

BOARD MEETING DATE: October 2, 2020

AGENDA NO. 17

REPORT: South Coast AQMD 2019-2020 Why Healthy Air Matters Program End-of-Year Report

SYNOPSIS: The Why Healthy Air Matters (WHAM) Program is South Coast AQMD's high school air quality education program. The report summarizes activities and accomplishments of the WHAM Program for the 2019-2020 school year. These actions are to receive and file the 2019-2020 WHAM Program End-of-Year Report.

COMMITTEE: Administrative, September 11, 2020, Reviewed

RECOMMENDED ACTION:  
Receive and file the attached 2019-2020 WHAM Program End-of-Year Report.

Wayne Natri  
Executive Officer

DJA:LTO:mjk

---

### **Background**

South Coast AQMD has a long history of educational outreach to teachers and students in the South Coast Air Basin through programs and events, especially within environmental justice communities. These activities have been effective in raising awareness about South Coast AQMD and air quality issues among teachers and students, reaching several thousand program and event participants. Additionally, South Coast AQMD's outreach efforts to high school students has yielded exponential benefits as participants in programs have shared information with their families, communities and peers.

In 2019, per Board direction, South Coast AQMD sought to implement an air quality educational program at 100 high schools in environmental justice communities within

its jurisdiction. The program initially targeted 40 schools in Los Angeles County, and 20 schools each in Orange, Riverside, and San Bernardino Counties.

At the April 2019 meeting, the Board approved a one-year contract for consultant services with the Lee Andrews Group, with an option for two one-year contract renewals contingent on satisfactory performance and Board approval. The program now known as “Why Healthy Air Quality Matters” (WHAM) was successfully launched in school districts resulting in the confirmation of 100 schools to participate in the program.

The report summarizes activities and accomplishments of the WHAM Program for the 2019-2020 school year, as well as program adaptations and impacts due to the COVID-19 pandemic. Staff has also attached a list of schools with agreements to implement the WHAM program. This list includes information about the status of implementation.

**Attachments**

2019-2020 WHAM Program End-of-Year Report

List of Schools with Signed WHAM agreements 2019-20



# WHAM

Why Healthy Air Matters

Air Quality Education by South Coast AQMD

## YEAR 1 REPORT

Prepared by:  
Lee Andrews Group



# 2019-2020



**June 29, 2020**

Mr. Derrick Alatorre  
Deputy Executive Officer - Office of Legislative, Public Affairs & Media  
South Coast Air Quality Management District  
21865 Copley Drive  
Diamond Bar, CA 91765

RE: Why Healthy Air Matters (WHAM) - South Coast AQMD High School Air Quality Educational Program

Dear Mr. Alatorre:

Lee Andrews Group is pleased to submit the attached program evaluation report for the 2019/2020 school year (Year One) of the Why Healthy Air Matters (WHAM) Program. This comprehensive report profiles the outreach plan developed to address all elements of the WHAM Program (Program) including: the planning and implementation process, procedures, tracking, evaluation, and recommendations for the future of the Program.

After being awarded the contract for consulting services in April 2019, Lee Andrews Group assisted South Coast AQMD with developing an outreach plan for the WHAM Program. We worked diligently to successfully introduce the Program to high schools in Los Angeles, Orange, Riverside, and San Bernardino counties.

Our firm's successful outreach and program development has paved the way for the establishment and cultivation of countless invaluable relationships with school district administrators, faculty, and teachers, which are critical to successful implementation. Lee Andrews Group is excited to continue to build from the momentum we have created by moving forward into the second year of program implementation, by expanding the Program's reach to even more high schools in environmental justice communities.

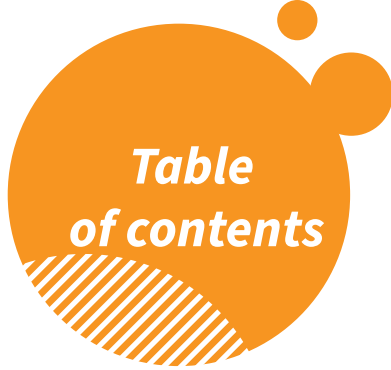
Within the following document, we have detailed the steps taken and the strategies developed to introduce and implement the WHAM Program throughout one hundred high schools. Due to the COVID-19 pandemic in recent months, there is an extreme need to extend flexibility and empathy to the circumstances of the teachers and students whom we are trying to reach. To address this, we have developed a plan for year two which features increased distance learning opportunities and resources for teachers to access. While this plan will continue to evolve based on the overall environment, we have ensured that the goals for the WHAM Program will be equally met.

Thank you for the opportunity to take on this important project. We look forward to supporting South Coast AQMD's mission to educate the youth to promote air quality awareness and protect the health of our region's residents.

Sincerely,



Stephanie Graves  
President & CEO  
sgraves@leeandrewsgroup.com



# Table of contents

<b>Introduction &amp; Background</b>	<b>/// 04</b>
<b>Team &amp; Resume Summaries</b>	<b>/// 06</b>
<b>Organizational Chart</b>	<b>/// 11</b>
<b>Year 1</b>	
<b>Approach</b>	<b>/// 12</b>
<b>Deliverables</b>	<b>/// 13</b>
<b>Program Elements</b>	<b>/// 15</b>
<b>Methodology</b>	<b>/// 17</b>
<b>Process</b>	<b>/// 18</b>
<b>Program Development</b>	<b>/// 24</b>
<b>Outreach</b>	<b>/// 25</b>
<b>Outcomes</b>	<b>/// 28</b>
<b>Year One Lessons Learned</b>	<b>/// 31</b>
<b>Non-participant &amp; Waitlisted Schools</b>	<b>/// 33</b>
<b>Los Angeles Unified School District (LAUSD)</b>	<b>/// 33</b>
<b>COVID-19 Response</b>	<b>/// 37</b>
<b>Year One Conclusion</b>	<b>/// 38</b>
<b>Year 2</b>	
<b>Approach</b>	<b>/// 40</b>
<b>Goals</b>	<b>/// 43</b>
<b>Methodology</b>	<b>/// 43</b>
<b>Conclusion</b>	<b>/// 45</b>
<b>Attachments</b>	<b>/// 46</b>

# /// INTRODUCTION & BACKGROUND

The South Coast Air Quality Management District's (South Coast AQMD) high school air quality education program known as "Why Healthy Air Matters" (WHAM) aims to increase awareness of air quality issues within the South Coast and Coachella Air Basins, empowering youth to drive positive change during a time when they are developing and forming their own habits. The WHAM program utilizes Kids Making Sense®--a science, technology, engineering and math (STEM)-based educational curriculum that teaches students about air quality issues. The curriculum, which was created by Sonoma Technology, Inc., meets Next Generation Science Standards (NGSS) and was developed by air quality scientists and educators.

The South Coast AQMD brought the WHAM Program to environmental justice communities, within the urban portions of Los Angeles, San Bernardino and Riverside counties, and all of Orange County. These communities are disproportionately impacted by air pollution from freeways, goods movement corridors, industrial facilities, and other sources.



Figure 1: South Coast AQMD map of jurisdiction

On February 1, 2019, the South Coast AQMD Governing Board approved the release of a Request for Proposals (RFP) to solicit proposals from individuals and organizations to provide assistance to conceptualize, develop and implement an air quality educational program for high schools in environmental justice communities throughout the agency's jurisdiction. Subsequently, after completion of the RFP process including an in-person interview before the South Coast AQMD Administrative Committee, the Lee Andrews Group was ranked as the most qualified firm. On April 5, 2019, the South Coast AQMD Governing Board approved the Administrative Committee's recommendation to select Lee Andrews Group as the firm to assist with the WHAM Program.



Lee Andrews Group worked with the South Coast AQMD to create and implement a process and outreach plan to place the WHAM Program into one hundred (100) high school classrooms within environmental justice communities by the end of the academic school year. With less than five months to complete the goal, Lee Andrews Group developed an aggressive plan to ensure success. The project remained on track to be implemented in 100 schools; but in March 2020, the State of California implemented a stay-at-home order due to COVID-19, which affected all schools. South Coast AQMD with assistance from Lee Andrews Group, quickly pivoted to offer WHAM via distance learning options.

## /// LEE ANDREWS GROUP ///

Lee Andrews Group, Inc. is a Public Affairs firm specializing in communications, crisis communications, community engagement, local and state government relations and media relations for public and private agencies. Founded in 1993 with over 35 employees, Lee Andrews Group's mission integrates equity into all aspects of its business to become a more diverse and inclusive community partner. We believe businesses compete on trust, on responsibility, and on creating and maintaining deep relationships with their stakeholders rooted in shared truths and values.

The Lee Andrews Group team has extensive experience developing, managing and implementing community participation programs for environmental projects, and leading multifaceted projects related to infrastructure, transportation, planning, and land use. Our team members have direct experience in positions in local, state and federal government, in addition to the nonprofit, education and business sectors. We have expertise in assessing what is most important toward meeting goals and objectives for projects and moving them forward. Lee Andrews Group utilizes the latest strategies and techniques to successfully implement the WHAM Program.



# Stephanie Graves

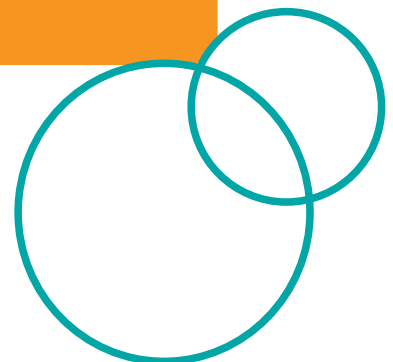
*Lee Andrews Group has assembled an expert team of professionals to execute the South Coast AQMD High School Program. Our team features:*

## **Stephanie Graves, Principal in Charge —**

Stephanie lends her personal network and leadership expertise to the project. Stephanie serves as the direct liaison to the South Coast AQMD Board of Directors and Executive staff, as well as many Superintendents and School Board Members in all four counties.

Stephanie Graves is the CEO and President of the Lee Andrews Group. Since 2013, Stephanie has helped guide the growth and direction of the firm. In addition to her management responsibilities, she personally consults and strategizes with clients on public affairs, public relations, media strategy, crisis communication, outreach & engagement, and government relations. Stephanie has consulted for government officials for many years and is well versed in working with the California government at the local, regional, state and federal levels. Stephanie has led the company's major transportation, planning, strategic government relations, as well as, media and community relations strategy activities.

Stephanie holds a Bachelor of Science in Business Administration and a Juris Doctorate from the University of Southern California.



**Eloy Morales, Strategic Advisor** – Eloy provides leadership and strategic support to the project team. He has overseen the project as strategic advisor from the project start.



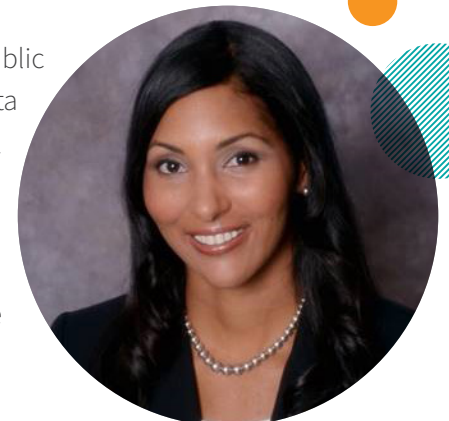
Eloy has over 20 years of experience working with government agencies and private companies within various positions. Mr. Morales has served at the executive level by working as Project Manager in Government Relations, and as Senior Strategic Advisor for environmental agencies and real estate development projects at Lee Andrews Group. He is accustomed to taking complex projects and developing a strategic plan that can be easily managed, while reaching a firm timeline. Mr. Morales specializes in understanding the perspective of elected and corporate leadership, allowing him the ability to establish the client’s position without disturbing relationships.

Eloy received his Bachelor of Arts in History from Cal State, Northridge and holds a Juris Doctorate from Cal Western School of Law. He has served Inglewood City Council, 3rd District since 2003. Eloy is bilingual and biliterate in Spanish and English.



**Krista Phipps, Project Manager** – Krista brings management, economic development, and local government experience to the project. She offers expertise in staff development and project facilitation.

Krista has more than 18 years of experience in economic development, public policy, and public relations working within and around local governments. Krista has honed her experience by serving in local government elected offices, local government economic development agencies and the utility industry. She is a skilled professional specializing in community engagement, strategic visioning, economic development practices and leading project teams. She’s adept in understanding core business objectives and processes, and translating those needs into clearly defined and easily implemented systems.



Krista holds a Master of Planning, Community & Economic Development Finance degree from the University of Southern California (USC) and a Bachelor of Art degree in Political Science from Rosemont College. She has served on several boards and has completed various continuing education leadership programs.



**Chloe Lee, Assistant Project Manager** – Chloe delivers superb research, analytical and data mining skills to the project.

Chloe is experienced in administering and executing communication and outreach programs for transportation agencies, environmental agencies and affordable housing developers for projects across the city and county of Los Angeles. She also works closely with school districts to secure participation and implementation for environmental education programs throughout Los Angeles, Orange, Riverside and San Bernardino Counties.

Ms. Lee is a skilled social media manager having developed and deployed social media and digital communication campaigns on behalf of several clients. She excels in Adobe Creative Suite programs and creates both digital and print collateral materials such as PowerPoint presentations, marketing and branding materials. She also produces communications pieces using the web, audio, video, and other digital media, which involve content creation, designing, production and programming.

Ms. Lee earned her Bachelor of Arts in Communications from California State University, Fullerton.

**Melanie Wong, Outreach Specialist** – Melanie brings community relations, marketing, outreach and project management experience to the project. She is skilled in identifying the appropriate contacts at the districts/schools to reach out to and in presenting the program in a way that resonates with teachers and results in participation and program implementation.

Melanie has nearly 10 years of project management, strategic communications and community relations experience. She has managed a diversity of multi-faceted projects and has executed integrated marketing, communications, and social media plans for public agencies in the transportation and environmental industries. Melanie is seasoned in leading multi-disciplinary teams and meeting project deadlines by managing schedules with comprehensive work plans and progress reports, budgets and other quality control measures to ensure services meet overall project goals. Melanie has worked extensively with environmental justice communities, and is proficient in meeting facilitation, strategic planning, digital marketing, strategic content development and meaningful public outreach.



Melanie studied public relations at Boston University and earned her Bachelor of Arts in Communication Studies from San Francisco State University. She fluently speaks Mandarin Chinese, Spanish and English.



**Rosalba Gonzalez, Outreach Specialist** – Rosalba brings political and community outreach experience to the project. She takes a hands-on approach to engaging teachers to ensure that they are prepared with what is needed to implement the WHAM Program.

Rosalba has 10 + years of experience in government relations, outreach and communications in the San Fernando Valley and in the greater Los Angeles County region. She has organized and managed programs and initiatives that promote community wellness, as well as coalition building and public policy development. Rosalba has worked in coalition with allied organizations, including the Los Angeles County Federation of Labor and other unions.



Ms. González studied Cultural Studies at Indiana University-Bloomington and graduated with a Bachelor of Arts from Mount Holyoke College. Rosalba has studied Labor Studies at the Los Angeles Labor Center. She is bilingual and biliterate in Spanish and English.





**Joey Legaspi, Senior Account Associate** – Joey has over 14 years of experience in government relations, strategic communications, and stakeholder engagement in Southern California. He is driven by a passion to serve and improve the quality of life for residents in our communities through engagement with elected officials, community leaders and the media. Joey has been responsible for the design and implementation of strategic stakeholder engagement initiatives, development of communications materials, and effective advocacy campaigns. This background will be key towards serving the goals of the WHAM Program.

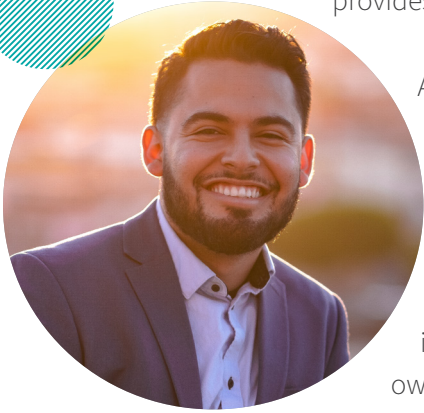


Prior to joining the Lee Andrews Group, he served one of Southern California's largest water agencies working on key environmental issues such as water quality and water supply. This tenure included managing a team that was responsible for the agency's conservation and environmental education programs, which were designed to engage constituents on the importance of environmental stewardship. His tenure also included serving as the agency's representative to local, state and federal elected officials, where he worked to build awareness of water issues as well as seek support for the agency's programs and projects.

Mr. Legaspi holds a Bachelor of Science degree in Business Administration from California State University Los Angeles and a Master of Communication Management from the University of Southern California (USC). Joey is bilingual.



**Andres Rodriguez, Outreach Support** – Andres brings community outreach and engagement experience to the project. He meets with teachers one-on-one to train them on the Kids Making Sense® materials and provides support to the entire project team.



Andres is an Outreach Assistant at Lee Andrews Group. He specializes in Spanish-speaking communication strategy and community outreach for transportation agencies, environmental agencies, affordable housing developers, and projects. He utilizes engagement to empower stakeholders to increase their participation in local and regional planning processes. Andres works in environmental justice communities and with a range of community members and community leaders, including educators, seniors, non-profit organizations, religious groups, business owners, and youth. Andres is bilingual in English and Spanish both verbally and written.

Andres received his Bachelor of Arts degree in Urban Studies and Planning with an emphasis in Environmental Planning at California State University, Northridge.

# /// ORGANIZATIONAL CHART ///



**STEPHANIE GRAVES**

Principal in Charge



**ELOY MORALES**

Strategic Advisor



**KRISTA PHIPPS**

Project Manager



**CHLOE LEE**

Asst. Project Manager



**MELANIE WONG**

Outreach Specialist



**ROSALBA GONZALEZ**

Outreach Specialist



**JOEY LEGASPI**

Sr. Account Associate



**ANDRES RODRIGUEZ**

Outreach Support



## Year 1

# /// APPROACH ///

*In order to reach at least 100 schools across four counties, Lee Andrews Group developed a comprehensive outreach plan to make contact with the appropriate school district leadership, administrators, faculty and teachers, introducing them to the program as an added resource, and ultimately generate their agreement for implementing the Program in their schools.*

### **Team Model**

Based on experience, research and discussions with school district administrators, Lee Andrews Group determined that approaching leadership was the most appropriate method to initiate outreach. Each member of the Lee Andrews Group team focused on a geographic region to maximize outreach and maintain consistency. This strategy proved successful, by allowing our team to provide individualized support to each school district and classroom teacher. Our team is trained and empowered to utilize the tactics that they deem most effective when implementing outreach measures and ultimately securing relationships. The team leverage these relationships to educate their audience about the benefits of the WHAM Program to students and their communities.

The Lee Andrews Group team met regularly with South Coast AQMD to provide recommendations and gather feedback and approvals for the Program. The South Coast AQMD team, led by Monika Kim, has been integral to our success. Monika ensured that we were given appropriate direction in order to carry out the South Coast AQMD's vision. We utilized our weekly opportunity to meet with South Coast AQMD to discuss goals, deliverables, key performance indicators and milestones to ensure that the project remained on track toward timely completion. Additionally, these weekly meetings allowed our team to have our questions addressed and present our recommendations for approval. We also held consistent internal meetings to discuss the progress of strategic and efficient planning, to further develop the internal infrastructure needed to implement the outreach plan, and to divide tasks as needed. Additionally, we regularly reported to our senior leadership on the status of the Program, and informed them of any elevated matters requiring their attention.

