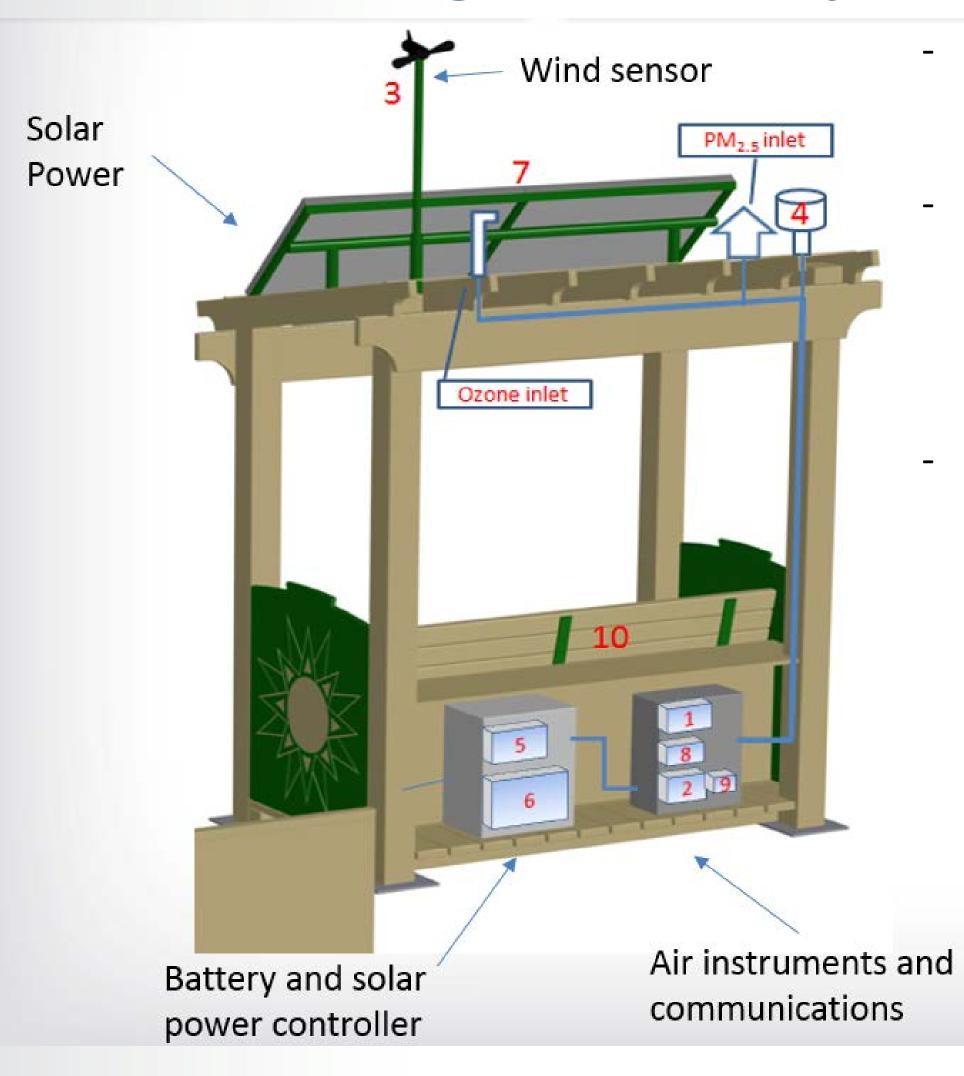


# Village Green Project in Kansas City, KS

#### **Project Vision:**

To develop a non-regulatory air monitoring system that would support measurements in more locations and increase engagement with community members.

