air emissions calculations, permit assistance, and regulation applicability. In this meeting, you will learn to streamline your permitting and reporting processes by using our industry-specific guidance library, which covers areas such as boilers, engines, and surface coatings. We will answer common compliance questions and simplify complex environmental requirements. Register to join an upcoming meeting: [Tuesday, July 28, 6-7 p.m.](#) and [Thursday, July 30, 11 a.m. -12:00 p.m.](#)
- **2025 Colorado Greenhouse Gas Inventory Report:** Join the 2025 Colorado Greenhouse Gas Inventory Report meetings to learn about the state's greenhouse gas emissions trends and progress toward reduction goals. There will be an opportunity to ask questions and provide verbal feedback. Register to join an upcoming meeting: [Tuesday, Aug. 4, 6-8 p.m.](#) and [Thursday, Aug. 6, 1-3 p.m.](#)
- **Air quality impacts from refinery operations:** The CDPHE Air Pollution Control Division is seeking input while developing a proposal to reduce air quality impacts from refinery operations. The division will hold a series of meetings in August and September to hear feedback, then develop a rule proposal by the end of this calendar year. The proposal will also be informed by findings from the Colorado Refinery Report the division published in May 2026, which compares data, requirements, and

procedures for petroleum refineries nationwide and the Suncor refinery in Commerce City.

The division will hold all public meetings virtually over Zoom. The meetings will all cover the same information in a presentation and include opportunities for participants to share feedback. Translation and interpretation services will be provided. Register to attend: [Wednesday, Aug. 26, 1-3 p.m.](#), [Saturday, Aug. 29, 10 a.m.-12 p.m.](#), and [Tuesday, Sept. 1, 6-8 p.m.](#)

- **Air Pollution Control Division complaint and rapid response 101:** Join an upcoming 101 session to learn about the Air Pollution Control Division's complaint system that enables members of the public to report potential regulatory and permit compliance issues at stationary sources of air pollution. These presentations will cover:
 - o How to submit a complaint to the air division.
 - o How the air division handles complaint response.
 - o Common complaints the air division has the authority to respond to.
 - o Progress made by the Rapid Response complaint team to streamline complaint response, prioritize complaints in disproportionately impacted communities, and increase public awareness and transparency.

Register to join an upcoming meeting: [Thursday, Sept. 3, 6-7 p.m.](#) and [Friday, Sept. 4, 11 a.m.-12 p.m.](#)

- **Clean Air Act 101:** The Clean Air Act 101 presentation will provide a brief history of the federal Clean Air Act and how it regulates air emissions from various sources. The presentation will share how the division, along with local agencies, implements the law in Colorado and what it means for community members and Colorado today. Register to join an upcoming meeting: [Monday, Sept. 28, 11 a.m.-12 p.m.](#) and [Wednesday, Sept. 30, 6-7 p.m.](#)



[Air Quality Control Commission](#) (Commission) Updates:

July 15-17, 2026 Commission Meeting

- **Common Provisions Request for Written Comment Rulemaking Hearing** - The Commission set a hearing for October 2026 to consider revisions to the Common Provisions regulation to address HB20-1143 with respect to inflation adjustments for maximum fines and penalties for air quality control violations. These changes would direct the Commission to “annually adjust the amount of the maximum civil penalty based on the percentage change in the United States Department of Labor’s Bureau of Labor Statistics Consumer Price Index for Denver-Aurora-Lakewood for all items and all urban consumers, or its successor index.”
- **Regulation Number 6, Part A Request for Written Comment Rulemaking Hearing - Stationary Source Performance Standards** - The Commission set a hearing for October 2026 to consider a proposal to revise Regulation Number 6, Part A (NSPS) to incorporate by reference additions and changes the EPA made to its New Source Performance Standards, Emission Guidelines, and performance specifications in 40 C.F.R. Part 60. Updating citation references to NSPS and performance specifications in Regulation Number 6, Part A will make the corresponding federal rules enforceable under Colorado law.
- **Regulation Number 8, Parts A & E Request for Written Comment Rulemaking Hearing - Hazardous Air Pollutants Performance Standards** - The Commission set a hearing for October 2026 to consider revisions Regulation Number 8, Parts A and E (MACT Standards) to incorporate by reference changes the EPA made to its National Emission Standards for Hazardous Air Pollutants rules. This includes standards for:
 - o Air pollutants for source category: polyether polyols production
 - o Air pollutants for integrated iron and steel manufacturing
 - o Air pollutants for coke ovens: pushing, quenching, and battery stacks
- **Procedural Rules, Regulation Number 10 Request for Written Comment Rulemaking Hearing - Transportation Conformity** - The Commission set a hearing for October 2026 to consider revisions to update the Procedural Rules and Regulation Number 10. The proposed revisions to the Procedural Rules include removing Part A (which will no longer be in use), updating Part B, Section VI.I, Special Procedures for Particular Hearings, and revising Part B, Section VI.N (which relates to conformity determinations). Proposed revisions to Regulation Number 10 would allow the Division to provide concurrence on all transportation conformity determinations and remove the requirement for non-routine conformity determinations to be presented to the Commission.
- **Particulate Matter (PM₁₀) Maintenance Plan Revisions Rulemaking Hearing** - The Commission adopted revisions to Regulation Number 1, Regulation Number 4, Regulation Number 16, State Implementation Plan, Specific Regulations for Nonattainment-Attainment/Maintenance Areas (Local Elements), and Air Quality Standards, Designations and Emission Budgets that impact PM₁₀ maintenance plans (Canon City, Pagosa Springs, Telluride, Denver Metro, Aspen, Steamboat Springs, Lamar). The adopted revisions remove federal enforceability of PM₁₀ emission control requirements, making them state-only requirements.



- **Regulation Number 29 Request for Rulemaking Hearing - Lawn and Garden Equipment Emissions Reductions** - The Commission set a hearing for November 2026 to consider revisions to Regulation Number 29 to include commercial lawn and garden operations conducting operations in the ozone nonattainment area during peak ozone season (June 1 – August 31). The requirements would include a use-restriction cap on small (<10 horsepower or 7 kilowatts) covered gas-powered equipment. This proposed change would be phased in from 2027 to 2032, limiting commercial operators to use no more than a specified percentage of gasoline-operated equipment. Additionally, the proposed changes include reporting requirements beginning in March 2028 and due in March each year thereafter. These reporting requirements will cover push and hand-held string trimmers, hedge trimmers, blowers, edgers, pruners, and push or walk-behind lawn mowers used in the nonattainment area during peak ozone season of the preceding year.
- **Regulation Number 27 Greenhouse Gas Emissions and Energy Management for the Manufacturing Sector Rulemaking Hearing - Manufacturing Sector Greenhouse Gas Emissions Standards** - The Commission adopted revisions to improve Regulation Number 27 programs for the Division and regulated entities. The revisions clarify existing requirements and compliance pathways, improve GEMM program functionality, and increase transparency for the public.

August 20, 2026 Commission Meeting

- **Greenhouse Gas Emission Reduction Roadmap Briefing** - Representatives from the Colorado Energy Office and the Division will discuss updates to the Colorado GHG Emission Reduction Roadmap with the Commission and progress made towards the Commission's sector based emissions targets established in the Greenhouse Gas Reduction Strategy Contingency Process Resolution.
- **Air Quality Enterprise Updates Briefing** - The Colorado Air Quality Enterprise seeks proposals from qualified organizations, academic researchers, or consortia to develop, deploy, or evaluate innovative technologies that advance the understanding and mitigation of air pollution in the State. AQE staff will give an update on selected projects that have recently been funded.
- **Air Pollution Control Division EJ Report Tool Briefing** - The Air Pollution Control Division (APCD) EJ Report Tool for Regulation 3 uses data at various levels to identify environmental and health burdens across Colorado. APCD staff will give an overview of disproportionately impacted communities and how the definition applies in regulations, what the EJ Report Tool is, and how applicants use the tool to comply with permitting regulations and environmental justice recommendations.
- **Legislative Session Update Briefing** - Overview presentation of 2026 Legislative Session. There were 626 bills introduced, 436 bills that became law, 137 bills on which CDPHE staff engaged in, and 62 bills that became law that affect CDPHE. Additionally, CDPHE staff testified 67 times in front of legislative committees and 22 appointees were confirmed to CDPHE boards and commissions.
- **Procedural Rules Feedback Work Session** - The Commission will hear feedback on the updated Procedural Rules that went into effect in August 2025. Information from this session may be used in a future rulemaking addressing Procedural Rules.





Subject: Air Quality Related Activities Report to NFRMPO Council

Date: 8/1/26

Introduction:

Two Roads Environmental LLC (TRE) is providing a monthly report of air quality related activities to the North Front Range Metropolitan Planning Organization (NFRMPO) Council conducted by TRE in July 2026 for their August 6, 2026 meeting.

Summary:

In July 2026, TRE focused on jointly planning an intermountain west Fall 2026 ozone conference (now known as the Fall 2026 Ozone Exchange) with the Pikes Peak Area Council of Governments (PPACG).

Air Quality Activities:

Fall 2026 Intermountain West (IMW) Ozone Exchange Conference:

Conference details can be found at: <https://nfrmpo.org/air-quality/ozone-exchange/>

Notably, we are transitioning to a new dedicated ozoneexchange.org website and we will providing more details in the coming week.

Effective July 29, 2026, NFRMPO and PPACG now have a fully executed contract with Colorado Department of Public Health & Environment. Thus, we can now offset costs incurred on or after July 29, 2026 (and not for work prior to that date) using the awarded \$300,000.00 from the Air Quality Enterprise (AQE), which is slightly less than half of what the overall conference is estimated to cost. Remaining costs will be recovered via registration fees and sponsorships. Again, the conference will be held at cost and not for profit.

NFRMPO and PPACG have roughly delineated contract management, finance and registration responsibilities to PPACG. NFRMPO staff are responsible for venue and food related aspects, as well as transportation planning. Both NFRMPO and PPACG are splitting Marketing and Public Communications responsibilities, and are also enlisting IMW MPO peers with marketing and outreach in their respective states and areas.

Upcoming contract milestones include: notifying AQE Administrator of conference website and registration launch by 8/28/26 and of final program by 9/27/26. A dedicated Ozoneexchange.org website has been launched and registration information will be made available beginning August 10, 2026.

AQE's award ensures that registration costs will be reasonable and will promote attendance by keeping registration fees low and providing for hardship scholarships for governmental organizations, non-profit organizations and community representatives, etc. Registration fees have been set, and with transaction fees, attendees should plan on paying approximately:

- \$300/person for governmental/nonprofit organizations/community
- \$400/person for private industry, and
- \$500/person for late registration.



The Ozone Exchange program is being planned as follows, and invitations to session chairs, panelists and presenters have been sent out just this week.

Day 1 Sessions:

- Clean Air Act 101 and Planning Realities
- State of Ozone in the IMW
- Ozone Attainment Efforts in the IMW
- IMW Research to Improve Our Understanding of Ozone
- Transportation Planning's Role in Air Quality Planning
 - Goal: discuss roles and challenges in air quality planning, motor vehicle emission budgets, and conformity lapse
- Flash Talks on Incentive Program

Day 2 Sessions:

- Wildfire Smoke Impacts on Ozone
- Unique IMW Geographic Challenges
- Emerging Air Quality Methodologies
- Biogenic Emissions and Impacts
- Poster Session

Day 3 Sessions:

- Human-made Contributions
- Options for State Implementation Plan Development
- Improving Public Communications of the Ozone Problem and Health Impacts
- Opportunities to Align Ozone Public Messaging
- Research Next Steps

As an AQE grant awardee, we were invited to present in July at the CU Boulder Conference. The Ozone Exchange received strong support from researchers and other conference attendees. Attendees confirmed much of how the Ozone Exchange program was being planned.

Recommendations:

- Send personal invitation to AQCC, AQE, local governments and more to register for the Ozone Exchange
- Sign up to provide general public comment at AQCC's [August 20](#), September 16 and October 15 meetings

2026 Ozone Season Monitoring Data:

As of August 3, 2026, several ozone monitors observed 8-hour average values above 70 ppb thus far in 2026, including at: Fort Collins West, Fort Collins, Fossil Creek, Greeley Weld County, LaSalle Tower, Mehaffey Park and Timnath monitors in Larimer and Weld Counties.

The Fossil Creek and the Timnath monitors have observed 4th max 8 hour ozone values of 79 and 76 ppb monitor has, both of which that includes one high 8 hour average (on 7/6/26) with a high probability of smoke impact. The remaining certified ozone monitors in Larimer and Weld Counties all have 4th max 8-hour ozone values ranging from 73-75 ppb, all exceeding the 70



ppb 8-Hour Ozone National Ambient Air Quality Standard. See the RAQC's summary table, attached to this report.¹ Also note that this data has not been certified and includes flagged data that may have been influenced by wildfire and stratospheric intrusions.

Remote ozone monitors in Rocky Mountain National Park and Gunnison (Gothic) monitors have also experienced high ozone levels. Rocky Mountain National Park and Gothic have 4th max 8-hour averages of 71 ppb and 69 ppb, respectively.

AQCC Activities:

The AQCC set an October 2026 rulemaking hearing that streamlines Transportation Conformity requirements, allowing the APCD to "provide concurrence on all transportation conformity determinations and remove the requirement for non-routine conformity determinations to be presented to the AQCC."² The AQCC also set a November 2026 rulemaking hearing on proposed revisions to existing Lawn and Garden Equipment Emissions Reductions, expanding requirements to commercial operations. Additionally the AQCC adopted revisions to their Manufacturing Sector GHG Emission Standards.

