



Idling Reduction Pilot Program Report

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Submitted by

Southern Nevada Clean Cities Coalition Staff

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Introduction

All-In Clark County

Clark County government is embracing social and environmental management of the region with its [All-In Community Sustainability and Climate Action Plan](#). This plan supports the sustainability and resiliency of the region in an equitable manner and addresses focus areas including water conservation, urban heat, energy, and transportation.

The Idling Reduction Pilot Program aligns with the Connected & Equitable Mobility focus area of the All-In Plan, which identifies transportation as a significant contributor to regional greenhouse gas emissions and prioritizes strategies that reduce transportation-related pollution and improve air quality. The transportation sector accounts for approximately 36% of greenhouse gas emissions in Clark County, making it the region's second largest emissions source.

The pilot program supports Goal 2 of the Connected & Equitable Mobility focus area: "the transportation system minimizes energy use and eliminates fossil fuels." Through public health education, student engagement, and community outreach related to unnecessary vehicle idling, the program supports broader regional efforts to reduce emissions, improve air quality, and increase awareness of sustainable transportation behaviors.

Idling Reduction Pilot Program

An Idling Reduction pilot program was launched with two participating magnet schools specializing in Environmental Sciences, Burkholder Environmental Science Academy and Johnston STEM Academy, in late February 2026.

The pilot program was developed through a partnership between Clark County Department of Environment and Sustainability (DES) and Nevada Clinicians for Climate Action (NVCCA). As part of its clean air and climate initiative under the [2023-2028 Nevada Silver State Health Improvement Plan](#), NVCCA developed coordinating program materials that complimented DES's air quality and sustainability programming.

The pilot program was intentionally designed to minimize administrative burden on participating school staff, prioritizing a flexible implementation structure. DES and NVCCA provided ready-made posters (as shown on page 5, from [Sustainable America](#)), flyers,

worksheets, and curriculum materials that educators could incorporate into existing programming as appropriate for their classroom and instructional needs.

