

WASHINGTON STATE DEPARTMENT OF HEALTH

# HEAL Budgeting & Funding Report

School Climate Plus Indoor  
Air Quality Grant Program



SEPTEMBER 2024



DOH 300-056 September 2024

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## Report Overview

### HEAL Budgeting & Funding Obligations

The Department of Health is subject to several obligations under the Healthy Environment for All (HEAL Act), including several related to budgeting and funding per [RCW 70A.02.080](#). DOH must consider environmental justice principles when making decisions about budgets or funding for programs that create environmental benefits or address or cause environmental harms.

1. Primary agency responsible for this action	Washington State Department of Health
2. Primary agency staff contact(s)	Julie Fox
3. Secondary agency contact(s), if applicable	Rad Cunningham
4. Program name	School Climate Plus Indoor Air Quality Grant Program
5. Description of program	Eligible school districts submitted proposals for heating, ventilation and air conditioning improvements in a school to address impacts to indoor environment from wildfire smoke and extreme heat.
6. Did you complete an Environmental Justice Assessment for your program? If so, please link to it.	No

## Section 1: Determine Environmental Justice Goals & Metrics

1. What are your environmental justice goals and performance metrics for this program?  
Please explain how they are calculated and their significance to your program success.

The Office of Superintendent of Public Instruction (OSPI) is administering a Small School District Modernization (SSDM) grant program for school districts that include projects to make updates to heating, ventilation, and air conditioning (HVAC) systems. DOH was allocated funds in the 2023-2025 Washington State Operating Budget to support school districts in the SSDM grant program with further improvements of HVAC systems and overall school facilities. The goal of this additional funding support from DOH is to minimize the impact of wildfire smoke and extreme heat events on indoor air quality. The environmental justice considerations DOH thought about for this grant program include air quality, extreme weather events, populations that are more susceptible to poor air quality and impacts of extreme weather events, and resource disparities in urban and rural school districts.

This grant program was designed to support schools that are at high risk for extreme heat and wildfire smoke exposures in rural communities where investments like this have been difficult because of challenges in passing school levies. Schools serve children and young people who are more vulnerable to

extreme heat and wildfire smoke exposure. The investments help ensure that children in the school districts that receive this grant have access to at least one facility capable of providing clean, cool air during extreme heat events, wildfire smoke events, or combined events. In the summer when school is not in session the building will be available to serve as a clean air or cooling center to the local community, although that was not a requirement for participation in the grant.

Goal: Incorporate environmental justice as a priority in award selection.

Strategies to accomplish this:

- 1) For schools to be eligible to apply for these funds, they had to be in a small school district with fewer than 1,000 students as defined by OSPI. Small school districts are generally less able to secure funds for infrastructure.
- 2) As part of the process for selecting schools to fund, points were awarded to applicants based on the following three criteria: 1) The school’s proposal to improve indoor air quality; 2) the amount of extreme heat and wildfire smoke experienced in the given geography (hazard); and 3) places or people that would be especially vulnerable to these hazards.

