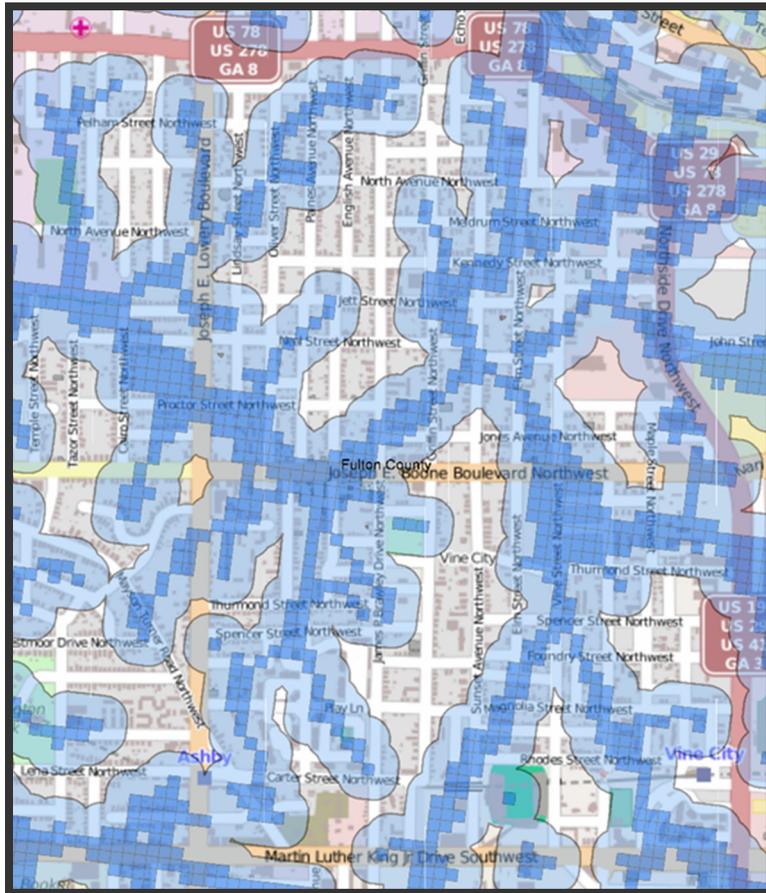


How were survey participants chosen?

- The overall study area is shown in the map below.
- We were interested in areas in the English Avenue and Vine City neighborhoods, and a few nearby areas, that tend to be “wet” areas (as defined by the Environmental Protection Agency’s Wetness Index) as well as areas that are within 200 feet of “wet” areas (called the “buffer zone”). These areas are shown as blue shaded areas on the map below.
- We made a list of all residences that were located in “wet” areas or the “buffer zone” and that were not clearly vacant.
- We *randomly selected* 507 of those residences (like drawing them out of a hat), and asked people in those residences to participate in the survey.



Map credits: Street map from © OpenStreetMap contributors, wetness index map from the Environmental Protection Agency.

This health survey was funded by HERCULES. HERCULES is funded by the National Institute of Environmental Health Sciences (P30ES019776).

What comes next?

- We will determine next steps in collaboration with community members and organizations that serve the community.
- **We want to hear from you.** We will hold a meeting on December 4, 2014, 6:30 PM-9:00 PM at Higher Ground Empowerment Center, 561 Spencer Street N.W., Atlanta, GA 30314. Please come and let us know what you think.

Why is mold a problem?

- Mold has been found to be associated with developing asthma and worsening asthma in people who already have it. Mold is also associated with respiratory symptoms and infections, eczema and more serious health effects in susceptible people.

What can I do about mold?

- You can prevent mold by keeping humidity low (such as by running your air conditioner), repairing leaks, using fans in the bathroom and kitchen, and drying water damaged areas within 24-48 hours.
- Mold is related to moisture. If mold is present, first, fix leaks and other sources of moisture. If moisture problems are not fixed, mold will come back.
- See the attached brochures about how to clean up mold (information is also available at the web sites listed below).
- There are no current standards relating to mold in homes.