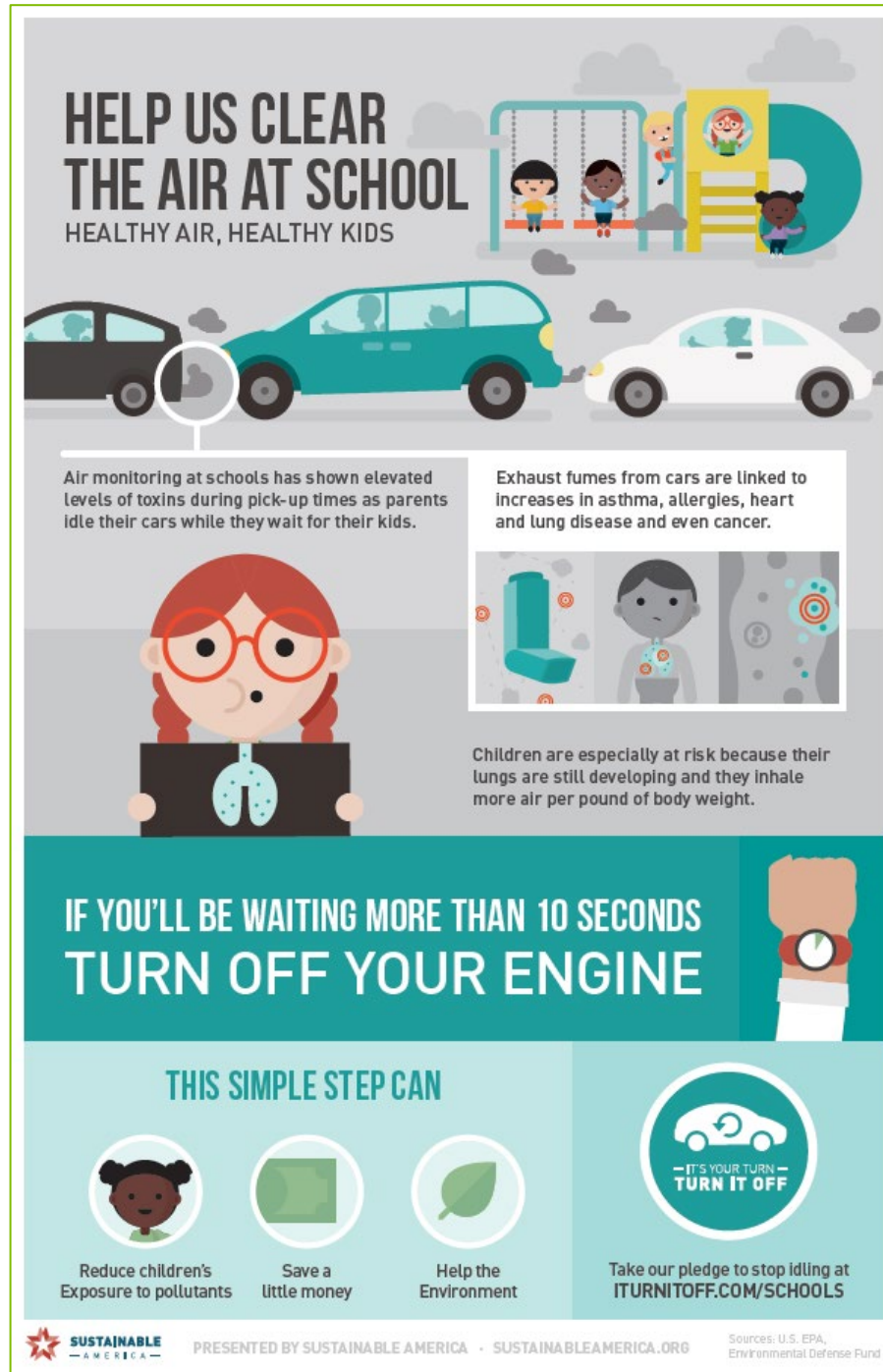
In addition to these ready-made resources, DES and NVCCA offered high-engagement programming, tailored according to school staff's available time and interest. To this end, DES and NVCCA were able to provide short informational videos, staff participation in a student-led podcast, a consumer air monitor loan and data review (led by NVCCA), and one day of field trips to the County's Air Quality Monitoring labs for one group of 8th-graders.

Acknowledgements

The pilot program became a reality with the support of valued program partners:

- Dr. Joanne Leovy, NV Clinicians for Climate Action
- Zinzinita King, NV Clinicians for Climate Action Spring Intern
- Peter Heryford, Nevada Department of Health and Human Services Health Program Specialist
- Ayesha Yacubic, Burkholder Environmental Science Academy Magnet Program Strategist
- Allison Gilliard, Johnston STEM Academy Magnet School Strategist
- Jaime Henry, Johnston STEM Academy Magnet School Strategist
- Alea Middleton, Clark County Environmental Specialist
- Piotr Nowinski, Clark County Engineering Manager
- Tony Zachodni, Clark County Air Quality Monitoring Supervisor
- Jeff Robb, Clark County Air Quality Monitoring Supervisor
- Audrie Locke, Clark County Desert Conservation Program Management Analyst
- Matt Moncayo, Clark County Senior Air Quality Monitoring Technician
- Rudy Reyes, Clark County Senior Air Quality Monitoring Technician
- Sarah Knapp, Clark County Air Quality Monitoring Technician
- Jose Chaverria, Clark County Air Quality Monitoring Technician
- Kevin MacDonald, Clark County Public Information Officer
- Ander Kretz, Clark County Management Assistant
- Olivia Burns, Clark County Environmental Specialist
- Clo Hidalgo, Clark County Administrative Specialist
- Tory Jackson, City of Henderson Sustainability Manager

School Poster: Healthy Air, Healthy Kids



School Poster via [Sustainable America](https://SustainableAmerica.org)

Outcomes

Burkholder Environmental Science Academy

This semester's Burkholder Environmental Science Academy program engaged 45 eight-grade students, including 44 students participating through health coursework and one Honor Society student who utilized air quality monitoring data to develop a poster project. Ten students also signed anti-idling pledge forms.