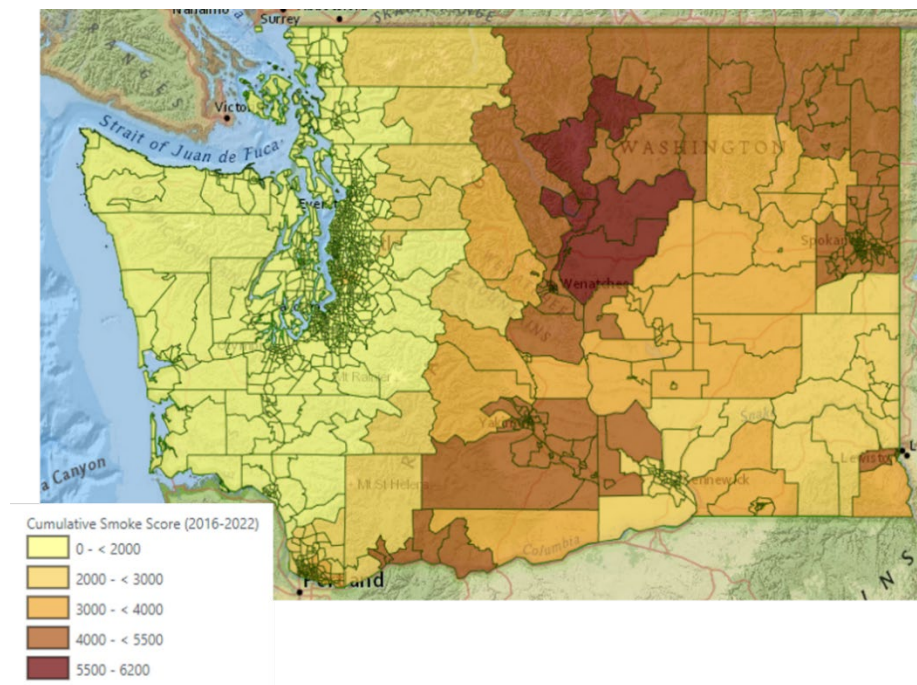
IAQ/HVAC Project	Hazard	Vulnerability	Final Score
100 Points Possible	20 Points Possible	20 Points Possible	140 Points Possible
<ul style="list-style-type: none"> <li>• Ability of both the Small School District Modernization Grant Project and the proposed School Climate Plus IAQ Grant to address wildfire smoke and extreme heat</li> </ul>	<ul style="list-style-type: none"> <li>• Wildfire Smoke Cumulative Score 2016-2022 by census tract</li> <li>• High Historic Heat Hazard 1991-2020 by census tract</li> </ul>	<ul style="list-style-type: none"> <li>• Social Vulnerability Index by census tract</li> </ul>	<ul style="list-style-type: none"> <li>• Up to 5 Washington public schools awarded.</li> </ul>
Review committee will determine a score based on application materials.	DOH established this rank.	DOH established this rank.	Top scored applications that meet requirements will be selected*

\*In addition to selecting top scores, consideration will be given to ensure that at least 2 of 5 of the selected applications will be school districts with higher vulnerability scores.

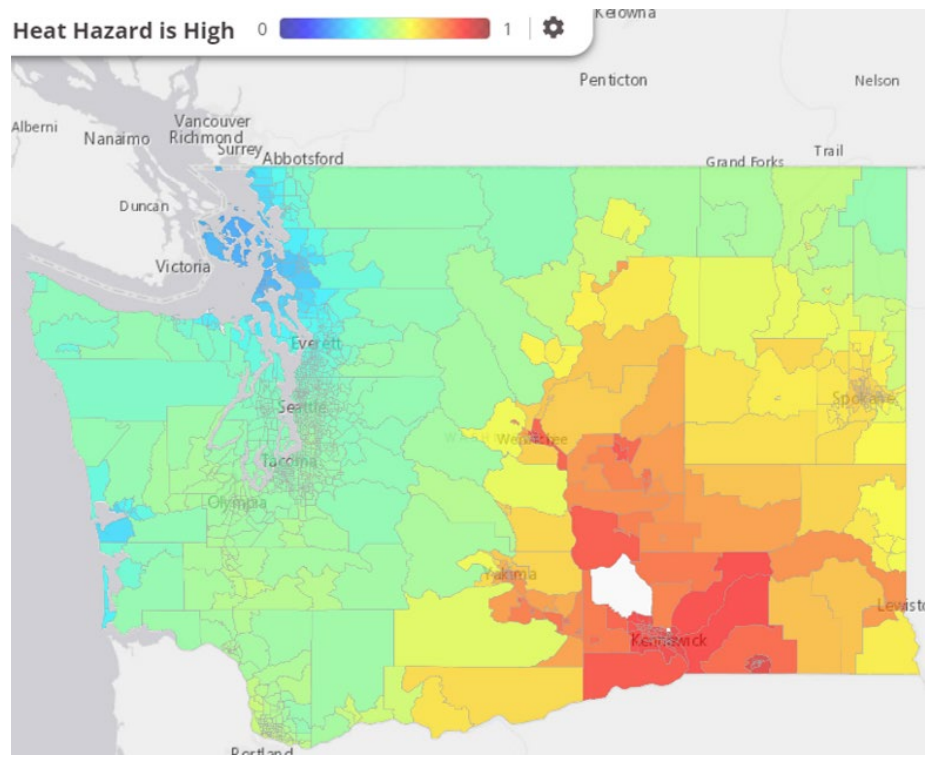
**Figure 1.** Process Map detailing the Categories of Points for Scoring Complete School District Applications

- a. HVAC Project/Need (100 points possible of 140 total): Points were awarded to projects that would better protect people in the building from extreme heat and wildfire smoke. The highest scores were awarded to proposals that would deliver the biggest improvements in indoor air quality.

