


Agenda Date: December 20, 2018
Agenda Placement: Regular
Estimated Time: 10 minutes
Continued Item: No

Board Agenda Item

TO: Air Pollution Control District Board

FROM: Aeron Arlin Genet, Air Pollution Control Officer 

CONTACT: Lyz Hoffman, Public Information Officer (961-8819)

SUBJECT: Low-Cost Air Sensors for Community Partners

RECOMMENDATION:

That the Board:

1. Approve the attached "Low-Cost Air Quality Sensor Agreement" to loan low-cost air sensors (e.g., PurpleAir sensors) to community partners;
2. Delegate authority to the Control Officer to enter into said agreements; and
3. Authorize the Control Officer to update the Board-approved agreement from time to time to implement requirements and policies identified by District Counsel, Risk Management, and the Auditor that do not require Board approval.

BACKGROUND:

Low-cost portable air quality sensors have become a popular tool for community members across the country to understand their localized, neighborhood-specific air quality conditions. These sensors provide additional information to the regional conditions monitored by the District's more sophisticated and expensive air quality monitoring network. Prior presentations to your Board regarding these sensors involved educational partnership projects we have with local classrooms.

One of the more popular low-cost sensors is made by the company PurpleAir. The PurpleAir brand sensors cost approximately \$200 each. Their sensor has demonstrated good accuracy in lab tests. An advantage of the PurpleAir sensors is the ability to show real-time conditions on their

web-based mapping tool. Monitored conditions are conveyed using EPA's Air Quality Index rating and color system. The District has co-located several PurpleAir sensors with its monitoring stations in Santa Barbara County. In addition, many community members throughout the county have installed their own PurpleAir sensors to show localized air quality conditions where they live.

While the sensors may provide informative data, the sensors do not meet federal, state, or local regulatory requirements for air quality monitoring, air quality warnings, or enforcement. Therefore, the District does not intend to use any sensor data for any enforcement or regulatory purposes.

DISCUSSION:

Low-cost sensors are increasing in popularity as a way to supplement existing air quality monitoring networks. The District would like the ability to loan out its own low-cost sensors, as well as develop guidelines and instructions for the installation, operation, and maintenance of the low-cost sensors to community partners interested in installing the devices to better understand the air quality in their immediate area. The District would also share information via our website and printed materials regarding best practices for understanding and interpreting data recorded by the low-cost sensors.

The recommended action will allow the Air Pollution Control Officer to enter into agreements with community members and interested parties who wish to borrow a District-owned sensor. The agreement will outline operational expectations for the community partner and District to ensure that the device best serves the region. A proposed model agreement is set forth in Attachment A.

FISCAL IMPACT:

The District owns several low-cost sensors, many of which are currently being used for local classroom projects. The District also received 15 low-cost sensors from California Air Resources Board for installation in areas affected by wildfire. To ensure that the District has enough sensors available for various potentially interested community partners, the District will purchase additional units at an amount not to exceed \$5,000. Funds for this purchase were included in the Fiscal Year 2018-19 budget approved by your Board at the June 21, 2018 meeting.

ATTACHMENT:

- A. Agreement for Low-Cost Air Quality Sensor

Agreement for Low-Cost Air Quality Sensor

☐ Loaning DISTRICT-owned sensor(s) ☐ Technical guidance from DISTRICT

This Agreement is between the Santa Barbara County Air Pollution Control District (DISTRICT) and _____ (COMMUNITY PARTNER) and is effective from the date of full execution by both parties.

AGREEMENT

WHEREBY, THE PARTIES AGREE AS FOLLOWS:

1. The term of this Agreement shall be six (6) months from the effective date. If requested by COMMUNITY PARTNER, the Air Pollution Control Officer may extend the term of the Agreement by six (6) months. COMMUNITY PARTNER may request and Air Pollution Control Officer may approve additional such extensions.
2. DISTRICT agrees to provide [#]___ air quality sensor(s) ("SENSOR") to COMMUNITY PARTNER. COMMUNITY PARTNER shall install the SENSOR on COMMUNITY PARTNER'S property at a DISTRICT-approved mounting location.
3. COMMUNITY PARTNER agrees to the following:
 - a. Provide 110 AC outlet (or power) within 15 feet of the mounting location of the SENSOR(s);
 - b. Provide WiFi internet access for the SENSOR;
 - c. Take reasonable efforts to maintain and monitor the site to make sure that the location remains conducive to operating conditions;
 - d. To not alter, modify, or tamper with the SENSOR(s) or use the SENSOR(s) for any unauthorized purpose;
 - e. Provide a contact person and phone number for issues regarding the SENSOR(s);
 - f. Allow DISTRICT staff to take photographs of installed SENSOR(s); and
 - g. Provide reasonable access to DISTRICT staff to the mounting location for installation and routine maintenance and inspection of the SENSOR(s).

4. COMMUNITY PARTNER acknowledges that the SENSOR does not meet federal, state, or local regulatory requirements for air quality monitoring, air quality warnings, or enforcement and that DISTRICT will not use any SENSOR data for any enforcement or regulatory purposes. Learn more about understanding and interpreting data from low-cost air quality sensors: www.ourair.org/sensors.
5. Both parties acknowledge that the location of the SENSOR and its data will be public and the data will be published on the internet. The name of SENSOR, as visible on the PurpleAir online map, will include the term "APCD Info."
6. As consideration for receipt of this loaned equipment and technical assistance, COMMUNITY PARTNER agrees to waive any and all claims for damage to its personal or real property and/or damage to the equipment or injury to your organization's personnel. COMMUNITY PARTNER also agrees to hold DISTRICT harmless from any and all liability, claims or expenses whatsoever arising from the transportation, use or storage or said equipment, including injury to third persons. COMMUNITY PARTNER accepts the loaned equipment "as is" and assumes all responsibility for facilitating the return of the loaned property to DISTRICT at the end of the Agreement.
7. In the event that SENSOR provided by DISTRICT is lost or stolen, COMMUNITY PARTNER agrees to reimburse DISTRICT for the SENSOR (up to a maximum of \$100). In the event that SENSOR is damaged by extreme weather or other "acts of God," COMMUNITY PARTNER will not be liable for reimbursement.
8. This Agreement may be terminated by either party at any time by providing written notice of termination. Such notice shall, as appropriate, be sent to the address and/or e-mail below. Either party may update the contact information by providing written notice to the other party, which shall be done within five (5) business days of the change.

COMMUNITY PARTNER

Email: _____
Phone: _____

DISTRICT

Santa Barbara County Air Pollution Control District
260 N. San Antonio Road Suite A
Santa Barbara, CA 93110
Attn: _____

Email: _____
Phone: (805) 961-8800

Notice of termination shall be deemed received five (5) days after mailing with the U.S. Post Office. Once notice of termination has become effective, DISTRICT will remove the SENSOR from COMMUNITY PARTNER'S location within ____ days.

Date: _____

(Signature)

(Print Name)

APPROVED:

Santa Barbara County Air Pollution Control District

AERON ARLIN GENET,
CONTROL OFFICER

Date: _____

By: _____
(Title: _____)