Burkholder Environmental Science Academy (Middle School) participated in:

- An idling reduction pledge drive
- Idling reduction projects presented on Earth Day
- A student-led podcast interview with an Air Quality Monitoring technician
- A consumer air quality monitor loan provided by NV Clinicians for Climate Action and data review by the Honor Society
- Air pollution curriculum in health class
- A field trip to the Clark County Air Quality Standards lab with a career day talk

Field Trip

The field trip involved:

- A tour of the air quality standards lab
- Hands-on experience with an air quality monitor station
- An informative video about the Gravimetrics lab and data collection
 - Air Quality Monitoring and our Public Information Officer created a short video that introduced the work performed in the gravimetric laboratory.
 - The video provided an overview of the types of experiments, instruments, and real-world applications students encountered, and explained how these activities relate to air quality science and measurement.
 - This video built a helpful foundation for classroom discussions prior to the visit and allowed students to better understand and engage with the hands-on activities during the field trip.
 - Due to space constraints, the video was most effective for introducing the work in the Gravimetrics lab to dozens of students.
- A Career Day presentation with air quality and conservation scientists speaking on educational and professional opportunities in environmental science.

Johnston STEM Academy

Johnston STEM Academy (Middle School) requested public health information relevant to idling reduction and air quality for virtual presentation in health class.

Educational Video Content

- Nevada Clinicians for Climate Action created an informational public health video on health impacts to students and youth from air pollution
- DES created a brief "skip the drive-through" idling reduction video
- DES added an American Lung Association video on indoor air quality in schools
- Johnston STEM staff edited these resources together and gave an overview of the Idling Reduction pledge drive effort, encouraging class participation in getting community members to sign up and reduce their idling time.



From [Indoor Air Quality in Schools](#) via the American Lung Association

Idling Reduction Pledge Drive and Award

Johnston STEM Academy held a pledge drive competition for middle school students to sign community members up to reduce their idling, with a wrestling-style belt going to the class with the highest percentage of participation.

Over 100 students participated in the idling reduction pledge drive and enjoyed the friendly competition trying for the prize.

Key Findings

Feedback from participating educators at Burkholder indicated that the pilot program was integrated successfully into health-class curriculum, while maintaining manageable implementation demands for school staff.

Educators indicated that students were highly engaged with the topic of vehicle idling and expressed concern regarding its impact on air quality. Observation exercises prompted students to record the prevalence of vehicle idling at their schools and consider the associated impacts. Educators noted that framing vehicle idling as an awareness and education gap, rather than an intentional choice, helped students feel empowered to contribute to positive behavior change in their communities, rather than feel discouraged by the negative impacts of vehicle idling.

The Burkholder pilot engaged 45 eight-grade students during the Spring 2026 semester, with anticipated program growth as student enrollment increases through 2028. Participating educators also identified opportunities to further integrate air quality and idling reduction concepts into additional subject areas, including mathematics and English coursework.

Johnston STEM staff requested educational video content creation and a school staff-led student pledge drive, which allowed for more flexibility in scheduling program content during class.

Program feedback also identifies opportunities to simplify air quality data collection tools and expand student-centered environmental monitoring activities in future program implementation efforts.

Nevada Clinicians for Climate Action staff would like to modify the math class activity. Students will examine general air quality at different times of the year rather than look for emissions spikes during student drop-off and pickup times. This change in approach to the data will paint a clearer picture of changes in emissions throughout the year and likely improve student satisfaction with their projects in math classes.