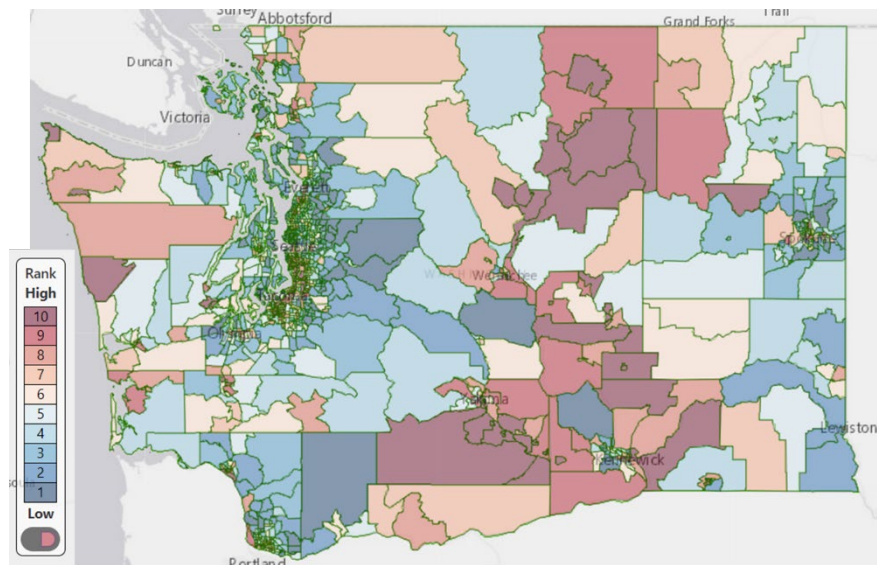
- b. Hazard (20 points possible of 140 total): This score was based on historic wildfire smoke level and historic extreme heat. The historic wildfire smoke level was from the WTN “Wildfire Smoke Cumulative Score (2016-2022)” (Figure 2). The extreme heat measure was based on the UW CHaRT tool, “Heat Hazard is High” for the hottest 3 days of each year 1991-2020 (Figure 3). DOH provided the hazard ranking score to schools before they applied.
  - c. Vulnerability (20 points possible of 140 total): The vulnerability score for applicant school districts was based on WTN’s Social Vulnerability Index (SVI). Vulnerability scores for schools on reservation land were given the highest hazard ranking for data sovereignty reasons. (Figure 4)
- 3) In addition to incorporating environmental justice into the points awarded to applicant school districts, consideration was given to ensure that at least 2 of 5 (40%) of the selected applications were from school districts with higher vulnerability scores.



