

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

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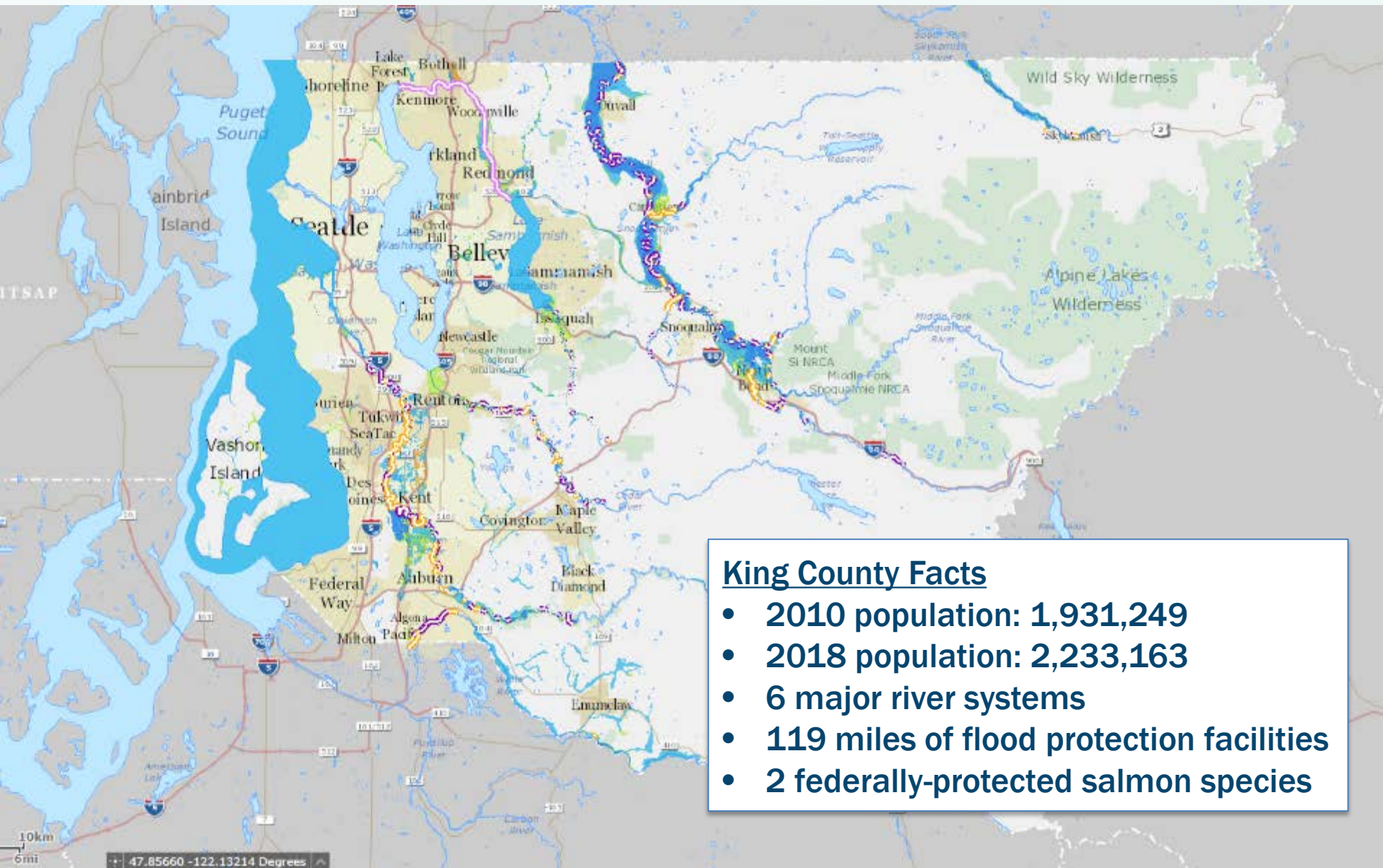
*Department of Natural Resources and Parks  
Water and Land Resources Division  
River and Floodplain Management Section*



# 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

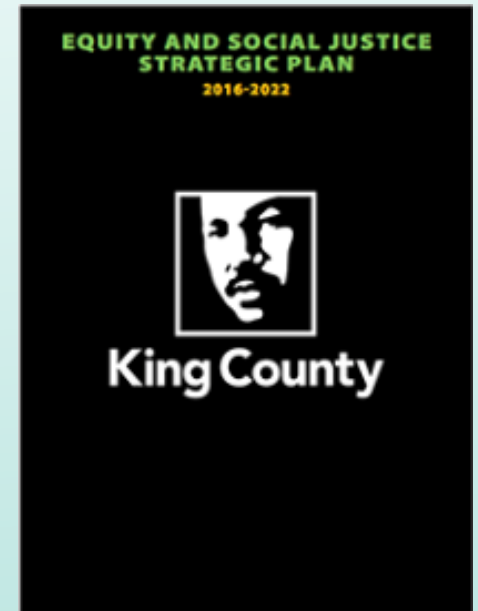
- 2010 population: 1,931,249
- 2018 population: 2,233,163
- 6 major river systems
- 119 miles of flood protection facilities
- 2 federally-protected salmon species

