

Healthy Air for Buncombe County

RFP for Coronavirus State and Local Fiscal Recovery Funds

Land of Sky Regional Council

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Application Form

Question Group

Buncombe County requests proposals for projects to help the community recover from and respond to COVID-19 and its negative economic impacts.

Buncombe County has been awarded \$50,733,290 in Coronavirus State and Local Fiscal Recovery Funds (Recovery Funding), as part of the American Rescue Plan Act. To date, Buncombe County has awarded projects totaling \$23,093,499, leaving a balance of \$27,639,791 available to award.

Visit <http://www.buncombecounty.org/recoveryfunding><http://www.buncombecounty.org/recoveryfunding><http://www.buncombecounty.org/recoveryfunding><http://www.buncombecounty.org/recoveryfunding><http://www.buncombecounty.org/recoveryfunding> for details.

This infusion of federal resources is intended to help turn the tide on the pandemic, address its economic fallout, and lay the foundation for a strong and equitable recovery.

Buncombe County is committed to investing these funds in projects that:

- Align to county strategic plan and community priorities
- Support equitable outcomes for most impacted populations
- Leverage and align with other governmental funding sources
- Make best use of this one-time infusion of resources
- Have a lasting impact

Proposals shall be submitted in accordance with the terms and conditions of this RFP and any addenda issued hereto.

[Click here for the full terms and conditions of the RFP](#)

Organization Type*

Public

Nonprofit documentation

If nonprofit, attach IRS Determination Letter or other proof of nonprofit status.

Name of Project.*

Healthy Air for Buncombe County

New/Updated Proposal*

Is this a new project proposal or an updated version of a proposal submitted during the earlier (July 2021) Recovery Funding RFP?

New project proposal

Amount of Funds Requested*

\$649,540.00

Category*

Please select one:

- Affordable Housing
- Aging/Older Adults
- Business Support/Economic Development
- Environmental/Climate
- Homelessness
- K-12 Education
- Infrastructure and/or Broadband
- Mental Health/Substance Use
- NC Pre-K Expansion
- Workforce

Environmental/Climate

Brief Project Description*

Provide a short summary of your proposed project.

Buncombe County's mission is to promote a healthy, safe, well-educated, and thriving community with a sustainable quality of life. This project, "Healthy Air for Buncombe County", is three initiatives that collectively support this mission by improving air quality. Land of Sky Regional Council (LOSRC), in partnership with several local organizations, is pursuing this initiative to improve the air quality in Buncombe County to benefit residents and visitors. The goals of the program are to clean indoor and outdoor air quality by reducing particulate counts that aid in the spread of COVID-19 and contribute to other respiratory problems. This will also improve energy efficiencies for affected communities. The initiatives included in this project are improvements to two county school ventilation systems, new heat sources for low-income and homes with who have pre-existing health conditions, and the purchase and installation of six idle reduction technology systems on county ambulances.

Project Plan*

Explain how the project will be structured and implemented, including timeframe.

Through the work of LOSRC's Clean Air Campaign and its focus on clean air throughout the region, LOSRC works to identify and implement projects that address air quality concerns for all and improve energy

efficiencies. LOSRC will partner with the Buncombe County Schools System to implement the first initiative under this project. Following the award of funds, construction will begin for the ventilation system conversions in the two schools. Construction times are anticipated to be less than a year for each school. However, these timeframes are estimates and are subject to change. Given uncertainties in supply chains and labor, this initiative is estimated to take less than 18 months.

LOSRC will partner with the Green Built Alliance to implement the second initiative under this project. The Green Built Alliance will work directly with homeowners and vendors to replace existing combustion heat sources. Those who qualify for this program are residents of Buncombe County who are considered low income and or those with pre-existing respiratory conditions (such as COVID-19 or asthma) and who use a combustion heat source as the primary heat source for their home. These heat sources will be replaced with either an EPA-certified wood-burning stove or a heat pump by local vendors. Funding for the new heat source purchase and installation will be provided for two years or until funding runs out. Additional air quality improving methods may be implemented. This initiative is estimated to take 24 months.

LOSRC will partner with the Buncombe County Sustainability Office to implement the third initiative under this project. Following the award of funds and ambulance acquisition, Zero RPM managed engine stop/start systems and auxiliary power units will be purchased and installed by Zero RPM systems on six new Buncombe County ambulances. The LOSRC expects ambulance acquisition and the Zero RPM system installations to take less than 30 months. However, this may change based on part and labor availability. This initiative is estimated to take less than 36 months.

Statement of Need*

Describe the need that this project will address. Include data to demonstrate the need, and cite the source of the data.