**Figure 2.** Map of Historic Cumulative Wildfire Smoke Exposure from the Washington Tracking Network.



**Figure 3.** Map of Heat Hazard Based on Hottest 3 Days of Each Year, 1991-2020, UW ChART tool.



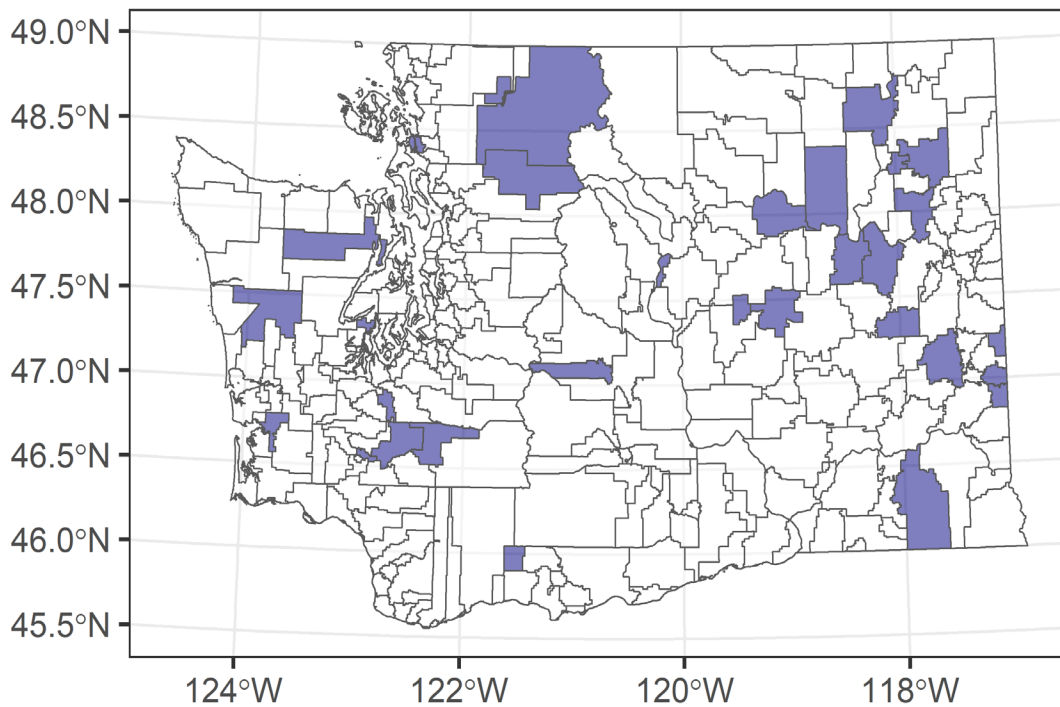
**Figure 4.** Map of Social Vulnerability Index from the Washington Tracking Network.

## Section 2: Identify Overburdened Communities and Vulnerable Populations

1. Identify the geographic area(s) where there may be environmental and health impacts as a result of the agency action.

There were 31 school districts that met the eligibility criteria of having received an SSDM Grant in the 2021-2023 or the 2023-2025 Grant Cycle that included a project with an update to the HVAC system (Figure 5).

### Location of School Districts



**Figure 5.** Map of School Districts in Washington Eligible for the School Climate Plus Indoor Air Quality Grant (31 school districts, shown with purple shading)

2. Describe overburdened communities and vulnerable populations identified within the geographic area(s) where there may be environmental and health impacts as a result of the agency action. For a definition of ‘overburdened communities’ see RCW [70A.02.010\(11\)](#).

For the purposes of this grant, the environmental and health harms DOH identified were historic wildfire smoke, historic extreme heat, and the Social Vulnerability Index (SVI) as described in Section 1. The Social Vulnerability Index is determined from a combination of 15 measures that address four categories: 1) household composition & disability, 2) housing type and transportation, 3) race, ethnicity,



and language, and 4) socioeconomic determinants. As previously discussed, DOH focused on eligible school districts that had the highest cumulative score.

Students and staff attending schools that received the HVAC improvements are the beneficiaries of this project. Children and youth are a specific focus because they are more sensitive to health effects from breathing in the fine particulate matter (PM2.5) of wildfire smoke and extreme heat exposure.

Students and staff in the schools who are at increased risk of severe health impacts from extreme heat<sup>1</sup> and wildfire smoke<sup>2</sup> fall under these broad categories:

- People with lung diseases, such as asthma or chronic obstructive pulmonary disease (COPD), including chronic bronchitis, and emphysema.
- People with current or recent respiratory infections, such as COVID-19, pneumonia, acute bronchitis, bronchiolitis, colds, or flu.
- People with existing heart or circulatory problems, such as congestive heart failure or coronary artery disease.
- People with a prior history of heart attack or stroke.
- People with diabetes because they are more likely to have an undiagnosed cardiovascular disease.
- People 18 and younger because their lungs and airways are still developing, and they breathe more air per pound of body weight than adults.
- People older than 65 because they are more likely to have unrecognized heart or lung diseases.
- Pregnant people because both the pregnant person and fetus are at increased risk of health effects.
- People who smoke because they are more likely to already have lower lung function and lung diseases.
- People without access to air conditioning
- Athletes who train or compete outdoors
- Outdoor workers because they often spend more time outside and are exposed to smoke longer.
- People of color and tribal and indigenous people because of institutional and structural discrimination that often put these populations in challenging life circumstances and unhealthy environments.
- People with low income because they are more likely to have higher exposures and are less likely to have access to health care or to be able to afford interventions to reduce exposure.