RAQC Activities

The RAQC Board met in July and was briefed on background ozone, a public health impacts assessment, future ozone impacts and a related Excel tool to project ozone benefits of control strategies at the monitors. All related materials are posted on the RAQC's website.³

Staff gave a presentation on background ozone differentiating between US Background in terms of ozone and ozone precursors. Staff shared information from 2000-2016 indicating that rural background levels in Colorado were not decreasing compared to other rural areas in the intermountain west. Staff anticipate an update to this analysis reflecting more current data in the coming months. See the RAQC's slide 10 below:

¹ RAQC's Current 8-Hour Ozone Summary, "Denver Metro/North Front Range Area – 2026 8-Hour Ozone Summary through August 3rd, 2026", accessed 8/4/26 here: <https://raqc.org/current-8-hour-ozone-summary/>

² See APCD's Agenda Item Control Sheet. 6/16/26. P. 3. Downloaded from: https://drive.google.com/drive/folders/1RggT9xIN-j7Bk_4YheFVz0ubY2M4x36H

³ RAQC's "July 2026 RAQC Board Meeting" materials accessed here: <https://raqc.org/event/july-2026-raqc-board-meeting/>

What measurements can tell us: examples of U.S. rural ozone trends

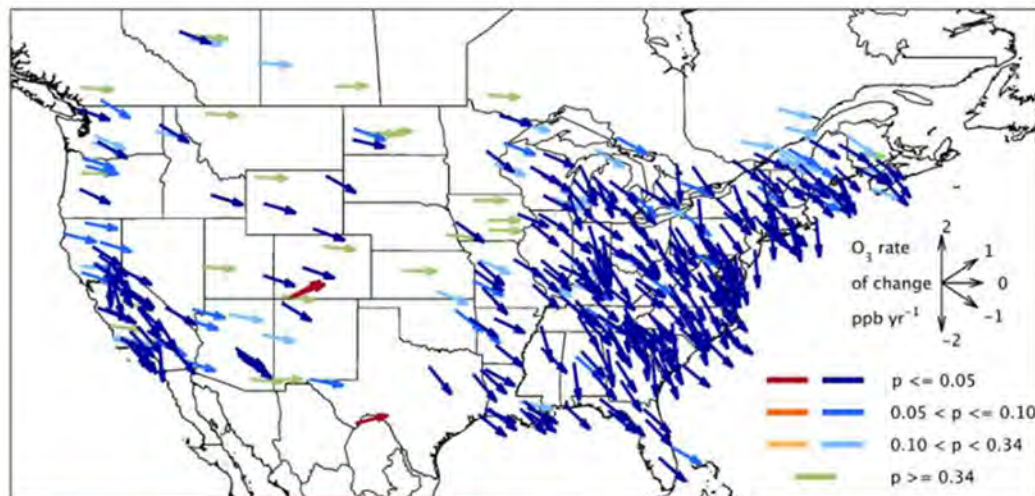


Figure S1. Trends in annual 4th highest MDA8 O₃ at rural sites in the U.S. and Canada.

Observations are April-September, 2000-2014. Vector colors indicate the p-values on the linear trend for each site: Blues indicate negative trends, oranges indicate positive trends, and green indicates weak or no trend; lower p-values have greater color saturation. Figure provided by the Tropospheric Ozone Assessment Report (Schultz et al., 2017). See Section 5 in main paper.

RAQC Board Meeting - July 10, 2026

RAQC
Regional Air Quality Council

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The Board was also briefed on an “Ozone in the Denver Metro North Front Range: A Health Impact Assessment” completed by the Colorado School of Public Health for the RAQC.⁴ Health burdens of adverse health outcomes were assessed for the 9-county ozone nonattainment area for three scenarios: 1) the area’s 8 hour daily maximum value was 65 ppb; 2) the area’s 8 hour daily maximum value was 70 ppb; and 3) the area’s 8 hour daily maximum value increased by 10 ppb over the previous five-year period. The assessment looks at asthma emergency department visits, respiratory hospitalizations, minor restricted activity days, school loss day and non-accidental mortality in the 9-county area, and then associated economic impacts per category per scenario. The report’s Table 9. Economic impacts of ozone for modeled HIA scenarios summarizes these costs. In summary, “[t]otal annualized costs for the modeled outcomes in this HIA for the DM/NFR were estimated to be between \$211 million (low end of 70 ppb counterfactual) and \$1.94 billion (high end of MDA worsens by 10 ppb counterfactual) (2024 dollars).”⁵

Staff presented their Future Ozone Impact Analysis (FOIA) for the Denver Metro/North Front Range Ozone Nonattainment Area and the related Future Ozone Impacts Estimator (FOZIE).^{6, 7}

⁴ Colorado School of Public Health. “Ozone in the Denver Metro North Front Range: A Health Impact Assessment.” July 6, 2026. Downloaded 8/3/26 from:

https://raqc.egnyte.com/dl/j8fkMxdRQRWx/CSPH_RAQC_HIA_Report_FINAL2.pdf

⁵ Ibid. p. 32

⁶ RAQC’s “Future Ozone Impact Analysis (FOIA) for the Denver Metro/North Front Range Ozone Nonattainment Area” Final Report. June 2026. Downloaded 7/7/26 here:

https://raqc.egnyte.com/dl/JfVgVWkB77tG/FOIA_Report_Final_June_2026.pdf

⁷ RAQC’s “Future Ozone Impacts Estimator Excel Dashboard.” June 2026. Downloaded 7/7/2026 here:

https://raqc.egnyte.com/dl/f9PMqB6wjMwf/Blueprint_DDM_FOZIE_Final.xlsx

Regarding the FOIA, the RAQC and APCD staff collaborated to estimate emission reduction potentials for each control strategy listed in the RAQC's Blueprint. It appears that these estimates are best case estimates that have not yet considered technical feasibility or economic reasonability, which is anticipated to occur at some point in the future. These reduction potentials were incorporated into the FOZIE Tool, allowing users to evaluate the ozone benefits at ozone monitors associated with one or more control strategies for future years 2030, 2035 and beyond 2035. Notably, the RAQC Board Chair Kramer identified that assuming all control strategy potentials were collectively realized, the FOZIE Tool predicted that the nonattainment area would still fail to attain, triggering a Board discussion in light of the Public Health Impacts Assessment findings and the need for a Communications strategy on the issue.

Notably, the FOIA and FOZIE Tool identify that significant ozone benefits to come from on-road and non-road control strategies. ⁸ See Tabel 2-1 from this report below:

Table 2-1. Summary of Estimated Changes in 2026 Emissions by Fall 2025 Blueprint Control Measure

Sector	Control Measures	2026 anthropogenic emissions		reductions by 2030		reductions by 2035		reductions beyond 2035	
		NOx (TPD)	VOC (TPD)	NOx (TPD)	VOC (TPD)	NOx (TPD)	VOC (TPD)	NOx (TPD)	VOC (TPD)
Oil and Gas	Assess & Adopt Well-site Venting and Blowdowns			0.0	-0.5	0.0	-0.5	0.0	-0.5
	Assess of Summertime application Electric Drill Rig and Fracturing Engines			-19.2	-2.9	-25.1	-3.8	-25.1	-3.8
	Assess O&B Effects of AQOC's Upstream O&G NOx Intensity Rule by 2030			-13.3	0.0	-13.3	0.0	-13.3	0.0
Oil and Gas Total		45.1	96.0	-32.5	-3.4	-38.4	-4.3	-38.4	-4.3
On-Road	Assess Indirect Source Voluntary Facility Emissions Reductions Plans (VERPs)			-1.0	-0.8	-1.0	-0.8	-1.0	-0.8
	Assess Options for Enhanced Compliance w/ Vehicle Registration / Expanded VM Testing Program			-1.0	-0.8	-2.0	-1.6	0.0	0.0
	Assess O&B Effects of Colorado Clean Vehicle Regulations			-10.5	-4.2	-18.8	-8.4	-23.4	-12.4
	Assessment of Continued LDV Electrification Incentives			-0.1	-0.1	-0.1	-0.1	-0.1	-0.1
	Implement Indirect Source Data Reporting			0.0	0.0	0.0	0.0	0.0	0.0
	Implement Indirect Source Emissions Reduction Plans			0.0	0.0	-2.0	-1.6	-2.0	-1.6
	Implement Summertime Free Fare Transit			0.0	0.0	0.0	0.0	0.0	0.0
On-Road Total		33.2	26.3	-12.6	-5.9	-23.9	-12.4	-26.5	-14.9
Non-Road	Adopt Non-Road Engines Emissions Targets			-1.7	-3.4	-3.3	-6.9	-8.3	-17.1
	Adopt Zero-Emissions Forklift Regulations			0.0	0.0	-0.1	0.0	-0.8	-0.1
	Landscape Maintenance Equipment Additional Requirements by 2030			-3.5	-13.8	-4.2	-16.5	-4.2	-16.5
Non-Road Total		37.5	42.0	-5.2	-17.2	-11.2	-37.1	-16.8	-47.5
Point	Tightened Operating Emission Limits for Large Stationary EGU and Non-EGU Sources			-6.9	-0.5	-6.9	-0.5	-6.9	-0.5
	Tightened Operating Emission Limits for Large Stationary Non-EGU Sources			-1.7	-0.5	-1.7	-0.5	-1.7	-0.5
Point Total		26.2	22.0	-8.6	-1.0	-8.6	-1.0	-8.6	-1.0
Non-Point	Assess and Implement Consumer Products VOC Controls			0.0	-3.3	0.0	-3.3	0.0	-3.3
	Assess and Quantify Emissions Reductions from Commercial Buildings requirements			-0.3	0.0	-0.6	0.0	-0.9	0.0
	Assess Commercial Cooking Requirements			0.0	-0.2	0.0	-0.2	0.0	-0.2
Non-Point Total		4.2	107.2	-0.3	-3.5	-0.6	-3.5	-0.9	-3.5
2026 Total Nonattainment Area Emissions		146.2	253.5						
Total of Emissions Control Measure Reduction Estimates by 2030, 2035, and after 2035				-59.1	-31.1	-82.6	-58.3	-91.3	-71.2

The RAQC then held subsequent workshops on the Public Health Impacts Assessment, FOIA and the FOZIE Tool, going into more detail than at the Board meeting. The RAQC held a July 13 public meeting on the Public Health Impacts Assessment, the FOIA and FOZIE Tool.

July 15 workshop on Stationary Sources and Oil and Gas control strategies (asking for public comments by July 29), a July 28 workshop on Non-road, Non-point control strategies (asking for public comments by August 11), and has scheduled an August 12 workshop on On-Road

⁸ RAQC's "Future Ozone Impact Analysis (FOIA) for the Denver Metro/North Front Range Ozone Nonattainment Area" Final Report. June 2026. p. ES-3 and p. 12. Downloaded 7/7/26 here:

https://raqc.egnyte.com/dl/JfVgVWkB77tG/FOIA_Report_Final_June_2026.pdf

control strategies. The July 28 Public Workshop for Non-Road and Non-Point Strategies touched on zero-emission forklifts, commercial cooking, commercial buildings, non-road engines, landscape maintenance equipment, and consumer products.⁹ NFRMPO staff should consider whether or not to provide comments on any of these strategies.

NFRMPO staff should attend the on-road workshop and should consider providing comments on those related control strategies.¹⁰

Other Air Quality Activities:

TRE reviewed the following article, “Urban ozone nonattainment: Interconnected challenges in the Intermountain Western U.S.”¹¹ Authors examine “...recent field campaigns, regulatory analyses, and observationally constrained modeling to summarize shared drivers of stalled progress and the region-specific mechanisms that modulate ozone accumulation...” in Phoenix, Las Vegas, Salt Lake City and Denver. The authors “... identif[y] factors, both shared and specific to each airshed, driving persistent nonattainment. Elevated background ozone, wildfire smoke, terrain driven recirculation, and vertical entrainment all limit the effectiveness of local controls, though dominant mechanisms differ by area. For lawmakers and regulators, these findings underscore the need for region specific strategies, better vertical and precursor monitoring, and improved attribution of controllable versus transported ozone to support sound, technically defensible regulatory decisions.”¹²

TRE's key takeaways from this article include:

- Meteorology, topography, wildfire, natural sources, transport and background (Ozone and background precursors) all play roles in each nonattainment area
- Each nonattainment area has its own nuances impacted ozone levels
- Local contributions still have an impact on local ozone levels
- DMNFR nonattainment area is the most populated and largest out of the 4 nonattainment areas
- DMNFR nonattainment area has both urban and rural aspects: O&G, mobile corridor and agriculture all play contribute to ozone levels
 - Spatially heterogeneous sources that vary in contributions type and amounts are a big factor
- Article recommends more “process-informed and regionally tailored ozone management strategies”
 - Change in monitoring approach:
 - from just ozone compliance to also include Precursor concentrations, chemical regimes and/or vertical structure
 - from just ground-level to routine vertical profiling
 - more speciation

⁹ RAQC Public Workshop for Non-Road and Non-Point Strategies. July 28, 2026. Materials posted here: <https://raqc.org/event/public-workshop-for-non-road-and-non-point-strategies/>

¹⁰ RAQC Public Workshop for On-Road Strategies. August 12, 2026. Materials posted here: <https://raqc.org/event/public-workshop-for-on-road-strategies/>

¹¹ E. Robinson, C. Roychoudhury, Y. Hameed, R. Bares, T. Moore, P. Herckes, M. Fraser, A. Arellano, and A. Sorooshian. “Urban ozone nonattainment: Interconnected challenges in the Intermountain Western U.S.” Journal of Air and Waste Management Association. August 3, 2026. <https://doi.org/10.1080/10962247.2026.2694482>

¹² Ibid. p.1. Abstract.

