

NATIONAL DAY of CIVIC HACKING

**CREATING SOLUTIONS FOR
REAL PEOPLE BY COMBINING
PERSONAL AND CIVIC DATA**

PRESENTED BY



Becky Hobbs

Focus: Allergy management. Air quality assessment



QUICK PORTLAND DEMOGRAPHICS

Portland City Data

Median House Income: \$50,203

Average age: 35.8

Average rain fall: 37.2in

Becky moved to Portland 2 years ago to take advantage of the outdoor lifestyle. Becky suffers from asthma and choose Portland to escape the pollution of larger cities. Becky loves hiking, running, biking and takes every opportunity to spend time out doors. Portland is located in a valley between the the Pacific coast and the Cascade mountain's. The climate is mild and damp with dense and divers vegetation.

“...about three months after I moved here my eyes began to water.”

I was biking to work for a while right after moving to Portland then one day about three months after I moved here my eyes began to water, my nose filled up and going outside seemed like a journey into sinus torture. As winter gave way to spring, I found my only relief was limiting my outdoor activities.



“I moved here for the outdoor activity now I’m imprisoned by invisible cloud threatening to make me cry, sneeze, and itch.”



If only I could live in this beautiful place and not suffer. I hate to medicate myself and feel the side effects of the drugs. After visiting my doctor it turns out I'm allergic to Alder trees.

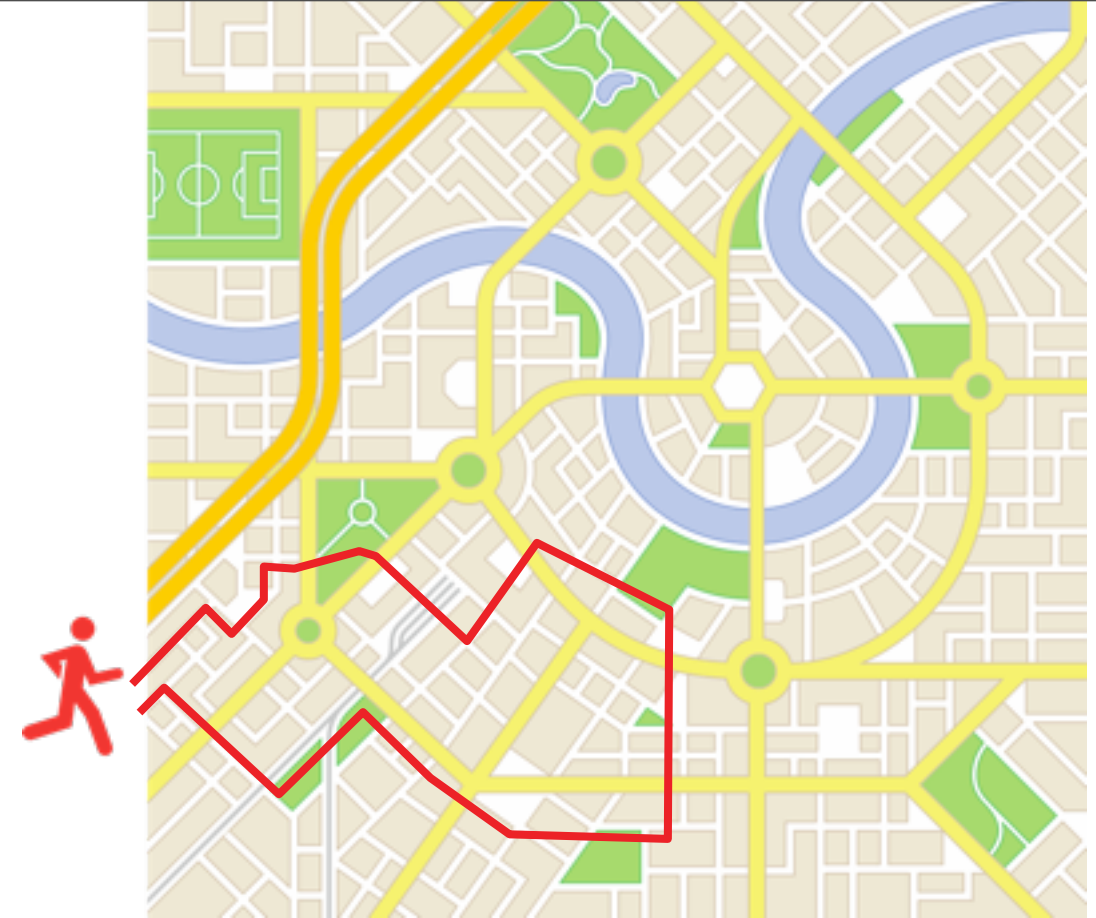
“...it turns out I'm allergic to Alder trees.”