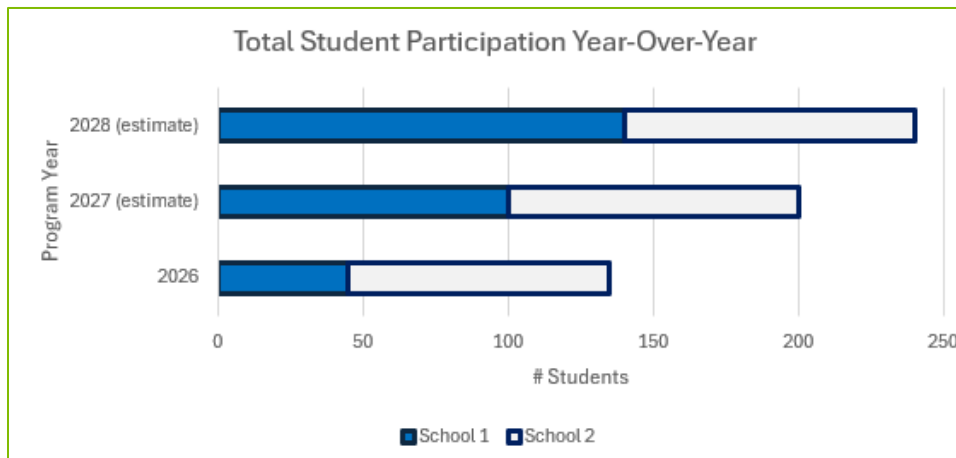
Clockwise from top left: Piotr Nowinski, Engineering Manager, shows students how to use equipment in the Standards Lab tour. Students use the Air Quality Map. Tony Zachodni, Air Quality Monitoring Supervisor, presents Career Day. Rudy Reyes, Senior Air Quality Monitoring Technician, shows students how to test equipment in the Standards Lab tour. Matt Moncayo, Senior Air Quality Monitoring Technician, teaches students how to test air filters. Sarah Knapp, Air Quality Monitoring Technician, shows students test equipment in the Standards Lab tour.

Conclusion

Reducing pollution and greenhouse gas emissions while increasing the sustainability and resiliency of the region remains a targeted priority for Clark County. The Idling Reduction Pilot Program demonstrated the value of flexible, partnership-based environmental health education that supports student engagement and increases awareness of transportation-related air quality impacts.

Clark County Department of Environment and Sustainability recognizes the time, expertise, and resources NVCCA contributed as part of this fruitful partnership and is grateful to work alongside them and participating CCSD schools in support of sustainability and public health education initiatives.

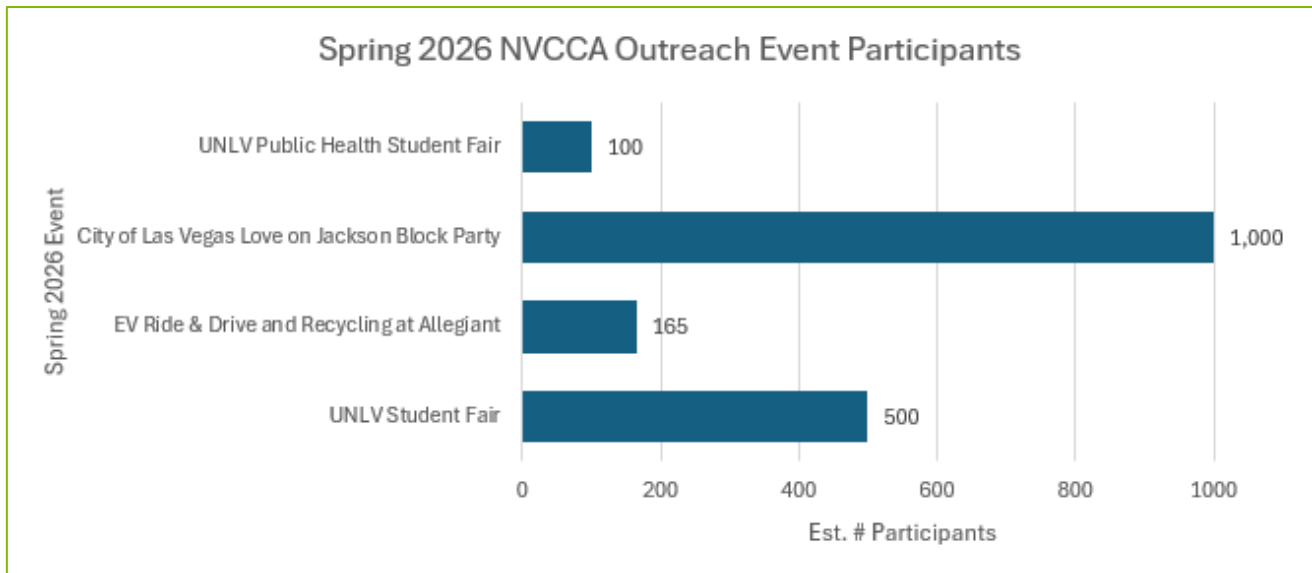
The flexible structure of the pilot program demonstrated potential scalability for expansion to additional schools throughout the Las Vegas Valley, depending on staff and agency availability.