## **Research Based; Data Driven**

---

*As a leading environmental advocacy organization, South Coast AQMD is committed to research-based, data-driven strategies to inform the high school educational WHAM Program. Accordingly, when developing the outreach plan to implement the WHAM Program, Lee Andrews Group relied heavily on South Coast AQMD's data recommendations, and adapted when additional research was needed to find the best approaches. We conducted our own research when needed, both empirical and anecdotal, with the specific goal to use factual outcomes to improve our process. Quantifying our outcomes provided a better sense of the efficiency and effectiveness of the strategies that we employed, allowing improvement changes to be made where necessary. An example of this approach can be seen in section "K" below in our work with LAUSD.*



## /// DELIVERABLES ///

Per the scope of work, Lee Andrews Group was responsible for executing deliverables including: development, implementation, program evaluation and reporting. The following are specific deliverables during Year One:

### **Development**

1. Developed an overall project tracking system to:
  - a. Monitor tasks;
  - b. Track all stakeholders (organizations and schools) contacted (including entities that decided not to participate), their contact information and the process for gaining participation by school;
  - c. Track waitlisted schools interested in participating in the program; and
  - d. Track Kids Making Sense® educational kits that list each item and establish a system to distribute, collect and replenish materials on an on-going basis.
2. Learned how the Kids Making Sense® curriculum by Sonoma Technology Inc. could be best utilized to achieve South Coast AQMD's goals.
3. Developed presentation materials, fact sheets and other outreach materials needed to present the Program.
4. Developed a detailed Program Implementation Plan that included:
  - a. Overall outreach program description and guidelines;
  - b. The best outreach approach including any requirements, limitations and/or restrictions;
  - c. Outreach strategy;
  - d. South Coast AQMD's air quality educational message (AB 617, AQ-SPEC, and other environmental justice related issues) and agency awareness;
  - e. Criteria to identify and select 100 schools within environmental justice communities;
  - f. Prioritization of a target list of high schools with a brief description of justification for selection;
  - g. Scheduling based on academic and administrative calendars; and
  - h. Methodology and materials to share with schools that were not participating in the Program and schools that would like to contact Sonoma Technology Inc. to purchase their own Kids Making Sense® educational kits.





## Implementation

1. Implemented and executed outreach program at each school site;
2. Coordinated with the appropriate school contact and South Coast AQMD staff person;
3. Assisted with scheduling teacher training at schools;
4. Facilitated any other needed details for successful implementation; and
5. Provided support to teachers with regard to the kits, educational materials, and Program inquires.

## Program Evaluation & Reporting

1

*Created a program evaluation methodology, which includes a questionnaire and mechanism to collect data from school administrators, teachers and students;*

2

*Prepared report summarizing all elements of the High School Air Quality Education Program including:*

- a. Planning process*
- b. Implementation*
- c. Procedures including any customization for particular schools*
- d. Full evaluation of the Program from administrators, teachers and students*
- e. Summary of reasons why schools did not participate*
- f. Recommendations for the future of the Program*

3

*Regularly updated South Coast AQMD through project meetings.*

# /// PROGRAM ELEMENTS ///

*In addressing the deliverables of the scope of work, in order to implement the WHAM Program, Lee Andrews Group determined that the following were key elements to be addressed:*

## **Outreach**

In coordination with South Coast AQMD, Lee Andrews Group developed an outreach plan with set deadlines, as well as specific messaging strategies to be used when introducing the Program. The levels of outreach included:

1. Initial engagement at the district level with superintendents and elected school board members;
2. School site engagement with principals and vice principals; and
3. Classroom teacher engagement.

Success at one level was necessary to move to the next level. The outreach plan served as a key for guiding the engagement strategies at each level. For example, after successfully garnering interest and agreement to participate at the school district level, our team was able to move on to individual school site engagement. Within this step it was important to turn to school principals and curriculum specialists at each high school to select the most appropriate classroom teacher to participate in the Program. This collaboration with the administrators at the school site level, ensured successful implementation in classrooms that were most receptive to the Program due to:

1. Teacher willingness to implement the Program in their classroom;
2. Classroom time and availability;
3. Classroom size (number of students); and,
4. Existing curriculum topics (i.e. air pollution unit in AP Environmental Science classes).

Although this sequential methodology was successful in most cases, Lee Andrews Group remained flexible when it became necessary to adjust. For example, after receiving approval from the school district, teachers were immediately engaged and Principals followed suit after teacher engagement.

## **Tracking System**

South Coast AQMD provided Lee Andrews Group with a project tracking sheet template in order to log all accomplished deliverables throughout Year One of the Program. This allowed our team to track all aspects of the project from overall Program inception to the completion of weekly tasks. Lee Andrews Group found it best to assign one team member to serve as the Point of Information (POI) to oversee the accuracy and updating of the tracking sheet. This system ensured that all information could be tracked and accessed in one place, in order to avoid any confusion or misinformation amongst each Outreach Specialist. The Excel tracking sheet specified each task, who was assigned to complete the task, and the anticipated due date. This specified the responsible party for each deliverable in the beginning of the project. Please see attachment 4 for the Year One Project Tracking Checklist.

## Program Evaluation & Reporting

### MONTHLY REPORT TEMPLATE

*During the first two months of the Program, Lee Andrews Group and the South Coast AQMD team worked together to develop a mutually agreed upon monthly report format that effectively communicates the activities and outcomes for that month. Each monthly report included narrative regarding the goals met and how our team handled any hurdles that we faced in outreach and/or implementation. The reports also included data and statistics on deliverables, allowing us to continuously track progress throughout the Program and adjust strategies whenever necessary. Overall, it was important to Lee Andrews Group to provide a report each month that would be accurately informative, demonstrating the success of the Program and its process, equally highlighting any needs or concerns.*



*A key deliverable of the scope of work required Lee Andrews Group to provide a comprehensive year end closing report which documents the key elements of the Program, the process required to implement the Program, key outcomes, and lessons learned. This report memorializes the experience of Year One's implementation and serves as a reference to support future Program improvements.*

### YEAR ONE CLOSING REPORT

### STANDARDIZED PROGRESS REPORTING

*At the inception of the Program, South Coast AQMD and Lee Andrews Group determined that it would be efficient to conduct weekly conference calls for both teams to report on the progress of deliverables and time-sensitive tasks. In order to track progress and topics covered on weekly calls and in daily correspondence, agendas were created beforehand to guide discussions and track pending deliverables with respective deadlines. Additionally, minutes were completed and provided to both teams via email after each weekly call to track assigned tasks and responsibilities. South Coast AQMD and Lee Andrews group maintained daily correspondence by email and phone when necessary and if there was a project update that needed immediate attention.*



## **Waitlist and Non-participant List**

Lee Andrews Group developed a robust project database that tracked all progress throughout the outreach process and Program implementation. While the majority of the targeted schools were eager to participate in the Program, not all school districts were able to participate in year one for various reasons. For example, some high schools had rigorous onboarding requirements that could not be accommodate. Likewise, waitlisted and non-participant data was tracked in the outreach tracking database.

## **Lessons Learned**

Lee Andrews Group established a variety of databases and systems to track the Program. This allowed our team to track the lessons learned for the 2019-2020 academic school year, and identify recommendations that would improve the Program for the future years. The lessons learned and recommendations were presented to South Coast AQMD at an in-person mid-program evaluation meeting. At this meeting, both teams reviewed the pros and cons of the program at that point and worked collaboratively to put new strategies and plans in place for the remainder of the program.

# /// METHODOLOGY ///

The initial focus for Lee Andrews Group's work consisted of working with the South Coast AQMD team to determine primary objectives for the Program. The three primary objectives of South Coast AQMD were identified as: 1) Implementing the WHAM program in 100 high schools; 2) Engaging and developing relationships with school leadership, faculty and teachers; and 3) Promoting the South Coast AQMD's message.

Once the South Coast AQMD's objectives were clearly defined, Lee Andrews Group determined how to accomplish the objectives. We identified the following steps:

1. Identify high schools within the four regions and then narrow that list to a target list of high schools meeting the criteria established by the South Coast AQMD;
2. Identify high school administrators to reach out to in order to initiate relationships and collect contact information;
3. Determine the requirements needed in order for South Coast AQMD staff to enter schools, and how to meet those requirements;
4. Develop a process for scheduling and distributing materials; and
5. Determine reporting infrastructure, including KPIs, to track and report incremental results.

## High School Standard Curriculum

The primary goal of the Why Healthy Air Matters Program is to reach students by using a leading scientifically-based educational curriculum, to expose students to the study of air quality and why it's important. The Kids Making Sense® curriculum aligns with many of the existing high school standards. Below are the eight units featured in the curriculum with the associated California state educational standards that are met within each unit.

---

### WHAM Topic

### Relevant High School Standards

---

<i>Our Air and Pollution</i>	<i>HS-ESS3-4, CCSS ELA</i>
<i>Particle Pollution</i>	<i>CCSS ELA and Math</i>
<i>Particle Sources</i>	<i>HS-ESS2-2, HS-ESS3-4, CCSS ELA and Math</i>
<i>Health Effects of Particles</i>	<i>HS-LS2-7, CCSS ELA and Math</i>
<i>Measuring Particles</i>	<i>CCSS ELA and Math</i>
<i>Field Measurements</i>	<i>HS-PS4-2, HS-PS4-5</i>
<i>Interpret Your Data</i>	--
<i>Be Part of the Solution</i>	<i>HS-ETS1-1, HS-ESS2-2, HS-ESS3-4, CCSS ELA &amp; Math</i>

Participating in WHAM provides students with an additional option to learn about air quality which will help them not only with learning the curriculum, but with developing healthy environmental habits.

## /// PROCESS ///

Implementation of the program was successful because it was based on a comprehensive process. After defining the primary objectives and developing an outreach framework, Lee Andrews Group developed a step-by-step process that outlined the actions necessary to achieve the project's goals. This process was devised and approved after multiple iterations. Figure 2 on the following page depicts the 10-step process for implementing the WHAM Program.

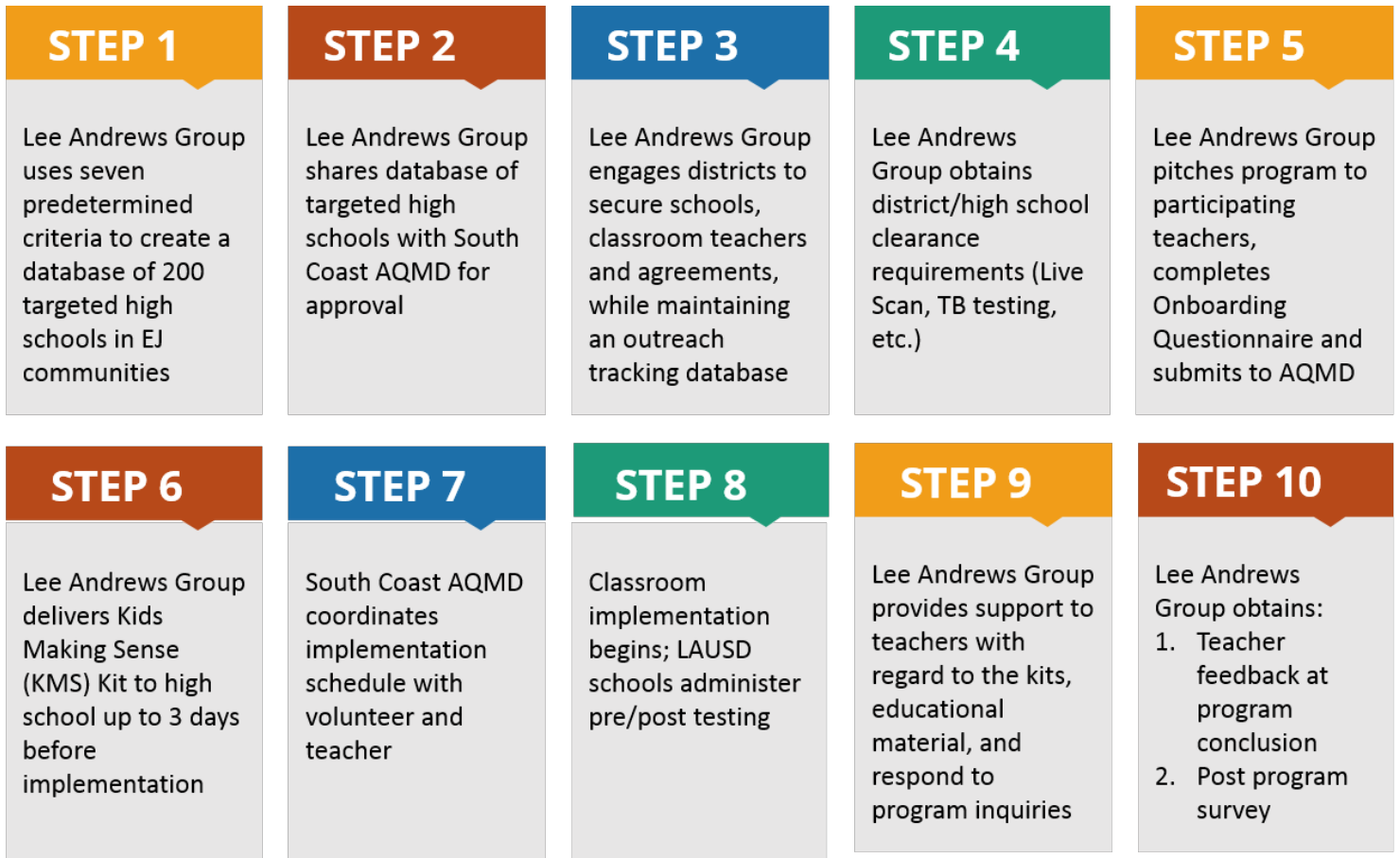


Figure 2: WHAM Implementation Process

Below are the additional areas of focus that Lee Andrews Group addressed in order to move toward implementation.

### **Familiarization & Training on the WHAM Program**

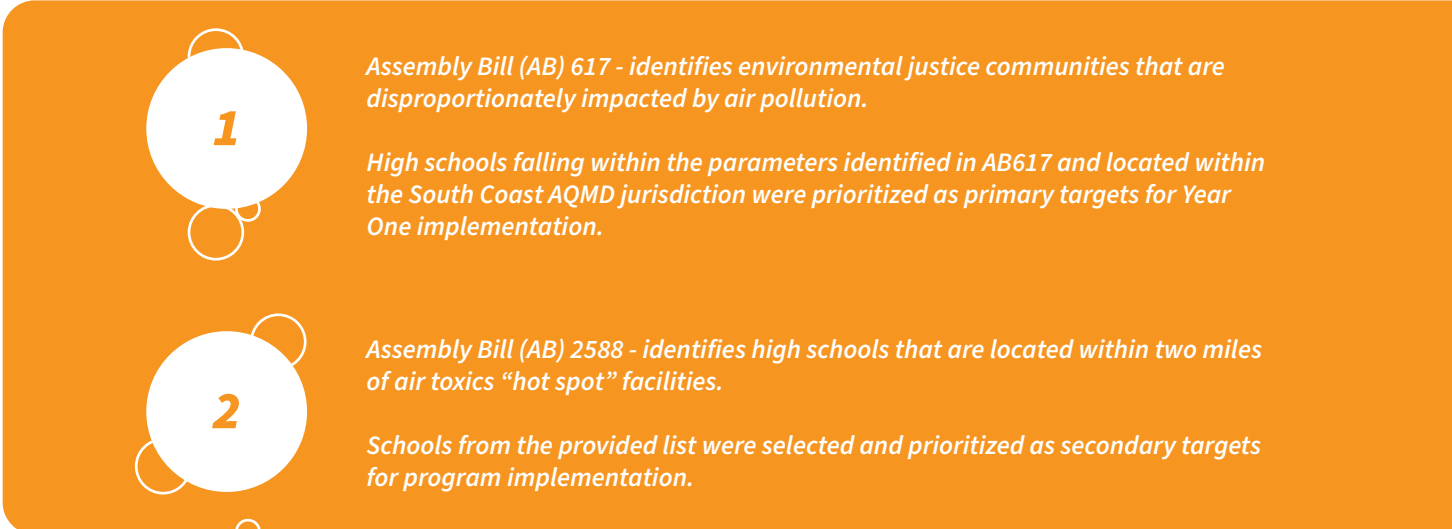
In order to successfully introduce the WHAM Program and the Kids Making Sense® (KMS) curriculum to school districts and teachers, it was important for the Lee Andrews Group team to know and understand the curriculum thoroughly. Through partnership with Sonoma Technology Inc., South Coast AQMD coordinated a one-day curriculum training for the Lee Andrews Group team and South Coast AQMD volunteers. This training took place in July 2019. All attendees had the opportunity to go through each unit and activity for the entire curriculum. Attending this training session provided Lee Andrews Group with:

1. The ability to successfully introduce the Program at the district level and relay the importance of implementing the air quality curriculum in the classroom;
2. The ability to assist the teacher in selecting the most appropriate and relevant lessons to implement based on the structure and dynamics of the classroom; and
3. The ability to support the teacher with planning out each lesson, as well as using and troubleshooting the KMS kit materials

## Research

When initially approaching this work, Lee Andrews Group was met with the need to conduct an abundance of research before any outreach planning or implementation could begin. Much of this research is outlined in the process that we developed. This included identifying all high schools within the four counties, gathering contact information for school district leadership, familiarizing ourselves with school requirements, and bringing volunteers on campus, the Kids Making Sense® curriculum and the selection criteria, which is enumerated below.

South Coast AQMD utilized GIS mapping systems to identify which criteria each high school met. They prioritized school districts and high schools based on geographic location using key indicators such as environmental justice factors, exposure to harmful air pollutants, proximity to toxic release facilities, and more. South Coast AQMD utilized several resources including legislative, the California Air Resources Board (CARB) and the California Office of Environmental Health Hazard Assessments (OEHHA), in addition to developing their own standards, and established the following six criteria as a basis for the high school selection process:



**1**  
*Assembly Bill (AB) 617 - identifies environmental justice communities that are disproportionately impacted by air pollution.*  
*High schools falling within the parameters identified in AB617 and located within the South Coast AQMD jurisdiction were prioritized as primary targets for Year One implementation.*

**2**  
*Assembly Bill (AB) 2588 - identifies high schools that are located within two miles of air toxics “hot spot” facilities.*  
*Schools from the provided list were selected and prioritized as secondary targets for program implementation.*

The two criteria mentioned above make up tier one of the selection process, while the following criteria make up tier two.

3. Senate Bill (SB) 535 - identifies disadvantaged and low-income communities that are “disproportionately affected by environmental pollution and other hazards that can lead to negative public health effects, exposure, or environmental degradation.”
4. Multiple Air Toxics Exposure Study IV (MATES IV) - interactive map that estimates carcinogenic risk from exposure to air toxics by geographic location.
5. Goods-Movement - high schools near rail yards, intermodal facilities, and the Ports of Los Angeles and Long Beach.

6. California Communities Environmental Health Screening Tool (CalEnviroScreen 3.0) - identifies communities that are disproportionately burdened by, and vulnerable to, multiple sources of pollution. Only data for air pollution is considered for the criteria category. The tool offers data for air, soil and water, but for the sake of the South Coast AQMD’s High School Air Quality Educational program, we will focus only on air pollutants. Of the various indicator maps that are offered, the following will be used to select high schools that fall within the 50% and above percentile for the following:
  - a. Exposure Indicators - Ozone, PM2.5, Diesel Particulate Matter, Pesticide use, toxic releases from facilities, traffic density
  - b. Environmental Effect Indicator - cleanup sites, hazardous waste generators and facilities, solid waste sites and facilities

All six criteria categories were used to prioritize targeted high schools for implementation during Year One.