## How the Village Green Project station works:

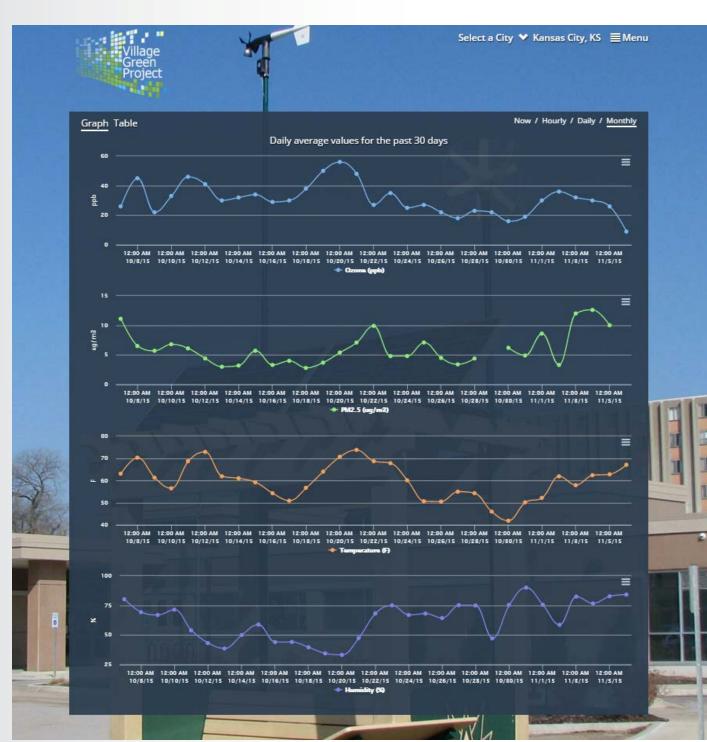


- Primarily solar-powered, with supplemental wind power.
- Uses research-grade technologies to measure ozone, PM<sub>2,5</sub>, wind speed and direction, temperature and humidity.
- Values are transmitted every minute, quality-checked, and made public on the data website.



# AirNow – VGP website for data exploration

Village Green bench in Kansas City: Daily means for the past month



Data website: www.airnow.gov/villagegreen

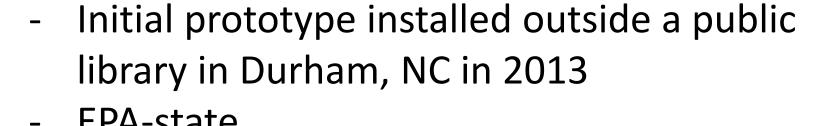
Includes:

1 minute, hourly, daily average data



#### **VGP** stations in United States





- EPA-state
- Kansas City, KS; Philadelphia, PA; and Washington, DC stations were installed in March, 2015.
- Oklahoma City, OK station was installed in September, 2015.
- Upcoming stations: Hartford, CT (November, 2015), Chicago, IL (spring, 2016), and Houston, TX (fall, 2016).