# 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**

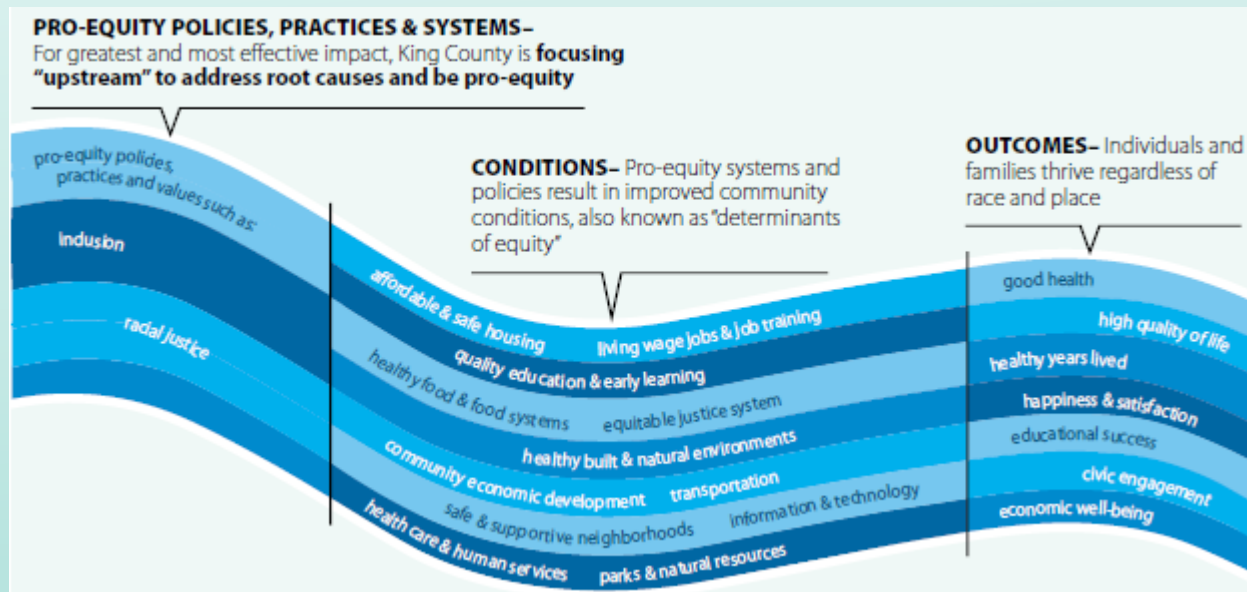
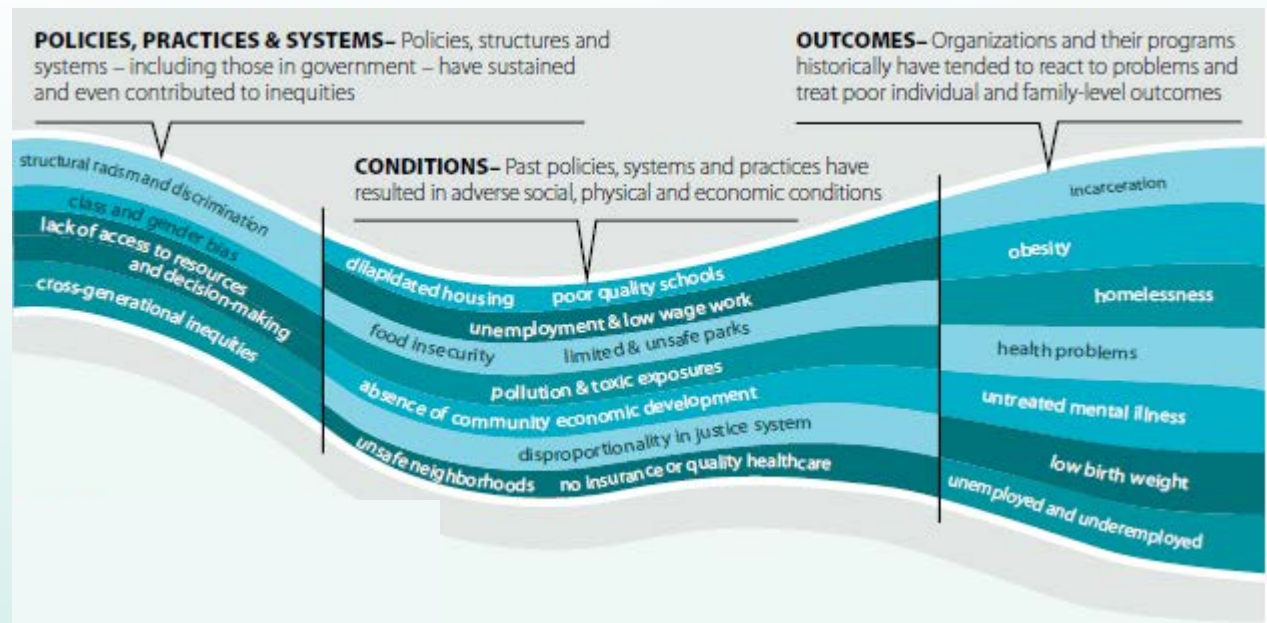
# King County's Equity and Social Justice Principles

- 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.