### Contact Identification & Management

Using the list of over 100 targeted high schools and their respective districts, our team created a system for identifying the appropriate contacts. Initial research was conducted by school district and logging Superintendent and any additional relevant staff for each Superintendent’ office. Lee Andrews Group established a database specifically for district contacts, allowing us to easily track and update contact information.

Figure 3 below displays an example of the contacts established for one high school district within the database, which was referred to as the “Outreach Contact List.”

District	Name	Contact Title	Phone Number	Email Address	Responsible
Pomona Unified School District	Paul Knopf	Service Learning Coordinator	[REDACTED]	[REDACTED]	C. Antonelli
	Cindy Green	Assistant Principal at Garey High School	[REDACTED]	[REDACTED]	C. Antonelli
	Jennifer Francev	Principal at Ganesha High School	[REDACTED]	[REDACTED]	C. Antonelli
	Elizabeth Harper	Principal at Pomona High School	[REDACTED]	[REDACTED]	C. Antonelli
	Stacey Wilkins	Administrative Director, Innovation and Improvement Officer	[REDACTED]	[REDACTED]	J. Williams/D. Williams/C. Antonelli

Figure 3: Pomona Unified School District contacts taken from Outreach Contact List



Upon identifying the most appropriate high schools to target for outreach, Lee Andrews Group worked to secure approval from South Coast AQMD to target those schools. The next step was to identify the best contacts at the administrative and leadership level for outreach to begin. This allowed us to garner program participation and select the most appropriate classes and teachers to implement the program. Moreover, Lee Andrews Group senior staff reviewed the list and called Superintendents or School Board Members directly based on their prior relationships. Securing this support from school leadership was an essential first step in moving the Program forward as generating interest in the Program, and support from the top is more likely to encourage teachers to participate. Lee Andrews Group approached this task by conducting intense internet and telephone research, contacting each school district and working the phones until we got to the right contact.

### **High School Academic Year Schedule**

After finalizing the list of 100 participating high schools for the Year One Program, our team located the 2019-2020 academic calendars for each district within the four counties. By visiting each district website, we tracked the important semester start and end dates. Our team also conducted phone outreach to each high school, to confirm when high school administrative staff would be on break, and when they would return throughout the school year. This was necessary for determining the best times to reach out to principals and teachers, as well as setting outreach deadlines before we would no longer be able to reach school staff due to recesses. Attachment 6 displays one database in which we tracked who would be available on campus in order to effectively plan outreach after the summer break.



## School Policies & Procedures

One of the main features of the WHAM program is offering classroom teachers the option to have a South Coast AQMD volunteer conduct the desired lesson plans in the classroom. With this, it was our responsibility to work with districts and school sites to determine the requirements for South Coast AQMD representatives to visit each campus. Lee Andrews Group conducted initial research to determine the requirements and prepare accordingly. The research showed that at a minimum, South Coast AQMD volunteers would most likely be required to complete Live Scan fingerprinting and TB testing.

Upon working with the school districts and individual school sites, our team learned that there were more rigorous requirements in some cases. Below are a few requirements that were requested, but could not be accommodated by South Coast AQMD:

1

Sexual Abuse and Molestation (SAM) insurance coverage;

2

Subsequent arrest notifications; and

3

Live Scan fingerprinting through the school district rather than a third-party vendor.

In the cases where requested requirements could not be met, our team worked with the school district to have the requirements waived or loosened. If there was no way to lift the requirements, our team encouraged the participating teacher to implement the curriculum independently, and we served the teacher with support every step of the way.

### Implementation

After completing all clearance requirements for volunteers to visit participating classrooms, Lee Andrews Group assisted South Coast AQMD with the scheduling process. Our team worked with each teacher to match up their classroom schedule with the availability of the South Coast AQMD volunteer. It was our team's responsibility to maintain communication with teachers and obtain the following details:

1. Specific course (i.e. AP Environmental Science, Earth Science, Biology, etc.);
2. Class period details, such as the days of the week and time of the day for implementation; and
3. Desired implementation frequency (i.e. twice a week on Mondays and Wednesdays).

This information allowed South Coast AQMD to select the most appropriate volunteer for each classroom, based on availability and expertise. Through the process of confirming scheduling details, our team assisted South Coast AQMD with maintaining a calendar, known as the WHAM Staff Assignment Calendar. Lee Andrews Group notified South Coast AQMD of any scheduling or availability changes on the teacher's side, in order to keep the calendar up to date. See a snapshot of implementations for the month of January 2020 on the next page.

## January 2020

SUNDAY	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY	SATURDAY
				1	2	3
						4
5				8	9	10
		6 Danielle Soto - Cabrillo HS - 7:50 am (1)	7			11
12				15	16	17
		13 -Danielle Soto - Cabrillo HS - 7:50 am (2) -Victor Yip - South El Monte HS - 8 am (3)	14 -Marvin Ignacio - Redlands East Valley HS - 7:30 am (1)			18 -Hannea Cox - Beaumont HS - 8:55 am (1) -Kevin Chiu - Jordan HS - 7:45 am (5)
19				22	23	24
		20 -Jeanette Short - Edgewood HS - 10:01 am (1) -Jimmy Li - Theodore Roosevelt HS - 9:15 am (1)	21 -Kathryn Higgins - Washington Prep HS - 2:15 pm (1) -Marvin Ignacio - Redlands East Valley HS - 7:30 am (2&3)	22 -Steve Tsumura - Boyle Heights STEM - 7:50 am (1) -Alberto Jasso - Bell Gardens HS - 10:23 am (2) -Derrick Alatorre - Garfield HS - 8 am (2)	23 -Monika Kim - Downtown Business Magnet HS - 8:35 am (1) -Rezvan Ramezani - Science Academy STEM - 10:30 am (1) -Jimmy Li - Theodore Roosevelt HS - 9:15 am (2&3)	25
26				29	30	31
		27 Victor Yip - South El Monte HS - 8 am (4)	28 -Alberto Jasso - Bell Gardens HS - 10:23 am (3) -Marvin Ignacio - Redlands East Valley HS - 7:30 am (4)	29 -Debra Ashby - Cypress HS - 10:20 am (1) -Jimmy Li - Theodore Roosevelt HS - 9:15 am (5) -Steve Tsumura - Boyle Heights STEM - 7:50 am (2)	30 -Stephano Padilla - Downtown Business Magnet HS - 8:35 am (2)	31

Figure 4: WHAM Staff Assignment Calendar

## PROGRAM DEVELOPMENT

Key elements led by Lee Andrews Group to support implementation of the WHAM program included:

1. Development of marketing materials to present program to school districts and schools;
2. Development of classroom etiquette and school procedures guide for South Coast AQMD staff;
3. Recruiting and hands-on training for South Coast AQMD staff and volunteers
  - a. One-day comprehensive training session;
  - b. Teacher meetings prior to South Coast AQMD staff visiting each campus;
4. Evaluation and modifications to Kids Making Sense® curriculum to align with air quality issues and programs important to South Coast AQMD;
  - a. Work with Sonoma Technology Inc. to modify and print teacher and student workbooks;
5. Development of South Coast AQMD WHAM web page;
6. Drafting and facilitation of execution of Agreements with schools;
7. Creation and administration of onboarding questionnaires;
8. Creation of tracking and monitoring database that allows for viewing of an immediate snapshot of each participating school status and place within the process. Other variables monitored in the tracking system included:
  - a. relationship management information -including emails, memos, phone calls, etc.
  - b. kit delivery/collection
  - c. South Coast AQMD volunteer assignments
  - d. onboarding questionnaire/survey distribution/collection;
9. Creation of a waitlist for schools interested in future participation in the program; and
10. Tracking of schools that expressed interest in purchasing their own Kids Making Sense® kit.



School	County	District	School Address	Criteria
Benjamin Franklin High School	LA	LAUSD	820 N Ave 54, Los Angeles, CA	2, 4, 6

Teacher	Onboarding Questionnaire	Desire AQMD Volunteer in Clas	Kit Delivered	Student Workbooks
Name: Jemel Villamil Email: jxv0362@lausd.net	✓	Yes	#50	Received 10

Assigned AQMD Volunteer	First Implementation	Kit Retrieved	Program Survey Received
Ryan Banuelos	10/30/2019	2/14/2020	✓

Figure 5: Benjamin Franklin High School program tracking, taken from WHAM "Activity Database"

## /// OUTREACH ///

*In its first year of implementation, this Program required an intense system to introduce the goals, objectives, and benefits of the Program to each school district, school administrator, and teacher. The primary components of the outreach strategy included: relationship management, messaging, tracking, monitoring and evaluation.*

### Relationship Management

From the outset of this project, Lee Andrews Group team members availed their existing personal relationships with key decision makers in many of the targeted school districts and high schools. We leveraged our relationships to develop and foster new personal relationships where existing personal relationships did not yet exist. These relationships helped us become more familiar with school cultures and procedures which paved the way for Lee Andrews Group to cultivate meaningful relationships with decision makers possessing the authority to approve the Program participation.

Lee Andrews Group team members developed and executed a plan which consisted of the following steps:

1. Recommended 33 school districts for participation in the Program;
2. Secured in-person meetings with school district superintendents whose schools met South Coast AQMD criteria for Program implementation;
3. Created a presentation and talking points for South Coast AQMD staff to introduce the Kids Making Sense® Program; and
4. Developed a package of South Coast AQMD branded outreach materials.

These first meetings generated enough interest in the Program for further conversations with key school district staff and administrators to garner support and district buy-in. This process set a path to school administrators and teachers.

Once the school district superintendent approved South Coast AQMD’s WHAM Program, Lee Andrews Group moved on to the second stage in its outreach strategy.

Lee Andrews Group obtained approval from administrators to work with principals and vice principals to identify classroom teachers best suited for participation in the Program. Our team then commenced direct outreach to recommended teachers to introduce the Program goals, expectations and Sonoma Technology Inc. Kids Making Sense® materials.

Our team engaged in regular communication with participating teachers that helped build a trusting working relationship. Our check-ins encouraged teachers to reach out with any questions or concerns before, during, and after they implemented their first lessons. We wanted to ensure that participating teachers felt support throughout the Program.

Our Lee Andrews Group team solicited and captured teacher feedback by following up with the teacher after the initial lesson and by distributing a survey to those who completed the Program.

## Messaging

*Just as it is important to the South Coast AQMD that the WHAM Program curriculum is absorbed by students, branding and messaging is also critically important. Lee Andrews Group worked with South Coast AQMD to develop collateral outreach materials designed to introduce potential participants to and evoke interest in the Program. Key messaging was designed to explain:*

1 South Coast AQMD’s mission involving environmental justice and why the school sites were chosen for potential participation, as well as the specific environmental justice issues pertaining to each school site;

2 How the Program reinforces a Science, Technology, Engineering and Math (STEM)-based educational curriculum that offers specific examples introducing disciplinary core ideas (DCIs), specific experiments that reinforce science and engineering practices (SEPs) and crosscutting concepts (CCCs) that reinforce DCIs when linked together;

3 The accessibility of the Program to students of all learning modalities (visual, auditory, kinesthetic and tactile), and that each lesson in the Program is designed with multiple access points for learning by using a diversity of experiments and activities; and

4 The use of applied science and Bloom’s Taxonomy of cognitive skills for students to draw larger social justice implications surrounding the issue of clean air.

Collateral materials served individual purposes throughout the outreach process, starting from the district level and working down to the classroom teacher. The following is a list of outreach materials that were prepared by our team with South Coast AQMD's guidance and approval every step of the way:

- Program brochure
- Program introduction PowerPoint presentation
- Agreement template
- Volunteer etiquette guide
- Welcome packet
- Onboarding questionnaire
- Program exit survey

See attachment 2 for collateral material samples.

Upon securing classroom teacher participation, onboarding materials were distributed including a KMS Teacher's Guide and an onboarding questionnaire. Based on responses to the onboarding questionnaire, our team set a schedule and record of tentative dates for the first classroom implementation. Lee Andrews Group worked closely with South Coast AQMD to schedule the staff volunteer classroom sessions.

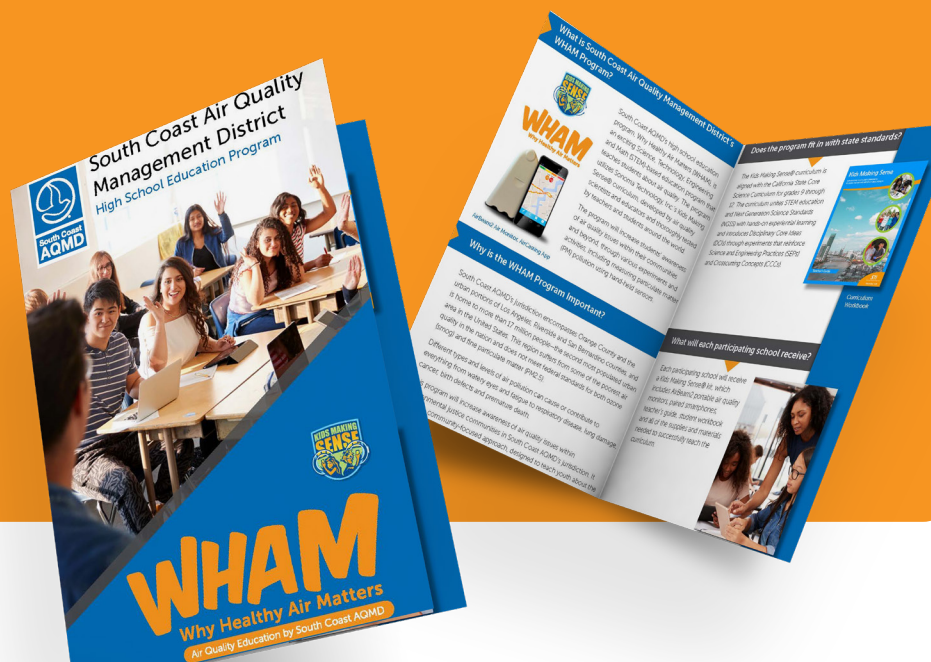
## Tracking, Monitoring and Evaluation

Over the course of the first year, Lee Andrews Group developed an in-depth database that tracked all engagement data and activities with all stakeholders including administrators, faculty, teachers and South Coast AQMD staff.

Lee Andrews Group worked with South Coast AQMD staff to develop the following tracking mechanisms to assist with monitoring progress and recording data:

- An onboarding questionnaire to gain a better understanding of the teacher's needs, what topics they were interested in teaching, when they wanted to implement the Program and whether they were interested in working with a South Coast AQMD volunteer.
- A teacher evaluation form after completion of the Program to assess the teacher's reaction to the Program and to collect any suggestions for improvement.
- Records were kept of all communication, regardless of school participation.

Attachment 5 illustrates the data tracked throughout the process.



# OUTCOMES

South Coast AQMD's key objective for the WHAM Program was to introduce the air quality curriculum to 100 high schools in Los Angeles, Orange, Riverside and San Bernardino counties. In order to help South Coast AQMD achieve this goal, Lee Andrews Group developed and carried out an outreach plan that led to the implementation of the program in 44 classrooms during the first year.

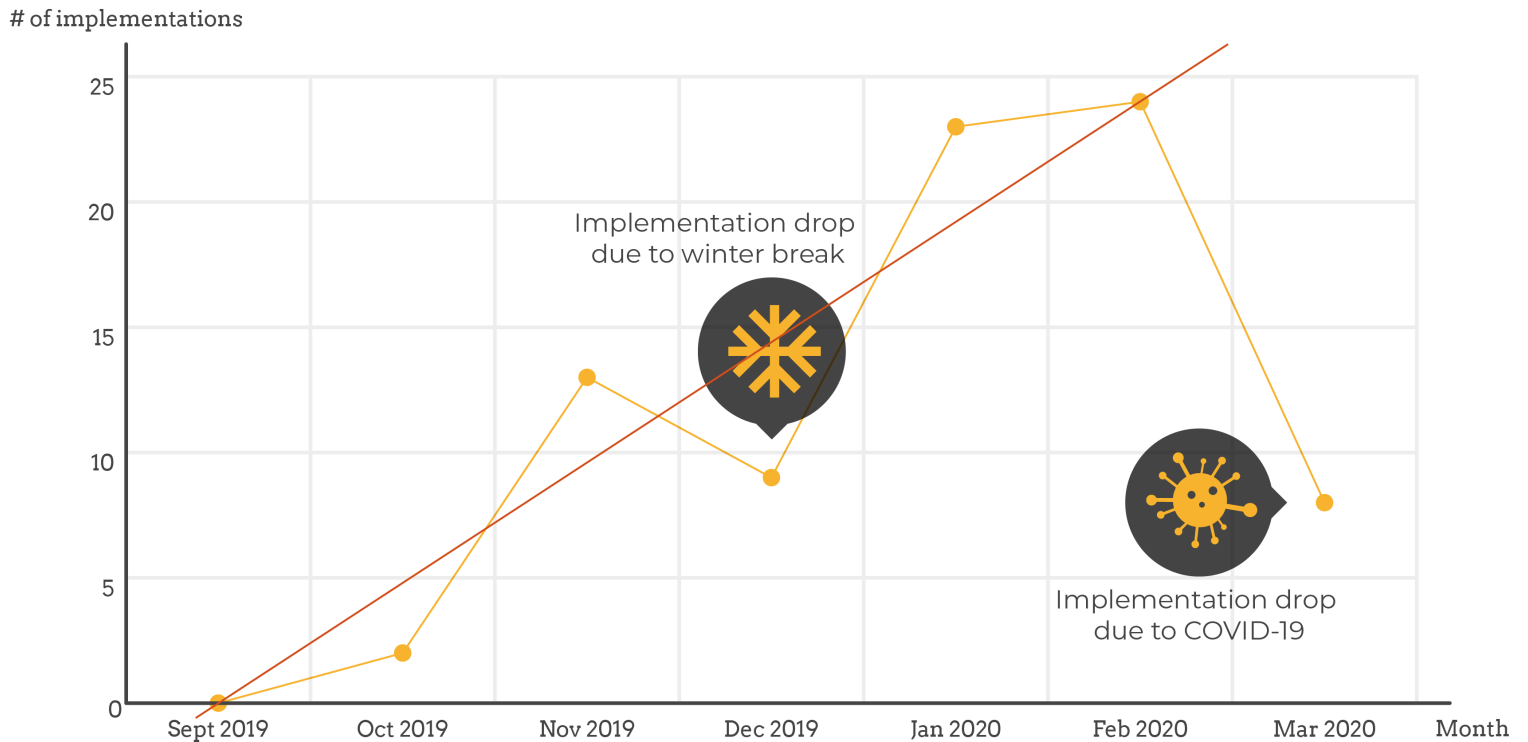


Figure 6: Implementations trending over Year 1

The line graph displayed above reflects the number of implementations that took place between September 2019 - March 2020. There was a consistent increase in the number of implementations each month during this 7-month time period. There was a decrease in implementations in the month of December due to losing 3 weeks during Winter Break, as well as a decrease beginning in March due to the COVID-19 pandemic. Aside from these two exceptions, implementations were on a consistent rise. See the data that makes up the line graph below:

- September 2019 – 0 implementations
- October 2019 – 2 implementations
- November 2019 – 13 implementations
- December 2019 – 9 implementations
- January 2020 – 23 implementations
- February 2020 – 24 implementations
- March 2020 – 8 implementations

For tracking purposes, our team has aggregated a number of Program outcomes into the following categories.