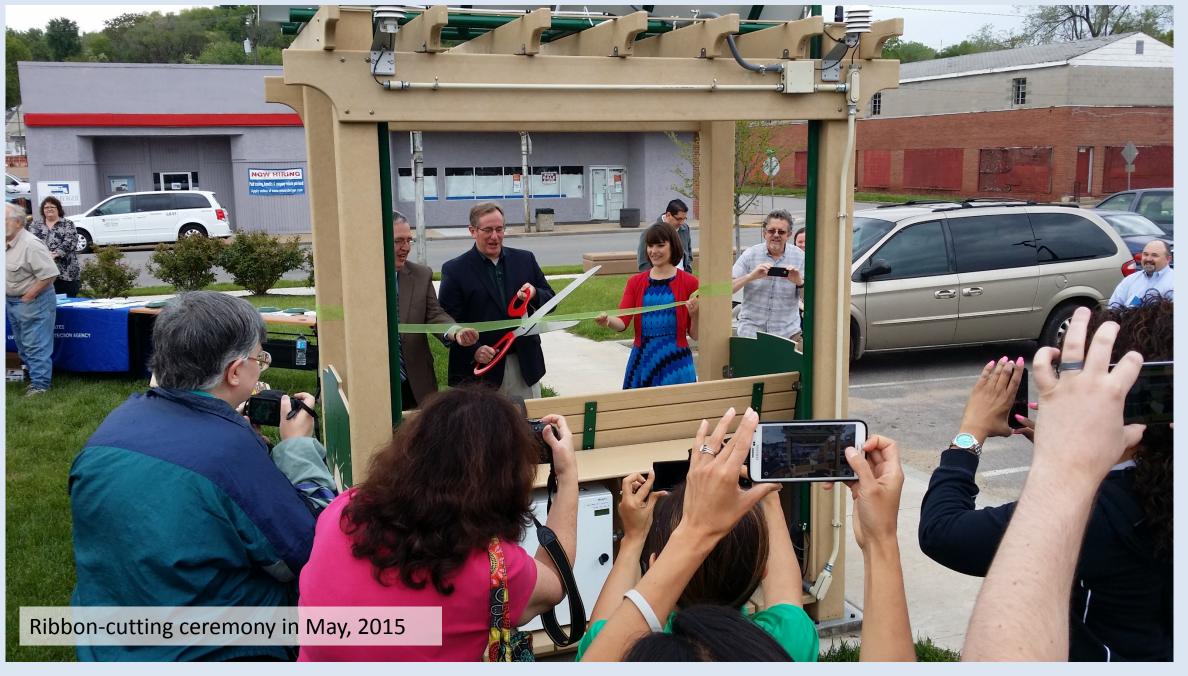






### Kansas City Village Green station









Station is located outside of a public library in the Kansas City Argentine Community, in Wyandotte County.. The location was selected through a partnership with the Kansas Department of Health and the Environment and USD #500.



# Ribbon-cutting ceremony and community fair

The official kick-off and ribbon cutting ceremony for the Kansas Village Green monitoring station was a great success with an "All Things Air – Community Fair". Participants included the Acting EPA Region 7 Administrator, KDHE's Director of Environment and a local county commissioner. Adults and kids alike from the local community enjoyed visiting booths and receiving information about radon, idling reduction, library resources and air quality kid's activities.

# Station performance metrics

First quarter (April 1 – June 30, 2015)

Data completeness: ranged from 89.9% (PM<sub>2.5</sub>) to 91.5% (wind speed and direction) - quality assurance target is >75%

Maintenance measures: quarterly on-site quality check by operator, replacement of microprocessor (primary cause of <100% completeness)

Qualitative scoring given by KDHE team on project: (1= very unsatisfied, 5=very satisfied)

Time-involved maintaining system: 5 Community outreach supported by system: 5 Public data display (website, sign): 5

- Second quarter (July 1 – September 30, 2015)

Data completeness ranged from 93.5% (PM<sub>2.5</sub>) to 100% (temperature/humidity) - quality assurance target is >75%

Maintenance measures: quarterly on-site quality check by operator, adjustment of wind sensor orientation. Main cause for <100% data completeness for PM<sub>2.5</sub> was very high summer heat conditions causing temporary operation error.

Qualitative scoring given by KDHE team on project: (1= very unsatisfied, 5=very satisfied)

Time-involved maintaining system: 5 Community outreach supported by system: 5 Public data display (website, sign): 5

#### What is next?

- Completion of pilot-testing year (through March, 2015) and documenting station performance through quarterly reports.
- Planning discussions are ongoing between EPA and KDHE on future plans past the end of the pilot-testing year.

**Project Team:** 

VGP-Kansas City team includes Doug Watson, Kathleen Waters, Jayson Prentice (KDHE), Rollin Sachs (Wyandotte County), and Mike Davis (EPA Region 7). EPA contributors to the Village Green Project station development and pilot expansion include Esteban Herrera, Kristen Benedict, Ron Evans, Ron Williams, Gayle Hagler, John White, Lewis Weinstock, Michael Papp, Phil Dickerson, Brad Johns, Ann Brown, Bill Mitchell, Scott Moore, and Kelly Witter.