- Coordinated cross-airshed campaigns (designed for model evaluation)

Separately, EPA proposed “Amendments and Nonconformance Penalties for Model Year 2027 and Later Heavy-Duty Highway Engines and Amendments to Inducements for SCR-Equipped Diesel” that touch upon newly manufactured highway engines and vehicles and nonroad engines and equipment.¹³ This action is one of many that will result in higher emissions than existing regulations allow, and may create challenges for transportation planning agencies to meet current motor vehicle emission budgets and satisfy future conformity determinations.

In July, TRE did not track the status of Representative Evans’ H.R. 6387 Fire Improvement and Reforming Exceptional Events Act or FIRE Act, and H.R.6409 Foreign Emissions and Nonattainment Clarification for Economic Stability or FENCES Act.^{14,15}

Upcoming Activities:

TRE plans to attend meetings and track air quality related activities as follows, unless otherwise directed.

Meetings TRE Plans to Attend (or screen)

- 8/6/26 APCD 2025 Colorado GHG Inventory public meeting
- 8/12/26 RAQC Public Workshop for On-Road Strategies (register: <https://us02web.zoom.us/join/laWL2Vl4RpONdeg4OuAYLQ>)
- 8/20/26 AQCC Monthly Meeting
- 9/11/26 RAQC Board Meeting

Other Anticipated Air Quality Activities

- Litigation on EPA’s final action determining attainment for the Phoenix area under the 2025 Ozone NAAQS and the associated 179B Analysis
- EPA’s proposed action determining attainment for the Wasatch Front in Utah under the 2025 Ozone NAAQS and the associated 179B Analysis
- EPA’s proposed reconsideration of “leftover SIP provisions”
- EPA’s Exceptional Events Guidance
- EPA’s Ozone NAAQS Reconsideration
- EPA’s Reconsideration of the PM2.5 NAAQS

Recommendations:

- Send personal invitations to AQCC, AQE, local governments and more to register for the Ozone Exchange
- Sign up to provide Ozone Exchange registration information during general public comment at AQCC’s [August 20](#), September 16 and October 15 meetings

¹³ See EPA’s “Proposed Rule: Amendments and Nonconformance Penalties for Model Year 2027 and Later Heavy-Duty Highway Engines and Amendments to Inducements for SCR-Equipped Diesel” Fact Sheet. July 2026. EPA 420-F-26-012. Accessed online on 8/4/26, here: <https://www.epa.gov/system/files/documents/2026-07/420f26012.pdf>

¹⁴ See Congress.gov for information on HR.6387 – FIRE Act (119th Congress, 2025-2026), here: <https://www.congress.gov/bill/119th-congress/house-bill/6387?locl=rga-bill>

¹⁵ See Congress.gov for information on H.R.6409 – FENCES Act (119th Congress, 2025-2026), here: <https://www.congress.gov/bill/119th-congress/house-bill/6409>



- Track Colorado's next steps addressing ozone, including:
 - RAQC's Blueprint evolution
 - RAQC's modeling updates
- Track AQCC October rulemaking hearing specific to transportation conformity
- Track litigation on EPA's final action on their determination of attainment for:
 - Phoenix-Mesa ozone nonattainment area in Arizona
 - Wasatch Front ozone nonattainment area in Utah
- Track NHSTA's final action on fuel economy standards (Safer Affordable Fuel-Efficient (SAFE) Vehicles Rule III for Model Years 2022-2031 Passenger Cars and Light Trucks)



Denver Metro/North Front Range Area - 2026 8-Hour Ozone Summary*
Through August 3rd, 2026

Monitor	1st Max 2026	2nd Max 2026	3rd Max 2026	4th Max			2024-2026 Estimated Average ¹
				2026	2025	2024	
Aurora East	75	77	75	74	70	81	75
**Smoke Impact Probability	None	None	None	None	High	None	
Blackhawk	75	74	73	73	70	75	72
**Smoke Impact Probability	Low	High	None	None	None	None	
Boulder Reservoir	75	74	73	73	70	84	75
**Smoke Impact Probability	Low	None	Low	High	None	None	
CAMP	77	71	70	70	70	75	72
**Smoke Impact Probability	Moderate	Low	Low	Low	None	None	
La Casa	80	70	74	74	71	64	70
**Smoke Impact Probability	Moderate	Low	Low	None	None	None	
Chaffield	83	80	78	76	73	66	79
**Smoke Impact Probability	High	None	None	Low	None	None	
Evergreen	80	81	80	79	73	65	79
**Smoke Impact Probability	Low	None	High	None	None	None	
***Fossil Crk	81	81	79	79	67	64	70
**Smoke Impact Probability	High	Low	None	Low	None	None	
Fort Collins - CSU	77	76	74	73	67	82	74
**Smoke Impact Probability	Low	None	High	High	None	None	
Fort Collins West	77	76	74	74	72	83	76
**Smoke Impact Probability	Low	None	None	None	None	None	
Greeley Weld County	75	77	75	75	71	81	75
**Smoke Impact Probability	Moderate	None	Moderate	None	None	None	
Highlands	81	80	75	75	80	73	89
**Smoke Impact Probability	High	None	None	Low	None	None	
NREL	82	80	84	84	71	86	80
**Smoke Impact Probability	Low	High	Low	None	None	None	
**Metrafley Park	75	77	75	75	70	NA	NA
**Smoke Impact Probability	Low	None	High	Low	None	None	
**LaSalle Tower	77	75	74	74	69	79	72
**Smoke Impact Probability	High	None	Moderate	None	None	None	
Rocky Flats North	90	84	82	82	72	66	80
**Smoke Impact Probability	High	Moderate	None	None	None	None	
**Timnath	82	76	76	76	73	76	70
**Smoke Impact Probability	High	Low	None	None	None	None	
Wetby	83	80	75	75	80	83	75
**Smoke Impact Probability	High	None	None	Moderate	None	None	

* Based on 8-hour averages of raw 1-hour ozone data from the Colorado Department of Public Health and Environment (CDPHE) and consistent with Data Reporting and Handling Conventions outlined in 40 CFR Part 50, Appendix P.

**The Plateau Observatory was brought off line 2/6/24 and replaced by the La Salle Tower monitor on 2/14/24.

***The Fossil Creek monitor was brought online 8/20/24 for the non-attainment area.

**Metrafley Park was brought online 5/5/2025.

The form of the standard is in parts per million (ppm), however, values in this table are expressed in parts per billion (ppb) for simplicity. Data is verified monthly with Air Pollution Control Division (APCD) monthly ozone summary with final quality assurance conducted by APCD at end of ozone season.

¹ The 2024-2026 value is an estimate based on certified monitor data from 2024 and 2025 and uncertified current data from 2026 and is the average of the 4th highest monitored data by site over 2024-2026.

**The smoke impact probability comes from the Smoke Impact Assessment System v2 (prepared for the RAOC). It is designed to determine the retrospective probability that smoke is impacting ozone formation at each monitor in the non-attainment area. Observational data and modeling results are used to determine a probability of smoke impact at each site, either none, low, moderate or high. The full report describing this project is [here](#).

	8-hour average ozone value exceeds 75 ppb 2026 standard	51 = Days > 70 ppb
	8-hour average ozone value exceeds 70 ppb 2015 standard	73 = Days > 65 ppb
	8-hour average ozone value does not exceed 70 ppb 2015 standard	82 = Days > 60 ppb
For 2026 Ozone Season Count of calendar days exceeding:	3 = Days > 64 ppb	
	12 = Days > 60 ppb	
	34 = Days > 75 ppb	

Strategy Name: Assess and Quantify Ongoing Emissions Reductions from Changes in Design and Operation of Commercial Buildings

Source Sector(s) for emission reductions: Non-Point, Commercial building sources (residential sources also analyzed but not included in the overall emission reduction estimates)

Proposed timeline:

- **Proposal and adoption:** 2028-2030
- **Reductions effective:** 2030 NOx: 0.26 tpd, 2035 NOx: 0.6, Beyond 2035 NOx: 0.93 tpd

Applicable reductions in short tons/summer day: NOx emission reductions & co-beneficial GHG reductions

Regulatory status: Colorado statutes on-the-books and performance standards

Implementation option(s): Regulatory, requires technical improvements to existing data

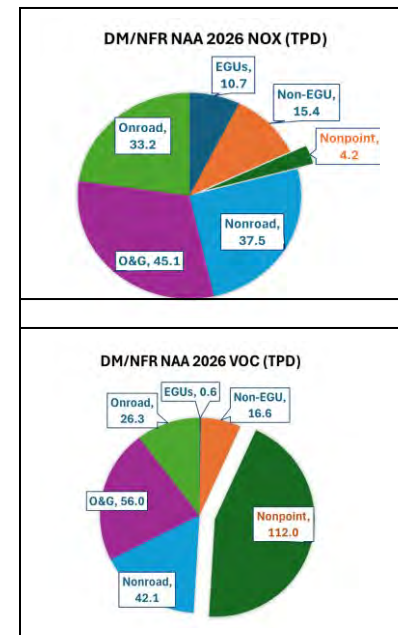
Strategy Description: This strategy aims to understand and document how improvements in commercial building design and operation are helping reduce emissions across the Denver Metro/North Front Range (DM/NFR) region.

This strategy will begin by reviewing and verifying how emissions from commercial buildings are currently estimated in the regional inventory, with a focus on on-site combustion sources such as natural gas boilers, water heaters, and backup generators. Next the analysis assesses how changes in building design, energy systems, and day-to-day operations are already driving down emissions. The effort also explores the broader policy landscape: it will consider the impact of recent state legislation, state and local building performance standards, energy codes¹, and other initiatives that influence building energy use and emissions. Examples from individual cities will be used to highlight innovative approaches that could be applied more widely. Finally, the strategy will identify options for new or expanded programs, both voluntary and regulatory, to encourage further NOx reductions. These could include incentives for low-NOx technologies, operational best-practice programs targeted at the ozone season, or recognition programs for high-performing buildings.

This strategy analysis provides a clearer understanding of commercial buildings emissions and how design and operational improvements can reduce those emissions to help achieve ozone attainment goals.

Cost range and factors: A cost estimate can't be developed until more details are finalized for this strategy. This strategy would require an operational management approach but would generally not involve installing retrofit technology. Quantified costs would depend on exact implementation plans and would be calculated later if/when a regulation is developed and finalized, in line with Air Quality Control Commission requirements.

Stakeholder outreach: This control strategy was presented to the RAQC Board in November 2025. For more information please visit the 2025 [stakeholder engagement information document](#) (an updated version for 2026 will be available at a later date).



¹ The new [Model Low Energy and Carbon Code](#), required by [HB22-1362](#), and published by the Colorado Energy Code Board in September 2025, will become Colorado's new minimum energy code on July 1, 2026. It requires any municipality or county that updates any of its building codes after that must adopt the model code or stricter alternatives.

Disproportionately Impacted Communities (DICs): This program would reduce NO_x emissions across the DM/NFR NAA, both within and outside of DICs. The state's [EnviroScreen](#) tool can be used to assess impacts on DICs.

Implementation elsewhere: Unknown

Emission Reduction Estimation Methodology:

The analysis was developed for the 2030, 2035 and post-2035 (circa 2040) milestone years and evaluates three emissions reduction pathways: (1) Colorado HB23-1161 ultra-low NO_x (ULN) space and water heating standards, (2) the Colorado Building Performance Standards (BPS), and (3) Section C503.6 of the State Energy Code². The NO_x reductions described here largely reflect emissions decreases expected under existing state laws and building policy frameworks, including HB23-1161, which took effect on January 1, 2026. Please note that this emissions methodology includes an analysis of residential buildings in addition to commercial buildings, but the overall emissions reductions and targets for this strategy do not include residential buildings.

Baseline Inputs and Spatial Allocation

Statewide residential and commercial heating NO_x emissions were obtained from the 2022v1 Modeling Platform, which is based on the 2020 National Emissions Inventory (NEI) and was used in the most recent DM/NFR SIP modeling. The emissions were disaggregated by sector as follows:

- Commercial heating (boilers, water heaters, space heating): 990 TPY statewide
- Residential heating (furnaces, water heaters): 7,613 TPY statewide

A spatial allocation factor of 65% was applied to both sectors to translate statewide emissions to the DM/NFR NAA (9-county area including all of Larimer County). This fraction was derived from the ratio of 9-county residential combustion emissions to statewide residential combustion emissions reported in the 2020 NEI (4,793 TPY / ~7,312 TPY ≈ 65%). The same fraction was applied to commercial buildings for consistency, although this may be conservative given the higher concentration of commercial floor space within the Denver metro core.

Table 1. DM/NFR NAA Baseline Emissions — Natural Gas Combustion Heating

Parameter	Statewide	DM/NFR NAA (65%)
Commercial heating NO _x (TPY)	990	644
Residential heating NO _x (TPY)	7,613	4,948
Total combustion heating NO _x (TPY)	8,603	5,592
Spatial fraction applied	—	65% (2020NEI-based)

Emission reductions from HB23-1161 were estimated using a fleet turnover approach. The law applies only to new equipment manufactured after December 31, 2025, so emissions reductions are expected to accumulate gradually over time as existing equipment reaches the end of life and is replaced with ULN-compliant units. Table 2 summarizes the key assumptions and parameters applied consistently across both milestone years.