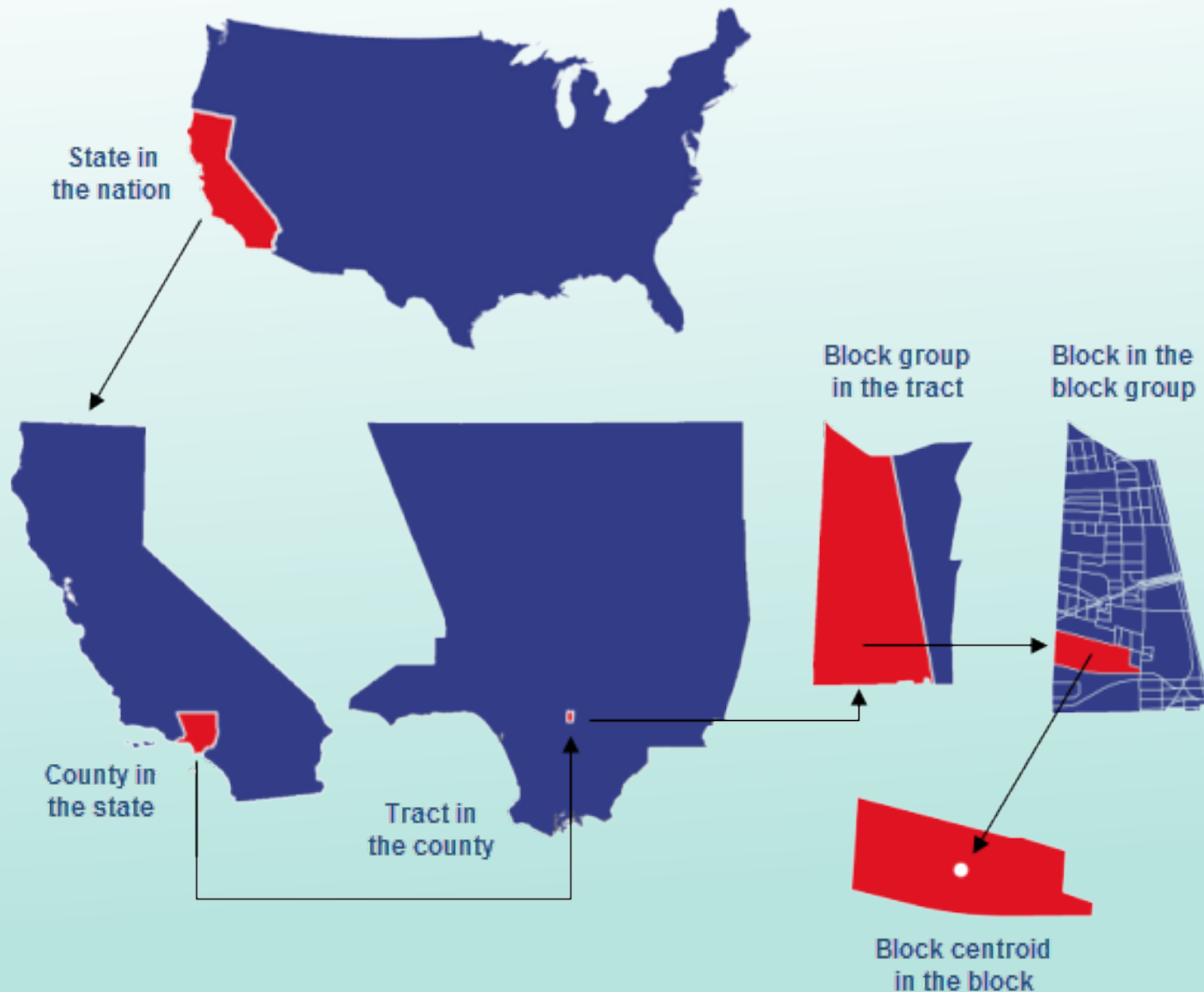




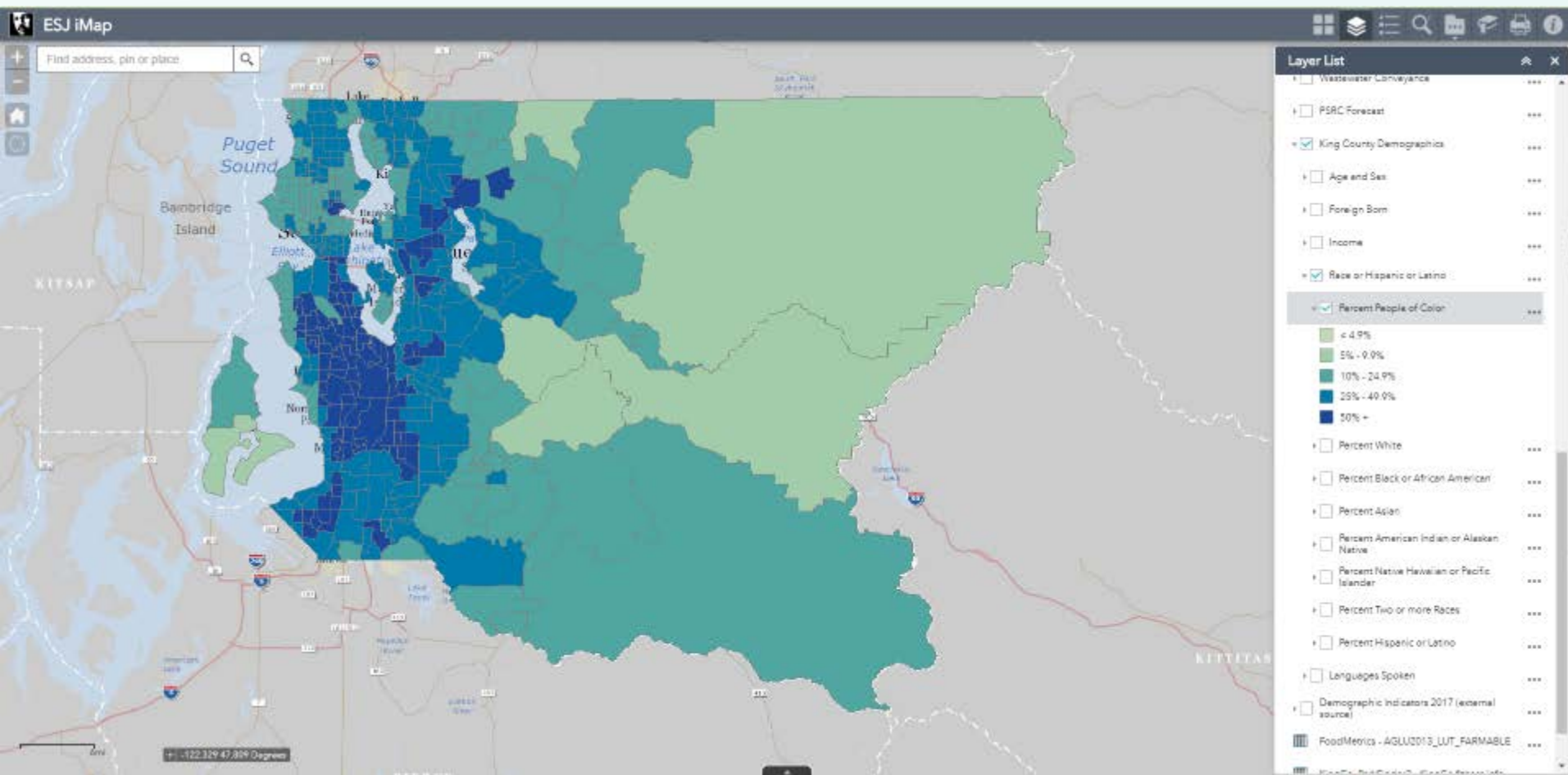
# Data

- **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

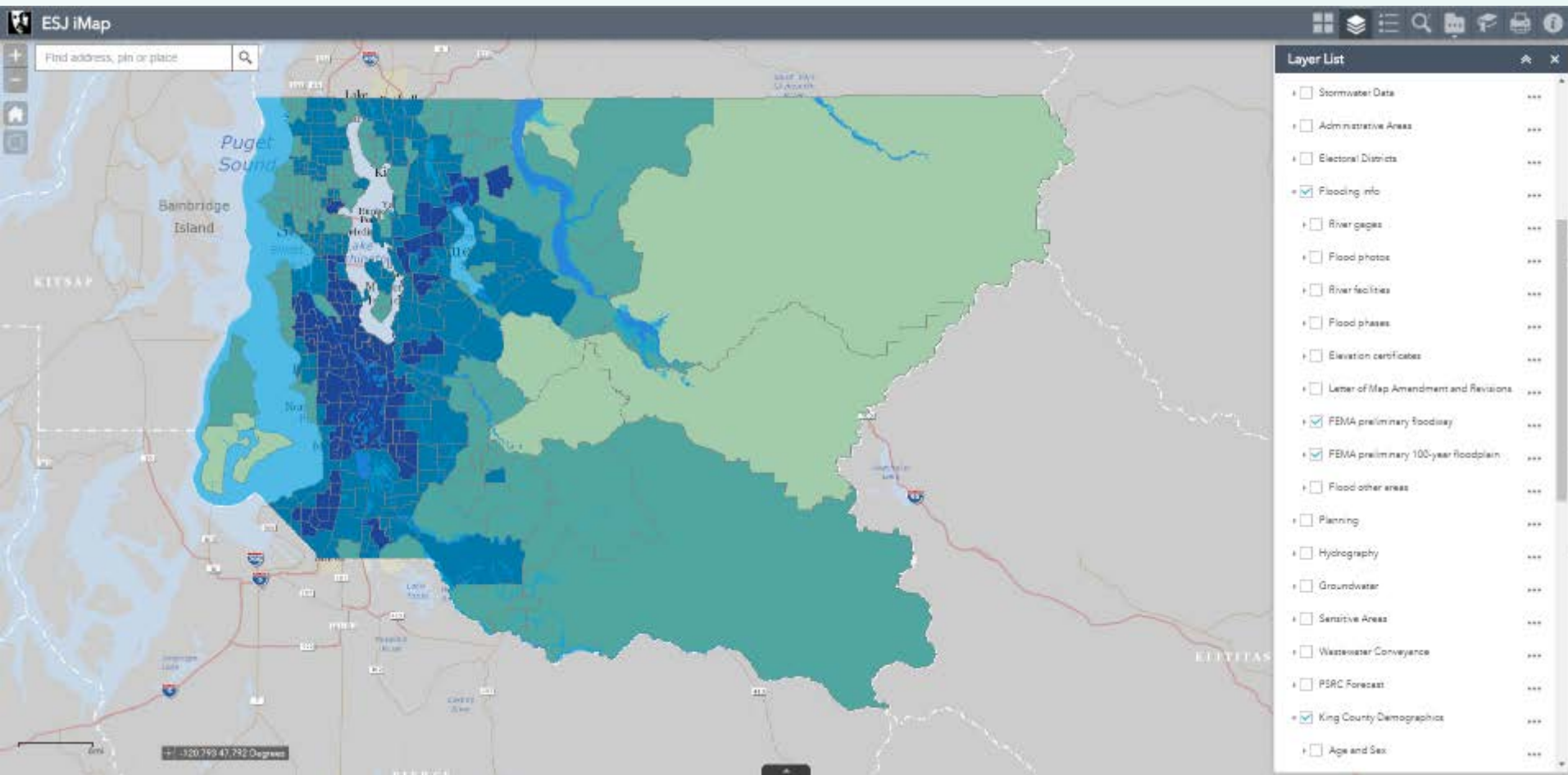