45 Burkholder students participated in the pilot program.

For future engagement, Burkholder communicated increasing class sizes year-over-year. Participating students are expected to increase to 110-150 by 2028.

As for Johnston STEM, roughly 100 students participated in the idling reduction pledge drive. Estimates for increased engagement are 5-10 students through 2028.



Roughly 1,765 community members attended Spring 2026 events featuring NVCCA outreach.



NVCCA tabled at four events in Spring 2026: The EV Ride & Drive and Recycling Event at Allegiant Stadium, City of Las Vegas' Love on Jackson Block Party, the UNLV Student Fair, and the UNLV Public Health Student Fair.

Nevada Clinicians for Climate Action intern, Zinzinita King, presents Idling Reduction infographics and public health information as part of NVCCA outreach.

NVCCA's program materials are part of a clean air and climate initiative for the [2023-2028 Nevada Silver State Health Improvement Plan](#).

Resources

- [Sustainable America's Anti Idling Toolkit](#): Anti-Idling informational flyers, school posters
- EPA: Anti-Idling Observation Exercise, Observation Forms, and Post-Observation Analysis
 - [How to Conduct Observations \(docx\)](#) (19.85 KB)
 - [Sample Observation Form \(docx\)](#) (18.03 KB)
 - [Analyzing the Data \(pdf\)](#) (151.47 KB)
- Curriculum materials:
 - [Argonne National Lab's](#) idle reduction fuel-saving [worksheet](#)
 - Short air-quality videos such as: [Indoor Air Quality in Schools](#)
 - Class activities via [Teach Engineering](#)
- Clark County Air Quality Map: [Clark County Air Quality Map](#)



Browse Curriculum ▾

K-12 Engineering ▾

Popular Topics ▾

Standards ▾

Get Involved ▾

Professional Development ▾

The major man made sources of air pollution include coal-burning energy plants and cars (see Figure 1). Coal plants and cars produce most of the major pollutants of concern including, *toxic gases* like sulfur oxides (SO_x), nitrogen dioxide (NO_2) and carbon monoxide (CO) as well as *particulate matter*, like ash. Another major pollutant is ozone (O_3). Ozone is a little different than other pollutants because it does not come directly from the source, but rather from when other chemicals react with the oxygen in the sky. Toxic gases are the cause of many global problems, such as acid rain or acid deposition and global climate change.



Figure 1. (left) Smoke billowing from a factory. (right) Traffic congestion on a busy highway. copyright