² https://codes.iccsafe.org/content/COMLEACC2024P1/chapter-5-ce-existing-buildings#COMLEACC2024P1_CE_Ch05_SecC503.6

Table 2. Fleet Turnover Model Parameters

Parameter	Commercial	Residential	Notes
Annual turnover rate	5%/yr, corresponding to a 20-year median equipment life for commercial boilers and water heaters. ³	6.5%/yr, corresponding to a 15-year median life for residential furnaces and water heaters. ⁴	20-yr / 15-yr median life
Per-unit NOx reduction (Typical)	75%	75%	Range: 70–80%
Baseline emission rate (pre-ULN)	~55 ppm	~55 ppm	CA analog; ~15 ppm ULN target
HB23-1161 effective date	Jan 1, 2026	Jan 1, 2026	Mfg. date cutoff

For both milestone years, the cumulative fleet fraction of the equipment fleet turned over was calculated by multiplying the annual turnover rate by the number of years between the HB23-1161 effective date (January 1, 2026) and the applicable milestone year. The per-unit NOx reduction factor was assumed to be 75% (range 70–80%) based on the California regulatory analog which reflects a transition from a conventional baseline of approximately 55 ppm NOx to the ULN standard of ~15 ppm.^{5,6}

Annual reductions were converted to tons per summer day using a simple divided by 365 approximation. This approach is conservative from a seasonal perspective because space heating is winter-peaking source and its ozone season contributions are expected to be lower than the annual average. In contrast, water heating emissions are more uniformly distributed throughout the year and are therefore more directly relevant to ozone season reduction credit. Based on the EIA's 2020 Residential Energy Consumption Survey (RECS)⁷, water heating accounts for approximately 28% of residential combustion emissions.

Emission Reduction Estimates for 2030

By 2030, HB23-1161 will have been in effect for four years, turning over approximately 20% of the commercial fleet and 26% of the residential fleet. While residential reductions are analyzed in this methodology, they are not included in the overall emissions reduction for this strategy.

³ U.S. DOE, "Energy Conservation Program: Energy Conservation Standards for Commercial Water Heating Equipment," Final Rule, 88 Fed. Reg. [Oct. 6, 2023], Docket No. EERE-2021-BT-STD-0027, Section IV.F.6

⁴ U.S. DOE, "Energy Conservation Program: Energy Conservation Standards for Consumer Water Heaters," Final Rule, 89 Fed. Reg. [May 6, 2024], Section IV.F

⁵ <https://ww2.arb.ca.gov/sites/default/files/classic/technology-clearinghouse/rules/RuleID4528sr.pdf>

⁶ https://content.leg.colorado.gov/sites/default/files/2023a_1161_signed.pdf

⁷ EIA, [2020 Residential Energy Consumption Survey](#), June 2023. Breakdown of NOx emissions by end use assumes end use emissions are proportional to its fuel consumption. The NOx emissions for each combination of building type and fuel type are divided between end uses by the percentage of fuel used in each end use within that building/fuel type. This division is made at the smallest census region for which complete and accurate data is available from the latest RECS. For example, there are quality issues with one or more residential propane end uses for the Mountain North Sub-Subregion and the Mountain Subregion (as indicated by a "Q" in the RECS fuel consumption values), so the "West" region is used to divide residential propane among end uses in these subregions. "N's" in the RECS fuel consumption values are treated as zeroes.

Table 3. HB23-1161 NOx Reduction Estimates for the DM/NFR NAA – 2030

Commercial – 2030	Typical	Low	High
Fleet turned over by 2030	~20%	—	—
Affected emissions inventory (TPY)	~129	—	—
NOx reduction (TPY)	~96	90	103
NOx reduction (tons/summer day)	~0.26	0.25	0.28
Residential – 2030	Typical	Low	High
Fleet turned over by 2030	~26%	—	—
Affected emissions inventory (TPY)	~1,287	—	—
NOx reduction (TPY)	~965	901	1,030
NOx reduction (tons/summer day)	~2.64	2.47	2.82

Quantified NOx emission reduction estimates attributable specifically to Colorado's Building Performance Standards (BPS) program and state energy code are not currently available in the published regulatory record. The BPS rulemaking conducted by the Colorado Department of Public Health and Environment (CDPHE) Air Pollution Control Division and the Colorado Energy Office (AQCC Regulation 28, adopted August 2023) focused primarily on greenhouse gas reductions and energy cost savings for covered buildings; no NOx emission reduction estimates were developed or cited as part of the rulemaking. Similarly, no NOx co-benefit analysis has been conducted as part of Colorado's energy code development process or in any analogous state SIP filing.

Emission Reduction Estimates for 2035

By 2035, HB23-1161 will have been in effect for nine years, turning over approximately 45% of the commercial fleet and 58.5% of the residential fleet. These turnover fractions assume a constant annual replacement rate; in practice, some acceleration may occur as older equipment reaches the end of its service life and the ULN equipment supply chain matures. While residential reductions are analyzed in this methodology, they are not included in the overall emissions reduction for this strategy.

Table 4. HB23-1161 NOx Reduction Estimates for the DM/NFR NAA – 2035

Commercial – 2035	Typical	Low	High
Fleet turned over by 2035	~45%	—	—
Affected emissions inventory (TPY)	~290	—	—
NOx reduction (TPY)	~217	203	232
NOx reduction (t/summer day)	~0.60	0.56	0.63
Residential – 2035	Typical	Low	High
Fleet turned over by 2035	~58.5%	—	—
Affected emissions inventory (TPY)	~2,895	—	—
NOx reduction (TPY)	~2,171	2,026	2,316
NOx reduction (t/summer day)	~5.95	5.55	6.34

By 2035, commercial fleet turnover under HB23-1161 increases from ~20% to ~45%, growing the commercial NOx reduction from ~96 TPY to ~217 TPY (a 2.3× increase). The residential reduction grows from ~965 TPY to ~2,171 TPY as the larger residential fleet approaches ~60% turnover.

Emission Reduction Estimates for post-2035 (circa 2040)

By 2040, HB23-1161 will have been in effect for 14 years, turning over approximately 70% of the commercial fleet and 91% of the residential fleet. The residential fleet is approaching near-complete turnover under this scenario, reflecting the higher annual replacement rate (6.5%/yr) relative to the commercial fleet (5%/yr). While residential reductions are analyzed in this methodology they are not included in the overall emissions reduction for this strategy.

Table 5. HB23-1161 NO_x Reduction Estimates for the DM/NFR NAA – 2040

Commercial – 2040	Typical	Low	High
Fleet turned over by 2035	~70%	—	—
Affected emissions inventory (TPY)	~451	—	—
NO _x reduction (TPY)	~338	316	361
NO_x reduction (t/summer day)	~0.93	0.87	0.99
Residential – 2040	Typical	Low	High
Fleet turned over by 2040	~91%	—	—
Affected emissions inventory (TPY)	~4,502	—	—
NO _x reduction (TPY)	~3,377	3,152	3,601
NO_x reduction (t/summer day)	~9.25	8.64	9.87

Summary and Comparison Across Milestone Years

Table 6. Summary — DM/NFR NAA NO_x Emission Reductions, 2030, 2035, and post-2035

Pathway	2030 TPY	2030 TPD	2035 TPY	2035 TPD	2040 TPY	2040 TPD
HB23-1161 — commercial	~96	~0.26	~217	~0.60	~338	~0.93
HB23-1161 — residential	~965	~2.64	~2,171	~5.95	~3,377	~9.25
HB23-1161 subtotal	~1,061	~2.90	~2,388	~6.54	~3,715	~10.18

The estimated total reduction increases from approximately 1,060 TPY (~2.9 TPD) in 2030 to approximately 2,390 TPY (~6.5 TPD) in 2035 and roughly 3,715 TPY (~10.2 TPD) by 2040. The progression reflects the continued compounding benefits of equipment turnover under HB23-1161, with the residential sector accounting for the majority of reductions across all three milestone years. By 2040, the combined reduction is roughly 3.5 times greater than the 2030 estimate, as the residential equipment fleet approaches near-complete turnover (~91%) and the commercial fleet reaches ~70% turnover.

Summary of Reduction Estimates

- Applying the methodology described above for only commercial building emission reductions and data currently available to the DM/NFR NAA 2026 Non-Point emission inventory produces the following potential reduction estimates for the Non-Point sector in the DM/NFR NAA:

Pollutant	Baseline Used	2030 Daily Reduction (TPD)	2035 Daily Reduction (TPD)	Beyond 2035 Daily Reduction (TPD)
NO _x	DM/NFR NAA 2026 Non-Point	0.26 tpd	0.6 tpd	0.93 tpd
VOC	DM/NFR NAA 2026 Non-Point	0 tpd	0 tpd	0 tpd

For more information on the methodology used to calculate emissions for this strategy, including analytical limitations and recommended refinements, please see the [Future Ozone Impact Analysis Report: Appendix A](#)

Implementation Considerations

The strategy analysis makes the first NO_x emission reduction estimates by applying: (1) Colorado HB23-1161 ultra-low NO_x (ULN) space and water heating standards, (2) the Colorado Building Performance Standards (BPS), and (3) Section C503.6 of the State Energy Code⁸. The NO_x reductions described here largely reflect emissions decreases expected under existing state laws and building policy frameworks, including HB23-1161, which took effect on January 1, 2026.

These same statutory and performance standards also apply to residential buildings in addition to commercial buildings, so expanding this strategy to cover both commercial and residential buildings could then allow the overall emissions reductions and expected ozone reduction benefits to be estimated.

These emission reductions are based on “passive” implementation or “natural turnover”, so any voluntary programs and/or additional targeted implementation of enforceable regulations, particularly in the DM/NFR NAA, would further reduce emissions, likely more quickly.

⁸ https://codes.iccsafe.org/content/COMLEACC2024P1/chapter-5-ce-existing-buildings#COMLEACC2024P1_CE_Ch05_SecC503.6

Strategy Name: Assess Commercial Cooking Requirements

Source Sector(s) for emission reductions: Nonpoint Sources

Proposed timeline:

- **Proposal and adoption:** 2029
- **Reductions effective:** 2030
- **Phased?:** Single

Applicable VOC reductions by 2030 in short tons/summer day: VOC 0.21 TPD co-benefits for PM

Regulatory status: potential future new regulation

Implementation option(s): New Regulation

Strategy Description: This strategy would establish new requirements for owners/operators of charbroilers at commercial facilities within DM/NFR NAA. The goal is to reduce VOC emissions from commercial cooking equipment, a source not currently regulated in the DM/NFR NAA. Particulate Matter (PM) emissions reductions would also be achieved as a co-benefit. This strategy is not applicable to residential or other cooking types not discussed below.

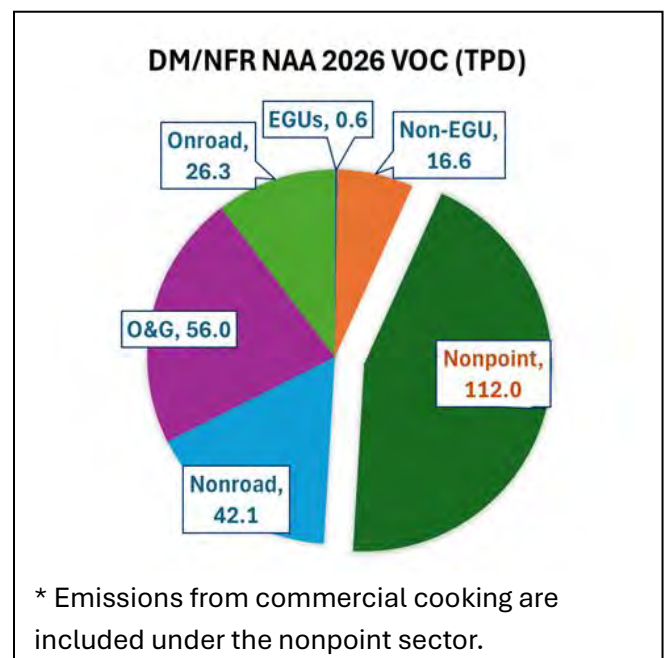
Chain-driven charbroilers would be the initial target for emissions reductions as cost-effective controls are not currently available for underfired charbroilers. The main emissions control technology is a catalytic oxidizer that reduces VOC and PM emissions. Alternative control equipment includes ceramic filters, UV lights, and activated carbon absorbers. Catalytic oxidizer systems are typically enclosed in stainless steel, mounted above the charbroiler, and only require routine rinsing maintenance (daily to monthly) per manufacturer guidance.

Cost range and factors: Program cost factors include the cost of controls added to chain-driven charbroilers and program administration costs. Incentivization could support adoption. Quantified costs would depend on exact implementation plans and would be calculated later if/when a regulation is developed and finalized, in line with Air Quality Control Commission requirements.

Stakeholder outreach: This strategy is being discussed as part of the development of the Control Strategy Blueprint. For more information, please visit the 2025 [stakeholder engagement information document](#) (an updated version for 2026 will be available at a later date).

Disproportionately Impacted Communities (DICs): This regional control measure would reduce emissions across the DM/NFR area, benefiting both DICs and non-DICs as restaurants are broadly distributed across the area. The state's [EnviroScreen](#) tool allows for assessment of DICs.

Implementation elsewhere: The following rules reducing commercial cooking emissions are in effect in several California air districts:



- [South Coast AQMD Rule 1138](#)
- [San Joaquin Valley Rule 4692](#)
- [Bay Area Air District Regulation 6, Rule 2](#)
- [Ventura County Rule 74.25](#)

Emission Reduction Estimation Methodology:

The starting point for this analysis is the projected Analytical Year (2026) emissions inventory from the EPA 2022v1 modeling platform (EPA, 2022)¹. Emissions are projected to 2026 from the base year (2022) using human population growth projections. This analysis is based on emissions from commercial conveyORIZED charbroiling (SCC 2302002100) within the Colorado NAA counties of Adams, Arapahoe, Boulder, Broomfield, Denver, Douglas, Jefferson, Larimer, and Weld.

The following steps describe how potential VOC reductions were calculated from the EPA 2022v1 modeling platform Analytical Year 2026 emission inventory, assuming additional control via the use of catalytic oxidizers.