# Geography of Census Data



# Tracts

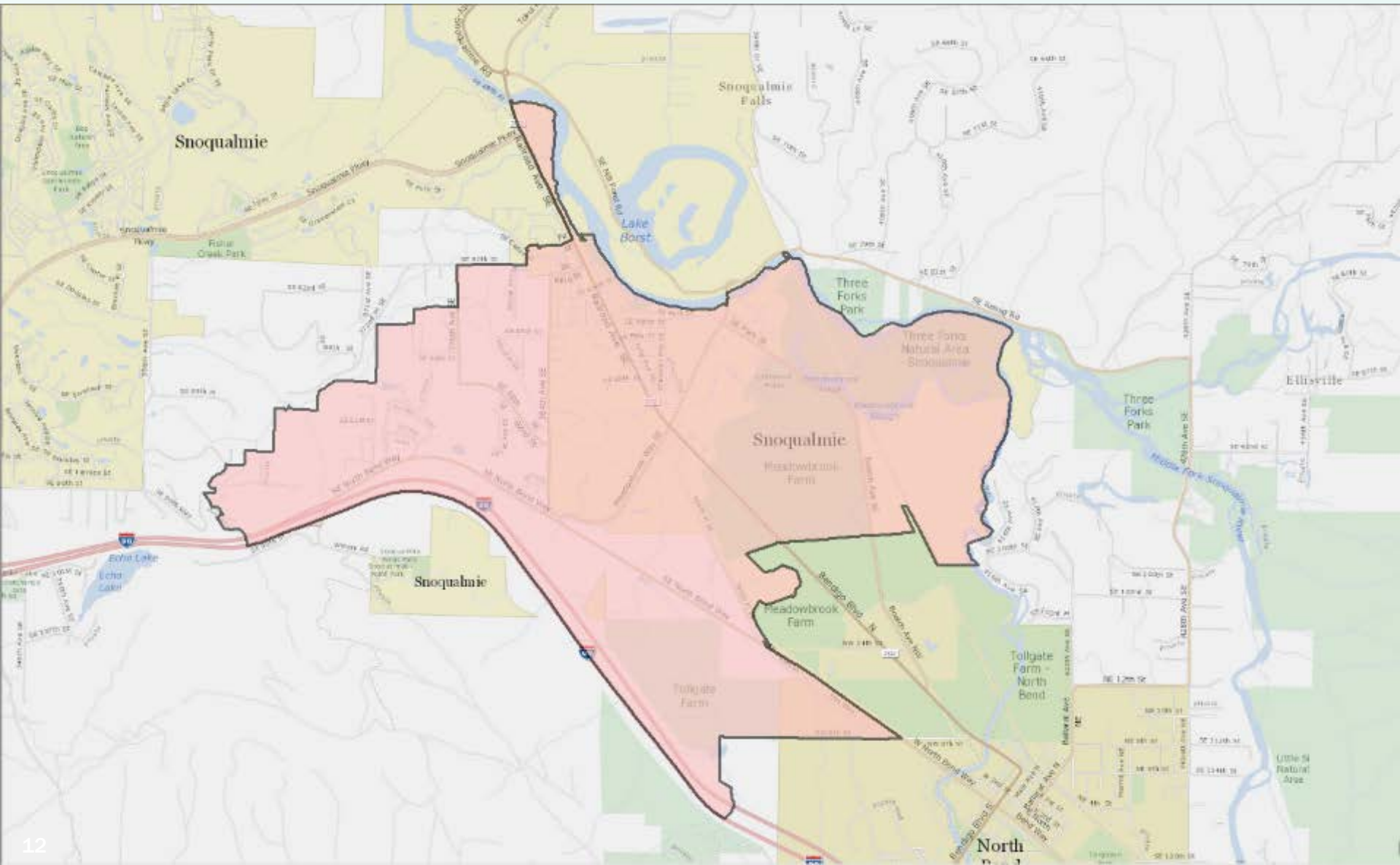


# Tracts with Floodplain

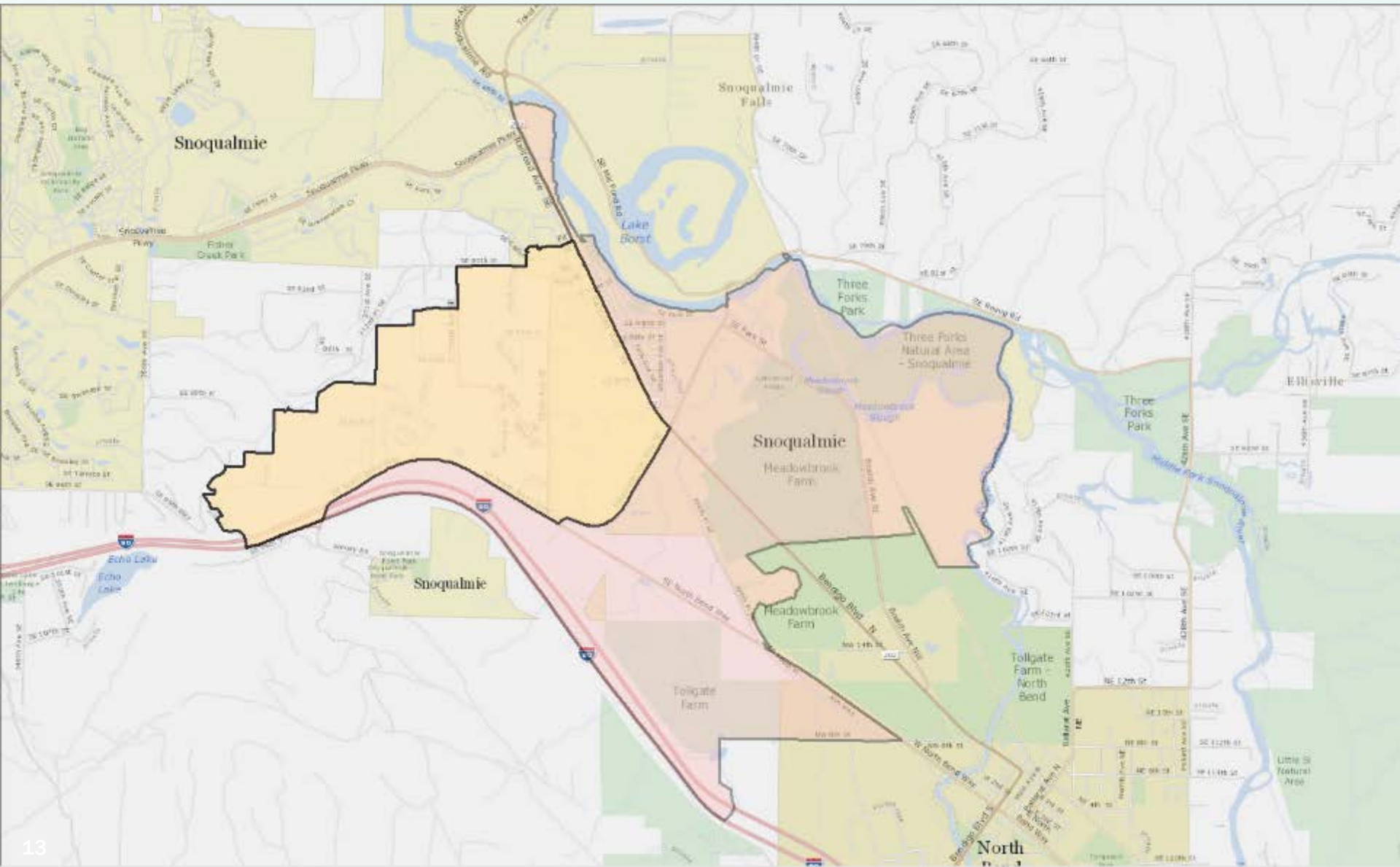




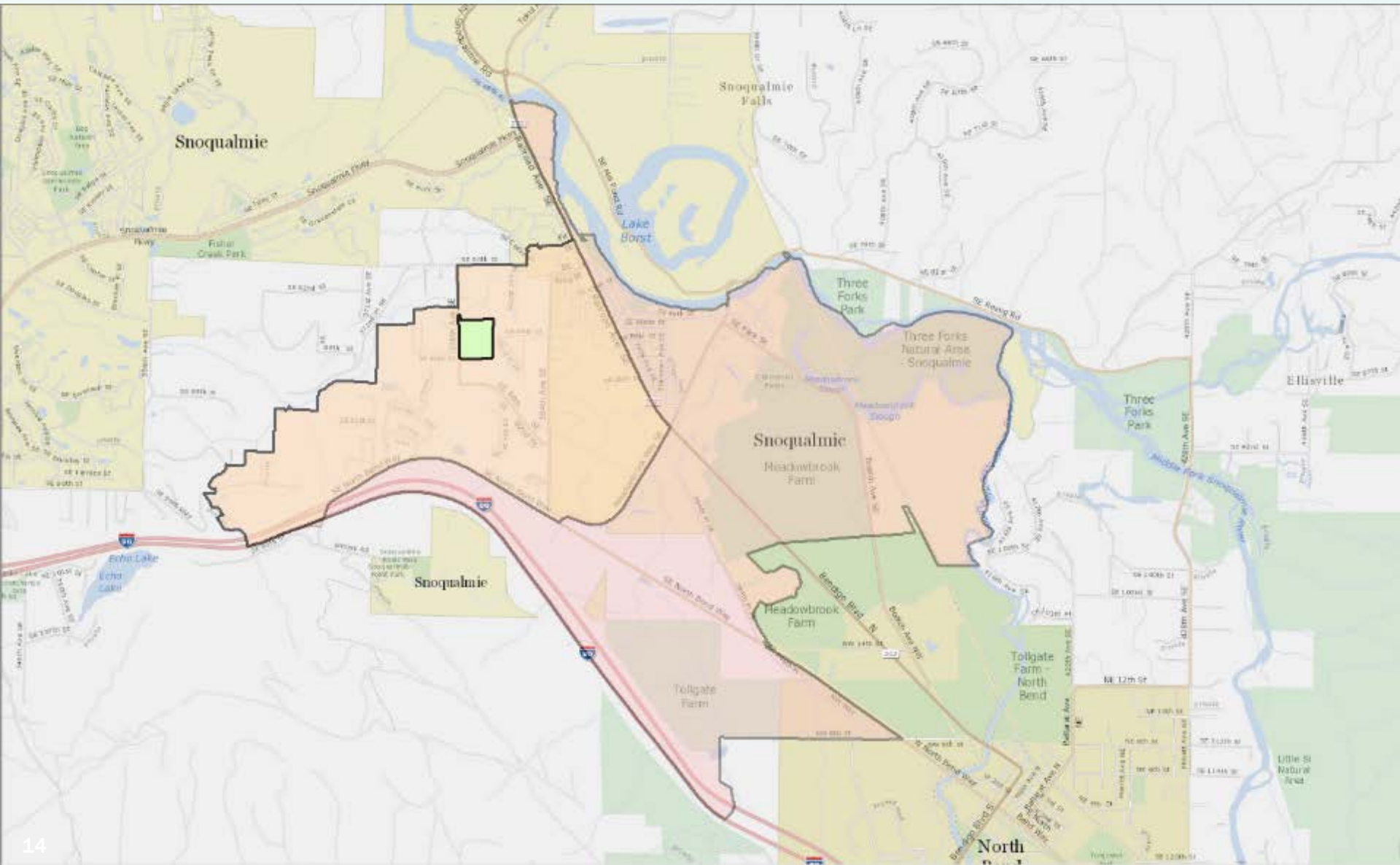