Worst Allergy Cities in America for Spring Allergies

WebMD Feature

By Kathleen Doheny

“In Washington, Oregon, and California, tree pollination is usually in full swing from February to June. In the Pacific Northwest, pollen from the native alder and birch trees can make people with allergies miserable... Weed season in the West can extend from spring or early summer through fall.”



“In February I began to experience problems on my normal run”

Biking to work became nearly impossible, I would stop every couple of blocks to wipe my nose and gather my composure. I left problem pollution and found problem allergies.

“I love the Northwest! Is there a way I can stay without suffering?”



Allergies/Asthma Resources

How Can we help Becky find resources to reduce her allergies/asthma or avoid them from triggering

SOURCES

WEATHER

Weather in Portland doesn't vary to much

Does weather effect allergies, asthma or pollution, pollen

GLOBAL COMMUNITY

Portland isn't the only place in the world with pollution and pollen.

What are options around the country/world

LOCAL COMMUNITY

Typically asthma and allergies are treated with drugs.

Are other people suffering from the same thing. What are they doing

POLLUTION DATA

There are so many different sources tracking pollution and they are all confusing. Which one do I trust and what does it mean to me

Need help making sense of all the data.

POLLEN DATA

My city knows where all the trees are located

When do they pollenate, how close can I get to something before I am effected

Solution



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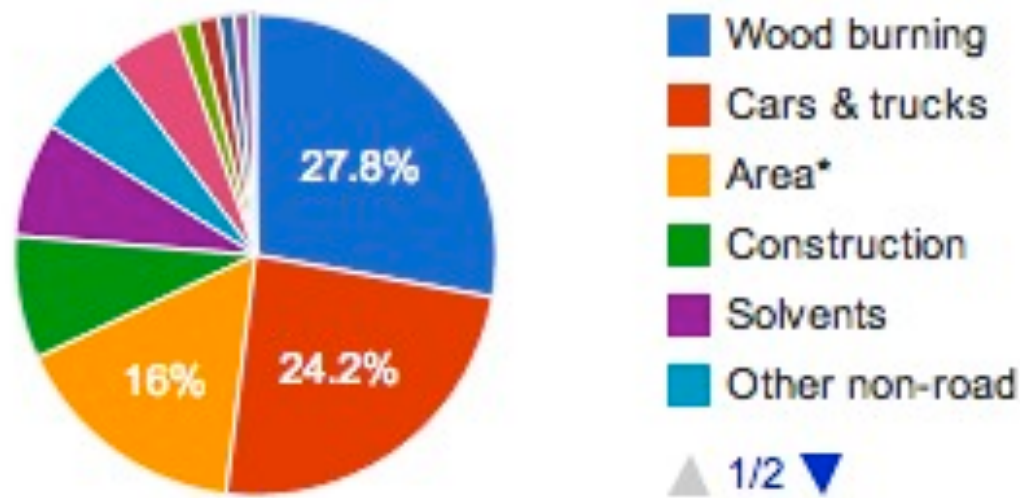


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[air pollution risk map](#)

Portion of total risk in Metro area



Air Quality Index (AQI) level in 2010 was 25.7. This is better than average.

City: 25.7

U.S.: 32.0

Sulfur Dioxide (SO₂) [ppb] level in 2010 was 2.27. This is about average. There were 33 monitors within city limits.

City: 2.27

U.S.: 2.43

Ozone [ppb] level in 2010 was 20.8. This is better than average. There were 17 monitors within city limits.

City: 20.8

U.S.: 28.3

Particulate Matter (PM₁₀) [μm^3] level in 2010 was 17.0. This is better than average. There were 109 monitors within city limits.

City: 17.0

U.S.: 22.1

Particulate Matter (PM_{2.5}) [μm^3] level in 2010 was 7.52. This is better than average. There were 52 monitors within city limits.

City: 7.52

U.S.: 9.59

Carbon Monoxide (CO) [ppm] level in 2010 was 0.288. This is about average. There were 79 monitors within city limits.

City: 0.288

U.S.: 0.334

Nitrogen Dioxide (NO₂) [ppb] level in 2010 was 10.3. This is about average. There were 35 monitors within city limits.

City: 10.3

U.S.: 9.4

Lead (Pb) [μm^3] level in 2003 was 0.00814. This is significantly better than average. There were 41 monitors within city limits.

City: 0.00814

U.S.: 0.05378



	Air Quality Eggs	
	Environmental	Private
Federal	EPA Air Quality location data	https://xively.com/feeds/81919/
	EPA generaldataseets	xively API
	USGS plant survey	Air Quality Eggs
	EPA general	
Portland, OR	Portland city environmental	Oregon environment
	DEQ air quality home	
	DEQ air quality index	Civic apps
	-	Oregon flora project
	Rainfall	



BECKY HOBBS