## Outreach

Lee Andrews Group accomplished the following objectives during the outreach phase:

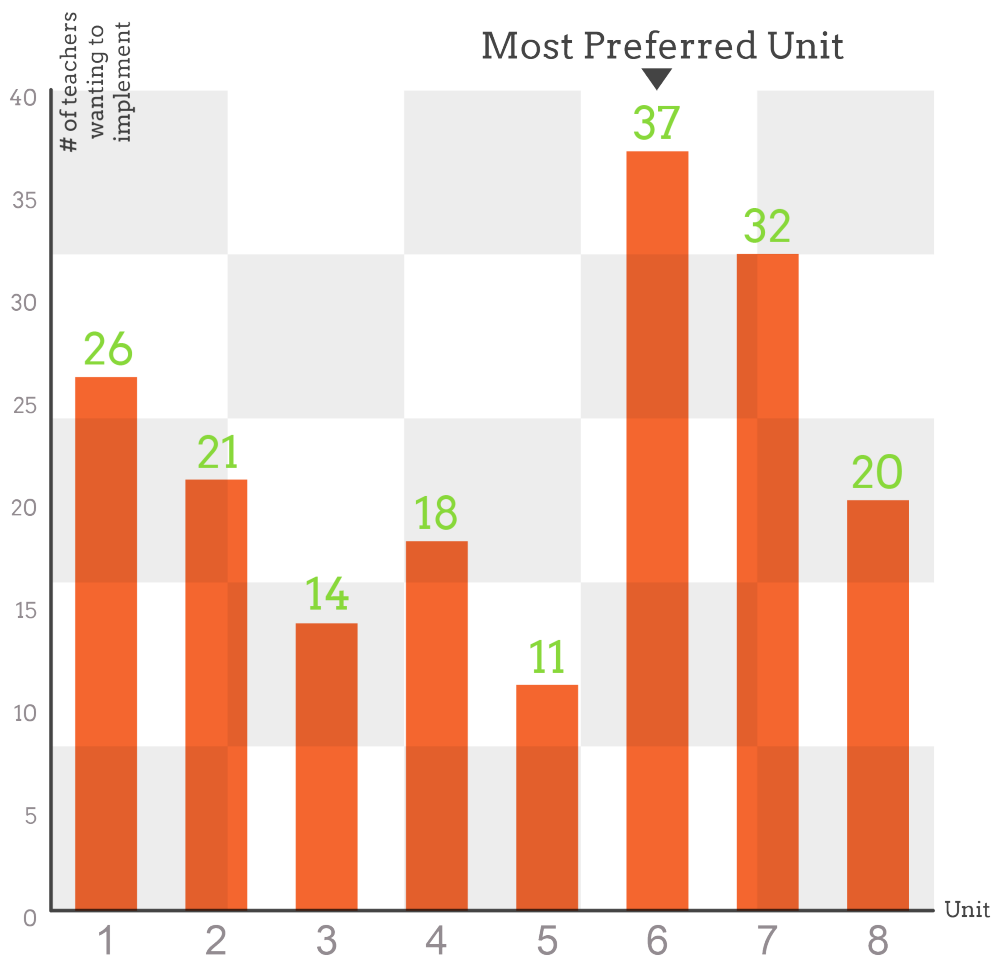
- Conducted approximately 166 meetings with district administrators and school site staff
- Executed 32 program Agreements
- Received 84 Onboarding Questionnaires

## Implementation

Lee Andrews Group accomplished the following objectives during the implementation phase:

- Delivered approximately 74 KMS kits to participating classrooms
- Provided implementation support to 34 classroom teachers
- Maintained consistent communication with 100 classroom teachers

There was a large tip in the scale for desired implementations in the second semester. Of the 84 onboarding questionnaires received, 73 classroom teachers requested to begin the program in the second semester (86%). Many of these anticipated implementations were scheduled, or in the process of being scheduled, before the unexpected COVID-19 pandemic.



As mentioned in section G above, part of the outreach process included obtaining an onboarding questionnaire from each participating teacher. In this questionnaire, teachers were asked which units of the curriculum they wanted to implement in their classroom. In many cases, teachers were not able to implement all eight units of the curriculum. With that in mind, our team felt it was important to track which units were chosen when teachers had to be more selective, showing us which units they found most valuable. The bar graph to the left depicts each unit and how many teachers desired to implement that unit in their classroom.

Figure 7: Teacher preferred units

Using the data displayed on the bar graph, our team ranked the eight units from most desired to least desired:

- Unit 6 - Field Measurements – 37
- Unit 7 - Interpret Your Data – 32
- Unit 1 - Our Air and Pollution – 26
- Unit 2 - Particle Pollution – 21
- Unit 8 - Be Part of the Solution – 20
- Unit 4 - Health Effects of Particles – 18
- Unit 3 - Particle Sources – 14
- Unit 5 - Measuring Particles – 11

These numbers show us that teachers felt the most valuable unit was the hands-on activity of collecting air quality samples in their community. Lee Andrews Group can use this information to better guide new potential participants in the future. For example, if a teacher was only able to implement three lessons, we can recommend units 1, 6 and 7 which have proven popular with previous participating teachers.

## Evaluation

Lee Andrews Group accomplished the following objectives during the evaluation phase:

- Reached over 1,300 students (44 classrooms multiplied by an assumed 30 students in each classroom)
- Obtained 6 post-implementation teacher surveys
- Conducted approximately 4,000 hours of outreach and project work collectively

## Testimonials

Lee Andrews Group received an overwhelming amount of positive feedback from teachers who participated in the program. This feedback allowed our team to evaluate the successful components of the Program and focus on furthering those efforts for others participating in the Program to have similar experiences. Not only do testimonials allow us to learn the successful aspects of the Program, they also help us promote the Program by giving us something to share with potential participants in the future. See Attachment 3 for the testimonials table.

### Featured Testimonial

*STEM Academy of Boyle Heights High School – LAUSD*

*Classroom teacher – Leo Magallon*

*South Coast AQMD volunteer – Steve Tsumura*

“STEVE HAS BEEN GREAT SO FAR. HE HAS A CONNECTION TO THE NEIGHBORHOOD, SO THE STUDENTS APPRECIATE WHEN HE BRINGS UP LOCAL LANDMARKS AND PLACES OF INTEREST...AFTER SESSION 1, STUDENTS WERE ASKING ME QUESTIONS ABOUT THE WORKSHOP, SO THEY WERE VERY INTERESTED.”



Mr. Leo Magallon

# /// YEAR ONE LESSONS LEARNED ///

*The first year for the implementation of the WHAM Program was fast paced and shortened by the school year. While the year was an overall success in terms of remaining on trend to meet South Coast AQMD's objectives, there were several lessons learned that if addressed during future iterations, will improve the Program. The following lists the key lessons learned that Lee Andrews Group will address during Year Two (2020/2021):*



## **Secure buy-in for WHAM Program at the Superintendent and School Board (decision makers) levels, first.**

During the first year of the Program, Lee Andrews Group found that initially introducing the Program to the district at the leadership level proved beneficial. This allowed our team to more efficiently reach school site administrators and staff through personal referrals. Receiving a referral from a Superintendent or School Board member made individual school sites more open to the program, and allowed our team to reach them in a faster and more efficient manner.



## **Learn if high schools require securing special onboarding preconditions, such as Sexual Abuse and Molestation (SAM) insurance, School District facilitated Live Scan fingerprinting, and subsequent arrest notification.**

There were a number of districts that requested onboarding requirements that could not be accommodated. Our team tracked the various requirements throughout the first year of the Program, in order to better address them moving forward. Lee Andrews Group is prepared to offer alternatives, such as support for independent implementation, if a school district requests the South Coast AQMD volunteers to undergo rigorous screening processes, or requires insurance coverages that cannot be obtained.



## **Complete Live Scan and TB assessments at least 60 days before anticipated implementation. Outcomes for testing must also be provided to each school district in a timely manner to avoid expiration of documentation such as clearances; Plan adequate timing for testing scheduling and results return.**

Our team learned that the Live Scan and TB testing processes were more time intensive than originally anticipated. For example, it took longer than expected to schedule testing and receive results. We also learned that specific documentation needs to be provided to school districts in a timely manner for consideration at the time of submission. For example, districts require that a confirmed negative TB test be submitted no later than 30 days after it is received.



### **Provide adequate supplies to participating classrooms.**

There were a number of participating teachers who expressed challenges due to lack of adequate supplies, such as student workbooks. Lee Andrews Group worked with South Coast AQMD to accommodate teachers, on a case by case basis, who requested additional supplies. We learned that it is important to provide participants with the supplies and support they need up-front, in order to successfully implement the Program. This increases the likelihood that they will have a positive experience and share that experience with their colleagues, thereby promoting South Coast AQMD's brand, the WHAM Program and encouraging more participation.



### **Frame the Program as having South Coast AQMD “volunteers” instead of “co-teachers” to limit the number of requirements placed upon agency staff to allow for easier participation.**

Lee Andrews Group learned that referring to the South Coast AQMD staff as “co-teachers” is what prompted the onset of strict onboarding requirements in many cases. In order to mitigate this issue, we recommend that South Coast AQMD staff be referred to as “volunteers” to allow more flexibility in the onboarding process.



### **Provide a South Coast AQMD volunteer to each participating classroom when requested.**

Within the outreach process, our team works to obtain an onboarding questionnaire from each participating teacher. This questionnaire asks if the teacher desires a South Coast AQMD staff member to co-teach the curriculum. We hope to remain consistent in offering volunteers to benefit each classroom's participation, however, if a volunteer cannot be provided, our team will accommodate each teacher with alternative resources.





# /// NON-PARTICIPANT & WAITLISTED SCHOOLS ///

*Lee Andrews Group tracked school districts and high schools that met the criteria, but did not participate in the Program during the Year One due to many factors. The following is a list of those school districts and high schools:*

1. Centinela Valley Union High School District - This district preferred to review the outcomes of the first year of the Program by evaluating feedback from participants before committing to participation. Lee Andrews Group will work to share that feedback with the Centinela Valley for Year Two.
2. Capistrano Unified School District - Capistrano had no dedicated ESS course model at the time the Program was introduced, and therefore no place to insert the WHAM Curriculum.
3. Huntington Beach Union High School District - This district prioritized NGSS for the 2019-2020 school year.
4. Hacienda La Puente Unified School District – The district was interested in the program, but did not have the capacity to implement in a timely manner. They are interested in having the program proceed in year two.
5. Santa Margarita Catholic High School - There were no teachers that expressed interest in participating during the 2019-2020 school year. There is a possibility that an environmental/earth science teacher will participate in the 2020-2021 school year.
6. Rialto Unified School District - Rialto already has a robust air quality education program that began at the middle school level. The district is also participating in South Coast AQMD's AQ-SPEC sensor library program.

Lee Andrews Group recommends re-engaging these schools during Year Two of the Program as the Program has great outcomes to share. We will consult with South Coast AQMD regarding approval and next steps.

## /// LOS ANGELES UNIFIED SCHOOL DISTRICT (LAUSD) ///

*The Los Angeles Unified School District is the second largest school district in the nation. As such, there are several unique factors that were necessary to consider when introducing the WHAM program that significantly differed from many of the smaller districts in the region. Some of these considerations included but were not limited to: volume, requirements, bureaucracy, diagnostics, demographics, language and other variables.*

Our CEO's relationship with the LAUSD Superintendent allowed Lee Andrews Group to bring them in early and engage in the Program. Securing LAUSD could have taken months with meetings, calls and wait time due to the size of district. A meeting with LAUSD's Superintendent was set within one week of initial outreach.

From there, in collaboration with the Superintendent's office, we planned a lunch at LAUSD for all six local district superintendents on May 23, 2019. Along with South Coast AQMD, we arranged for a representative of Sonoma Technology, Inc. to fly down from Northern California and present the Program along with Lee Andrews Group and South Coast AQMD. Monika Kim and Lisa Tanaka-O'Malley were very helpful and key players at this luncheon, which was a huge success allowing us to implement the Program at LAUSD.

Due to targets of 40 schools to implement the Program in Los Angeles County, 20 schools in Riverside County, 20 schools in San Bernardino County and 20 schools in Orange County, we could only give LAUSD 20 schools to implement, but they requested and wanted more schools in the Program. Additionally they remain committed to accept the WHAM Program in their schools throughout year two.

Once LAUSD agreed to the Program, the mammoth project of getting an Agreement signed between LAUSD and South AQMD began. After back and forth with both agency's legal departments, an Agreement was signed. After which, our team worked with each school's administration and faculty to educate them about the benefits of the Program to students, and begin implementation of the WHAM Program into LAUSD's earth sciences curriculum. Below are key highlights from LAUSD's participation in the WHAM program.

### Key Highlights:

- *Championed program with LAUSD Superintendent*
- *Hosted luncheon to pitch Local District Superintendents*
- *Secured school site referrals from Local District Superintendents*
- *Planned and executed opening day presser at Gardena Bus Yard*
  - » **Other Media Events** - *Lee Andrews Group assisted in planning the press event at Carson High (ESET) Academy featuring Wayne Nastri, Executive Officer, South Coast AQMD at the start of the implementation of the Program. The event was scheduled to take place on February 6, 2019 but was cancelled due to timing constraints. Lee Andrews Group is prepared to assist when the event is to be rescheduled for Mr. Nastri's alma mater.*

*LAUSD included the WHAM Program as part of the first day of school with a press release that included Superintendent Austin Beutner and school board members at the Gardena Bus Yard. Lee Andrews Group arranged for Vice Chair Ben Benoit to attend and be interviewed by Good Day LA. Later, Chair Benoit was photographed and took a tour alongside the Superintendent. Deputy Executive Officer Derrick Alatorre was also in attendance, and was instrumental in arranging the event.*





Of the 40 high schools targeted within Los Angeles County, the following 19 schools fall within the Los Angeles Unified School District (LAUSD):

---

**Scheduled or Implemented (13 or 68%)**

**Not Scheduled or Implemented (6 or 32%)**

---

- Benjamin Franklin High School*
- Carson High School ESET Academy*
- Downtown Magnets High School*
- Helen Bernstein High School*
- Hilda L. Solis Learning Academy*
- James A. Garfield High School*
- James Monroe High School*
- Manual Arts Senior High*
- MSTMA at Roosevelt High School*
- San Pedro High School*
- Science Academy STEM Magnet*
- STEM Academy of Boyle Heights High School*
- Washington Preparatory High School*

- Bravo Medical Magnet High School*
- Cesar E. Chavez Learning Academies*
- Edward Roybal Learning Center*
- Phineas Banning High School*
- Rancho Dominguez Preparatory School*
- South East Senior High*

Sixty-eight percent of those schools implemented the WHAM Program. While significantly more than 50% of the LAUSD schools targeted successfully participated in the Program, Lee Andrews Group will continue to work with LAUSD to determine how to increase implementation rates within LAUSD to 100%.

# ***IN-PERSON IMPLEMENTATION TRANSITION TO DISTANCE LEARNING***



# /// COVID-19 RESPONSE ///

In March 2020, the COVID-19 pandemic presented unprecedented challenges to our local communities and counties at large. This presented the team with unexpected and extraordinary changes with distance and on-line learning. On March 16, 2020 schools in all four counties closed their doors to students. During this time, teachers and families were forced to create distance learning lesson plans and simultaneously make arrangements for teachers to work remotely.

Lee Andrews Group worked with South Coast AQMD to develop and offer distance learning options to participate in the WHAM Program that included online resources such as PowerPoint presentations and videos, Live Zoom lectures, and technical support.

While the world was adapting to this new normal, schools lost students due to non-equitable matters (i.e. no internet at home, at-home problems, moving). Lee Andrews Group immediately adjusted to the circumstances and worked with and informed teachers of the suspension of South Coast AQMD volunteers, due to stay at home orders throughout the State of California. Teachers were encouraged to implement the WHAM Program independently. Lee Andrews Group also conveyed the message to schools that we remain available and ready to assist them with their questions, concerns, and technical support.

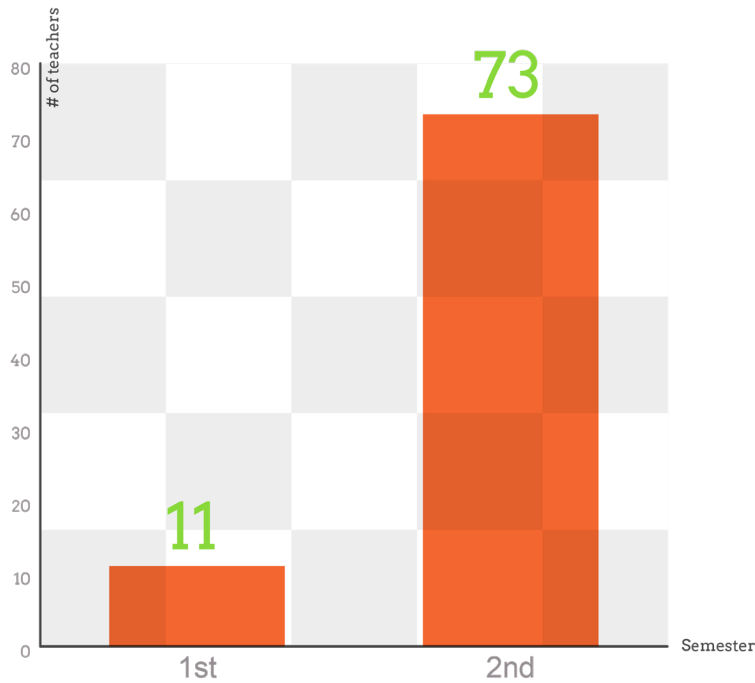
Lee Andrews Group proactively designed distance learning options and presented them to South Coast AQMD in an effort to keep teachers and students engaged, taking into account those students who do not have digital access. This resulted in South Coast AQMD developing a robust distance learning program by offering volunteers for lectures via Zoom, updating their website with PowerPoint presentations, video lectures, and other useful resources that can be accessed at the teacher's leisure. Lee Andrews Group was pivotal in delivering this information to teachers through our personal relationships.

Prior to COVID-19, there were a number of teachers who elected to begin implementation during the second semester. We received a total of 84 onboarding questionnaires. At the time of the program shift, 16 questionnaires were outstanding. Of the 84 onboarding questionnaires received, 73 or 86% of classroom teachers requested to begin the Program during the second semester. This is commonly the time of year when most air quality lessons are taught. Below illustrates the results of the 73 implementations planned to take place during the second semester:

- Twenty-four were completed with at least one lesson conducted.
- Six were scheduled and posted on the WHAM calendar, but were cancelled due to the suspension of volunteers in response to COVID-19.
- Ten were in the process of being scheduled, but were impacted by COVID-19 pandemic.

Before the Program was adjusted due to COVID-19, 40 of the 73 second semester implementations were either completed, scheduled, or in the process of being scheduled.





The Lee Andrews Group team views the opportunity of distance learning as an added benefit, allowing the South Coast AQMD to reach even more students. With this in mind, Lee Andrews Group will remain flexible and will continue to maintain open lines of communication with the teachers who had intended to implement the Program this school year.

Figure 9: Illustration of teacher semester preference

## /// YEAR ONE CONCLUSION ///

Overall, the first year of the Program introduced South Coast AQMD’s healthy air message to over 30 school districts’ leadership within 4 counties across the southern California region. Whether implementations occurred or not, school administration and teachers received the WHAM message through the outreach and engagement process.