Ventilation systems, ambulance idling, and combustion heat sources contribute to poor air quality. The three initiatives proposed under this project seek to improve air quality in Buncombe County by addressing various particulate and emission sources.

Older and less efficient ventilation systems, HVAC, negatively impact schools indoor air quality (IAQ). Outdated and improperly designed HVAC systems fail to properly filter and maintain air quality contributing to poor IAQ. Poor IAQ, created in part by unfiltered particles and contaminants, including pollutants, mold, allergens, and infectious particles, leads to an increase in acute and chronic health problems for students and staff and negatively impacts student and staff attendance, comfort, and performance. Poor IAQ also reduces building efficiency and increases energy costs.

County IAQ is also negatively impacted by residents utilizing outdated combustion heat sources as primary heat sources. Some residents heat their homes with wood, oil, or other sources. Heating with combustion sources, especially those that are non-EPA certified, releases pollutants into the air residents breathe in their homes. These particles can also aggravate existing asthmatic and respiratory illnesses and leads to chronic health problems.

Mobile air pollution sources negatively affect outdoor air quality in the county. One known source is the idling of ambulances at emergency scenes and during patient deliveries. Ambulances idle at emergency scenes and during patient deliveries to maintain life-saving equipment. While idling, ambulances emit particles and contaminants that contribute to air pollution and negatively impact the health of those around the ambulance. These emissions acutely irritate the respiratory system and lead to chronic health conditions. Emissions created from ambulance idling also contribute to environmental and noise pollution and cause additional wear and tear on engines and excess fuel burning.

Link to COVID-19*

Identify a health or economic harm resulting from or exacerbated by the public health emergency, describe the nature and extent of that harm, and explain how the use of this funding would address such harm.

COVID-19 is a contagious disease that spreads via airborne particles and droplets. This infection spreads by infected persons by exhaling respiratory droplets into the air where uninfected hosts inhale them. According to the EPA, COVID-19 transmission rates increase when individuals are indoors with poor ventilation in crowded spaces where people are emitting respiratory fluids. These rates increase further when exposure time to infected individuals is prolonged. This is true not only of the COVID-19 virus but of other respiratory illnesses. The first initiative proposed under this project seeks to reduce the spread of respiratory illnesses, including the continued spread of COVID-19, in county schools through IAQ intervention. Better indoor ventilation systems lower the concentration of indoor air pollutants and contaminants, including viral particles. Improving the existing HVAC systems will reduce the spread of respiratory illness, including COVID-19.

COVID-19 can negatively impact the respiratory system as viral particles invade the tissues in the lungs, throat, and nose causing irritation, distress, and disease. While chronic effects are still being researched, according to the Mayo Clinic, fatigue, memory, concentration, muscle pain, organ damage, and inflammation linger over time in those infected by COVID-19. The presence of particles and air pollution, both inside and outside, exacerbate the acute and chronic effects of COVID-19 and lead to higher rates of mortality. Studies done show an increase in chronic exposure to hazardous air pollutants, including particulate matter, resulted in a mortality rate 9% higher in those with past COVID-19 infection compared to background mortality rates. Reducing the presence of air pollutants may improve long-term health outcomes for those with chronic COVID-19. The second and third initiatives seek to improve IAQ to reduce additional impacts on those with chronic COVID-19 health issues.

Population Served*

Define the population to be served by this project, including volume and demographic characteristics of those served.

The ubiquitous nature of this program is that there are pieces of the project that help serve all of Buncombe County.

The first initiative will serve the students and staff at two financially disadvantaged Buncombe County schools, Emma and Barnardsville Elementary Schools. The total number of students served is 390 between Kindergarten and 4th Grade. Emma Elementary School serves 280 students in a Hispanic population within the county's urbanized area. Barnardsville Elementary School serves 110 students in a rural part of the county. The students of these two schools are two of the five schools in the county where all students receive free or reduced lunches through the Free Lunch and Reduced-Price Lunch Programs under the National School Lunch Act of 1946. This program provides free lunches to children in households with incomes below 130% of the federal poverty level or those receiving SNAP or TANF and reduced lunches to children in households with incomes between 130% and 185% of the federal poverty level.

The second and third initiatives serve the entirety of Buncombe County and its municipalities, as the wood-stove replacement program is open to all residents that meet low-income or healthcare-related eligibility and the retrofitted ambulances serve all people in the county who need ambulatory services. The population of the county and its municipalities contain both rural and urban populations with a 13.9% poverty rate overall. The third initiative of this project addresses the growing need for additional ambulance capacity in the county.

