Equity and Social Justice: What King County is Doing to Manage Floodplains More Equitably

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Department of Natural Resources and Parks
Water and Land Resources Division
River and Floodplain Management Section
Floodplain Management in King County

• River and Floodplain Management Section
  (service-provider to King County Flood Control District) – ~60 staff

• Lines of business:
  – Structural Protection
  – Hazard Identification and Mitigation
  – Asset Management
  – Flood Warning Program
  – Consulting to County Agencies
  – Risk Reduction Through Partnership
Floodplains in King County

King County Facts

- 2010 population: 1,931,249
- 2018 population: 2,233,163
- 6 major river systems
- 119 miles of flood protection facilities
- 2 federally-protected salmon species
Pro-Equity Work in King County

• 2008 - then-King County Executive Ron Sims launched Equity and Social Justice (ESJ) as an initiative

• 2010 – ESJ ordinance approved by King County Council; affirmed County’s commitment to ESJ

• 2015 – Office of Equity & Social Justice created
  – Seeks to invest upstream, in community partnerships, and in King County employees

• Focus on Equity Impact Review process to assess potential impact of a program/project on equity
King County’s Equity and Social Justice Principles

• ESJ Strategic Plan highlights deeply entrenched social, economic, and environmental inequities – by race and place

• Inequities are not random: they are caused by past and current decisions, systems of power and privilege, and implementation of policies

• Equity is a system of fairness: it includes full access to opportunities, power, and resources so that all people achieve their full potential and thrive
Unhealthy stream

Healthy stream
Flooding Characteristics

• Causes long-term damage to a home or property
  – Reduce wealth
• Lasts for many days
• Poses health risks
• Complicated hazard to understand
• Human bias to ignore risk
• Difficult bureaucracy of flood insurance
• Misconceptions of insurance coverage vs disaster relief
Who lives in the floodplain?

• Understanding the impact of flooding requires an answer to that question
• But how?
• Affects how we address programs to reduce risk, build structural protection, conduct outreach, etc.
Data

• **U.S. Census** – Conducted every 10 years, counts everyone
  – **Housing**: occupancy status, tenure
  – **Household structure**: size, type
  – **Demographics**: race/ethnicity, gender, age

• **American Community Survey** – Conducted annually, statistical sample of households
  – Income
  – Home value
  – Languages spoken
  – Commute time
Geography of Census Data

State in the nation

County in the state

Tract in the county

Block group in the tract

Block in the block group

Block centroid in the block
Tracts
Tracts with Floodplain
Tract – 2,376 people
Block Group – 1,292 people
Block – 13 people
Floodplain Overlay
Block 1028
Other Data Used

• **King County Assessor data**
  – Parcels
  – Address points

• **Building footprints**
  – Microsoft building footprint layer
  – Individual cities’ building footprints
  – King County flood studies
King County’s Approach
Block 1013

- 22 living units:
  - 11 owned with a mortgage
  - 6 owned free and clear
  - 5 renter occupied

- 46 people:
  - 42 white
  - 2 black
  - 2 identify as 2 or more races

- All single family residences, assume even distribution

- 13 houses in floodplain
Block 1013

• **13 houses in floodplain, or 59%:**
  – 6.5 owned with a mortgage (50%)
  – 3.5 owned free and clear (27%)
  – 3 renter occupied (23%)

• **Assume 27 people live in floodplain**
  – 24.5 white (91%)
  – 1.25 black (4.5%)
  – 1.25 identify as 2 or more races (4.5%)
Blocks – housing unit labels
Preliminary Results – Tenure

Tenure in floodplain
- Owned FC: 1,978
- Owned w/M: 4,864
- Rented: 7,077
Preliminary Results – Tenure by Race

[Bar chart showing tenure distribution by race in two categories: In the floodplain and Rest of King County.]
Preliminary Results – Tenure by Hispanic

[Bar chart showing tenure by Hispanic or Latino origin in two regions: In the floodplain and Rest of King County.]
Preliminary Results – Population by Race

Population in floodplain:
- 30,979 people
Preliminary Results – Watersheds

- Cedar River / Lake Washington: 53% Renter, 33% Owned with a mortgage, 14% Owned free and clear
- Central Puget Sound: 39% Renter, 41% Owned with a mortgage, 20% Owned free and clear
- Duwamish - Green River: 67% Renter, 23% Owned with a mortgage, 9% Owned free and clear
- Puyallup River: 47% Renter, 41% Owned with a mortgage, 12% Owned free and clear
- Sammamish River: 40% Renter, 38% Owned with a mortgage, 27% Owned free and clear
- Skykomish: 22% Renter, 43% Owned with a mortgage, 25% Owned free and clear

- Snoqualmie River: 36% Renter, 49% Owned with a mortgage, 14% Owned free and clear
- White River: 28% Renter, 52% Owned with a mortgage, 21% Owned free and clear

Tenure:
- Renter occupied
- Owned with a mortgage or a loan
- Owned free and clear

Percentage of population

Floodplain Status

In the floodplain

Rest of watershed
Preliminary Conclusions

- Much higher percentage of renters in the floodplain
- Differences among demographic, housing factors between watersheds
- Vast majority of those identifying as Hispanic/Latino in the floodplain rent
Data limitations

• Tracts – block groups – blocks
• Blocks did not line up to parcels and had populations identified as in rights of way and other areas
• Blocks are significantly out of line with floodplain boundaries
• 2010 census data is outdated in the rapidly-growing Seattle metro area
Next Steps

• Write report, create graphics to complete the Equity Impact Review for flood risk and residents of King County

• Evaluate how we can use the localized data to inform aspects of:
  – Risk reduction program
  – Land use planning and comprehensive plan
  – King County Regional Hazard Mitigation Plan
  – King County Flood Hazard Management Plan