# Tract – 2,376 people



# Block Group – 1,292 people

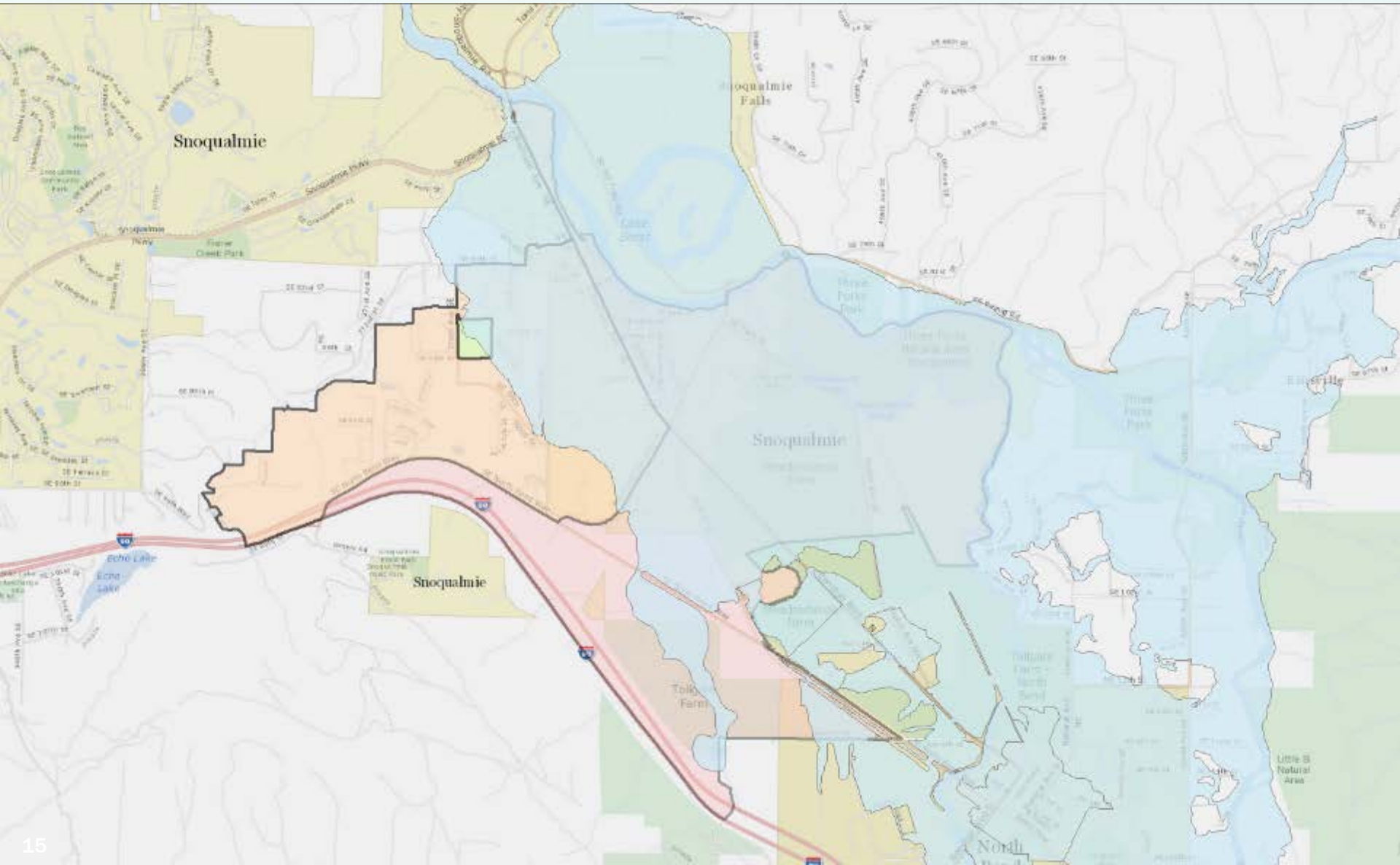


# Block – 13 people





# Floodplain Overlay





# Block 1028

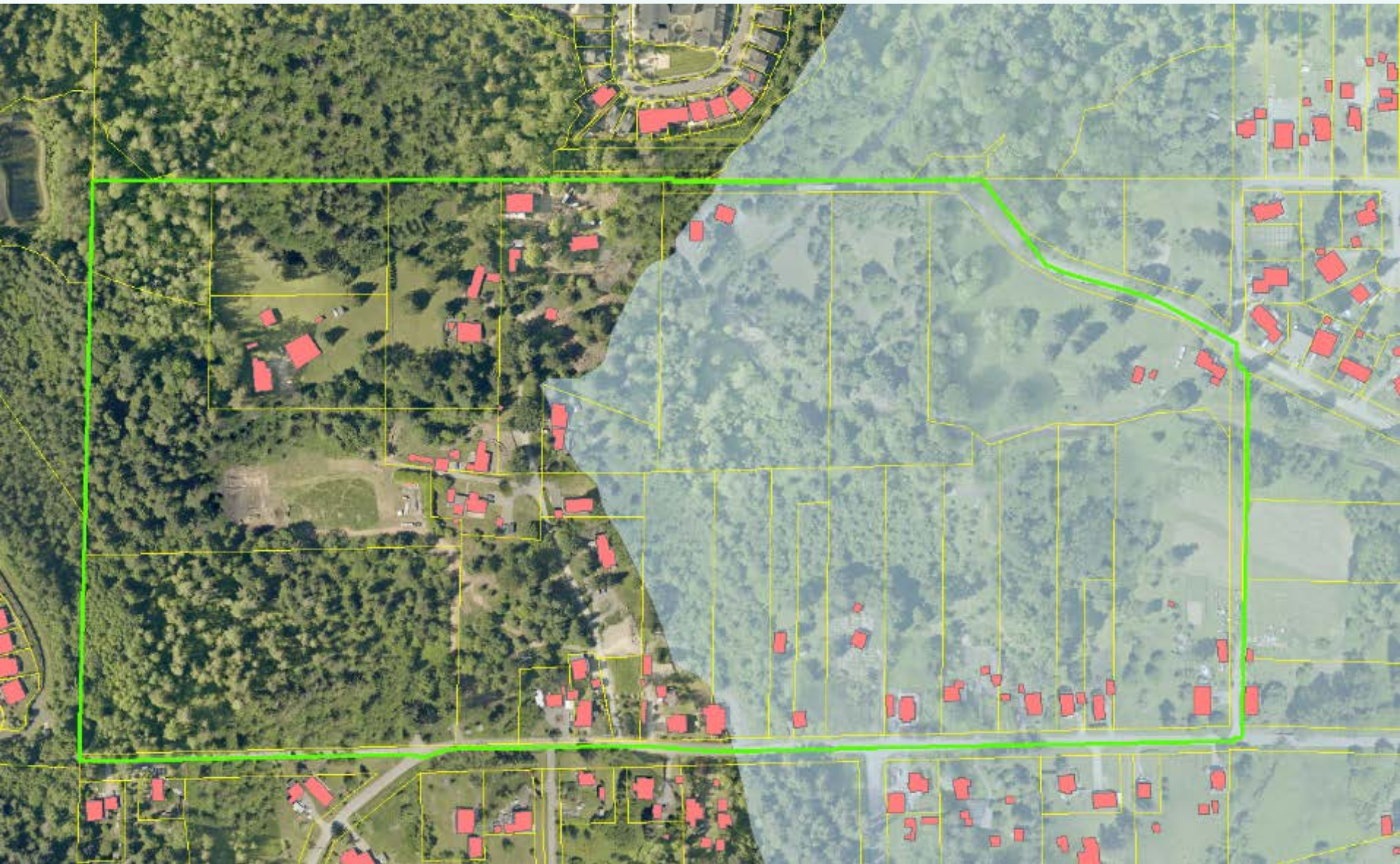