Ultimately, first year efforts resulted in the development of an implementation infrastructure and a process, including outreach, tracking, monitoring and evaluation. These efforts culminated with 44 classrooms successfully participating in the Program, and teachers and students learning about air quality and the South Coast AQMD’s message regarding the importance of healthy air, and the community’s role in it.

Importantly, students were also exposed to air quality professionals and career paths in environmental fields. South Coast AQMD can utilize this model to continue to build upon the success of the Program’s first year, and continue its reach throughout the South Coast AQMD’s territory and southern California region. The WHAM program opened opportunities for South Coast AQMD to further develop relationships with local environmental justice communities, and has allowed students to learn more about air quality awareness and its impacts to their communities.

It is undeniable that the inaugural year of South Coast AQMD's High School Air Quality Educational Program produced useful benefits to the southern California region's high school student body. The program exposed them not only to fun ways of learning the curriculum, but also to new career paths in the sciences, healthy habits to promote better air quality, an introduction to regulatory climate control and the tools to become environmental stewards within their communities. Lee Andrews Group assisted South Coast AQMD with transforming a well-intentioned idea and operationalizing it into a comprehensive program to meet intended objectives complete with metrics.

The first year of the WHAM program engaged a large number of students across the four counties and provided additional opportunities to expand the program with the school districts that participated. Overall, the WHAM program led to an increased understanding of the importance of good air quality for the participating schools. As we learned from participant feedback, it is understood that air can only improve if significant changes occur not just with static pollutants, but with mobile sources of pollution. The measured progress of the Program in all four counties can be found further in figure 10.

## 2019-2020 Objectives

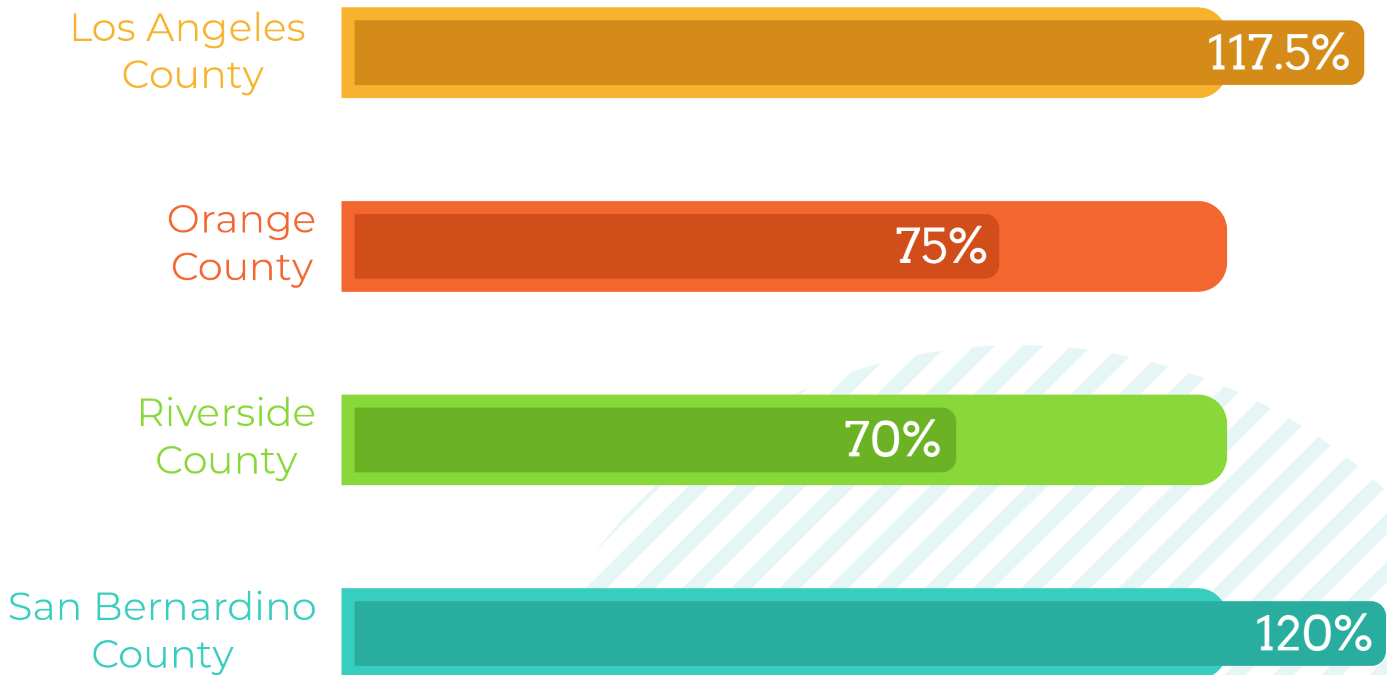


Figure 10: 2019-2020 Objectives



## Year 2

# /// APPROACH ///

*As we move into a second year (2020/2021) of the WHAM Program, Lee Andrews Group intends to continue improving the Program by leveraging successful tools and accomplishments to encourage positive growth, and we intend on expanding South Coast AQMD's message. The team continues to develop their relationships with teachers, principals and staff to make implementation of the Program a smooth transition.*

In Year Two, the Lee Andrews Group team will implement a similar outreach strategy as in Year One to engage districts and schools as we work toward securing participation in the WHAM program. With our massive tracking sheet, we will begin with schools that fit the criteria. Equipped with efficient process modeling and informed by lessons learned during the pilot program, our team will make modifications to our strategy to improve program effectiveness. Key recommended modifications include: eliminate board approved participation Agreements, revise program talking points and collateral materials, implement distance learning, and develop more tailored approaches when presenting the Program to teachers for the first time.

While these modifications are important, we aim to continue developing what we have successfully designed, because it is working. Teachers know and trust us, they have become better aware of South Coast AQMD's mission, and many, along with their students, are now partners in disseminating the agency's message.

## **Board Approved Agreements**

---

*At the beginning of Year One, there was little infrastructure in place to guide the process. We now have the model in place along with relationships. Lee Andrews Group was entrusted to develop the requisite infrastructure, while keeping South Coast AQMD's mission and message top of mind. Lee Andrews Group was careful to ensure that anything we recommended for implementation received the express approval of South Coast AQMD. Therefore, a bilateral process for documenting school district participation in the Program was developed, which included an Agreement among participating school districts and the South Coast AQMD Board. In all, Lee Andrews Group secured 100 percent participation from each of the 32 targeted school districts. However, drafting, editing, obtaining legal, administrative and board approval for these Agreements proved to be a laborious and gratuitous undertaking. After careful analysis, Lee Andrews Group recommended to the agency that the agreement process be deformed and addressed at the teacher level. Moving forward, Lee Andrews Group will work directly with teachers to negotiate the terms of their participation and will memorialize those Agreements via email. We anticipate that eliminating the formal Agreements will increase the participation rate during the second year of the Program.*

## Marketing Materials

As experts in the field of outreach and engagement, Lee Andrews Group has an acute appreciation for the value of a strong marketing campaign. In order to convey South Coast AQMD's key messages, we recognized the need to create marketing materials that promoted the Program and its importance. That is how we introduced, encouraged, and ultimately secured program implementation.

During Year One, Lee Andrews Group worked closely with the South Coast AQMD to determine and design the collateral materials that would best help schools administrators, faculty and teachers understand and accept the WHAM Program. Continuing with the proven strategy of building upon what works, in Year Two, Lee Andrews Group will either update or create the following collateral materials to aid in disseminating key information about the WHAM Program, ultimately generating support for and participation in the Program:

- Welcome letter to existing school districts and teachers;
- Welcome letter for new school districts/high schools;
- Introductory leadership PowerPoint presentation;
- WHAM brochure;
- Frequently Asked Questions (FAQs);
- WHAM web page;
- Onboarding questionnaire;
- Teacher post implementation evaluation survey;
- Student post participation evaluation survey; and
- AQMD volunteer guide.

In addition to improving collateral, we also recommend increasing WHAM's digital presence on popular platforms and currently trending applications. This approach will bookend our engagement efforts toward teachers with students' colloquial interests in the Program. Students won't only be introduced to the Program through their class curriculum, but they will also be exposed within their preferred communication environment.

## Tailored Approaches

*Through our engagements with teachers during Year One, we learned that understanding our audience is paramount; and that while a standardized process can be helpful, a one-size-fits-all approach does not lend itself to maximum positive outcomes. The best approach is one that is flexible, yet tailored to the specific teacher to whom we are presenting the Program. We learned that we must be agile enough in our approach to accommodate teachers' preferred communication methods. For example, not all teachers had time or wanted to meet in person for the initial presentations, for a number of reasons, such as school starting, parent teacher conferences, and other priorities. Some teachers preferred receiving information through phone calls and via emails. By accommodating teacher schedules and communication preferences, our team members secured participation of teachers that would not have agreed to participate if we required the meeting to be conducted in person.*

The following illustration depicts the updated recommended engagement process for Year Two:

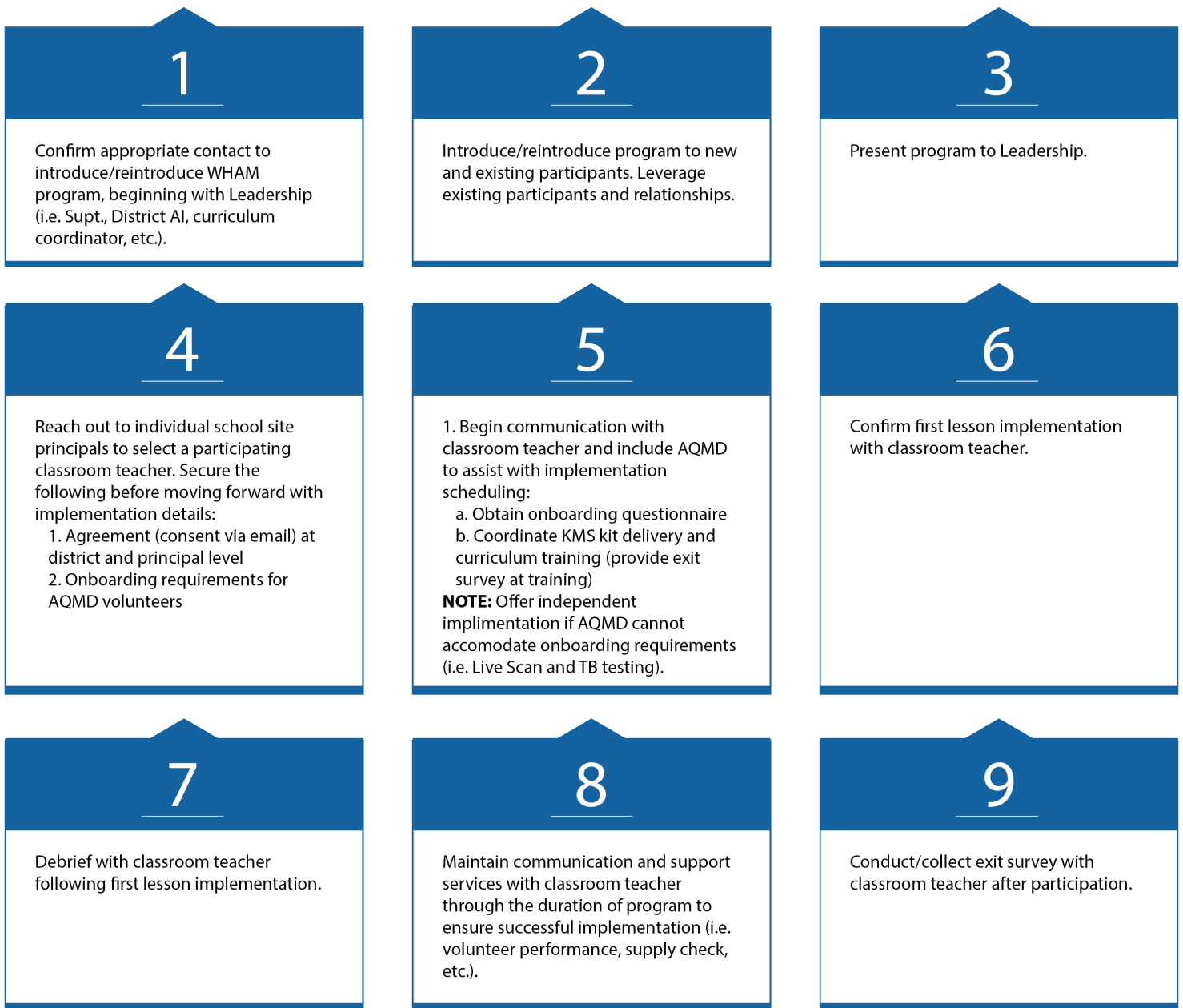


Figure 11: 2020-2021 Step-by-step Outreach Process

### Flexible Program Options

The COVID-19 pandemic necessitated the implementation of additional virtual options through which the program may be consumed. This opened a new outreach mechanism to promulgate South Coast AQMD’s message through the WHAM Program. In Year Two, Lee Andrews Group will focus efforts on maximizing virtual options. For those schools and students with the resources, virtual group meetings, prepared and/or recorded lessons and technical support, extend a whole new channel through which students may access the WHAM experience. Lee Andrews Group anticipates that this added benefit will increase student participation in the Program by a significant margin. Lee Andrews Group will monitor enhancements and new developments in the virtual arena and continue to adapt to changing environments and resources.



## //// GOALS ////

In Year Two, the South Coast AQMD's primary objectives for the WHAM Program will remain to implement in high schools across four counties within the region; engage with and develop relationships with school leadership, faculty and teachers; and promote the South Coast AQMD's message. During Year Two, Lee Andrews Group has identified the following specific goals to help accomplish the primary objectives:

- Implement the WHAM Program within 100 additional high schools (200 total);
- Increase social media presence of the WHAM Program;
- Continue offering distance learning options; and
- Promote air quality awareness to participating students.

## //// METHODOLOGY ////

Lee Andrews Group will facilitate the expansion of the Why Healthy Air Matters Program from 100 schools to 200 schools in the South Coast Air Basin. We will achieve this by incorporating additional school districts that have not yet taken part in the implementation of the Program. Lee Andrews Group proposes an outreach engagement strategy that dovetails the new school districts with the returning participating school districts. We will approach the new school district administrators with the same three-tier approach we created for the initial year. Our presentations to superintendents, district staff, and school site administrators will highlight the pilot program's successes and outcomes, and our team will continue to create working relationships with the teachers to ensure that the Program is implemented. For returning school districts and schools, we will work with South Coast AQMD WHAM staff to schedule meetings with each district to highlight the program's first year achievements.

We will work with South Coast AQMD WHAM staff to create a toolkit for new and returning participating schools that will introduce the WHAM Program. We envision the toolkit to contain an introductory video to South Coast AQMD and the Kids Making Sense® kit, training materials, technical assistance and direct support resources that would be readily available online. This toolkit would be in addition to the Welcome Letter, Onboarding Questionnaire and other collateral materials that are presented to school district administrators, principals, and teachers.

From the implementation of the program in its initial year, we want to ensure that school principals and teachers understand the significance of the WHAM program and the benefits for the students. Our team will work with South Coast AQMD WHAM staff to incorporate the feedback received by the first year teachers to develop and update existing diagnostic tests.

Additionally, these uncertain times lead us to propose an outreach plan that takes into account the possibility that not all school districts will return to a normal academic schedule in the Fall of 2020. We want to take a proactive role with South Coast AQMD WHAM staff to develop additional distance learning tools that would be easily adopted by participating teachers, as well as continue to provide teachers with support and new resources as they become available.

## New Tactics

Lee Andrews Group finds value in leveraging the successful aspects of the Program that were created during the first year of the program. We also understand the importance of making adjustments where necessary, to account for the lessons learned. Keeping in mind primary objectives and specific goals for the Program, Lee Andrews Group recommends employing the following new tactics during Year Two:

- Remove Agreement requirement;
- Update collateral materials and develop new materials as needed;
- Update AQMD website and app;
- Monitor Sonoma Technology Inc. for new developments;
- Research school district clearance requirements (i.e. eliminate requirement of TB testing and Live Scan for South Coast AQMD volunteers, when possible);
- Develop and update diagnostic tests for all schools;
- Create a toolkit for participating schools that will introduce the WHAM Program to initiate engagement (i.e. introductory video, training materials, technical assistance and direct support resources);
- Develop innovative engagement strategies that reflect best practices identified in Year One and feedback from teachers;
- Incorporate enhanced digital learning options (i.e. live video conference and recorded lectures, PowerPoint presentations, videos);
- Use social media to promote and generate buzz for the Program;
- Reach out to media outlets and secure press coverage of WHAM Program; and
- Add new resources as they become available.



## /// CONCLUSION ///

The creation of the WHAM Program presented an opportunity for South Coast AQMD to create a link between our youth and the well-being of their environment. Through the WHAM Program, South AQMD was able to help increase students' awareness of air quality issues within their communities and beyond, ultimately empowering the youth to become changemakers and take matters into their own hands for a future with clean air. The South Coast AQMD is to be commended for delivering additional resources to communities experiencing environmental justice challenges. The Program educates the students, allowing them to bring the conversation home, making a greater impact throughout all communities.