Results*

Describe the proposed impact of the project. List at least 3 performance measures that will be tracked and reported. If possible, include baselines and goals for each performance measure.

The three initiatives proposed under this project are expected to improve indoor and outdoor air quality in the county. This project may also improve school building and ambulance efficiency. The following performance measures intend to demonstrate these effects:

1) Measure: Number of students in county schools served with better IAQ during educational hours.

Justification: Every student attending participating schools is served by the installation of an improved HVAC system.

Goal: The first initiative will generate an increase in the number of students served with better IAQ during educational hours and, therefore, improve IAQ.

2) Measure: Amount of electricity used in county schools.

Justification: Improved HVAC systems result in less energy used and cost savings.

Goal: The first initiative will generate a decrease in the amount of electricity used in county schools and, therefore, a cost-saving.

3) Measure: Quantity of combustion heat sources replaced and destroyed.

Justification: Combustion heat sources release pollutants into homes.

Goal: The third initiative will generate a decrease in the number of combustion heat sources in county homes and, therefore, improve IAQ.

4) Measure: Amount of greenhouse gas emissions (GHG) from county ambulances.

Justification: GHG contributes to poor outdoor air quality. Zero RPM system idle reduction technology reduces engine idling and emissions produced.

Goal: The second initiative will generate a decrease in the amount of GHG produced from county ambulances and, therefore, improve outdoor air quality.

5) Measure: Amount of fuel used by county ambulances.

Justification: Ambulances use excess fuel while idling. Zero RPM system idle reduction technology reduces idling.

Goal: The second initiative will generate a decrease in the amount of fuel used in county ambulances and, therefore, a cost-saving.

Evaluation*

Describe the data collection, analysis, and quality assurance measures you will use to assure ongoing, effective tracking of contract requirements and outcomes.

LOSRC will work with HVAC construction and heat source replacement vendors and contractors, Zero RPM systems, and Green Built Alliance to assure proper accounting of project details. LOSRC has extensive experience managing federal grants and will create appropriate measures for this project. Our contracts with partners will include project implementation schedules and due diligence on provider expertise. All program goals will be tracked through spreadsheets and narrative reporting.

Equity Impact*

How will this effort help build toward a just, equitable, and sustainable COVID-19 recovery? How are the root causes and/or disproportionate impacts of inequities addressed?

The overall project seeks to benefit the sections of the county's population that COVID-19 disproportionately impacted, specifically the rural, poor, and BIPOC communities. Rural, poor, and BIPOC

communities are historically underfunded. Due to this lack of funding, these communities face disadvantages and lack access to the same resources and opportunities compared to more urban, wealthier, and White areas. The first initiative under this project seeks to improve the HVAC systems at two county schools with rural, poor, and BIPOC populations to provide these students with better IAQ and all associated benefits, such as improved academics and attendance. The second initiative will improve outdoor air quality, leading to better health outcomes for patients and workers around ambulances. The Center for Disease Control states that BIPOC communities face higher rates of illness and death from a variety of illnesses when compared to White communities. This initiative seeks to protect people with existing health issues so that they are not further harmed by vehicle emissions, especially in emergencies. The third initiative will improve IAQ in homes of residents who qualify. Those eligible include households under the federal poverty level and those with pre-existing health conditions. Enabling these households to acquire a new heat source improves IAQ and leads to better health outcomes.

Project Partners*

Identify any subcontractors you intend to use for the proposed scope of work. For each subcontractor listed, indicate:

- 1.) What products and/or services are to be supplied by that subcontractor and;
- 2.) What percentage of the overall scope of work that subcontractor will perform.

Also, list non-funded key partners critical to project.

To accomplish the scope of work under the first initiative, the following contractor will be used:

HVAC installation contractor – This contractor will perform the needed HVAC work. Buncombe County Schools has a sole source contractor that has prepared budgets and needs for these projects. The contractor will be Harris Integrated Solutions. LOSRC will work with the Buncombe County School System to determine the best fit for each project. 50%

To accomplish the scope of work under the second initiative, the following sub-recipient will be used:

Green Built Alliance sub-recipient – This sub-recipient will manage and administer the third initiative. They will also contract with the heat source replacement contractor to install the new heat source systems in county homes. The specific contractor will be determined after the award for each school through the RFP process. LOSRC will work with Green Built Alliance to determine the best fit for the project. 22%

To accomplish the scope of work under the third initiative, the following contractor will be used:

Zero RPM Systems – This contractor will install the Zero RPM Systems idle reduction technology on the new county ambulances. 23%

Non-funded key partners in the overall program are the Buncombe County School System, Buncombe County Office of Sustainability, Buncombe County Emergency Management, North Carolina Division of Air Quality - Asheville Regional Office, and Asheville-Buncombe Air Quality Agency.