# Other Data Used

- **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

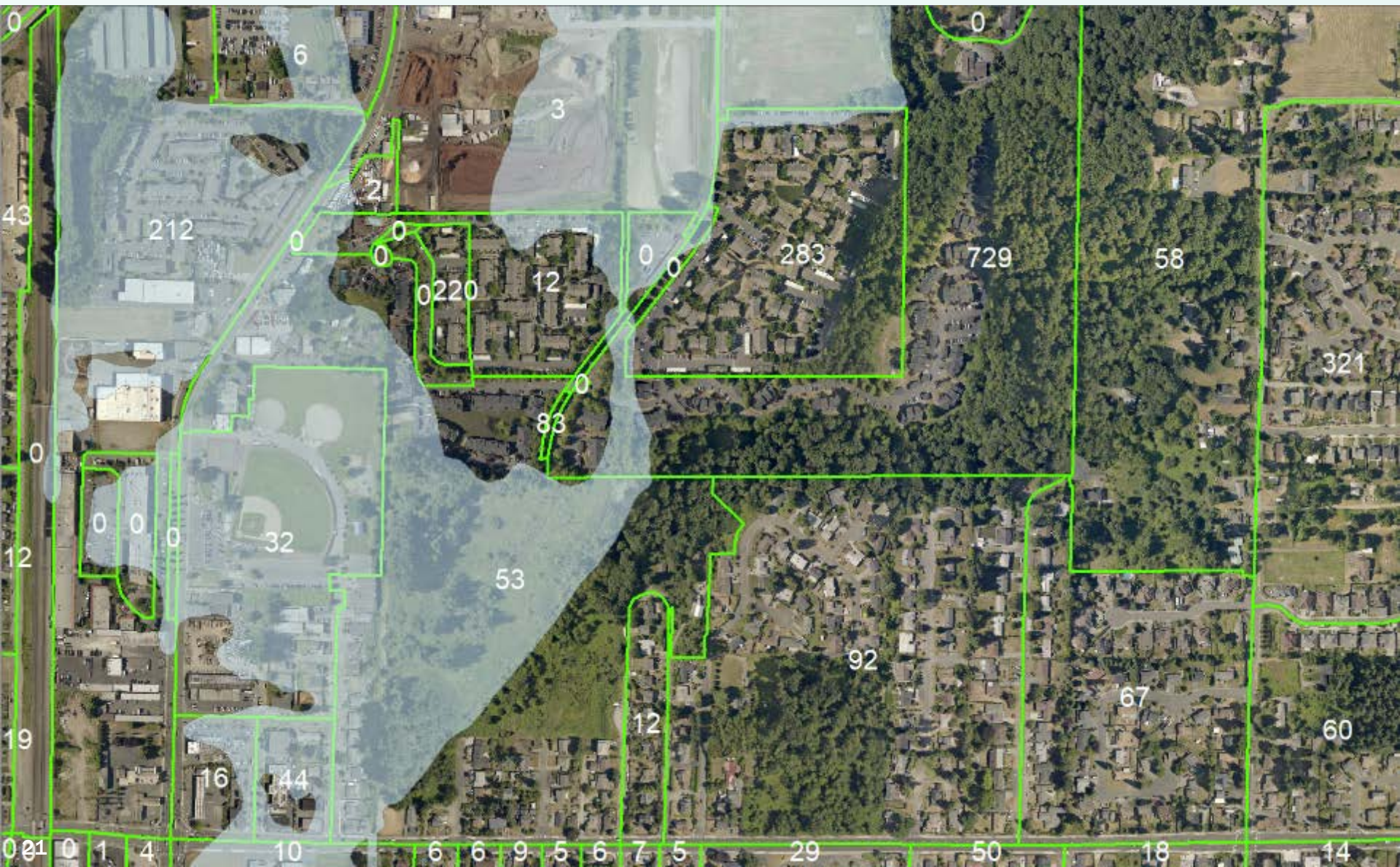
- **22 living units:**
  - 11 owned with a mortgage