Air Pollution Prevention

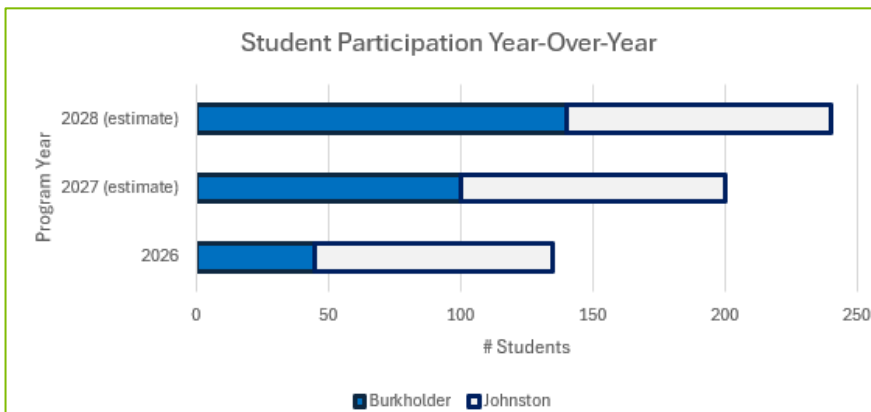
The best way to prevent air pollution is to not create it, which means burning less coal and driving fewer cars and even making fewer trips in cars. Unfortunately, it takes a lot of energy to support the American life style, and most people are quite dependant on their cars. Engineers work to reduce pollution by developing renewable energy sources and designing more efficient cars. They also design filters to remove air pollution before it is released into the atmosphere. To remove particulate matter, commonly engineered systems include gravity settlers, cyclones, electrostatic precipitators, scrubbers and fabric or fiber filters.

From The Air We Breathe
Grade Level 6 Curriculum Guide
Source: [Teach Engineering](#)

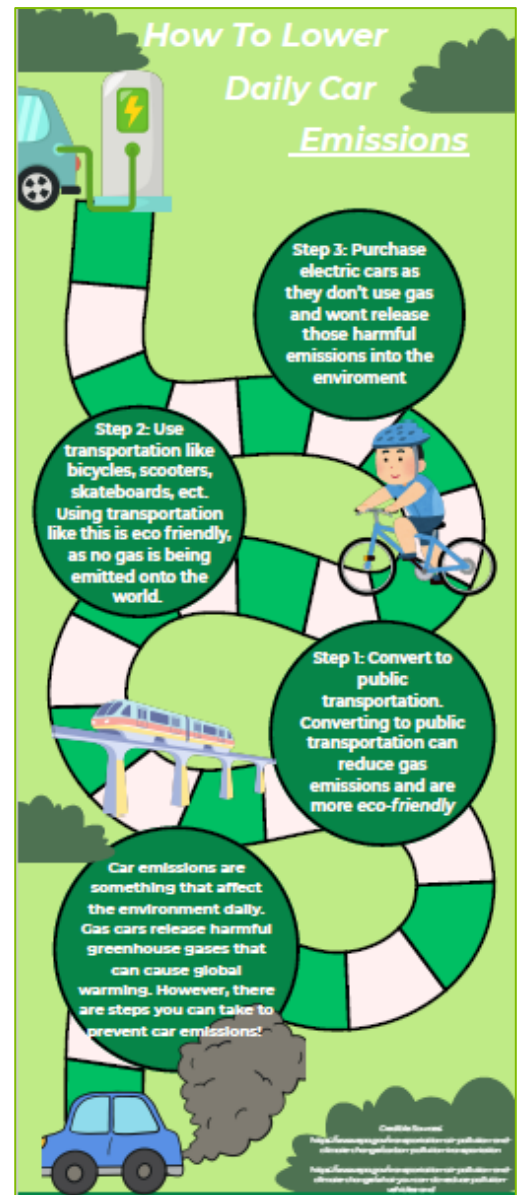
Appendix

Middle School student participation in the Idling Reduction program is anticipated to increase from 145 students (2026) to 245 students (2028) due to projected increases in class sizes.