Capacity*

Describe the background, experience, and capabilities of your organization or department as it relates to capacity for delivering the proposed project and managing federal funds.

LOSRC has extensive experience writing and managing millions of dollars in federal funding each year, including multiple other ARPA-funded projects.

Sara Nichols, Regional Planner and Clean Cities Coordinator with the LOSRC, will be the Project Manager. Sara has a B.S. in Biology, with an emphasis on field studies and coursework completed for a Master of Science in Sustainability Studies. She has years of over 14 years of local government programs and grants. Including 11 years of the administration of environmental programs through the Soil and Water Conservation District. She is the Coordinator of the Regional Clean Air Campaign and the Land of Sky Clean Vehicles Coalition. Sara has been involved in infrastructure planning, management, water quality, parks and recreation, and environmental education for the past 14 years. Sara is a Buncombe County resident and is active in the community. Dozens of campaign and coalition stakeholders will volunteer their time to assist in implementing this project.

Kayla DiCristina, Regional Planner and Co-Clean Cities Coordinator will also assist in the implementation of this contract. Kayla has a Bachelor of Urban and Regional Planning with a minor in Environmental Studies and a Master of City and Regional Planning with a focus in Land Use and Environmental Planning. She is also a member of the American Institute of Certified Planners under the American Planning Association. Kayla brings experience working with county governments in current planning topics to her role in this contract.

The Green Built Alliance under the Energy Savers Network (ESN) program, works throughout WNC to install energy-efficiency measures in limited-income families' homes. The ESN addresses the comprehensive issue of climate change and energy burden on Buncombe County residents. The staff of this program bring extensive experience in client relations and project coordination that is critical to the success of the second initiative.

Budget*

Provide a detailed project budget including all proposed project revenues and expenditures, including explanations and methodology. For all revenue sources, list the funder and denote whether funds are confirmed or pending. For project expenses, denote all capital vs. operating costs, and reflect which specific expenses are proposed to be funded with one-time Buncombe County Recovery Funds.

Download a copy of the budget form [HERE](#). Complete the form, and upload it using the button below.

Buncombe County COVID Grant - Air Quality Improvements Budget.xlsx

Special Considerations*

Provide any other information that might assist the County in its selection.

Thank you, Buncombe County Commissioners, for the consideration of this application and the continued commitment to the health of Buncombe County residents and our regional air quality.

File Attachment Summary

Applicant File Uploads

- Buncombe County COVID Grant - Air Quality Improvements Budget.xlsx

Coronavirus State and Local Fiscal Proposed Project Budget

Organization Name:	Land of Sky Regional Council
Project Name:	Healthy Air for Buncombe County
Amount Requested:	\$649,640.00

Proposed Project Revenue Funder	Amount
Proposed Buncombe COVID Recovery Funds	\$ 649,640.00
Total	\$ 649,640.00

Proposed Project Expenses	Proposed	Other Funds	Total
Emma Elementary School - HVAC Improvements	\$ 150,000.00	\$ -	\$ 150,000.00
Barnardsville Elementary School - HVAC Improvements	\$ 175,000.00	\$ -	\$ 175,000.00
Wood Stove Program Administration	\$ 10,640.00	\$ -	\$ 10,640.00
Heat Source Replacement (Wood Burning Stove &	\$ 133,000.00	\$ -	\$ 133,000.00
ZERO RPM Systems - Technology & Installation	\$ 150,000.00	\$ -	\$ 150,000.00
Grant Administration-LOSRC	\$ 30,000.00	\$ -	\$ 30,000.00
Travel	\$ 500.00	\$ -	\$ 500.00
Printing Ads/Educational Material	\$ 500.00	\$ -	\$ 500.00
Total			\$ 649,640.00

\$	325,000.00	0.500277077
\$	143,640.00	0.221107075
\$	150,000.00	0.230897112

Capital Recovery Funds Budget

Confirmed or Pending?	Notes
Pending	

Capital or Operating	Notes
Capital	Estimate from Buncombe County Schools on HVAC Improvements
Capital	Estimate from Buncombe County Schools on HVAC Improvements at Barnardsville Elementary School
Operating	Green Built Alliance program administration 8% of heat source
Capital	Estimated 20 heat source replacement projects at maximum cost with
Capital	6 new ZERO RPM battery technology for idle reduction at \$25,000
Operating	LOSRC grant administration for program implementation and
Operating	Program administrator travel for staff to visit sites for implementation
Capital	Printing and outreach materials creation for marketing of program and