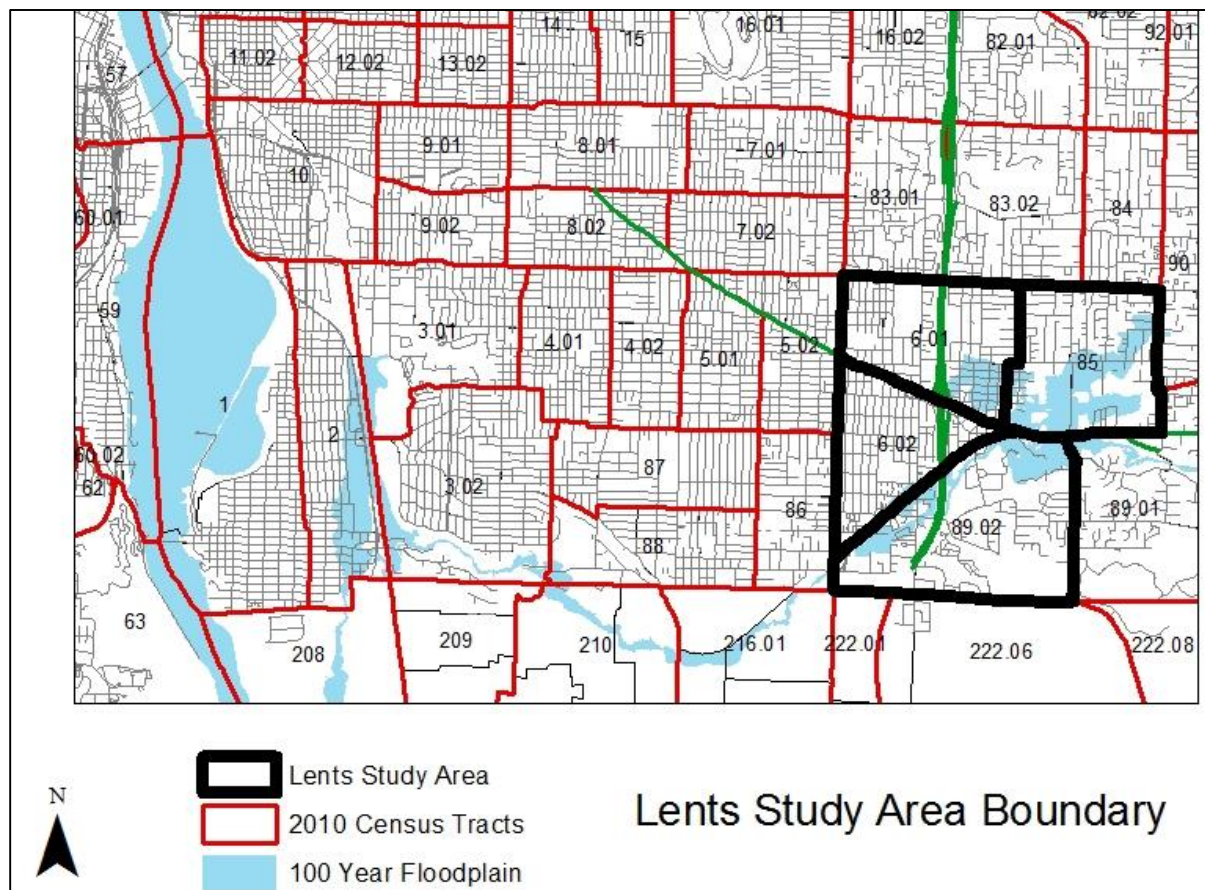


Vulnerability of Lents Floodplain Area Residents

Excerpted from study by Belinda Judelman, PSU Institute for Sustainable Solutions Fellow
September 30, 2015

The City of Portland's Bureau of Environmental Services and Portland State University teamed up in spring and summer 2015 to assess and better understand the social vulnerability of Lents area residents living in and near Johnson Creek's 100-year floodplain. Social vulnerability is defined as a community's ability to respond to, cope with, recover from, or adapt to environmental hazards. The 100-year floodplain is an area with a 1% or greater chance of flooding in any given year; in these areas, there is at least a 1 in 4 chance of flooding during the life of a 30-year mortgage. Some portions of Johnson Creek's mapped 100-year floodplain experience much more frequent flooding, while other portions have not experienced major flooding since we started keeping records in the 1940's.