Where can I find more information?

- Some helpful web sites about mold are:
<http://www.epa.gov/mold/moldguide.html> and
<http://spock.fcs.uga.edu/ext/housing/mold.php>
- In addition to controlling mold, other ways of keeping indoor air clean are also important, such as not allowing smoking in the home. A helpful web site about overall indoor air quality is:
<http://www.epa.gov/iaq/pdfs/careforyourair.pdf>

Who can I contact for more information about the survey?

- Dr. Andrea Winquist, Emory University, awinqui@emory.edu
- Dr. Yomi Noibi, Environmental Community Action, Inc. (ECO-Action), asnoibi@gmail.com



PROCTOR CREEK COMMUNITY COLLABORATIVE HEALTH SURVEY

Why was the survey done?

- The English Avenue and Vine City neighborhoods, and nearby neighborhoods in the Proctor Creek watershed have historically experienced frequent flooding.
- Flooding can lead to growth of mold, and mold can lead to health problems.
- Proctor Creek water has been found to have evidence of fecal contamination.
- These issues have led to community concerns that Proctor Creek and its flooding may be a problem for the health of area residents.

What was the purpose of the survey?

- The survey was done to obtain basic information about how commonly various indoor conditions and health conditions are experienced in these neighborhoods.
- We were particularly interested in indoor conditions and health conditions that can be related to dampness, flooding and/or mold.

Who conducted the survey?

- The survey was a collaborative effort of Emory University and ECO-Action with input from partners, including the West Atlanta Watershed Alliance, the Proctor Creek Stewardship Council, the Community Improvement Association, and many other local, state and federal organizations.
- The survey was administered by two (2) teams made up of one student and one community resident.

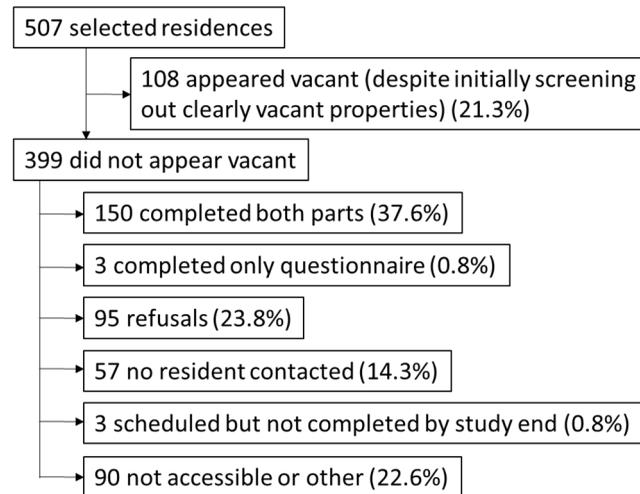
How was the community engaged?

- Community-based organizations (West Atlanta Watershed Alliance, Proctor Creek Stewardship Council, and Community Improvement Association) were involved.
- Community residents reviewed and commented on the survey before we collected the data.
- Community residents performed the data collection, in collaboration with Emory University students.
- The community will be involved in planning next steps.

How was the survey done?

- The survey data were collected in person by teams consisting of one community resident and one student.
- The survey had two parts:
 - A questionnaire asking about the participant, their indoor environment, and their health
 - Environmental observation inside the home including observation of areas of water damage or mold and collection of a sample of dust to test for mold.

How many people participated?



	Number	Percentage
Female	89	58%
Male	64	42%
Renter	113	76%
Owner	36	24%
Individual House	81	53%
Apartment/Condo	54	35%
Duplex	5	3%
Townhouse	13	8%
	Median	Range
Respondent age (yrs)	47	21-88
Duration at residence (yrs)	2.5	<1-84
# of people in residence	2	1-12

What were the survey findings?