South Coast AQMD is shining a light on those communities experiencing environmental justice issues by investing in the delivery of resources to students, schools, and the community through education. South Coast AQMD aims to inform students about the importance of doing one's part, and developing healthy habits to contribute to clean air. The Kids Making Sense® curriculum, which is the main feature of the Program, allows students to learn aspects of air quality and how it ties into the environment and overall health. The schools targeted for outreach through the WHAM Program have been identified as being acutely impacted by dirty air, lower income and educational attainment, higher instances of health disparities and other environmental justice factors. The WHAM Program offers these students:

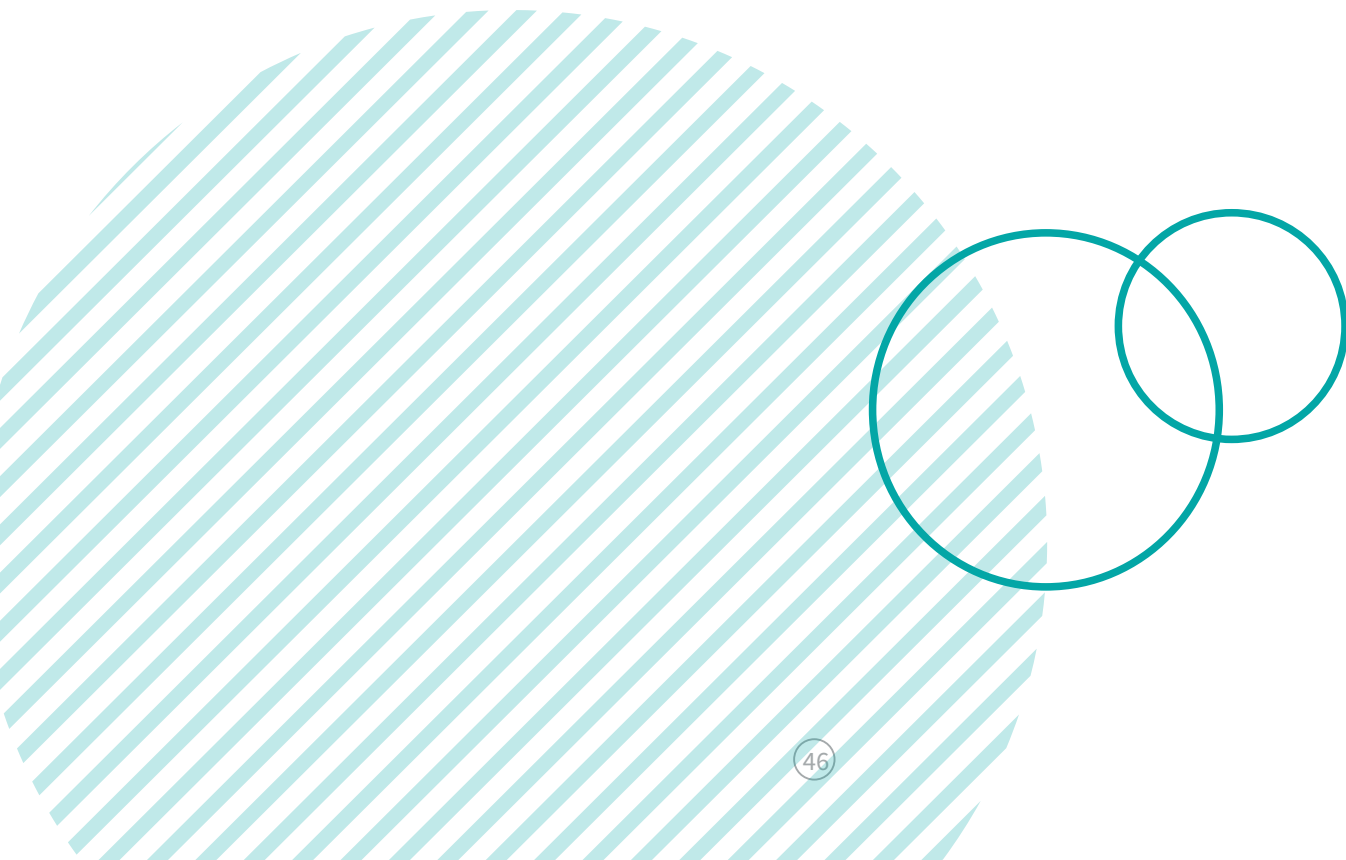
- ✓ ***Exciting environmental education curriculum that teaches students about air quality;***
- ✓ ***Unique experience for students to measure air pollution using hand-held sensors and mobile phones;***
- ✓ ***Engaging and fun science experiments that teach students about healthy air; and***
- ✓ ***Empowers students to drive positive change in their homes and communities.***

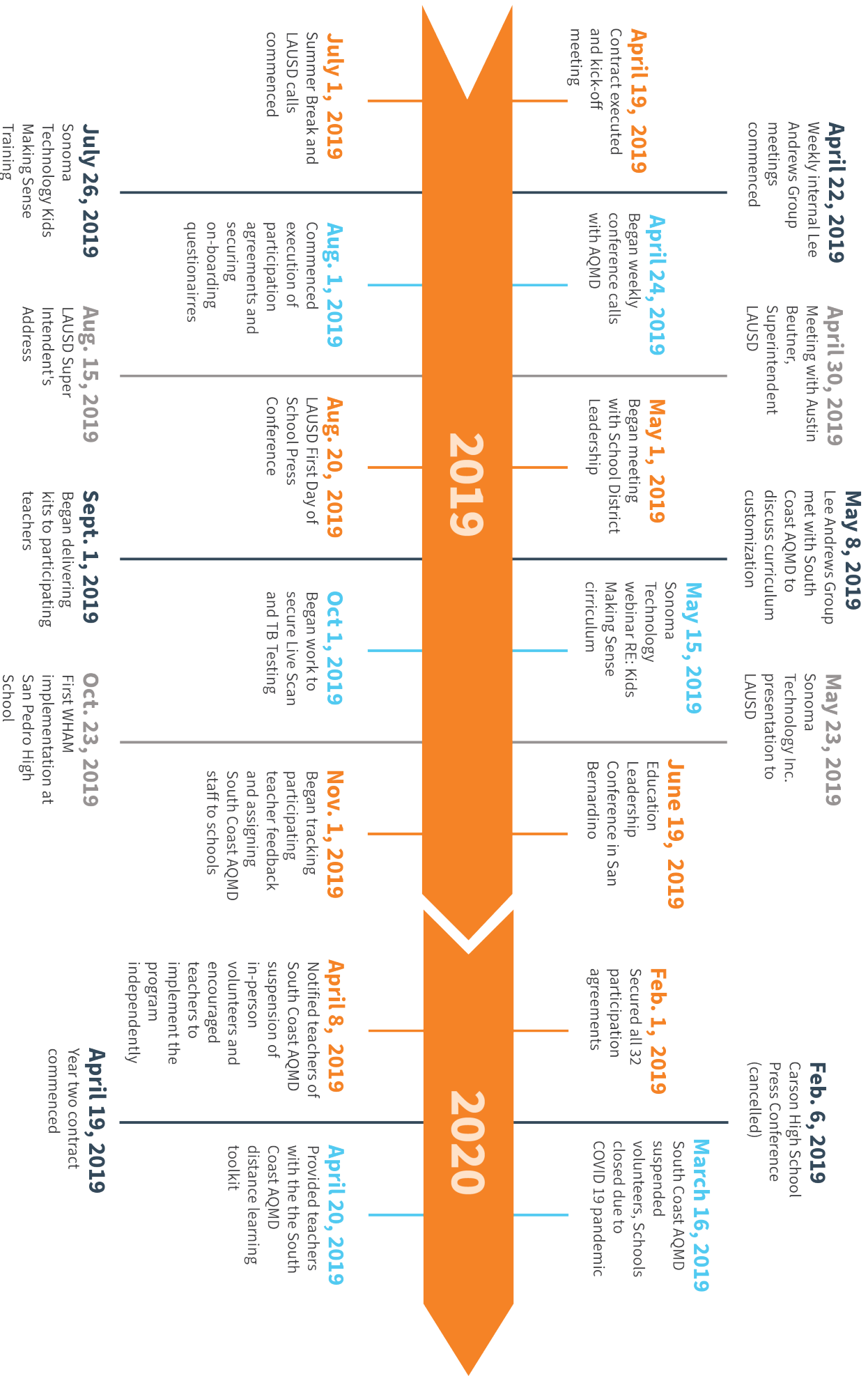
Lee Andrews Group will continue to work alongside South Coast AQMD to reach every goal. Thank you for the opportunity to be your partners in educating the youth of our communities. We look forward to the future of the WHAM Program.



# Attachment 1

2019-2020 TIMELINE







# Attachment 2

COLLATERAL MATERIALS



1. Our Air and  
Pollution  
(50-100min.)

3. Particle Sources  
(50min. or more)

5. Measuring Particles  
(50min.)

7. Interpret Your Data  
(50min.)

2. Particle Pollution  
(50-100min.)

4. Health Effects of  
Particles  
(50-100min.)

6. Field  
Measurements  
(100min. or more)

8. Be Part of the  
Solution  
(50min. or more)



Kids Making  
Sense® Kit

For more information  
about the program or to refer  
a school for potential participation,  
please contact:

Monika Kim  
Phone: (909) 396-2342  
Email: [mkim@aqmd.gov](mailto:mkim@aqmd.gov)



South Coast Air Quality  
Management District  
[www.aqmd.gov](http://www.aqmd.gov)  
1-800-CUT-SMOG

Stay connected with us  
[@SouthCoastAQMD](https://www.instagram.com/SouthCoastAQMD)



# South Coast Air Quality Management District

## High School Education Program



# WHAM

Why Healthy Air Matters

Air Quality Education by South Coast AQMD

## What is South Coast Air Quality Management District's WHAM Program?



**WHAM**  
Why Healthy Air Matters



AirBeam2 Air Monitor, AirCasting App

South Coast AQMD's high school education program, Why Healthy Air Matters (WHAM), is an exciting Science, Technology, Engineering and Math (STEM)-based education program that teaches students about air quality. The program utilizes Sonoma Technology, Inc.'s Kids Making Sense® curriculum, developed by air quality scientists and educators and thoroughly tested by teachers and students around the world.

The program will increase students' awareness of air quality issues within their communities and beyond, through various experiments and activities, including measuring particulate matter (PM) pollution using hand-held sensors.

## Does the program fit in with state standards?

The Kids Making Sense® curriculum is aligned with the California State Core Science Curriculum for grades 9 through 12. The curriculum unites STEM education and Next Generation Science Standards (NGSS) with hands-on experiential learning and introduces Disciplinary Core Ideas (DCIs) through experiments that reinforce Science and Engineering Practices (SEPs) and Crosscutting Concepts (CCCs).



Curriculum  
Workbook

## Why is the WHAM Program Important?

South Coast AQMD's jurisdiction encompasses Orange County and the urban portions of Los Angeles, Riverside and San Bernardino counties, and is home to more than 17 million people—the second most populated urban area in the United States. This region suffers from some of the poorest air quality in the nation and does not meet federal standards for both ozone (smog) and fine particulate matter (PM<sub>2.5</sub>).

Different types and levels of air pollution can cause or contribute to everything from watery eyes and fatigue to respiratory disease, lung damage, cancer, birth defects and premature death.

This program will increase awareness of air quality issues within environmental justice communities in South Coast AQMD's jurisdiction. It utilizes a community-focused approach, designed to teach youth about the science of air quality, public policy and technology-based solutions.

## What will each participating school receive?

Each participating school will receive a Kids Making Sense® kit, which includes AirBeam2 portable air quality monitors, paired smartphones, teacher's guide, student workbook and all of the supplies and materials needed to successfully teach the curriculum.



# South Coast Air Quality Management District High School Air Quality Education Program

*Presented by Lee Andrews Group in partnership with South Coast AQMD  
818 W. 7<sup>th</sup> Street, Ste. 880, Los Angeles, CA 90017 | (213) 891-2965  
SBE, DBE, MBE and VSBE Certified.*







- Air pollution control agency for all of Orange County and the urban portions of Los Angeles, Riverside and San Bernardino Counties.
- South Coast AQMD has a long history of educational outreach to teachers and students in the South Coast Air Basin through programs and events.
- These activities have been effective in raising awareness about South Coast AQMD and air quality issues among teachers and students reaching several thousand program and event participants.



# Kids Making Sense® developed by Sonoma Technologies, Inc.

**Exciting** environmental education curriculum that teaches students about air quality.

**Opportunity** for students to measure air pollution using hand-held sensors and mobile phones.

**Empowers** students to drive positive change in their communities.





# Kids Making Sense®

Aligns with California State Core Science Curriculum for Grades 9-12.

Unites STEM (Science, Technology, Engineering, and Math) education and NGSS (Next Generation Science Standards) with an air sensing system.

Introduces Disciplinary Core Ideas (DCIs) through specific air sensing experiments that reinforce Science and Engineering Practices (SEPs) and Crosscutting Concepts (CCCs).



## **Kids Making Sense® incorporates different learning modalities: Visual, Auditory, Kinesthetic and Tactile Learners.**

Each participating school will receive a Kids Making Sense® Kit, including Airbeam2 portable air quality monitors, five paired smartphones, a teacher's guide, student workbook and all of the supplies and materials needed to successfully teach the curriculum.

In-Person classroom instruction from South Coast AQMD staff during each session.

Students will learn practical and occupational uses for science which may inspire potential environmental science careers.



## Why is this program important to high schools?

South Coast AQMD's High School Air Quality Educational Program will help increase students' awareness of air quality issues within their communities and beyond through hands-on experiential learning that will reinforce essential concepts in alignment with the California State Core Science Curriculum Framework.

This program will empower youth to become changemakers and take matters into their own hands for the future of their air.





# Next Steps...

- Receive a Memorandum of Understanding to secure participation;
- Identify school sites where this Program is most appropriate;
- Coordinate Fall/Spring rollout schedule and deliver Kids Making Sense<sup>®</sup> kits for August/September.

For more information and questions please contact:

Monika Kim  
South Coast Air Quality Management District  
(909) 396-2342  
mkim@aqmd.gov



## **AGREEMENT BETWEEN SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT AND [SCHOOL/SCHOOL DISTRICT]**

### **BACKGROUND:**

South Coast Air Quality Management District (South Coast AQMD) is the air pollution control agency for all of Orange County and the urban portions of Los Angeles, Riverside and San Bernardino Counties. South Coast AQMD engages in a number of community-based approaches to educate residents on air quality issues in the South Coast and Coachella Air Basins. In 2019, South Coast AQMD established the Why Healthy Air Matters (WHAM) High School Air Quality Education program.

### **PROGRAM GOAL:**

South Coast AQMD seeks to partner with school district officials and administrators by providing high schools with the opportunity to participate in the WHAM program to provide teachers and students information on local air quality issues through a hands-on curriculum developed by Sonoma Technology Inc., called Kids Making Sense®. South Coast AQMD will provide the air quality curriculum as deemed appropriate by South Coast AQMD, through the WHAM Program, to inform and educate students on topics related to air pollution including technology, data analysis and analytical thinking. The program will achieve its goals by partnering with schools and school districts in each county within South Coast AQMD's jurisdiction (Los Angeles, Orange, Riverside and San Bernardino) to implement the WHAM Program in selected classroom(s) within participating schools,

South Coast AQMD will provide [School/School District] (“**Partnering School/School District**”) with one South Coast AQMD staff volunteer to assist in the teaching of one class period per unit at each participating school. **Partnering School/School District** may choose to teach the Kids Making Sense® curriculum in additional classrooms at each participating school without the assistance of a South Coast AQMD staff volunteer, if desired. The curriculum contains several units to provide educational information to instructors and students, as deemed appropriate by South Coast AQMD, on air pollution, air monitoring technology, data analysis, how pollution affects public health, discussion on solutions and on South Coast AQMD's responsibilities as the air pollution control agency for the South Coast and Coachella Air Basins.

This Agreement between South Coast AQMD and **Partnering School** outlines the common goals for this partnership, which is to provide an educational opportunity for students of [School District]. This Agreement is intended to provide for the coordination of South Coast AQMD to implement the WHAM Program within schools at [School District]. South Coast AQMD and Partner agrees to the following details:



## **TERMS OF AGREEMENT:**

The Partnering School District will support South Coast AQMD's efforts by completing the following:

- Allowing South Coast AQMD to approach high schools in their district;
- Participate in conference calls with South Coast AQMD and/or South Coast AQMD contractor to assist in the implementation of the WHAM Program at schools within the school district, as requested by South Coast AQMD.

The Partnering School will support South Coast AQMD's efforts by completing the following:

- Select instructor and class to host the WHAM program;
- Require that a credentialed classroom teacher remain in the classroom at all times when the South Coast AQMD staff volunteer is present;
- Allow instructor to view the WHAM training video on Kids Making Sense® , for up to six hours, to be completed before the start of the program;
- Upon conclusion of the program, require instructor to complete a written evaluation of the program;
- Upon conclusion of the program, facilitate the return of the Kids Making Sense® Kit to South Coast AQMD; and
- Participate in conference calls with South Coast AQMD and/or South Coast AQMD contractor to assist in the implementation of the WHAM Program at schools within the school district, as requested by South Coast AQMD.

In Case Partnering Schools are affected by COVID-19 restrictions, Partnering School agrees to:

- Participate in live Zoom lecture with a South Coast AQMD staff volunteer to present to your students on air quality.
- Incorporated online resources including lesson plans, PowerPoint presentations and videos to class curriculum.

As consideration for these efforts, South Coast AQMD agrees to:

- Provide one South Coast AQMD staff volunteer to assist in the teaching of one class period per unit at each selected school, not to exceed 10 hours total of classroom time over a period of one academic year;
- Not collect, access or use students' personal data during the course of the WHAM program;
- Provide school instructors with a training video on the WHAM program on Kids Making Sense®;
- Lend each participating school one Kids Making Sense® Kit; and
- Provide the supplies and materials needed to successfully implement the program, as determined by South Coast AQMD.

In Case Partnering Schools are affected by COVID-19 restrictions, South Coast AQMD agrees to:

- Provide live Zoom lecture with a South Coast AQMD staff volunteer to present to your students on air quality.
- Provide online resources including lesson plans, PowerPoint presentations and videos.
- Provide technical support with online resources.

This Agreement may be terminated upon 10-days written notice without cause or penalty, by either party. Upon termination by either party, the Kids Making Sense® Kit should be returned to South Coast AQMD by means agreeable to both parties within 10-days.

As agreement to these terms, Partnering School/School District will complete this form by email it to Monika Kim at [mkim@aqmd.gov](mailto:mkim@aqmd.gov) or by mail to Attn: Monika Kim, South Coast Air Quality Management District, 21865 Copley Drive, Diamond Bar, CA, 91765. Should you have any questions, please contact Monika Kim, Senior Public Information Specialist, at 909-396-2342.

Name: \_\_\_\_\_ Title: \_\_\_\_\_

School: \_\_\_\_\_

Address: \_\_\_\_\_

Telephone: \_\_\_\_\_ Email: \_\_\_\_\_

Signature: \_\_\_\_\_ Date: \_\_\_\_\_



**WHAM**  
Why Healthy Air Matters  
Air Quality Education by South Coast AQMD



# CLASSROOM ETIQUETTE GUIDE



**Questions?**  
**Please Contact:**  
Monika Kim  
Phone: 909-396-2342  
Email: [mkim@aqmd.gov](mailto:mkim@aqmd.gov)





**THANK YOU FOR PARTICIPATING IN THE WHY HEALTHY AIR MATTERS (WHAM) PROGRAM**

## This Guide Will...

Provide tips on how to successfully navigate campuses and classrooms as you begin co-teaching the Kids Making Sense® curriculum. Throughout the program, you will always be accompanied by a classroom teacher who will handle all classroom management and disciplinary activities. Remember: you are representing South Coast AQMD. Your actions are a reflection of the agency.

## Prior to Arriving onto Campus

Be sure to confirm the date, time, class period and lesson plan that will be taking place when you are expected to co-teach.

## Day of Lesson Plan

Arrive early and come prepared by knowing the day's lesson in its entirety. Have all necessary supplies for the activity ready. Always check in with administration at the front office before reporting to the classroom, and wait outside if the previous class has not yet been dismissed.

## Before Beginning the First Lesson

After the classroom teacher introduces you to the class, please provide the students with a brief introduction that includes your purpose for being there, your brief professional background, and your role at South Coast AQMD.

## Quick Tips

Below are a few tips to keep in mind as you directly engage with students at each classroom visit.



### 1. Be Respectful

Always treat the students in each classroom with respect in order to successfully deliver the curriculum in a positive environment.

### 2. Ask, Don't Order

Approach goes a long way. Students will be more willing to participate if they are asked in a polite manner. "Do you want to try solving the problem?" can be more effective than "Tell me the answer."

### 3. Keep Your Cool

Remember that the teacher will handle all classroom management and disciplinary actions, so refer to the teacher if a student misbehaves.

## Do's and Don'ts

- Do recommend that students address you by your last name.
  - Do be friendly, but firm.
  - Do wear your South Coast AQMD shirt.
  - Do follow all school site rules and directives.
  - Do shake hands if a student offers, and **DON'T** hug or touch students in any other fashion.
  - Do ask the teacher if there are adult restroom facilities and avoid student restroom facilities.
  - Do use positive and appropriate language at all times when addressing students.
  - Do educate students on the curriculum and related topics.
  - Do be courteous and respectful toward all school site staff and administration.
  - Do enjoy yourself! Positivity is contagious.
- 
- Do not use profanity under any circumstances.
  - Do not provide students with personal contact information or add them on social media networks.
  - Do not engage in discussion about students' personal information.
  - Do not interject in any student altercations.
  - Do not bring or sell tobacco products, prescription drugs, alcohol, illicit drugs or weapons on campus.
  - Do not harass students, teachers, administrators or other volunteers.