Step	Action	Detail
1	Identified 2026 emissions that would be reduced	Commercial conveyORIZED charbroiling emissions were identified in the 2026 emissions inventory from the EPA 2022v1 modeling platform by SCC and county, resulting in 0.25 tpd of applicable emissions.
2	Identify control efficiency	A control efficiency of 86% for VOC was assumed based on San Diego County Air Pollution Control District (SDCAPCD; 2025) ² estimates for catalytic oxidizer equipment.
3	Calculate emission reductions	Potential emission reductions were estimated as the product of applicable commercial conveyORIZED charbroiling emissions and control efficiency.

For more information on the methodology used to calculate emissions for this strategy, including analytical limitations and recommended refinements, please see the [Future Ozone Impact Analysis Report: Appendix A](#).

Implementation Considerations

The strategy analyzes potential for VOC reductions in the DM/NFR NAA. Implementing this strategy as an enforceable regulation applying to existing and new installations of commercial conveyORIZED charbroiling units would require stakeholdering with the affected restaurant industry and local building permit authorities to create the AQCC regulation, also allowing time for turnover. As such, this is a long-term effective reduction strategy that is successfully in use in San Diego County and other California air districts, reducing VOCs contributing to ozone and direct PM emissions. For both pollutants, the local health exposure in the workplace and in nearby ambient air would be reduced. Any such regulation would need to go beyond “natural turnover” of these units, so any incentives, voluntary programs, and/or additional targeted implementation of enforceable regulations would further reduce emissions more quickly.

¹ U.S. Environmental Protection Agency. (2022). EPA 2022v1 modeling platform. <https://www.epa.gov/air-emissions-modeling>

² San Diego County Air Pollution Control District (SDCAPCD; 2025) Final Staff Report for Proposed New Rule 67.26 – Commercial Charbroiling Operations & Corresponding Amendments to Rule 11, 12, and 40 from <https://www.sdapcd.org/content/dam/sdapcd/documents/rules/rule-workshops/081425/Rule-67.26-Staff-Report.pdf>

Strategy Name: Implement existing regulation(s) after assessing additional options to reduce Consumer Products VOC emissions

Source Sector(s) for emission reductions: Non-Point Sources (solvents)

Proposed timeline:

- **Proposal and adoption:** By end of 2026 (see Implementation Options below)
- **Reductions effective:** 2027
- **Phased?:** This strategy could be phased in over 3 years

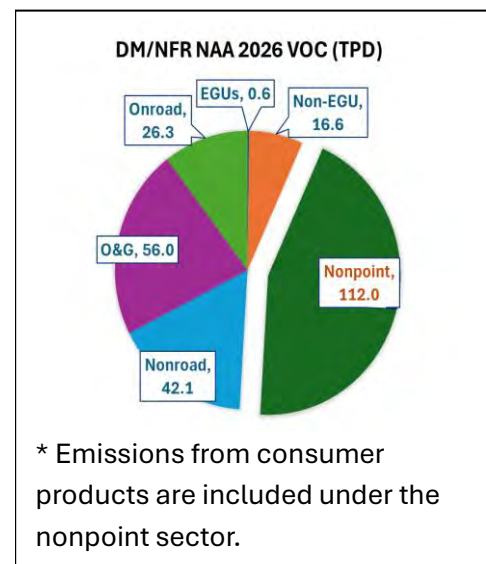
Applicable VOC reductions by 2027 in short tons/summer day: 3.33 tpd

Regulatory status: AQCC on-the-books regulation

Implementation option(s): SIP contingency measure – pending, takes effect if 2008 NAAQS is not met during the 2024-26 timeframe. Additional requirements could be added to the existing regulation at any time.



Strategy Description: This strategy is a combination of an existing AQCC rule and possible additional regulations, which would establish new VOC content limits for various types of consumer products in the DM/NFR NAA. The specific consumer product categories and VOC content limits used in the existing SIP contingency measure were based on a model rule developed by the Ozone Transport Commission (OTC), a multi-state organization created under the Clean Air Act to reduce air pollution on the East Coast, and additional emissions would result from more recent California Air Resources Board (CARB) rulemakings. In 2022, CARB adopted its most recent consumer products regulation, setting more stringent VOC Content requirements for California than those included in the OTC Model Rule Phase V for certain air fresheners, hair care products, personal fragrance products, and insecticides. Colorado has adopted OTC Model Rule Phases I, II, III, and IV; OTC Model Rule Phase V is a contingency measure that will be activated if Colorado fails to attain the 2008 ozone National Ambient Air Quality Standard (NAAQS); CARB 2022 requirements have not been adopted in Colorado.



If adopted within the DM/NFR NAA, fuller emission reductions from these CARB VOC content limits can be achieved¹. If not adopted, there will still be some emission reductions from these requirements based on their implementation in California. Most consumer products sold by national distributors throughout the U.S. are based on formulations that are compliant with the most stringent California standard.

¹ Dependent on the sell-through period specified in the adopted rule

Cost range and factors: Program cost factors include added formulation costs with new VOC content limits. Costs will be calculated later as the regulation is triggered and/or further developed, finalized, and implemented.

Stakeholder outreach: RAQC presented this control strategy and elicited feedback from stakeholders at its February 2025 Control Strategy Committee meeting and [March 2025 Board meeting](#). For more information, please visit the 2025 [stakeholder engagement information document](#) (an updated version for 2026 will be available at a later date).

Disproportionately Impacted Communities (DICs): This type of regional program would reduce emissions throughout the DM/NFR NAA, inside of and outside of DICs, based on widespread usage of consumer products. The state's [EnviroScreen](#) tool allows for assessment of DICs.

Implementation elsewhere: OTC Phase V and CARB (2022) Tier I limits are in full effect in California.

Emission Reduction Estimation Methodology:

The starting point for this analysis is the projected Analytical Year (2026) emissions inventory from the EPA 2022v1 modeling platform. Emissions are projected to 2026 from the base year (2022) with human population growth projections.

2026 consumer products emissions consist of the following SCCs:

SCC	SCC Description
2460030999	Solvent Utilization Lighter Fluid
2460100000	Cosmetics and Toiletries
2460200000	Cleaning Products; Household
2460400000	Auto Aftermarket
2460500000	Coatings and Related Products
2460600000	Adhesives and Sealants
2460800000	FIFRA Regulated Products
2460900000	Miscellaneous Products (not otherwise covered)

The following steps describe how potential NO_x and VOC reductions were calculated from the EPA 2022v1 modeling platform Analytical Year 2026 emission inventory.

Step	Action	Detail
1	Identified 2026 emissions that would be reduced	Consumer product emissions applicable to this strategy were identified in the EPA 2022v1 modeling platform 2026 emissions inventory by SCC, resulting in 43.7 tpd of applicable emissions.
2	Identify control efficiency	The control efficiencies used in this calculation ^{1,2} Tier 1 (0.8%) control efficiencies.

¹ Ozone Transport Commission (OTC) Consumer Products Phase V Emission Reductions Calculations can be found at https://view.officeapps.live.com/op/view.aspx?src=https%3A%2F%2Fotccair.org%2Fupload%2FDocuments%2FModel%2520Rules%2FOTC_Reductions_CP_PhaseV_04102018.xlsx&wdOrigin=BROWSELINK

² California Air Resources Board (CARB) Proposed Amendments to the Consumer Products Regulation ISOR can be found at <https://ww2.arb.ca.gov/sites/default/files/barcu/regact/2021/consumerproducts2021/isor.pdf>. Only the Tier 1 updates were considered in this analysis.

3	Calculate emission reductions	Potential emission reductions were estimated as the product of applicable 2026 consumer product emissions and the corresponding control efficiency values for each phase of the control measure. This results in 3.01 tons per day of VOC emissions reductions in 2028 and an additional 0.32 tons per day in 2030, for a total of 3.33 tons per day of VOC emissions reductions by 2030.
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For more information on the methodology used to calculate emissions for this strategy, including analytical limitations and recommended refinements, please see the [Future Ozone Impact Analysis Report: Appendix A](#).

Implementation Considerations

The strategy analysis is based on estimating the VOC reductions and the potential effects on modeled future ozone from the already-adopted AQCC regulation; a SIP contingency measure. The RAQC has estimated the additional effect of adopting the CARB 2022 rules to extend the current regulation to further reduce VOC emissions beginning in 2027. The fuller emission reductions from these CARB VOC content limits can be achieved, because even if not adopted, there will still be some emission reductions from the CARB requirements based on their implementation in California. Most consumer products sold by national distributors throughout the U.S. are based on formulations that are compliant with the most stringent California standard. Effective implementation of the OTC + CARB reductions requires that sales of the regulated products be verified with survey and/or site visits across the DM/NFR NAA, rather than a “natural turnover” approach, so the emission reductions occur before 2030 and continue afterward.

Strategy Name: Landscape Maintenance Equipment: Evaluate Ozone Reduction Benefits of Expanded Requirements and Assess Options for Additional Reductions by 2028

Source Sector(s) for emission reductions: Non-Road Engines – Landscape Maintenance Equipment

Proposed timeline:

- **Proposal and adoption:** A first phase is on the Air Quality Control Commission's (AQCC) calendar for a November 2025 rulemaking request followed by an April 2026 rulemaking hearing; additional requirements could potentially be considered in 2027 or early 2028
- **Reductions effective:** Summer 2026 for the first phase described above; by summer 2028 for any additional requirements
- **Phased?:** Yes

Applicable pollutants & expected reductions in short tons/summer day (tpd): At full implementation 16.48 tpd VOC and 4.24 tpd NOx (assuming a 90% compliance rate). For every 1,000 pieces of gas-powered handheld LME equipment not purchased, ozone precursors will be reduced by 2.25 short tons annually.

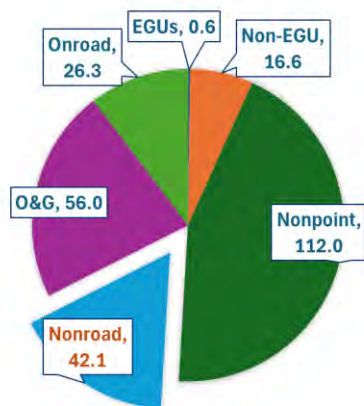
Regulatory status: AQCC on-the-books regulation with expected expansion, and potential further expansion.

Implementation option(s): AQCC Regulation 29 expansion rulemaking in November 2026. potential further expansion of Reg. 29 by 2028 to further limit emissions before 2030.



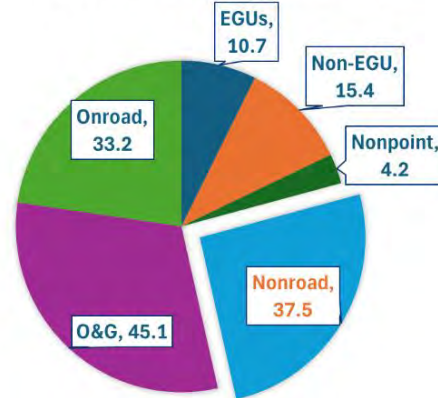
Strategy Description: This strategy would propose restrictions on small gas-powered commercial landscape maintenance, or lawn and garden equipment (LME) use in the Denver Metro/North Front Range (DM/NFR) Ozone Nonattainment Area (NAA) during the ozone season (June 1 through August 31). This builds on the existing Regulation 29, titled "Emission Reduction Requirements for Lawn and Garden Equipment", which was adopted in 2024 and prohibits local, state, and federal government agencies and their landscape maintenance service contractors from using small gasoline-powered LME during the summer ozone season.

DM/NFR NAA 2026 VOC (TPD)



* Emissions from landscape maintenance equipment are included under the nonroad sector.

DM/NFR NAA 2026 NOX (TPD)



* Emissions from landscape maintenance equipment are included under the nonroad sector.

During that 2024 rulemaking, the AQCC communicated expectations that the Air Pollution Control Division will propose use restrictions on commercially operated small and handheld equipment by the end of 2025, however this proposal has been moved to November 2026. The Division has been engaging with stakeholders on what a technically and economically feasible expansion of Regulation 29 could look like. Topics of discussion include rates of equipment turnover, charging infrastructure needs, and equipment parity.

Additionally, the Commission asked the Division to monitor market shares of electric lawn and garden equipment and provide a report out in 2025 and consider incorporating a sales prohibition on gas powered equipment into Regulation 29. While the Division has not yet indicated whether it plans to pursue this strategy, from the RAQC's perspective as strategies are considered as part of the Blueprint, requirements for electric-only equipment sales and/or implementing additional electric-only seasonal use restrictions could be implemented no later than Summer 2028 as a second phase of implementation.

The AQCC is currently scheduled to consider revisions to Regulation 29 to address commercial use restrictions in November 2026.

Cost range and factors: Rechargeable and cord-based handheld LME is widely available. [In a 2023 analysis](#), the RAQC estimated that there were 290,948 commercial push and hand-held LME in the NAA and that the cost/benefit ratio for electrifying the handheld and push equipment fleet would be \$12,000 per ton of NOx/VOCs and \$61 per ton of greenhouse gases. The state has extended a 30% point-of-sale discount through 2029 for electric LME at participating retailers through HB26-1289¹ passed in the 2026 regular session, which will likely continue to contribute to the affordability of implementing electric L&G equipment operations. Full cost of implementation across residential, public, and commercial sectors is not yet fully determined and would need to be calculated at a later time.

Stakeholder outreach: The RAQC has been involved in research and collecting input from LME stakeholders over the years through its Mow Down Pollution education and incentive program and the Lawn and Garden Workgroup that the RAQC formed in the lead up to the 2023 Reg. 29 rulemaking. The Division has conducted additional outreach to the LME industry in 2025 and 2026 as part of developing their forthcoming rulemaking proposal. For more information please visit the 2025 [stakeholder engagement information document](#) (an updated version for 2026 will be available at a later date).