MOLD

- Mold was observed in more than half (53%) of residences, if we include mold in bathrooms around the caulk and on the shower curtain.
- If we do **not** include mold that was only in the bathroom around caulk or on the shower curtain, mold was observed in more than one out of every 3 residences (35%).
- Many people did not know that they had mold in their home. Residents reported being aware of the mold in less than half (47%) of residences in which mold was observed in places other than in the bathroom around caulk or on the shower curtain.
- *Comparisons:*
 - 1.5% of homes included in the American Healthy Homes Survey¹ had visible mold in the living room or bedroom.
 - 15.2% of homes included in a survey of low income housing in Boston² had mold observed in the residence on inspection.

OTHER INDOOR ENVIRONMENTAL CONDITIONS

- **Smoking inside the residence** by at least one person who regularly stays there (at least one night per week) was reported for 39% of residences.
- **Known flooding of the residence** (while the participant lived there or before they lived there) was reported by 3 out of every 20 participants (15%).
- **Known leaks** from plumbing or rain water were reported by 46% of participants.
- **Water stains** were observed in 43% of residences.
- **Musty or moldy odors** were observed in nearly one out of every 3 residences (32%), and were either observed or reported to be at least sometimes present in just over half of residences (51%).
- *Comparison:* 6.3% of homes included in the American Healthy Homes Survey¹ had a musty odor observed.
- **Cockroaches** were reported (at least sometimes present) by just over half of participants (52%).
- **Mice or rats** were reported (at least sometimes present) by 29% of participants.
- **Air conditioning** was reported to be present and used on most days during the summer in 64% of residences and present but not used on most summer days in 18% of residences; 18% reported not having air conditioning.

References:

1. Vesper S, McKinstry C, Cox D, Dewalt G. Correlation between ERMI values and other moisture and mold assessments of homes in the American Healthy Homes Survey. *Journal of Urban Health- Bulletin of the New York Academy of Medicine* 2009;86:850-860.
2. Adamkiewicz G, Spengler JD, Harley AE, Stoddard A, Yang M, Alvarez-Reeves M, Sorenson G. Environmental conditions in low-income urban housing: clustering and associations with self-reported health. *Am J Public Health* 2014;104:1650-1656.
3. Behavioral Risk Factor Surveillance System Prevalence Data. Available at <http://apps.nccd.cdc.gov/brfss/>.

HOW PEOPLE FEEL ABOUT THEIR RESIDENCES

- **Satisfaction with environmental conditions in the residence:** 41% very satisfied, 35% somewhat satisfied, 16% somewhat dissatisfied, and 8% very dissatisfied.
- **Want to move to a residence with better environmental conditions:** 36% definitely not, 16% not sure or possibly, 49% definitely yes. A common reason for wanting to move was pests (including roaches, rats, mice, spiders, ants, bedbugs, and mosquitoes).

HEALTH CONDITIONS

- Participants were asked about the number of times each week that they had the following symptoms, during the past month. The responses were as follows:

	Never	Less than 1	1-2	3-4	5 or more
Runny Nose	62%	11%	13%	5%	11%
Sinus Congestion	70%	8%	9%	2%	11%
Cough (day)	78%	6%	5%	5%	7%
Cough (night)	68%	7%	8%	5%	11%

- Participants with mold observed in their homes overall reported more coughing at night than those without mold.
- 14% of participants reported currently having asthma.
- *Comparison:* 7.8% of people who participated in the 2010 Georgia Behavioral Risk Factor Surveillance System Survey reported current asthma (representative of Georgia overall).³
- 24% reported currently having allergies.
- 6% reported having chronic obstructive pulmonary disease (COPD).
- 4% reported currently having eczema (a skin condition).
- 32% of people with current asthma lived in a home with observed mold (excluding mold only in bathroom around caulk or on the shower curtain), which is similar to the overall percentage with observed mold.

DUST SAMPLE TESTING

- The Environmental Relative Moldiness Index (ERMI) is a measure of water-damage-related mold in homes used in research (not for testing individual homes). Homes with mold have been found to have higher ERMI values.¹
- The median ERMI value in our study was 10.88, with values ranging from -1.85 to 32.02.
- 83% of homes had ERMI values greater than 5.
- *Comparison:* In the American Healthy Homes Survey, the median ERMI value was 0 and 25% of homes had values greater than 5.¹