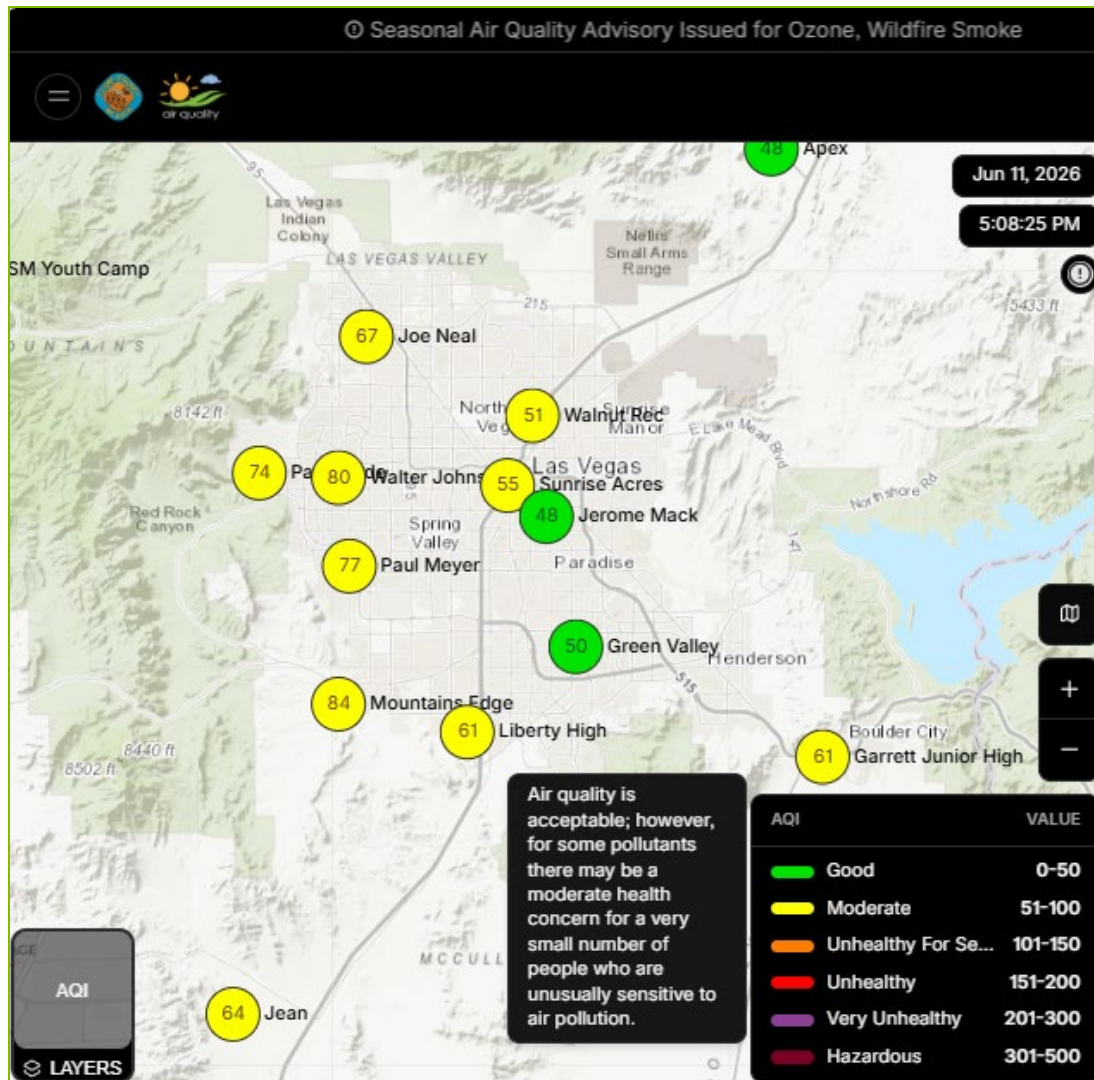
If DES, NVCCA, and CCSD form additional partnerships that staff can support, total participation numbers would increase further.



An interactive Idling Reduction craft created at the Nevada Clinicians for Climate Action table.



Burkholder Environmental Science Academy students created this emissions reduction infographic.



The Clark County Air Quality Map shows local air quality monitoring station readings:
<https://desaqmonitoring.clarkcountynv.gov/>