### Section 3: Community Engagement Summary

1. Summarize engagement with people from overburdened communities and vulnerable populations to date.

Due to a short timeline for distributing grant funds, DOH was unable to include community engagement as part of the process for expenditure decisions for this grant cycle. The funds are required to be spent within a 2-year period, and with the time needed to develop a request for applications, to receive and

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<sup>1</sup> US Centers for Disease Control & Prevention. Website: [People at Increased Risk for Heat-Related Illness | Extreme Heat | CDC](#). Accessed: 9/4/24.

<sup>2</sup> WA State Department of Health. Website: [Smoke From Fires | Washington State Department of Health](#). Accessed: 9/4/24.



score the applications, and to develop contracts with awarded school districts there was unusually short time period for school districts to work with engineering, design, contractors, and construction contractors to complete the proposed HVAC improvements. However, in an effort to reduce barriers to school districts in applying for the funds, DOH worked to provide early information to help assist schools in preparing to apply successfully.

- DOH sent email announcements that were individually addressed to superintendents of eligible school districts to inform them that they were one of a small number of school districts that would be able to apply for the grant.
- DOH invited superintendents to two webinars and encouraged them to share the invite with anyone they would like. DOH followed up with recordings of the webinar for sharing. The first webinar was in advance of the final Request for Applications and described the purpose of the funds and general elements of the application. The second webinar was just after the Request for Applications were distributed and provided step by step instructions for elements that would make applications more successful.

DOH considered including community reviewers on the grant application review team, but the applications were technical descriptions of heating, ventilation, and air conditioning updates that would be difficult for non-specialized reviewers to score. In the future there may be opportunities for more meaningful community engagement to take place to identify and reach out to overburdened communities and vulnerable populations defined in Section 2. This engagement would take place at the project conception phase (before writing the decision package) and at the Notice of Funding Opportunity writing phase.

2. Summarize information received from people from overburdened communities and vulnerable populations.

In 2018, before this project was funded, DOH did outreach and engagement with public health and school facility staff in Eastern Washington. Through that process, the agency learned that many of the schools in more highly populated areas, like the City of Spokane, had already taken measures to improve indoor air quality in response to wildfire smoke events and were directed to rural schools with more severe infrastructure needs.

During a community listening session attended by the Governor in 2019 and organized by Methow Clean Air, DOH learned that current public health guidance was insufficient to keep people safe during wildfire smoke events and that the agency needed to do more to improve indoor air quality in the places where people live, work, and play to support wildfire resilient communities.

Although these activities predated the grant program, they were the inspiration for the proposal that eventually funded the Climate Plus grant program.

3. Summarize how information received from people from overburdened communities and vulnerable populations informed decision-making about this action.

DOH's initial approach to improving school indoor air was to identify schools where that serve vulnerable populations and where the risk of exposure is high. Reaching out to those areas, DOH learned

that it was important to consider school funding dynamics and baseline infrastructure at schools. DOH also learned that no high-quality data about school HVAC systems existed, so agency staff needed to find a way to identify the schools with the most need for infrastructure improvements who also had extreme heat and wildfire smoke exposure risks. This information was received through engagement with local health jurisdiction staff and local school facilities staff.

## Section 4: Tribal Engagement and Consultation

1. Summarize tribal engagements and invitations for tribal consultation to date.

Four of the 31 eligible school districts were on reservation land. In November 21, 2023 DOH sent a dear tribal leader letter to two tribes that had schools on their reservation land that were eligible for Climate Plus grants. Of note, DOH learned through comments in the webinars the agency hosted with schools that there was an additional school district that met the eligibility criteria that DOH staff were not aware of and had not notified, and this school also was on reservation land. DOH notified the school superintendent and the tribal leader as soon as possible after confirming eligibility, in December 2023. Of note, the school district that was notified later applied and was selected as a grantee.

DOH staff presented on the School Climate Plus Indoor Air Quality grant program as part of other climate and health activities at a standing DOH/HCA American Indian Health Commission meeting.

2. Describe likely impacts to tribal rights and resources associated with this action.

Two schools selected for this grant program are on the Coleville Confederated Tribe's reservation land in Eastern Washington. At this time, funding has been awarded to one of these schools (in Keller School District) and has been offered but not yet finalized through a contract to the other (in Inchelium School District). Both of these are state schools overseen by the Office of the Superintendent of Public Instruction and are not tribally run schools. However, tribal members attend those schools, and the schools may provide a clean or cool air shelter as a community resource, which may benefit tribes during extreme heat or wildfire smoke events.