Study Area Map



Methodology

The study compiled U.S. Census (2010) and American Community Survey (2009-2013) data for the four Census tracts that contain the 100-year Lents Floodplain (see map above). The study area data was then compared to citywide averages and the differences were tested for statistical significance. Based on social vulnerability analysis literature, twenty-six indicators were chosen for this analysis. Those indicators were grouped into the following categories:

- Household Demographics,
- Housing Characteristics,
- Economic Indicators,
- Education Indicators,
- Racial & Ethnic Indicators, and
- Place of Birth & Languages.

In tandem, we began interviewing residents to help connect the dots between the statistical indicators, to better understand people’s concerns, and to identify issues not captured in the data.

Results

The four Census tracts were home to a combined 18,746 people at the time of the 2010 survey.

<i>Table 1. Household Demographic Indicators</i>	Portland	Lents Study Area	Percent Difference
Household Size*	2.28	2.74	20.2%
% Children*	19.1%	24.8%	29.8%
% Seniors	10.4%	10.6%	1.9%
% Households with Children*	24.9%	37.1%	48.9%
% Households with Seniors	18.6%	21.4%	15.1%
% Single Parent Households*	8.8%	14.1%	60.2%

**Denotes Statistically Significant Difference*
Source: U.S. Census, 2010

<i>Table 2. Housing Characteristics</i>	Portland	Lents Study Area	Percent Difference
% Renters	44.2%	41.8%	-5.4%
% Owners	55.8%	58.2%	4.3%
% Occupied Units Owned with a Mortgage or Loan	76.4%	82.1%	7.5%

**Denotes Statistically Significant Difference*
Source: American Community Survey 2009-2013

<i>Table 3. Economic Indicators</i>	Portland	Lents Study Area	Percent Difference
Median Household Income	\$52,657	\$46,882	-11.0%
Per Capita Income*	\$31,949	\$19,490	-31.1%
% Families Below Federal Poverty Line	12.0%	19.1%	59.2%

**Denotes Statistically Significant Difference*
Source: American Community Survey 2009-2013

<i>Table 4. Education Indicators</i>	Portland	Lents Study Area	Percent Difference
% Adults Age 25 or above with a Bachelor's Degree or Higher*	44.1%	17.1%	-61.2%
% Adults Age 25 or above with a High School Degree or Higher*	90.5%	80.4%	-11.2%

**Denotes Statistically Significant Difference*
Source: American Community Survey 2009-2013

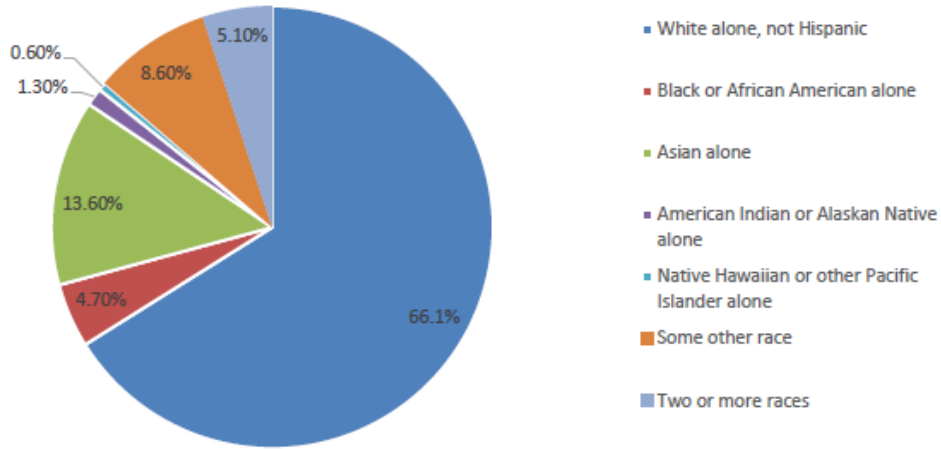
<i>Table 5. Racial Indicators</i>	Portland	Lents Study Area	Percent Difference
% White alone, not Hispanic*	76.2%	66.1%	-13.2%
% Not White*	23.8%	33.9%	42.4%
% Black or African American alone	6.3%	4.7%	-25.4%
% Asian alone*	7.0%	13.6%	94.3%
% American Indian or Alaskan Native alone	1.0%	1.3%	30.0%
% Native Hawaiian or other Pacific Islander alone	0.5%	0.6%	20.0%
% Some other race	4.3%	8.6%	100%
% Two or more races	4.7%	5.1%	8.5%