# South Coast Air Quality Management District

21865 Copley Drive, Diamond Bar, CA 91765-4178  
(909) 396-2000 • [www.aqmd.gov](http://www.aqmd.gov)

*Office of the Executive Officer*

*Wayne Nastri*

*909.396.2100, fax 909.396.3340*

Dear Educator:

The South Coast Air Quality Management District (South Coast AQMD) would like to thank you for your participation in the Why Healthy Air Matters (WHAM) Program.

The WHAM program seeks to increase students' awareness and knowledge of air quality issues and empower them to make positive changes in their communities. The program also strives to inspire students' interest in air quality and science.

The South Coast AQMD's mission is to clean the air and protect the health of all residents living in the region. We have a long history of educational outreach to residents through programs and events, all of which have been effective in raising awareness about air quality issues within the region.

Please complete the attached questionnaire and return it to Monika Kim at [mkim@aqmd.gov](mailto:mkim@aqmd.gov) at least 30 days prior to your anticipated program start date or as soon as possible. Once we receive your documents, a staff member will reach out to coordinate next steps.

If you have any questions or concerns, please contact Monika Kim at 909-396-2342 or [mkim@aqmd.gov](mailto:mkim@aqmd.gov).

Thank you again for participating in the WHAM Program.

Sincerely,

A handwritten signature in black ink, appearing to read "Wayne Nastri". The signature is fluid and cursive, with a long horizontal stroke at the end.

Wayne Nastri  
Executive Officer

DJA:MJK-072019

*Cleaning the air that we breathe...*

## Onboarding Questionnaire

Thank you for your participation in the South Coast Air Quality Management District's **Why Healthy Air Matters (WHAM) Program**. The questionnaire below will help us match a South Coast AQMD staff member with your classroom. Please complete and return this form to Monika Kim at [mkim@aqmd.gov](mailto:mkim@aqmd.gov) at least 30 days prior to your anticipated start date or as soon as possible.

---

**Instructor Name:** \_\_\_\_\_

**School:** \_\_\_\_\_

**E-mail Address:** \_\_\_\_\_

**Phone Number:** \_\_\_\_\_

**Which grade(s) and class(es) are participating in the WHAM program?**

\_\_\_\_\_  
\_\_\_\_\_

**Do you have a computer with internet access in your classroom?**      Yes      No

**If you have a computer in your classroom, does the computer have a firewall?**  Yes  No

**Do you have Wi-Fi in your classroom?**      Yes      No

**Do you want a South Coast AQMD staff member to co-teach the curriculum in your classroom?** *Please note that the staff member will be available for one class period per unit only.*      Yes      No

**The WHAM program consists of eight units. Teachers may select the units they wish to teach based on best fit with their classroom objectives and time availability. Please indicate which units you are most likely to teach and the most important aspect of the unit for your classroom (for example: math, chemistry, civic duty, etc.)**

**1. Our Air and Pollution**

This section provides background information on air pollution.

*What aspect of this unit is most important?* \_\_\_\_\_

**2. Particle Pollution**

This section gives students the opportunity to look at particles under a microscope or a hand lens.

*What aspect of this unit is most important?* \_\_\_\_\_

**3. Particle Sources**



This section covers sources of particle pollution and identification of particle sources. Students look at particles under a microscope or a hand lens and identify the sources of the pollution.

*What aspect of this unit is most important?* \_\_\_\_\_

**4. Health Effects of Particles**

This section covers how particles can affect human health. Students measure their FEV1 and FVC ranges to determine their lung capacity.

*What aspect of this unit is most important?* \_\_\_\_\_

**5. Measuring Particles**

This section covers how particles are measured. Students use a vacuum cleaner to collect and measure particles.

*What aspect of this unit is most important?* \_\_\_\_\_

**6. Field Measurements**

This section gives students the opportunity to measure particles using the AirBeam2 monitor.

*What aspect of this unit is most important?* \_\_\_\_\_

**7. Interpret Your Data**

This section covers finding trends in collected data to reach conclusions on how to clean up the air.

*What aspect of this unit is most important?* \_\_\_\_\_

**8. Be Part of the Solution**

This section covers how students can get involved, what they can do to help reduce emissions and how they can effect positive change.

*What aspect of this unit is most important?* \_\_\_\_\_

**When do you expect to teach the WHAM program in your classroom? Over what period of time, and how frequently will you be teaching the WHAM program? (For example: once a week in the month of May.)**

---

---



## Why Healthy Air Matters (WHAM) Program Teacher Survey

*The following questions will ask you about your overall experience with South Coast AQMD's WHAM Program.*

1. How many classes participated in the WHAM Program?
2. How many students participated in the WHAM Program?
3. What grade(s) participated in the WHAM Program?
4. How many units did you teach?
5. Which unit was most beneficial to your students?
6. Which unit was least beneficial to your students?
7. Any additional comments/concerns?

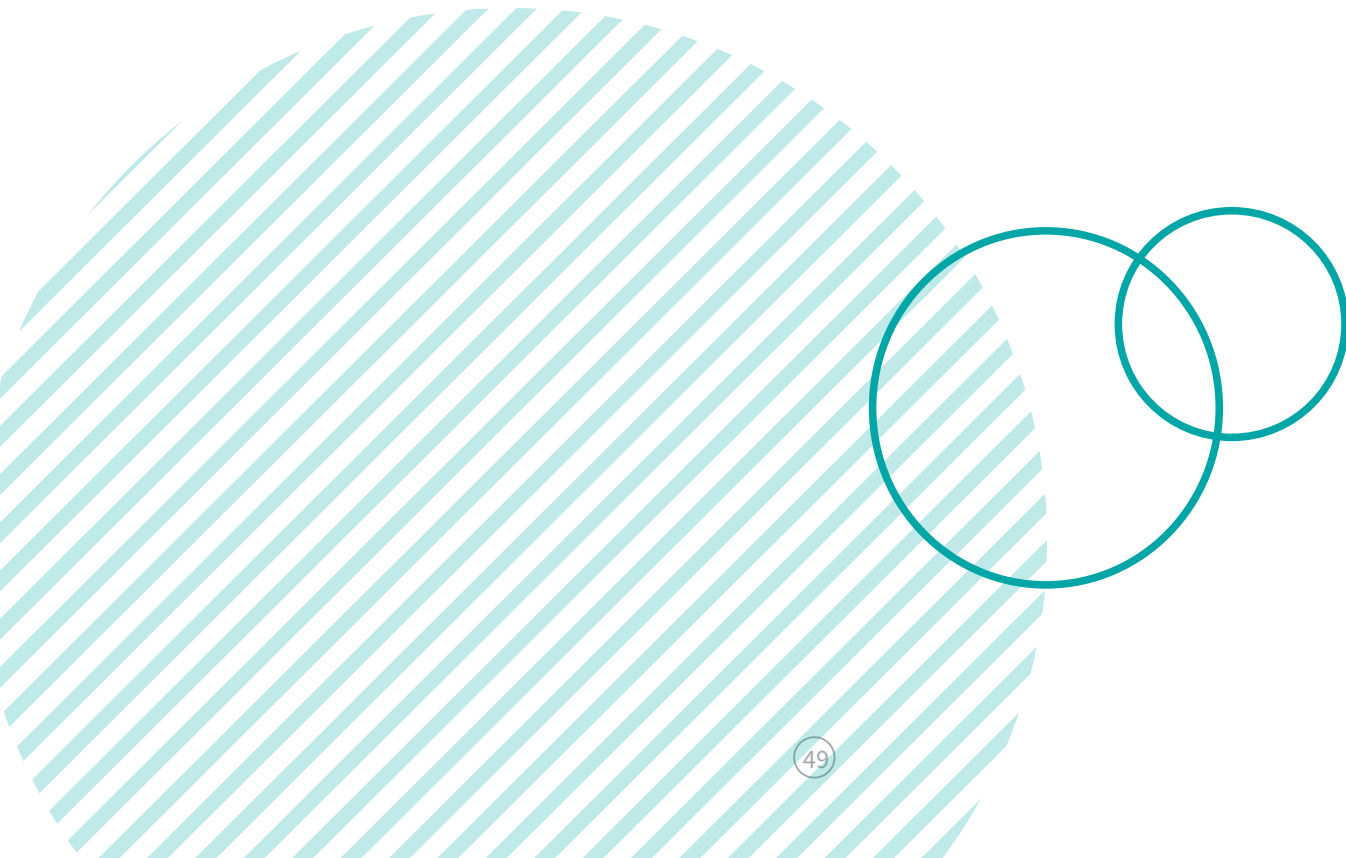
*Please select the number that most closely reflects your opinion on the statements below.*

1 = Strongly Disagree 2 = Disagree 3 = Neutral  
4 = Agree 5 = Strongly Agree 6 = Does not apply/I don't know

8. The WHAM Program meets high school science standards.  
1 2 3 4 5 6
9. The Kids Making Sense® Kits and accompanying tools were functional and reliable.  
1 2 3 4 5 6
10. The coursework was appropriate for my students' grade level.  
1 2 3 4 5 6
11. The program increased my students' awareness of air quality, environmental justice, and/or other related issues.  
1 2 3 4 5 6
12. The program increased my students' awareness of the South Coast AQMD.  
1 2 3 4 5 6
13. I would like to participate in this program again.  
1 2 3 4 5 6

# Attachment 3

TESTIMONIALS

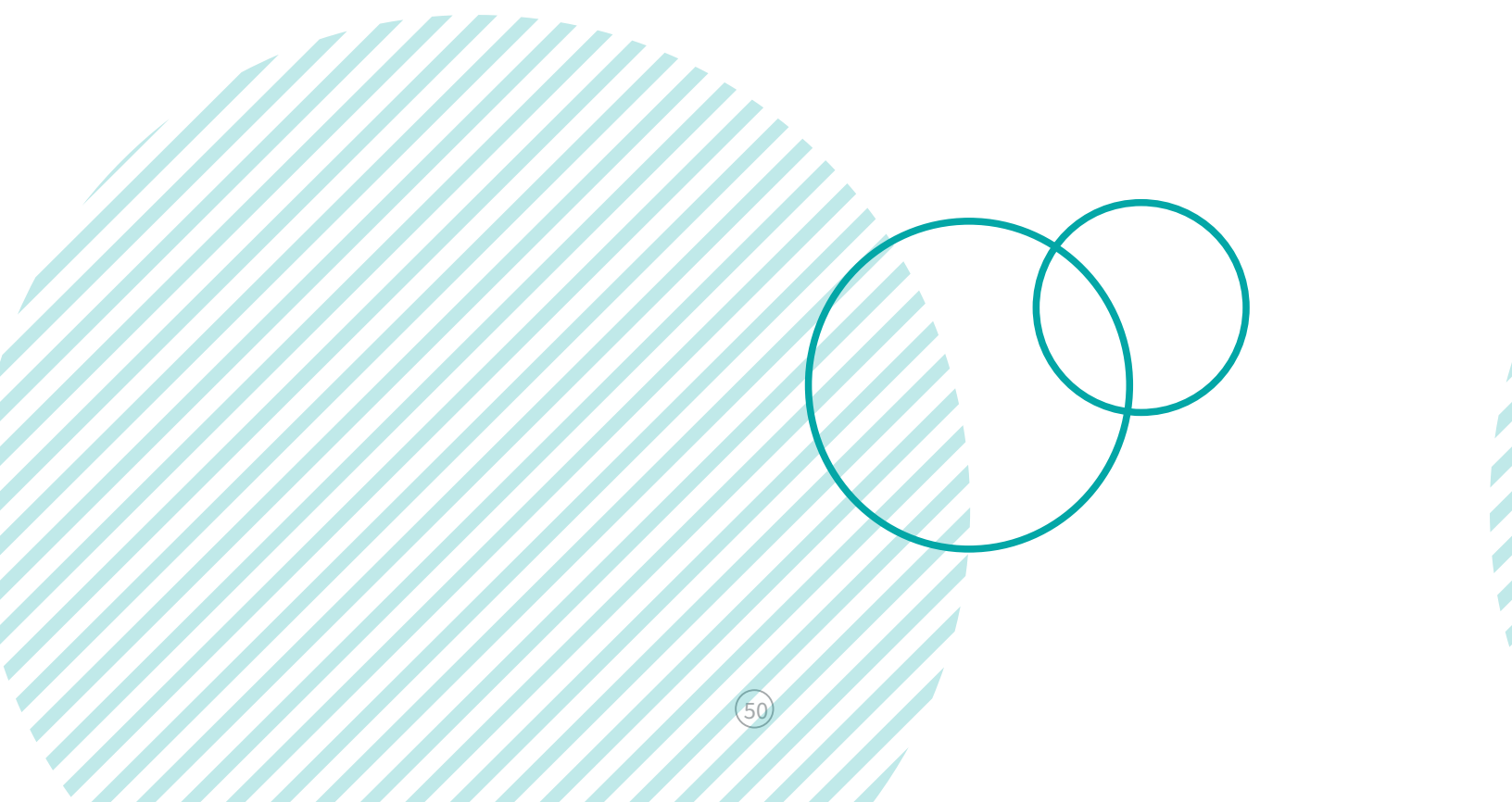


<b><u>Teacher Name</u></b>	<b><u>High School</u></b>	<b><u>Feedback</u></b>
Jennifer Cheng	San Pedro High School	"Hi All, I would like to acknowledge Britney's flexibility[2] and helpfulness today... our class was not able to do the walking activity so Britney just improvised and did what she can do. Our class time was extended as well for 25 minutes, in high school that's forever but she saw it through by opening Q and A about getting into college... am just grateful."
Jomel Villamil	Benjamin Franklin High School	"Ryan has been great to work with and he is awesome with the students. Love the program!"
Kelly Meade	Jordan High School	"The lesson went well, the students were engaged, working, and contributing to the discussion."
Dolores Bravo	South El Monte High School	"The students were happy to have a fresh face at the front of the class."
Andrea Contreras	Manual Arts Senior High	"All was great! Thank you for the experience."
Armando Ponce	Colton High School	"It went great. I really like the program."
Ted Ducey	Redlands East Valley High School	"Very happy with the first lesson."
Vance Thompson	Washington Preparatory High School	"It [the first lesson] went well, looking forward to the rest of the program."
Leo Magallon	STEM Academy of Boyle Heights High School	"Steve has been great so far... He has a connection to neighborhood, so the students appreciate when he brings up local landmarks and places of interest... After session 1,

		students were asking me questions about the workshop, so they were very interested.”
Erin Doherty	Cypress High School	“[The first lesson was] Awesome! She [AQMD volunteer] had great energy and shared specific information which my students didn’t previously know.”

# Attachment 4

## PROJECT TRACKING CHECKLIST





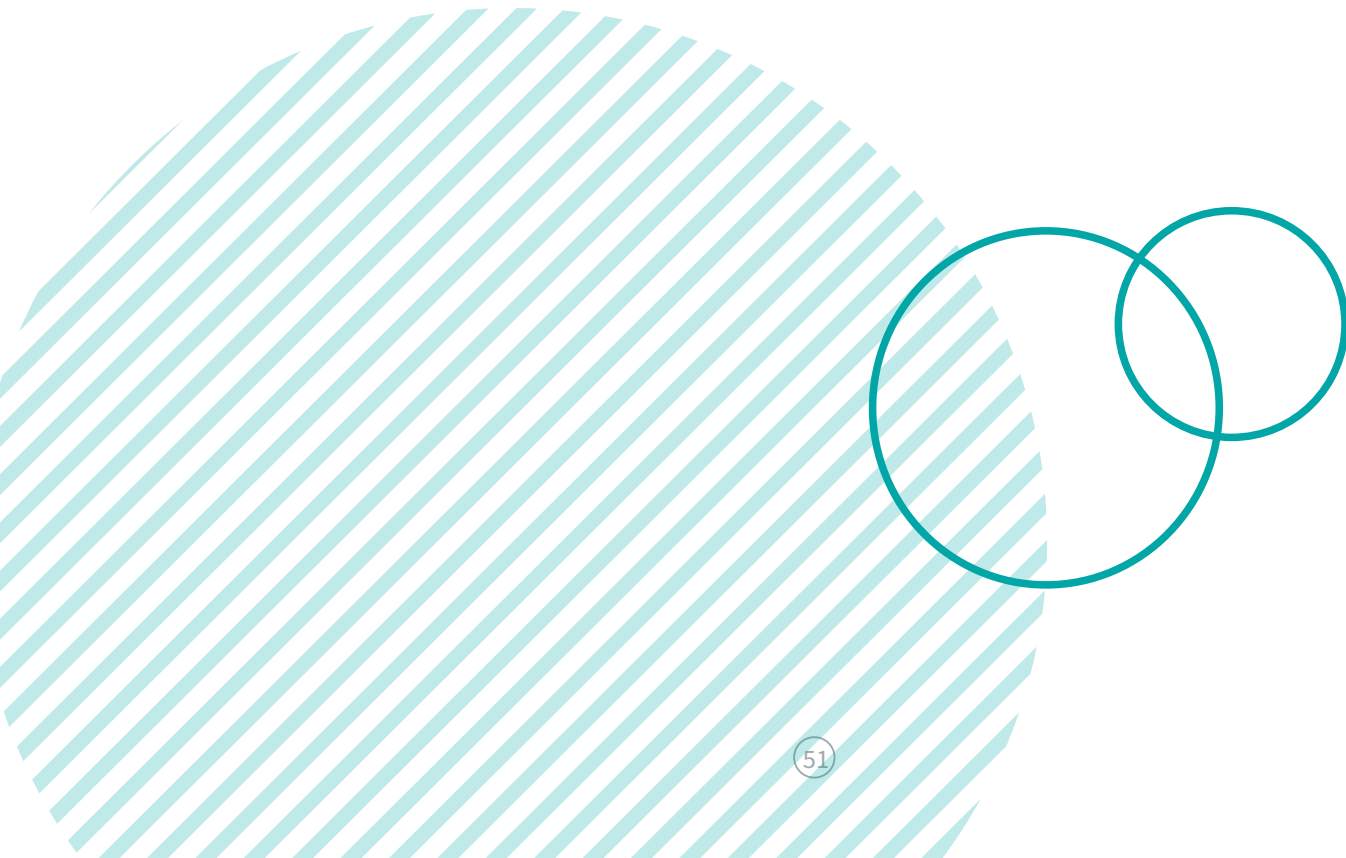
High School Education Program Checklist					
Task	Assigned To	Due By	Completion Date	Completed By	Notes
Develop project tracking system to monitor tasks				AQMD	
Attend Kids Making Sense® training sessions	AQMD/LAG	7/26/2019	7/26/2019	AQMD/LAG	
Develop outreach materials	LAG	Ongoing	4/16/2020	LAG with AQMD approvals	
Develop Program Implementation Plan	LAG	N/A	6/10/2019	LAG	
Confirm approvals to implement program at school sites					
Distribute Kids Making Sense® kits	LAG	Ongoing	3/10/2020	LAG	
Retrieve and inventory kits	LAG/AQMD	Ongoing	TBD		Covid-19 restrictions
Prepare summary and final report of program	LAG	4/30/2020		LAG	