Disproportionately Impacted Communities (DICs): LME usage is ubiquitous in the DM/NFR NAA, so reducing emissions from LME will reduce environmental burdens in local communities. There are also options to focus programmatic resources on certain areas, such as when the RAQC implemented its [Mow Down Pollution](#) program in certain DICs. The state's [EnviroScreen](#) tool allows for assessment of DICs.

Implementation elsewhere: Numerous other jurisdictions within the U.S. have restrictions on the sale and/or use of gas-powered LME. [CoPIRG mapped out these policies in 2024](#).

Emission Reduction Estimation Methodology:

This section documents the methodology for projected emissions reductions from an expanded regulatory requirement encouraging the transition to electric landscape maintenance equipment across both public and private fleets for equipment under 25 horsepower assuming a 75 percent compliance rate in 2028 and a 90 percent compliance rate by 2030 across all applicable sectors. As the current RPA -provided non-road model does not

¹ [HB26-1289 Modification of Certain Tax Expenditures | Colorado General Assembly](#)

differentiate between commercial and public fleets and recognizing that these two fleets are on different timelines for compliance, we chose to implement percentages of compliance that we felt are somewhere near the average.

Emissions estimates for the commercial lawn and garden (L&G) sector include handheld and push equipment under 25 horsepower operated by public agencies and 10 horsepower for private commercial entities. Emission factors for VOC and NOx were developed using the EPA MOVES 3 Nonroad Simulator, with inputs specific to the Colorado non-attainment area. Equipment population estimates for handheld and push equipment within the commercial sector were also derived from the MOVES 3 Nonroad inventory, as no Colorado-specific commercial fleet inventory data were available. It should be noted that the inventory in use for this calculation does not include horsepower for listed equipment under 25 horsepower. However, based on online research the probability that all equipment listed below is under 10 horsepower is extremely high.

			Tons per a day of operation		
Engine Type	EQUIP	population	NOx	VOC	GHG
2 Stroke	Chain Saws < 6 HP	26,594	0.09	1.60	259.29
2 Stroke	Leafblowers/Vacuums	25,862	0.09	1.71	277.37
2 Stroke	Rotary Tillers < 6 HP	2,974	1.21	0.28	44.36
2 Stroke	Trimmers/Edgers/Brush Cutter	66,502	0.14	4.75	421.46
4 Stroke	Chippers/Stump Grinders	1,043	0.10	0.17	88.46
4 Stroke	Commercial Turf Equipment	35,765	1.47	5.87	2716.44
4 Stroke	Front Mowers	6,183	0.05	0.19	530.51
4 Stroke	Lawn mowers	55,419	0.07	0.17	2161.32
4 Stroke	Leafblowers/Vacuums	12,674	0.05	0.84	135.93
4 Stroke	Other Lawn & Garden Eqp.	26,891	0.08	1.77	240.38
4 Stroke	Rotary Tillers < 6 HP	18,501	1.34	0.79	183.99
4 Stroke	Shredders < 6 HP	11,262	0.02	0.11	12.52
4 Stroke	Trimmers/Edgers/Brush Cutter	1,278	0.00	0.09	8.10
	Total		4.71	18.31	7080.13

*While some categories may appear to be larger than handheld or push equipment, such as “turf” they are all under the 25 horsepower range and likely under the 10 horsepower range and meant to reflect such items as push aerators or push lawn sod cutters

Emissions estimates for NOx and VOC from the residential lawn and garden (L&G) equipment sector encompass handheld and push equipment purchased and operated by the general public. Emission factors for VOC and NOx were developed using EPA studies specific to lawn and garden equipment, with particular emphasis on Phase 2 emission standards and the incorporation of catalyst technologies².

Greenhouse gas (GHG) emission factors were derived by estimating equipment-specific operating hours and applying the corresponding GHG emission intensity of gasoline on a per-hour basis. Residential-level usage assumptions, including annual hours of operation, were taken from the same EPA studies used to establish criteria pollutant emission factors.

² <https://nepis.epa.gov/Exe/ZyPDF.cgi?Dockey=P100UXK7.pdf>

The Colorado SB 22-138 Greenhouse Gas Emissions Report estimates that approximately 200,000 electric handheld and push equipment units were sold in 2023. Industry reporting from Green Industry Pros³ suggests that electric equipment accounts for roughly 60 percent of the small residential equipment market. Based on this market share, it is assumed that approximately 100,000 gasoline-powered handheld and push units continue to be sold annually.

For more information on the methodology used to calculate emissions for this strategy, including analytical limitations and recommended refinements, please see the [Future Ozone Impact Analysis Report: Appendix A](#).

Implementation Considerations

The strategy analysis is based on estimating the NOx, VOC, and GHG reductions from expanding the already-adopted regulation at a November 2026 AQCC rulemaking hearing and identifies other supporting programs and the potential to target emission reductions more specifically to the summer ozone season. Market data, recent use surveys, and supporting state programs combine to show the purchase and use of battery electric LME is increasing. Pending the adoption of the planned additions to Regulation 29 this Fall, the RAQC would then re-assess other potential Reg. 29 modifications, including the improvement of estimates of equipment populations and characteristics, as well as methods to effectively measure compliance with the regulation during the summer ozone season. Greater emission reductions from the LME sector must be tracked to improve ozone estimates for the DM/NFR NAA for the next SIP planning cycle, by verifying with survey and/or site visits across the DM/NFR NAA, rather than a “natural turnover” approach, so the emission reductions occur before 2030 and continue afterward.

³ https://www.greenindustrypros.com/mowing-maintenance/article/21614971/power-systems-research-current-state-of-the-us-lawn-garden-equipment-market?utm_source=chatgpt.com

Strategy Name: Adopt Non-Road Engines Emissions Targets

Source Sector(s) for emission reductions: Non-Road Engines

Proposed timeline:

- **Proposal and adoption:** 2028-2030
- **Reductions effective:** summer 2030 increasing into 2025 and beyond
- **Phased?:** Yes

Applicable NOx and VOC reductions in short tons/summer day: by 2030: 1.66 tpd NOx and 3.43 tpd VOC, by 2035: 3.32 tpd NOx and 6.85 tpd VOC

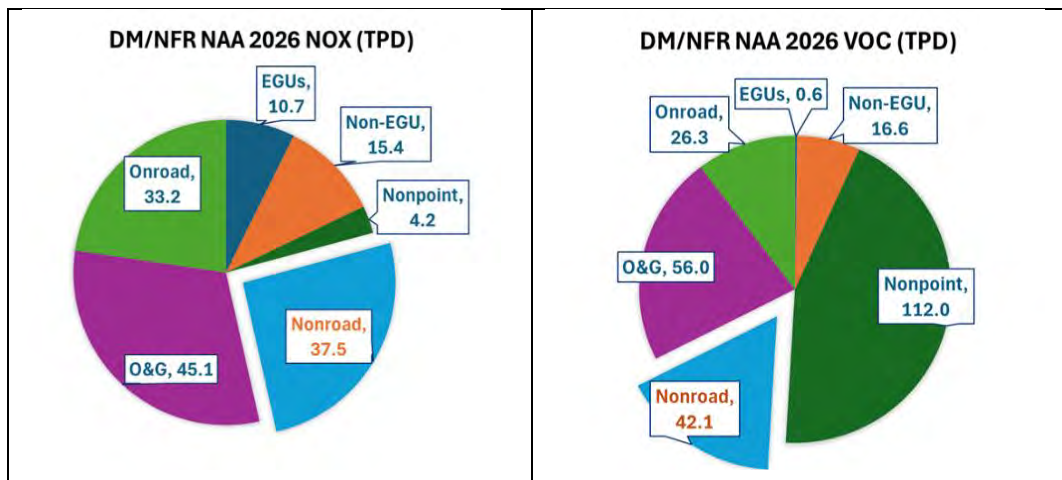
Regulatory status: potential new regulation.

Implementation option(s): Regulations and incentive programs.



Strategy Description: This strategy would develop and begin implementation to achieve target emission reductions of 10% by 2030 relative to 2026 emissions levels. Then, further emission reductions would be achieved with 10% emission reductions (relative to 2026 emission levels) every 5 years, with emission reductions in 2035, 2040, 2045, and 2050. Substantive programs and practices to likely explore/potentially enact to meet these goals include: 1) establishing green infrastructure construction project requirements for the public followed by the private sector, and/or 2) implementing summer ozone season non-road engine use limitations through best management plans/practices. One option for implementation is to initially enact a reporting requirement for specific sectors to fill data gaps on non-road engine populations and activities while developing the substantive programs and practices to meet non-road emissions targets.

Cost range and factors: Cost factors could include (i) capital costs associated with replacement of equipment with low-emissions models, electrified models, emission control retrofits, and electric power or alternative fuel infrastructure and (ii) associated operation and maintenance costs or cost benefits, and (iii) program administration costs. In the case that activities are scheduled outside of the ozone season to comply with the targets, costs could be incurred due to schedule delays or advances. Quantified costs would depend on exact implementation plans and would be calculated later if/when a regulation is developed and finalized, in line with Air Quality Control Commission requirements.



Stakeholder outreach: RAQC presented this control strategy and elicited feedback from stakeholders at Control Strategy Committee meetings and the [June 2025 Board meeting](#). For more information please visit the 2025 [stakeholder engagement information document](#) (an updated version for 2026 will be available at a later date).

Disproportionately Impacted Communities (DICs): Reducing NOx and VOC emissions from non-road equipment in the DM/NFR NAA supports the goal of reducing environmental burdens. The state's [EnviroScreen](#) tool allows for assessment of DICs.

Implementation elsewhere: CARB's [2020 Mobile Source Strategy](#) and the SCAQMD [2022 Air Quality Management Plan](#). The Clean Air Act allows states to regulate in-use equipment activities and practices to reduce non-road equipment emissions but prohibits preemption of Federal non-road emission standards for new equipment.

Emission Reduction Estimation Methodology:

This control measure is intended to have a phased approach with the first target reduction of 10% by 2030 relative to 2026 emissions levels. Additional incremental 10% emission reductions targets (relative to 2026 levels) would be achieved every 5 years in 2035 (20% reduction relative to 2026), 2040 (30%), 2045 (40%), and 2050 (50%). These targets assume a high level of implementation for evaluation purposes only and are not based on a feasibility assessment. A variety of strategies could be explored and implemented to achieve these targets including a combination of voluntary/incentive programs such as 1) establishing green infrastructure construction project requirements for the public followed by the private sector, 2) implementing summer ozone season non-road engine use limitations through best management plans/practices, 3) incentivization/grant programs to encourage fleet turnover to no/low emissions equipment and 4) public and private L&G equipment electrification.

SIP Modeling Baseline: Nonroad Sources

The starting point for this analysis is the 2026, 2030, 2035, and 2050 emissions inventories from the EPA Motor Vehicle Emission Simulator, version 5 (MOVES5)¹.

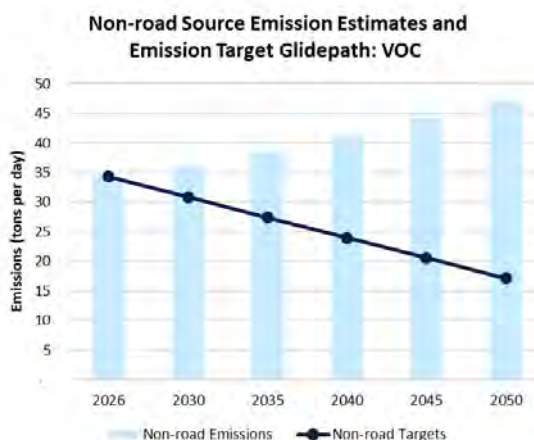
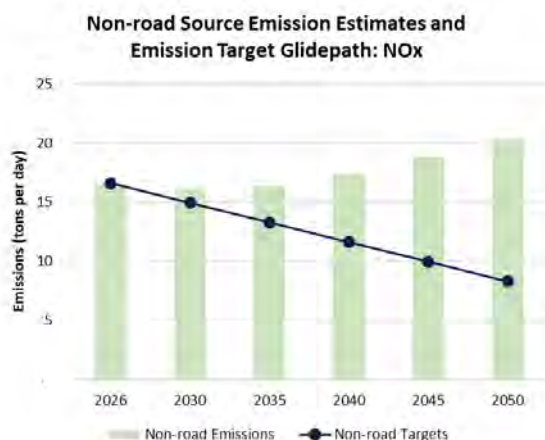
Applicable 2026 emissions include the following nonroad sectors:

- Agriculture
- Commercial
- Construction
- Industrial
- Lawn/Garden
- Logging
- Pleasure Craft
- Railroad Support
- Recreational
- Underground Mining

Step-by-Step Reduction Calculation Methodology

The following steps describe how potential NO_x and VOC reductions were calculated.

Step	Action	Detail
1	Identified emissions that would be reduced	Nonroad emissions applicable to this strategy were identified in the 2026, 2030, 2035, 2040, 2045, and 2050 emissions inventory from the EPA MOVES5. MOVES5 estimates of NO _x and VOC emissions by year are represented by the green and blue bars, respectively, in the figure below.
2	Calculate emissions targets relative to 2026	Emissions targets (calculated as 10% to 50% cumulative reductions from 2030 through 2050) were calculated relative to 2026 levels. Emissions targets by year are represented by the black dots in Figure 1.
3	Calculate year-specific emissions reductions	Emissions reductions by year were calculated as the difference between the 2026 emissions and the future year emission target.