**Denotes Statistically Significant Difference*
Source: U.S Census, 2010

<i>Table 6. Ethnic Indicator</i>	Portland	Lents Study Area	Percent Difference
% Hispanic*	9.4%	18.5%	96.8%

**Denotes Statistically Significant Difference*
Source: U.S. Census, 2010

Figure 4. Racial Composition, Lents Study Area

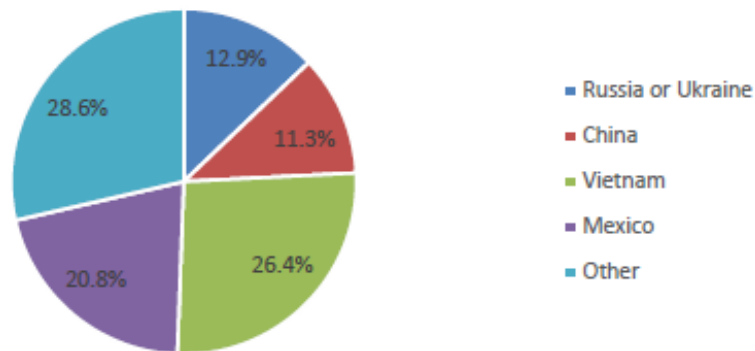


<i>Table 7. Place of birth and Languages spoken at home</i>	Portland	Lents Study Area	Percent Difference
% Foreign Born	12.3%	19.70%	60.1%
% Naturalized Citizens	5.4%	8.70%	61.1%
% Population above 18 who speak English or speak English very well*	92.1%	83.9%	-8.9%
% Population above 5 who speak English "not well" or "not at all"	4.3%	9.4%	118.6%

**Denotes Statistically Significant Difference*

Source: American Community Survey 2009-2013

Figure 5. Place of Birth for the Foreign-Born Population, Lents Study Area



Source: American Community Survey 2009-2013

Interviews

Four residents were asked a series of questions regarding their thoughts about living in the floodplain, their interactions or relationship with Johnson Creek, if and how their household and/or property has been effected by flooding or the threat of flooding, and what actions they would like to see the City, community leaders, or others take to reduce the burdens of living in the Johnson Creek floodplain. All four interviewees were white homeowners and lived in households with children. Interviewees have been living in their home in the floodplain for seven to ten years and also live in the Lents neighborhood.

When asked what they **enjoy** about living in the Lents neighborhood, interviewees mentioned the location, proximity to **public transportation and nature, affordability**, ability to have a **yard**, and good **neighbors**. All participants mentioned enjoying the benefits of living near **Johnson Creek**, especially the recently completed Foster Floodplain Natural Area.

When asked about the **cons** of their neighborhood, interviewees mentioned the **homeless** population, **squatters, upkeep of homes**, overall **appearance, lack of economic attention** from the City and **quality of amenities** that inner Portland neighborhoods have.

None of the four interviewees have experienced flooding on their property. When asked what measures (if any) are taken to prevent property damage, interviewees mentioned that **raising their homes is cost prohibitive**. Instead, most carry flood insurance and follow common sense practices like keeping important documents and materials up on shelves.

Three out of the four interviewees didn't know that they would have to pay flood insurance before they signed the final papers when purchasing their homes. One interviewer said that had his household known about the flood insurance before they were signing the papers on their house, they likely would have continued their search for another house outside the floodplain.

Interviewees mentioned **paying \$700-\$1,800 per year** in flood insurance. Two interviewees stated that their **insurance went up by 25% in one year**. Only one interviewee was able to take action to reduce his flood insurance payment: he decided to pay off his mortgage to avoid paying flood insurance after he **saw his insurance rate double in five years**.

Living in a floodplain affects community livability and can be a **strong emotional drain during the rainy season**. One interviewee explained how he checks the weather and rain predictions every day during the winter to make sure he doesn't need to rush home and make sure his basement is flood proof.

Interviewees appreciated the work that the City has done to date to mitigate flooding, however most **advocated for a way to reduce the burden of flood insurance**. Interviewees also requested that the City provide information about **which agencies have jurisdiction over which flood-related issues**. Interviewees think that **more outreach** could be done about the **elevation survey**, and more effort should be taken to ensure that residents have access to the **correct FEMA floodplain map**.