3. Describe any plans for ongoing and/or future tribal consultation.

It is unclear if this grant program will be funded a second time or if the facilities served will be schools. Regardless, DOH learned that in the future the agency should consider offering tribal consultation very early in the process and take steps to assure that their perspectives are included in the design of this public health intervention.

## Section 5: Allocate Funding to Provide Benefits for Overburdened Communities and Vulnerable populations

1. How did you allocate funding to provide benefits for overburdened communities, vulnerable populations, and/or tribes? (e.g., reducing or eliminating environmental harms, creating community and population resilience, improving the quality of life of

overburdened communities and vulnerable populations) Describe your decision-making process.

The application requirements provided criteria for proposals to select specific HVAC work that were identified as best practices for improving indoor environments that are increasingly impacted by wildfire smoke and extreme heat. The specific HVAC improvements DOH focused on were increasing filtration of indoor air, increasing outdoor air supply, and increasing cooling ability. Having adequate indoor air quality is important for the health of people who occupy the space. In schools, this is especially true for staff and students because they spend long durations of time in these environments.

Children are also more sensitive to extreme heat and wildfire smoke. They breathe in more air than adults for their body weight, which increases their total dose of air pollution. The respiratory system also develops until about age 21. Children and youth with health conditions (including asthma and other lung diseases, heart disease, and diabetes) have a higher risk of emergency department visits and hospitalizations compared to children without health conditions. Children and youth may also be at risk for declines in academic performance, neurodevelopmental problems, and chronic conditions in adulthood.

DOH considered various measures of vulnerability for scoring applications to be awarded: the social vulnerability index, the environmental health disparity index, and measures of family income and race provided by OSPI, with advantages and limitations to each.

**OSPI data:** For this project, it would be more relevant to have school district level data like this, however, there was not complete information for all schools from OSPI's data for all 31 eligible schools and DOH staff thought it was important to include measures beyond income and race to assess vulnerability.

**Social Vulnerability Index (SVI):** This data is available at the census tract level, which is not ideal because this is a different geographic analysis than the geographic boundaries of the school districts. However, it is comprehensive in incorporating 15 measures that address four categories: 1) household composition and disability, 2) housing type and transportation, 3) race, ethnicity and language, and 4) socioeconomic determinations.

**Environmental Health Disparities (EHD) Index:** This data is also only available at the census tract level. The EHD index includes many of the same indicators that are incorporated in the SVI, and also includes various environmental exposure indicators and sensitive populations.

In comparison to the SVI, DOH determined that for this project, where children were already selected as a sensitive group of focus by working with schools, it was not helpful to have additional sensitive populations included in the prioritization process. DOH also decided that since wildfire smoke and extreme heat were selected as specific environmental hazards to address with these funds, it was more relevant to use the SVI as a measure of vulnerability, combined with a separate measure of hazard that DOH staff developed based on these two hazards.

DOH also explored computing either the SVI or the EHD ranking with the school districts as boundaries based on geographic centroids and population weighting. While assessing in this way provides fairly reliable estimates, DOH staff felt that it was more important to select measures that are already published and have some level of recognition by the public. The agency also felt it was important to

share that these measures would contribute significantly to each application's chances of success early in the process for transparency.

HVAC applications were reviewed by a committee consisting of 6 experts with knowledge of HVAC systems and construction or indoor air quality (2 staff from DOH, 2 staff from OSPI, 1 volunteer from a smart buildings non-profit, and 1 volunteer from a construction engineering firm). A portion of these points were objective quantities of the baseline status and proposed improvement status of the school HVAC system that were agreed upon by a review committee. For the portion of points that were more subjective and based on the judgement of committee members, the average score was assigned to each application.