NO_x and VOC Non-Road Source Emission Estimates and Emission Target Glidepaths

For more information on the methodology used to calculate emissions for this strategy, including analytical limitations and recommended refinements, please see the [Future Ozone Impact Analysis Report: Appendix A](#).

Implementation Considerations

The strategy analysis is based on estimating the change in NO_x and VOC emissions from 2026 out through 2050 in nominal 5-year increments, using the EPA MOVES emissions model. This is a long-term strategy to steadily reduce these emissions toward attainment and continuing maintenance of the ozone NAAQS over an extended period while the population and economy grow. This strategy would provide regulatory certainty for the affected sources with incentives to reduce emissions. Examples of programs and practices to explore for adoption and implementation were listed, both incentive-based and regulatory limitations. This effort could start with a reporting requirement for specific sectors to fill data gaps on non-road engine populations and activities while preparing technical tracking methodologies needed, at the same time the substantive programs and practices to meet non-road emissions targets are developed. Market data, regular user surveys, and field verification would enable the improvement of equipment population estimates and characteristics, as well as methods to effectively measure compliance with the regulation during the summer ozone season.

Strategy Name: Adopt Zero-Emission Forklifts Regulation

Source Sector(s) for emission reductions: Nonroad Sources (forklifts)

Proposed timeline:

- **Proposal and adoption:** by 2030
- **Reductions effective:** after 2032
- **Phased?:** Yes, on a schedule based on fleet size and model year with compliance exemptions and extensions under certain circumstances

Applicable NOx and VOC reductions by full phase-in in short tons/summer day: 0.76 tpd NOx and 0.13 tpd VOC

Regulatory status: potential new regulation.

Implementation option(s): New Regulation



Strategy Description: This strategy would adopt a new rule to phase out Class IV and V large spark-ignited (LSI) forklifts (with lift capacity up to 12,000 pounds) and phase in zero-emission (ZE) forklifts in the DM/NFR NAA. These forklifts currently may be powered by fossil-fuels such as liquefied petroleum gas (LPG; or propane), gasoline, diesel, or natural gas, all of which contribute to ozone-forming NOx and VOC emissions.

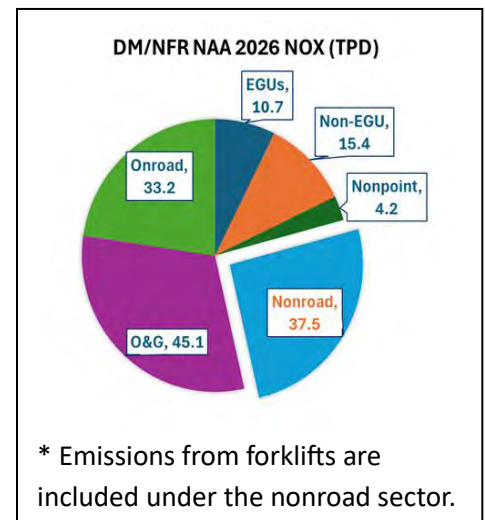
The rule would establish reporting requirements and a compliance timeline for fleet operators. The first year of reporting requirements would include LSI forklift owner submission of company/contact and forklift fleet information. Subsequent year reporting requirements would include updates and an attestation of compliance. The rule would achieve reductions through a phased transition to zero-emission forklifts after 2030. During the first two phase-in years, selling fossil-fueled Class IV and V forklifts would be prohibited, followed by a 10-year phase-out of existing Class IV and V forklifts.

The strategy could prioritize implementation for large fleets and/or fleets operating in/near to disproportionately impacted communities.

Cost range and factors: Program cost factors include public health benefits, the costs to transition fleets to zero-emission forklifts, and program administration costs. Quantified costs would depend on exact implementation plans and would be calculated later if/when a regulation is developed and finalized, in line with Air Quality Control Commission requirements.

Stakeholder outreach: RAQC presented this control strategy and elicited feedback from stakeholders at its [September 2024 Indirect Sources Work Group meeting](#), [March 2025 Control Strategy Committee meeting](#) and [April 2025 Board meeting](#). For more information please visit the 2025 [stakeholder engagement information document](#) (an updated version for 2026 will be available at a later date).

Disproportionately Impacted Communities (DICs): This control measure would reduce emissions throughout the DM/NFR region, including in DICs where industrial activity is often concentrated. The state's [EnviroScreen](#) tool allows for assessment of DICs.



Implementation elsewhere: On June 27, 2024, the [California Air Resources Board \(CARB\)](#) adopted the [Zero-Emission Forklift Regulation](#). Per CARB's [May 29, 2025 Advisory](#), until U.S. EPA grants authorization or determines authorization is not necessary under the Clean Air Act, CARB staff will not enforce the Zero-Emission Forklift regulation against any privately-owned or operated fleets.

Emission Reduction Estimation Methodology:

This control measure is intended to have a phased approach with the first year of implementation in 2032 (first year of emission reductions in 2033) and full emission reductions achieved by 2044. Emission reductions were estimated assuming this program could result in full emission reductions as calculated for the CARB regulation. However, in California currently only state and local agencies are required to comply per CARB's May 29, 2025 Advisory¹.

The starting point for this analysis is the 2026 emissions inventory from the EPA Motor Vehicle Emission Simulator, version 5 (MOVES5)². The CARB regulation applies to Class IV and V large-spark ignition (LSI) forklifts powered by gasoline, propane, or natural gas. Class IV LSI forklifts use cushion tires that are often used in warehouse settings. Class V LSI forklifts use pneumatic tires that can be operated indoors or outdoors.

Applicable 2026 forklift emissions are summed over the following SCCs:

SCC	SCC Description
2265003020	4-stroke gasoline fueled industrial forklifts
2267003020	Liquid Petroleum Gas (LPG) fueled industrial forklifts
2268003020	Compressed Natural Gas (CNG) fueled industrial forklifts

Step-by-Step Reduction Calculation Methodology

The following steps describe how potential NOx and VOC reductions were calculated.

Step	Action	Detail
1	Identified 2026 emissions that would be reduced	Forklift emissions applicable to this strategy were identified in the 2026 emissions inventory from the EPA MOVES5 tool by SCC, resulting in 0.91 tpd of applicable NOx emissions and 0.15 tpd of applicable VOC emissions.
2	Calculate emission reductions	Emission reductions were based on the phased-in percent emission reductions estimated from the CARB regulation. It is assumed that the program would commence in the DM/NFR NAA by 2032. Emission reductions for this strategy were estimated for 2035 and full implementation (2044+), representing CARB estimates for year 3 and year 12+ of its emission reductions.

For more information on the methodology used to calculate emissions for this strategy, including analytical limitations and recommended refinements, please see the [Future Ozone Impact Analysis Report: Appendix A](#).

¹ https://ww2.arb.ca.gov/sites/default/files/2025-05/ZEF_Advisory_1.pdf

² <https://www.epa.gov/moves/latest-version-motor-vehicle-emission-simulator-moves>

Implementation Considerations

The strategy analysis is based on estimating the change in NO_x emissions from 2026 out through 2044, using the EPA MOVES emissions model. This is a long-term strategy to steadily reduce these emissions toward attainment and continuing maintenance of the ozone NAAQS over an extended period while the population and economy grow. This strategy would provide regulatory certainty for the affected sources, with a long time horizon, and could be combined with incentives to buy and use ZEV forklifts. This effort could be combined with Indirect Source emission reduction programs under evaluation by the RAQC, by providing ISER credits for early adoption of ZEV forklifts. Market data, regular user surveys, and field verification would enable the tracking and improvement of equipment population estimates, as well as effectively measure compliance with the regulation during the summer ozone season.

July 15, 2026

The Honorable Sam Graves
Chairman
House Committee - Transportation & Infrastructure
2165 Rayburn House Office Building
Washington, DC 20515

The Honorable Rick Larsen
Ranking Member
House Committee - Transportation & Infrastructure
2165 Rayburn House Office Building
Washington, DC 20515

The Honorable Shelley Moore Capito
Chairman
Senate Committee - Environment & Public Works
410 Dirksen Senate Office Building
Washington, DC 20510

The Honorable Sheldon Whitehouse
Ranking Member
Senate Committee - Environment & Public Works
410 Dirksen Senate Office Building
Washington, DC 20510

The Honorable Tim Scott
Chairman
Senate Committee - Banking, Housing, & Urban Affairs
534 Dirksen Senate Office Building
Washington, DC 20510

The Honorable Elizabeth Warren
Ranking Member
Senate Committee - Banking, Housing, & Urban Affairs
534 Dirksen Senate Office Building
Washington, DC 20510

RE: Intermountain West MPO Perspectives on the BUILD America 250 Act

Dear Chairman Graves, Chairman Capito, Chairman Scott, Ranking Member Larsen, Ranking Member Whitehouse, and Ranking Member Warren:

Metropolitan Planning Organizations (MPOs) of the [Intermountain West](#) – Arizona, Colorado, Idaho, New Mexico, Nevada, Utah, and Washington – appreciate the leadership of the U.S. House Transportation and Infrastructure Committee in advancing the BUILD America 250 Act and laying the groundwork for the next federal surface transportation reauthorization bill. Our regions—including some of the nation's fastest-growing metropolitan areas—rely on a strong federal-state-regional-local transportation partnership to maintain mobility, support economic competitiveness, and accommodate quality of life as our areas continue to grow. Overall, we view the proposal as a strong foundation for reauthorization. The bill refines the framework established under recent transportation authorizations, preserving robust federal investment levels and advancing the valuable role that MPOs play in regional transportation planning and project development.

BUILD America 250 includes several provisions that are particularly beneficial to metropolitan regions. We would like to see the following important provisions prioritized and included in the subsequent Senate titles and final version of the bill:

- Continued support for core formula programs that provide states and MPOs with predictable funding to address regional transportation needs.
- Increases to key MPO-administered programs, including Metropolitan Planning (PL) funds and the Surface Transportation Block Grant Program (STBG). A 22% increase over 5-years in PL is a meaningful start, but those gains are somewhat offset with inflationary impacts. PL funds are the core source of federal financial support for MPOs to conduct transportation planning and are the foundation of project delivery. If it doesn't get planned, it doesn't get built.

- Preservation and enhancement of local funding set-asides within the Bridge Investment Program, and the new Surface Transportation Assistance Grant (STAG) Program, ensuring that metropolitan regions and local governments continue to have direct access to transportation funding for projects that address community priorities and regional needs.
- Continuation of the Safe Streets and Roads for All (SS4A) program, which has provided valuable resources to local governments seeking to improve transportation safety and reduce roadway fatalities.
- Improvements to the Capital Investment Grant (CIG) program, including bipartisanly supported language offered by Representative Burgess Owens (UT) that would allow for the consideration of population growth and transit-oriented planning rate when fixed-guideway projects are evaluated in the Capital Investment Grant Program. This change recognizes the realities facing rapidly growing metropolitan areas throughout the Intermountain West, and the opportunity to coordinate development and transit investment.
- Inclusion of project delivery and permitting reforms intended to streamline the efficiency of federal review processes. This is a critical theme of BA250 that provides greater predictability, reduces duplicative reviews, and accelerates project implementation while maintaining meaningful environmental stewardship, public involvement, and coordination with local and regional planning processes.

We encourage Congress to continue refining the proposal as reauthorization advances, and would ask that the following be considered:

- Additional investment in core formula programs remains warranted. Although the bill provides increases for programs such as PL and STBG, rapidly growing metropolitan regions continue to face transportation demands that outpace available resources. Greater investment in PL and STBG would provide MPOs, local governments, and states with the ability to address region-specific priorities while improving system performance and reliability.
- We remain concerned that the proposal does not meaningfully address the long-term structural challenges facing the Highway Trust Fund. While maintaining current funding levels provides near-term certainty, a sustainable revenue solution will ultimately be necessary to ensure the continued viability of the federal transportation program. We encourage Congress to examine highway formula funding fairness. Current apportionment methodologies continue to rely on outdated data that do not fully reflect the significant population growth experienced by many western states. Fast-growing regions are often required to accommodate substantial increases in travel demand before federal formula distributions fully recognize those changes. Reauthorization presents an opportunity to modernize funding formulas and better align federal investment with current population and transportation realities.
- We are monitoring the proposed Highway Block Grant Program (Sec. 1128) and other provisions that could alter the distribution of federal transportation resources. While additional flexibility can be beneficial, any new funding structure should be carefully evaluated to ensure it preserves transparency, predictability, and equitable distribution among growing states and metropolitan regions.
- We encourage considering the inclusion of advance appropriations for core transportation programs. The use of advance appropriations in the IIJA provided valuable funding certainty and helped ensure that transportation agencies could effectively deliver major infrastructure investments. This is particularly important for transit programs, which would otherwise experience a substantial reduction from IIJA funding levels despite continued growth in demand and infrastructure needs across many metropolitan regions.

As Congress continues work on surface transportation reauthorization, the MPOs of the Intermountain West look forward to partnering with federal policymakers to strengthen the bill and ensure that transportation investments support the needs of rapidly growing communities. We appreciate the committee's efforts to preserve the core federal transportation program while providing targeted improvements and look forward to continued dialogue on how best to position the nation's transportation system for the next generation of growth and opportunity.