Program Implementation Plan Checklist					
Task	Assigned To	Due By	Completion Date	Completed By	Notes
Develop program description	AQMD	N/A	6/12/2019	AQMD	
Develop program guidelines	AQMD	Ongoing	Ongoing	AQMD	
Conduct research & verify the best approach to working with schools	LAG	Ongoing	6/19/2019	LAG	
Develop recommended strategy	LAG	4/26/2019	6/10/2019	LAG	
Develop specific recommendations on promoting AQMD's air quality message	LAG	4/26/2019	6/10/2019	LAG	
Develop criteria for school identification and selection	LAG	4/26/2019	6/10/2019	LAG	
Create prioritization and target list of schools	LAG	Ongoing	N/A	LAG	Additional schools were added to targeted list throughout the school year
Develop implementation schedule	AQMD	Ongoing	4/10/2020	AQMD	Implementations ceased on 3/10/2020 due to Covid-19
Create system to track all stakeholders contacted	LAG	Ongoing	4/16/2020	LAG	
Create waitlist for schools interested in participating in program	LAG	Ongoing	4/16/2020	LAG	
Create materials to share with nonparticipating schools/schools that want to purchase their own kits	N/A	N/A	N/A	N/A	
Create tracking system for Kids Making Sense® kits	LAG	7/17/2019	7/17/2019	LAG	
Establish system to distribute, collect & replenish materials in Kids Making Sense® kits	N/A	N/A	N/A	N/A	
Create methodology to evaluate program/collect data from school admins, teachers & students	LAG/AQMD	N/A	12/17/2019		

Weekly Tasks					
Task	Assigned To	Due By	Completion Date	Completed By	Notes
Update project tracking system	LAG	Ongoing	4/16/2020	LAG	
Weekly update call	LAG/AQMD	Every Wednesday	Ongoing	LAG/AQMD	
Send AQMD Meeting Minutes after weekly calls	LAG	ay after Wednesday Call		LAG	
Update implementation schedule	AQMD	Ongoing	3/10/2020	AQMD	Implementations ceased on 3/10/2020 due to Covid-19
Inspect, maintain and replenish Kids Making Sense kits®	AQMD	N/A	N/A		LAG stopped retrieving kits due to Covid-19
Update contacted stakeholder list	LAG	Ongoing	Ongoing	N/A	
Update school waitlist	LAG	Ongoing	4/16/2020	LAG	

# Attachment 5

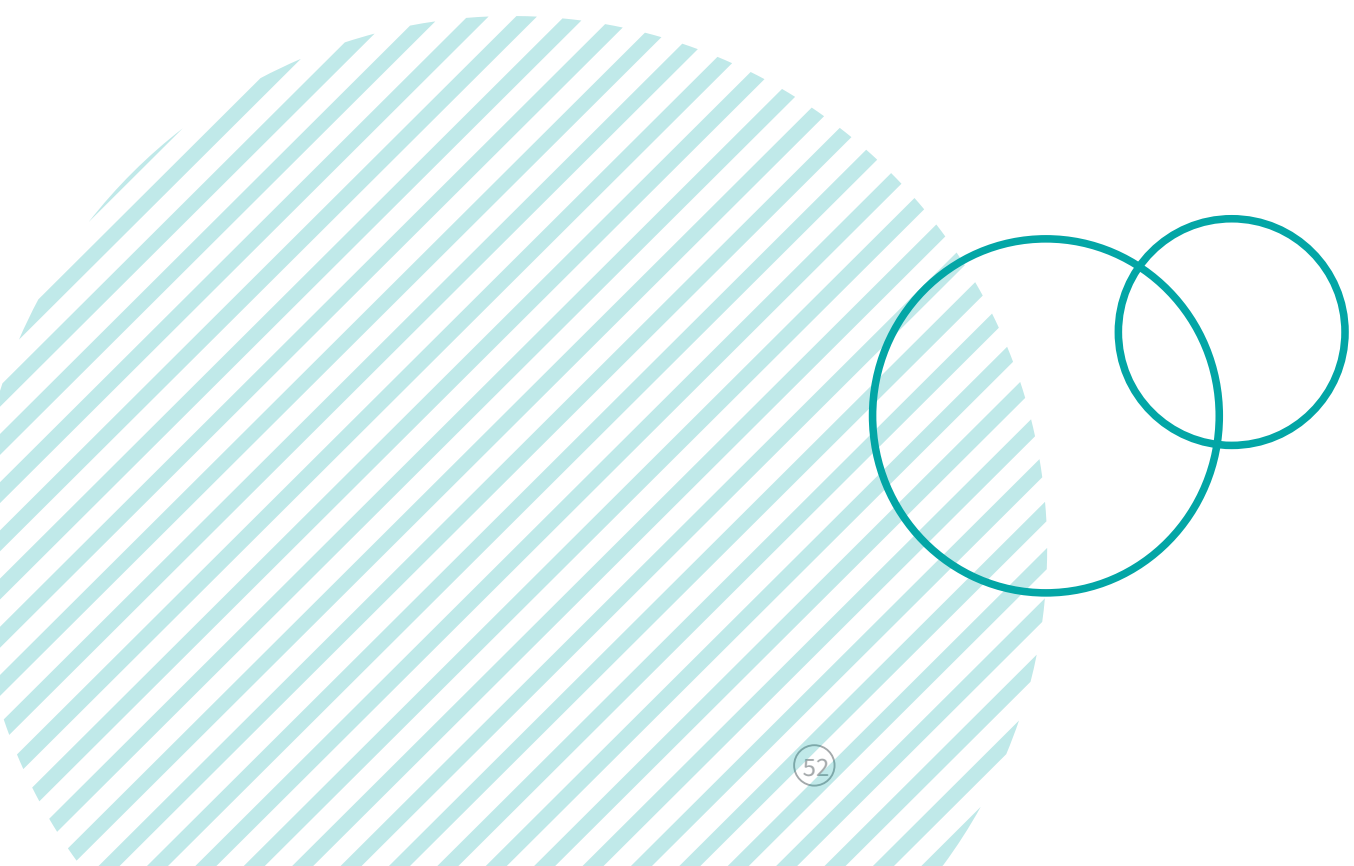
PROGRAM “ACTIVITY DATABASE”



School	County	District	School Address	City	Zip Code	Criteria	Assigned Consultant	Reached Out	Made Contact	Participation (YES, NO or WAITLIST)	Agreement STATUS	Teacher	Onboarding Questionnaire	Desire AQMD Volunteer in Class?	Kit Delivered	Student Workbooks	Assigned AQMD Volunteer	First Implementation	Kit Retrieved	Program Survey Received	Notes
Benjamin Franklin High School	LA	LAUSD	820 N Ave 54, Los Angeles, CA	Los Angeles	90042	2, 4, 6	A. Rodriguez	✓	✓	Yes	Complete	Name: Jemel Villamil Email: jw0362@lausd.net	✓	Yes	#50	Received 10	Ryan Banuelos	10/30/2019	2/14/2020	✓	
Bravo Medical Magnet High School	LA	LAUSD	1417, 1200 Cornwell St, Los Angeles, CA	Los Angeles	90033	1, 2, 3, 4, 5, 6	C. Lee	✓	✓	Yes	Complete	Name: Deidre Ericksen Email: deidre.ericksen@lausd.net	✓	Yes	#27	Received 10					
Carson High School - Environmental Science, Engineering and Technology (ESET) Academy	LA	LAUSD	22328 S Main St, Carson, CA	Carson	90745	1, 2, 3, 4, 5, 6	R. Gonzalez	✓	✓	Yes	Complete	Name: Tammy Bird Phone: 310.707.6277 Email: tbirdbea@lausd.net	✓	Yes	#96	Received 10	Ryan Stromar	2/6/2020			
Cesar E. Chavez Learning Academies-Academy of Scientific Exploration	LA	LAUSD	1001 Arroyo Ave, San Fernando, CA	San Fernando	91340	2, 6	R. Gonzalez	✓	✓	Yes	Complete	Name: Christopher Moon (Previously Melissa Portillo) Email: christopher.moon@explorease.org	✓	Yes	#46	Received 10					
Downtown Magnets High School	LA	LAUSD	1081 W Temple St, Los Angeles, CA	Los Angeles	90012	2, 3, 4, 5, 6	C. Lee	✓	✓	Yes	Complete	Name: Kara Gordon Email: kara.e.montgomery@gmail.com	✓	Yes	#84	Received 10	Monika Kim	1/24/2020			
Edward Roybal Learning Center	LA	LAUSD	1200 Colton St, Los Angeles, CA	Los Angeles	90026	2, 3, 4, 5, 6	R. Gonzalez	✓	✓	Yes	Complete	Name: Kuo-yu Ho Phone: 213.580.6400 Email: kuo-yu.ho@lausd.net	✓	No	#75	Received 10	None				
James Monroe High School	LA	LAUSD	9229 Haskell Ave, North Hills, CA	North Hills	91343	2, 3, 4, 6	R. Gonzalez	✓	✓	Yes	Complete	Name: Lourdes Quevedo (Science Teacher) Email: ljr2340@lausd.net	✓	Yes	#41	Received 10		3/24/2020			
Manual Arts Senior High	LA	LAUSD	4131 S Vermont Ave, Los Angeles, CA	Los Angeles	90037	2, 3, 4, 5, 6	A. Rodriguez	✓	✓	Yes	Complete	Name: Andrea Contreras Phone: 323.846.7301 Email: yogi_1000@yahoo.com or axc9563@lausd.net	✓	Yes	#18	Received 10	None	11/15/2019		✓	
Rancho Dominguez Preparatory School	LA	LAUSD	4110 Santa Fe Ave, Long Beach, CA	Long Beach	90810	1, 2, 3, 4, 5, 6	R. Gonzalez	✓	✓	Yes	Complete	Name: Michelle Moulton Email: michelle.moulton@lausd.net	✓	No	#66	Received 10	None	TBD			
San Pedro High School	LA	LAUSD	1001 W 15th St, San Pedro, CA	San Pedro	90731	2, 3, 4, 5, 6	R. Gonzalez	✓	✓	Yes	Complete	Name: Jennifer Cheng Email: jsc9980@lausd.net	✓	Yes	#39	Received 10	None	10/23/2019			

# Attachment 6

“WHO IS ON CAMPUS” DOCUMENT



	<u>School Site Administrators Back</u>	<u>Teachers Back</u>	<u>First Day of School</u>
Compton USD-	August 8 <sup>th</sup>	August 14 <sup>th</sup>	August 15 <sup>th</sup>
Pomona USD-	Back	August 6 <sup>th</sup>	August 12 <sup>th</sup>
Redlands USD-	Back	August 5 <sup>th</sup>	August 7 <sup>th</sup>
San Bernardino City USD-	Back	Back	August 5 <sup>th</sup>
Colton Joint USD-	Back	Back	August 7 <sup>th</sup>
Moreno Valley USD-	Back	August 12 <sup>th</sup>	August 14 <sup>th</sup>
Corona Norco USD-	Back	August 7 <sup>th</sup>	August 12 <sup>th</sup>
Coachella Valley USD-	Back	August 13 <sup>th</sup>	August 15 <sup>th</sup>
Desert Sands USD-			August 22 <sup>nd</sup>
Riverside USD-	Back	August 8 <sup>th</sup>	August 12 <sup>th</sup>
Garden Grove USD-	August 12 <sup>th</sup>	August 23 <sup>rd</sup>	August 28 <sup>th</sup>
LAUSD-	Back	August 19 <sup>th</sup>	August 20 <sup>th</sup>
Long Beach USD-	August 19 <sup>th</sup>	August 27 <sup>th</sup>	August 28 <sup>th</sup>
Alhambra USD		August 8 <sup>th</sup>	August 9 <sup>th</sup>
Azusa USD	August 19 <sup>th</sup>	August 20 <sup>th</sup>	August 22 <sup>nd</sup>
Baldwin Park USD		August 8 <sup>th</sup> /12 <sup>th</sup> (new/returning)	August 15 <sup>th</sup>
Charter Oak USD			August 15 <sup>th</sup>
School of Arts (Charter)	Back	Back	August 12 <sup>th</sup>
El Monte USD	Back	August 15 <sup>th</sup>	August 20 <sup>th</sup>
West Covina USD	August 14 <sup>th</sup>	August 14 <sup>th</sup>	August 20 <sup>th</sup>
Montebello USD	August 15 <sup>th</sup>	August 15 <sup>th</sup>	August 19 <sup>th</sup>
Bassett USD		August 12 <sup>th</sup>	August 13 <sup>th</sup>
Whittier USD		August 9 <sup>th</sup>	August 12 <sup>th</sup>
St. Mary's (Parochial)			
Pacific Harbor (Parochial)		August 28 <sup>th</sup>	September 4 <sup>th</sup>
Bishop Mora (Parochial)	August 14 <sup>th</sup>	August 14 <sup>th</sup>	August 14 <sup>th</sup>

Cantwell-Sacred Heart (Parochial)	August 9 <sup>th</sup>	August 9 <sup>th</sup>	August 13 <sup>th</sup>
Garden Grove USD		August 26 <sup>th</sup>	August 28 <sup>th</sup>
Placentia – Yorba Linda USD			August 27 <sup>th</sup>
Tustin USD	Back	August 12 <sup>th</sup>	August 13 <sup>th</sup>
Adv. Learning (Charter – Santa Ana USD)	August 7 <sup>th</sup>	August 7 <sup>th</sup>	August 12 <sup>th</sup>
Nova Academy (Charter)	August 7 <sup>th</sup>	August 7 <sup>th</sup>	August 7 <sup>th</sup>
Magnolia Science Academy (Charter)			August 20 <sup>th</sup>
Beaumont USD	August 7 <sup>th</sup>	August 7 <sup>th</sup>	August 7 <sup>th</sup>
Santa Ana USD	Back	Back	August 12 <sup>th</sup>
Fullerton Joint Union HSD	Back	Back	August 12 <sup>th</sup>
Anaheim Union HSD	Back	Back	August 08 <sup>th</sup>
Alliance Morgan McKinzie	Back	Back	August 12 <sup>th</sup>
Alliance Alice M. Baxter	Back	Back	August 12 <sup>th</sup>



# Year 1 Report

2019-2020



700 S. Flower Street, Suite  
1275, Los Angeles, CA 90017



213-891-2965



[info@leeandrewsgroup.com](mailto:info@leeandrewsgroup.com)

### Schools with Signed WHAM Agreements 2019-20

School Name	County	Implemented During 2019-20 School Year	Did Not Implement During 2019-20 Due to COVID-19
Arroyo High School	Los Angeles	X	
Beaumont High School	Riverside	X	
Bell Gardens High School	Los Angeles	X	
Benjamin Franklin High School	Los Angeles	X	
Boyle Heights STEM High	Los Angeles	X	
Buena Park High School	Orange County	X	
Cabrillo High School	Los Angeles	X	
Carson High School - Environmental Science, Engineering and Technology (ESET) Academy	Los Angeles	X	
Citrus Hill High	Riverside	X	
Citrus Valley High School	San Bernardino	X	
Coachella Valley High School	Riverside	X	
Colton High School	San Bernardino	X	
Cypress High School	Orange County	X	
Desert Mirage High School	Riverside	X	
Downtown Business Magnet	Los Angeles	X	
Edgewood High School	Los Angeles	X	
Ganesha High School	Los Angeles	X	
Helen Bernstein High School	Los Angeles	X	
James A. Garfield High School	Los Angeles	X	
Jordan High School	Los Angeles	X	
Kennedy High School	Orange County	X	
Manual Arts Senior High	Los Angeles	X	
Montebello High School	Los Angeles	X	
Paramount High (West/Senior) Campus	Los Angeles	X	
Pomona High School	Los Angeles	X	
Redlands East Valley High School	San Bernardino	X	
Roosevelt High School - Math, Science, and Technology Magnet	Los Angeles	X	
Ruben S. Ayala High	San Bernardino	X	
San Pedro High School	Los Angeles	X	

### Schools with Signed WHAM Agreements 2019-20

School Name	County	Implemented During 2019-20 School Year	Did Not Implement During 2019-20 Due to COVID-19
Science Academy STEM Magnet	Los Angeles	X	
South El Monte High School	Los Angeles	X	
St. John Bosco	Los Angeles	X	
Washington Preparatory High School	Los Angeles	X	
A.B. Miller High School	San Bernardino		X
Alliance Alice M. Baxter College-Ready High School	Los Angeles		X
Alliance Morgan McKinzie High School	Los Angeles		X
Alta Loma High School	San Bernardino		X
Applied Technology Center (ATC)	Los Angeles		X
Arroyo Valley High School	San Bernardino		X
Baldwin Park High School	Los Angeles		X
Banning High School	Riverside		X
Bravo Medical Magnet High School	Los Angeles		X
Cajon High School	San Bernardino		X
California High School	Los Angeles		X
Centennial High School	Los Angeles		X
Centennial High School	Riverside		X
Cesar E. Chavez Learning Academies- Academy of Scientific Exploration	Los Angeles		X
Chino High School	San Bernardino		X
Chino Hills High	San Bernardino		X
Compton High School	Los Angeles		X
Corona High School	Riverside		X
Dominguez High School	Los Angeles		X
Don Antonio Lugo High	San Bernardino		X
Edward Roybal Learning Center	Los Angeles		X
El Monte High School	Los Angeles		X
Eleanor Roosevelt High School	Riverside		X
Fontana High School	San Bernardino		X
Garden Grove High School	Orange County		X

### Schools with Signed WHAM Agreements 2019-20

School Name	County	Implemented During 2019-20 School Year	Did Not Implement During 2019-20 Due to COVID-19
Garey High School	Los Angeles		X
Godinez Fundamental High School	Orange County		X
Henry J. Kaiser High School	San Bernardino		X
Hilda L. Solis Learning Academy	Los Angeles		X
Indian Springs High School	San Bernardino		X
Indio High School	Riverside		X
James Monroe High School	Los Angeles		X
John F. Kennedy Middle College High School	Riverside		X
Jurupa Hills High School	San Bernardino		X
Katella High School	Orange County		X
Loara High School	Orange County		X
Lorin Griset Academy	Orange County		X
Magnolia High School	Orange County		X
Montclair High School	San Bernardino		X
Mountain View High School	Los Angeles		X
Norco High School	Riverside		X
Ontario High School	San Bernardino		X
Orange Vista High School	Riverside		X
Pacific High School	San Bernardino		X
Palomares Academy of Health Sciences	Los Angeles		X
Phineas Banning High School	Los Angeles		X
Rancho Alamitos High School	Orange County		X
Rancho Cucamonga High School	San Bernardino		X
Rancho Dominguez Preparatory School	Los Angeles		X
Rancho Verde High School	Riverside		X
Redlands High School	San Bernardino		X
Rosemead High School	Los Angeles		X
San Bernardino High School	San Bernardino		X
San Geronio High School	San Bernardino		X
Santa Fe High School	Los Angeles		X
Santiago High School	Orange County		X

**Schools with Signed WHAM Agreements 2019-20**

<b>School Name</b>	<b>County</b>	<b>Implemented During 2019-20 School Year</b>	<b>Did Not Implement During 2019-20 Due to COVID-19</b>
Santiago High School	Riverside		<b>X</b>
Savanna High School	Orange County		<b>X</b>
Schurr High School	Los Angeles		<b>X</b>
Segerstrom High School	Orange County		<b>X</b>
Servite High School	Orange County		<b>X</b>
Sierra Vista High School	Los Angeles		<b>X</b>
South East Senior HS	Los Angeles		<b>X</b>
Summit High School	San Bernardino		<b>X</b>
The School of Arts and Enterprise	Los Angeles		<b>X</b>
Upland High School	San Bernardino		<b>X</b>
Valley High School	Orange County		<b>X</b>