2. If applicable, did you consider a broad scope of grants and contracting opportunities that effectuate environmental justice principles for your program? If so, please indicate which of the below options outlined in statute you incorporated into your program:

- Community grants to monitor pollution;
- Grants focused on building capacity and providing training for community scientists and other staff;
- Making technical assistance available for communities that may be new to receiving agency grant funding; and
- Education and work readiness youth programs focused on infrastructure or utility-related internships to develop career paths and leadership skills for youth
- Other:

This grant was narrowly tailored by the legislative proviso that provided the funding, as stated in the [enrolled Washington State Senate Bill 5187](#)<sup>3</sup>, thus DOH was unable to incorporate the above options into this grant program. The program is working on a proposal to amend the proviso language for the next biennium to allow for the funds to be used more broadly to address extreme heat and wildfire smoke exposure risk in facilities that serve vulnerable populations. This change would require the grant program to provide technical assistance to communities and organizations serving vulnerable populations currently so that they would be able to access the funds.

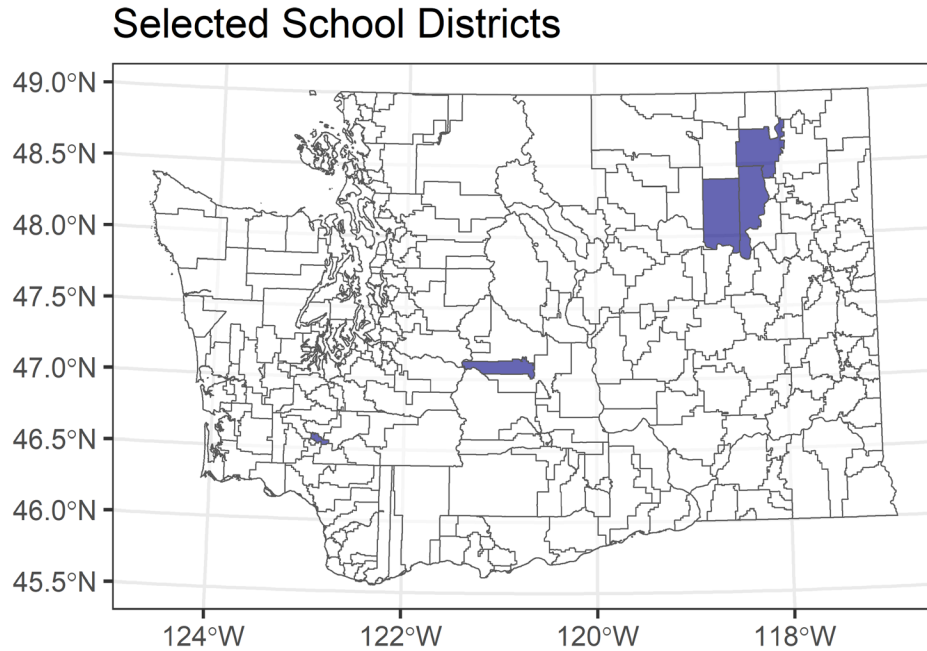
3. What proportion of funds went to 3. What proportion of funds went to overburdened communities, vulnerable populations, and tribes? Please provide a dollar amount in addition to a percentage of total funds allocated.

Of the 31 eligible school districts, 14 submitted applications for the grant. Based on the combined hazard, vulnerability, and HVAC project scores of these applicants, the top five scoring

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<sup>3</sup> Washington State Legislature. [Enrolled Senate Bill 5187](#), 2023 Regular Session. Section 222(123), page 342. Effective Date: May 16, 2023.

applications were selected: Inchelium, Keller, Kettle Falls, Napavine and Thorp School Districts (Figure 6). From the total award of \$5,496,000, approximately \$5,000,000<sup>4</sup> has been dedicated to five schools with \$3,993,634 of those funds currently finalized as committed in contract to 4 schools. \$363,150 was allocated to the University of Washington to provide an evaluation of the HVAC improvements on indoor air quality. Four of the five selected schools serve overburdened communities, and of the currently finalized funds this represents 61% of the total budget and is expected to represent a higher percent once the funds are finalized for the fifth school.



**Figure 6.** School districts in Washington selected to be awarded the School Climate Plus Grant (5 school districts awarded, shown with purple shading)

If you determined that it was not practicable to take any of the actions under RCW 70A.02.080, please explain why.

Not Applicable.

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<sup>4</sup> Keller, Kettle Falls, Napavine, and Thorp School Districts have finalized contracts while Inchelium School District was selected through the grant process but does not have a signed contract as of 9/5/2024.