Sincerely,

Community Planning Association of Southwest Idaho (ID)
Denver Regional Council Of Governments (CO)
Maricopa Association of Governments (AZ)
Mountainland Association of Governments (UT)
North Front Range Metropolitan Planning Organization (CO)
Pikes Peak Area Council of Governments (CO)
Pima Association of Governments (AZ)
Regional Transportation Commission of Southern Nevada (NV)
Regional Transportation Commission of Washoe County (NV)
Sacramento Area Council of Governments (CA)
Spokane Regional Transportation Council (WA)
Wasatch Front Regional Council (UT)



COMPASS
COMMUNITY PLANNING ASSOCIATION
of Southwest Idaho



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North Front Range
Metropolitan
Planning
Organization



Pikes Peak Area
Council of Governments
Communities Working Together



Spokane
Regional
Transportation
Council



July 15, 2026

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RE: Intermountain West MPO Perspectives on the BUILD America 250 Act

Dear Chairman Graves, Chairman Capito, Chairman Scott, Ranking Member Larsen, Ranking Member Whitehouse, and Ranking Member Warren:

Metropolitan Planning Organizations (MPOs) of the [Intermountain West](#) – Arizona, Colorado, Idaho, New Mexico, Nevada, Utah, and Washington – appreciate the leadership of the U.S. House Transportation and Infrastructure Committee in advancing the BUILD America 250 Act and laying the groundwork for the next federal surface transportation reauthorization bill. Our regions—including some of the nation's fastest-growing metropolitan areas—rely on a strong federal-state-regional-local transportation partnership to maintain mobility, support economic competitiveness, and accommodate quality of life as our areas continue to grow. Overall, we view the proposal as a strong foundation for reauthorization. The bill refines the framework established under recent transportation authorizations, preserving robust federal investment levels and advancing the valuable role that MPOs play in regional transportation planning and project development.

BUILD America 250 includes several provisions that are particularly beneficial to metropolitan regions. We would like to see the following important provisions prioritized and included in the subsequent Senate titles and final version of the bill:

- Continued support for core formula programs that provide states and MPOs with predictable funding to address regional transportation needs.
- Increases to key MPO-administered programs, including Metropolitan Planning (PL) funds and the Surface Transportation Block Grant Program (STBG). A 22% increase over 5-years in PL is a meaningful start, but those gains are somewhat offset with inflationary impacts. PL funds are the core source of federal financial support for MPOs to conduct transportation planning and are the foundation of project delivery. If it doesn't get planned, it doesn't get built.

- Preservation and enhancement of local funding set-asides within the Bridge Investment Program, and the new Surface Transportation Assistance Grant (STAG) Program, ensuring that metropolitan regions and local governments continue to have direct access to transportation funding for projects that address community priorities and regional needs.
- Continuation of the Safe Streets and Roads for All (SS4A) program, which has provided valuable resources to local governments seeking to improve transportation safety and reduce roadway fatalities.
- Improvements to the Capital Investment Grant (CIG) program, including bipartisanly supported language offered by Representative Burgess Owens (UT) that would allow for the consideration of population growth and transit-oriented planning rate when fixed-guideway projects are evaluated in the Capital Investment Grant Program. This change recognizes the realities facing rapidly growing metropolitan areas throughout the Intermountain West, and the opportunity to coordinate development and transit investment.
- Inclusion of project delivery and permitting reforms intended to streamline the efficiency of federal review processes. This is a critical theme of BA250 that provides greater predictability, reduces duplicative reviews, and accelerates project implementation while maintaining meaningful environmental stewardship, public involvement, and coordination with local and regional planning processes.

We encourage Congress to continue refining the proposal as reauthorization advances, and would ask that the following be considered:

- Additional investment in core formula programs remains warranted. Although the bill provides increases for programs such as PL and STBG, rapidly growing metropolitan regions continue to face transportation demands that outpace available resources. Greater investment in PL and STBG would provide MPOs, local governments, and states with the ability to address region-specific priorities while improving system performance and reliability.
- We remain concerned that the proposal does not meaningfully address the long-term structural challenges facing the Highway Trust Fund. While maintaining current funding levels provides near-term certainty, a sustainable revenue solution will ultimately be necessary to ensure the continued viability of the federal transportation program. We encourage Congress to examine highway formula funding fairness. Current apportionment methodologies continue to rely on outdated data that do not fully reflect the significant population growth experienced by many western states. Fast-growing regions are often required to accommodate substantial increases in travel demand before federal formula distributions fully recognize those changes. Reauthorization presents an opportunity to modernize funding formulas and better align federal investment with current population and transportation realities.
- We are monitoring the proposed Highway Block Grant Program (Sec. 1128) and other provisions that could alter the distribution of federal transportation resources. While additional flexibility can be beneficial, any new funding structure should be carefully evaluated to ensure it preserves transparency, predictability, and equitable distribution among growing states and metropolitan regions.
- We encourage considering the inclusion of advance appropriations for core transportation programs. The use of advance appropriations in the IIJA provided valuable funding certainty and helped ensure that transportation agencies could effectively deliver major infrastructure investments. This is particularly important for transit programs, which would otherwise experience a substantial reduction from IIJA funding levels despite continued growth in demand and infrastructure needs across many metropolitan regions.

As Congress continues work on surface transportation reauthorization, the MPOs of the Intermountain West look forward to partnering with federal policymakers to strengthen the bill and ensure that transportation investments support the needs of rapidly growing communities. We appreciate the committee's efforts to preserve the core federal transportation program while providing targeted improvements and look forward to continued dialogue on how best to position the nation's transportation system for the next generation of growth and opportunity.

Sincerely,

Community Planning Association of Southwest Idaho (ID)
Denver Regional Council Of Governments (CO)
Maricopa Association of Governments (AZ)
Mountainland Association of Governments (UT)
North Front Range Metropolitan Planning Organization (CO)
Pikes Peak Area Council of Governments (CO)
Pima Association of Governments (AZ)
Regional Transportation Commission of Southern Nevada (NV)
Regional Transportation Commission of Washoe County (NV)
Sacramento Area Council of Governments (CA)
Spokane Regional Transportation Council (WA)
Wasatch Front Regional Council (UT)



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of Southwest Idaho



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North Front Range
Metropolitan
Planning
Organization



Pikes Peak Area
Council of Governments
Communities Working Together



Spokane
Regional
Transportation
Council



Full Packet available [here](#).

Front Range Passenger Rail District
Board of Directors 2026
REGULAR MEETING

[Join Zoom Meeting](#)

Join by Phone: 720-707-2699

Webinar ID: 846 0703 5098

Friday, July 31, 2026, 9:00 AM

AGENDA

- 1. Call to Order; Roll Call, Establish Quorum (Pg. 3)**
- 2. Public Comment** Advance registration is required to speak during Public Comment. The order of speaking is on a first-come, first-served basis. Public comments will be limited to 3 minutes per person. People wishing to make a comment must sign-up before the start of the meeting at https://bit.ly/FRPRD_PublicComment.
- 3. Approval of Minutes**
 - A. Approval of May 29, 2026, Regular Meeting Minutes (Pg. 4)
- 4. General Manager's Report**
 - A. Ballot Access Plan Schedule (Pg. 12)
 - B. Phase 2 Outreach and Town Hall Update
 - C. In-Person Board Meeting — August 28
- 5. Committee Reports**
 - A. Government Affairs/Communications
 - B. Finance
District Financial Statement (Pg. 15)
 - C. Planning
 - i. Recommended Local Return Policy (Pg. 20)
 - D. Executive
- 6. Board Discussion Items**
 - A. Final Delivery Plan Review — HNTB (Pg. 23)

7. Board Action Items

- A. Resolution 2026-26 Adopting the District's Plan for Developing Passenger Rail Service [\(Pg. 104\)](#)
- B. Resolution 2026-27 Approving a Change to the District's Procurement Policy [\(Pg. 108\)](#)
- C. Resolution 2026-28 Authorizing the General Manager to Enter Into an Intergovernmental Agreement with RTD [\(Pg. 110\)](#)

8. Director Updates

9. Adjourn

NFRMPO Planning Council

Mobility Department Board Report | August 2026



Purpose: Provide a concise Planning Council summary of RideNoCo demand, caller needs, outreach activity, and planning-level considerations.

RideNoCo Performance Snapshot

233

Calls/Emails
2026 YTD

Planning signal: sustained demand

5,025

Website Visits
2026 YTD

Planning signal: sustained demand

+58.5%

Call Growth
vs. same 2025 YTD

Planning signal: sustained demand

+97.8%

Website Growth
vs. same 2025 YTD

Planning signal: sustained demand

Key Takeaways

Demand is increasing

Contacts and website use are ahead of the same 2025 YTD point.

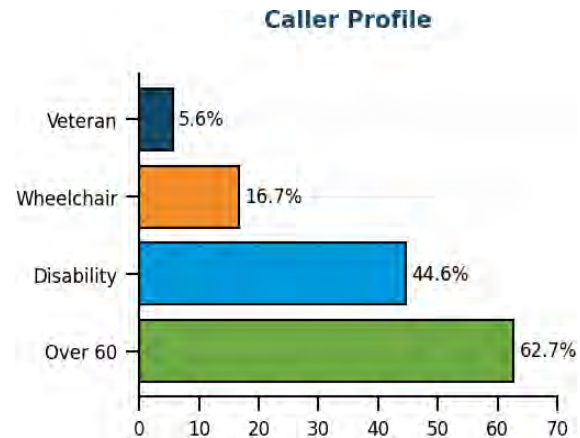
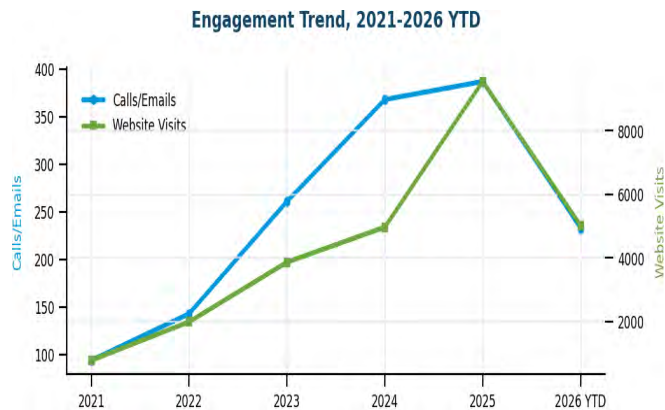
Needs are complex

Medical trips, cost, last-minute needs, and service-area limits remain key barriers.

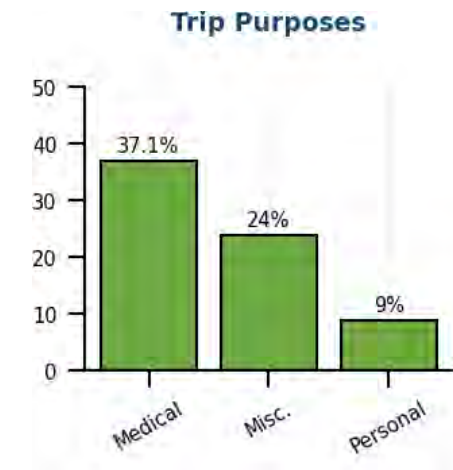
Outreach is active

RideNoCo participated in 12 listed summer outreach events across three months.

Engagement and Mobility Needs



Trip Purposes, Gaps, and Referrals



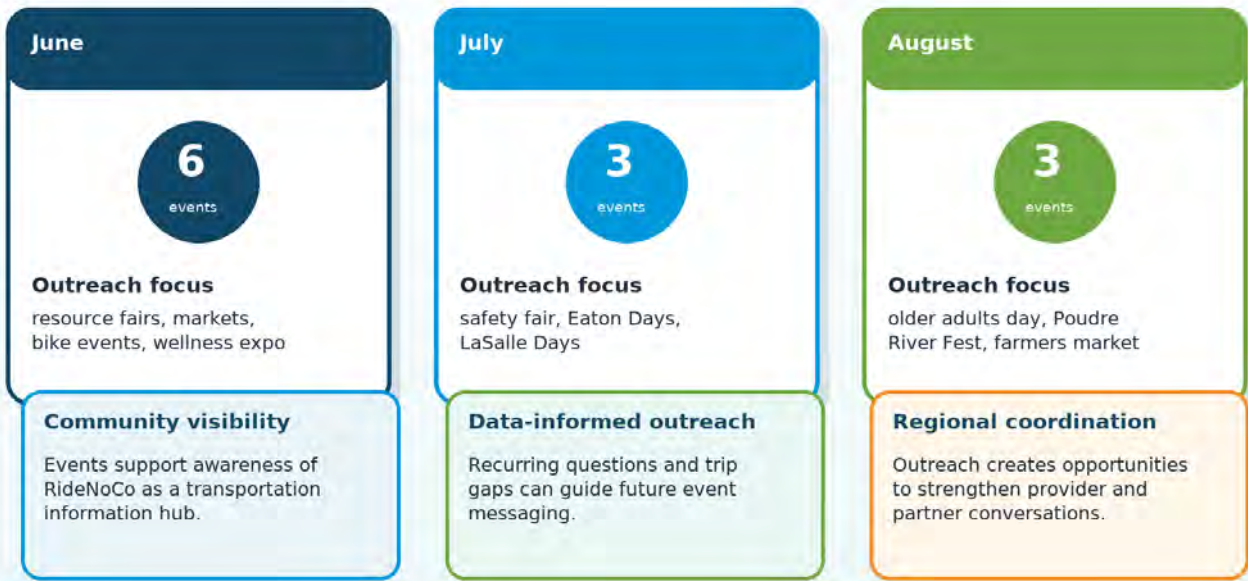
Data Insights

Medical travel 37.1% of known trip purposes were medical.	Cost and timing Cost and last-minute needs remain leading gaps.	Referral gaps “None” was among the top referral outcomes.
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Outreach Activity

Summer Outreach Activity

12 listed community events across June, July, and August



Planning Insights

Monitor Continue tracking caller barriers, referral outcomes, and common trip needs.	Connect Use outreach and call data to guide regional provider and partner conversations.	Align Connect RideNoCo findings with regional planning and mobility coordination priorities.
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Summary: RideNoCo data points to continued demand for transportation information and provides a practical planning signal for outreach, referral coordination, and regional mobility conversations.