  - 6 owned free and clear
  - 5 renter occupied
- **46 people:**
  - 42 white
  - 2 black
  - 2 identify as 2 or more races
- **All single family residences, assume even distribution**
- **13 houses in floodplain**



# 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

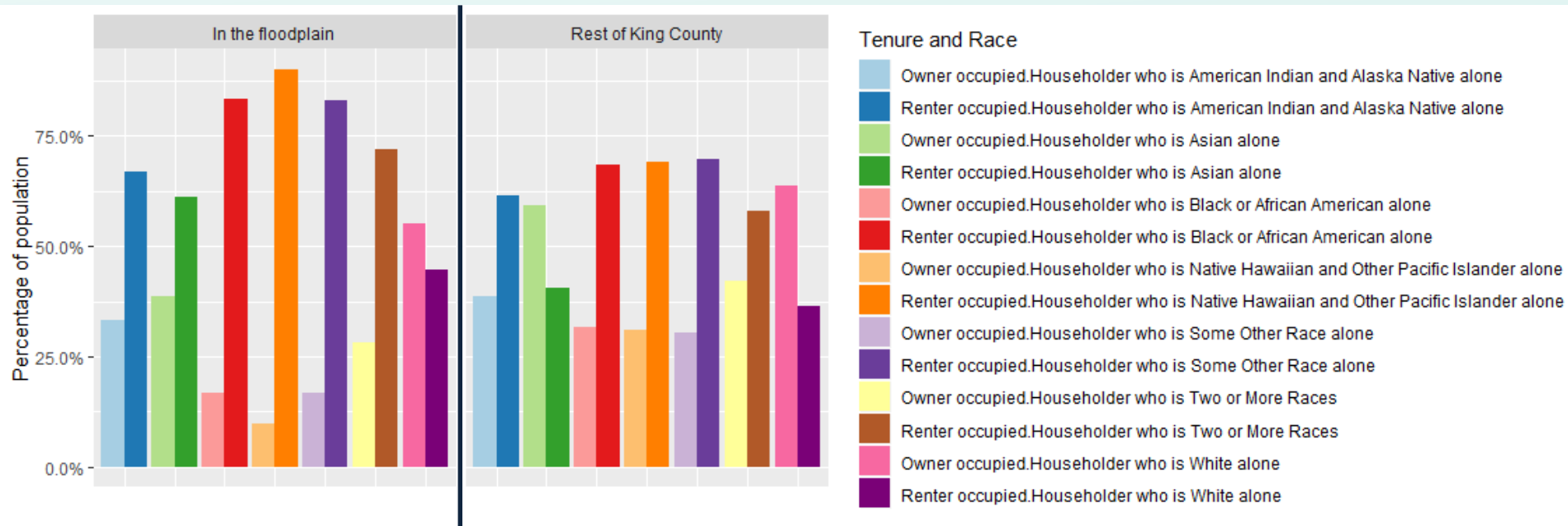


**Tenure in floodplain**

- Owned FC: 1,978
- Owned w/M: 4,864
- Rented: 7,077

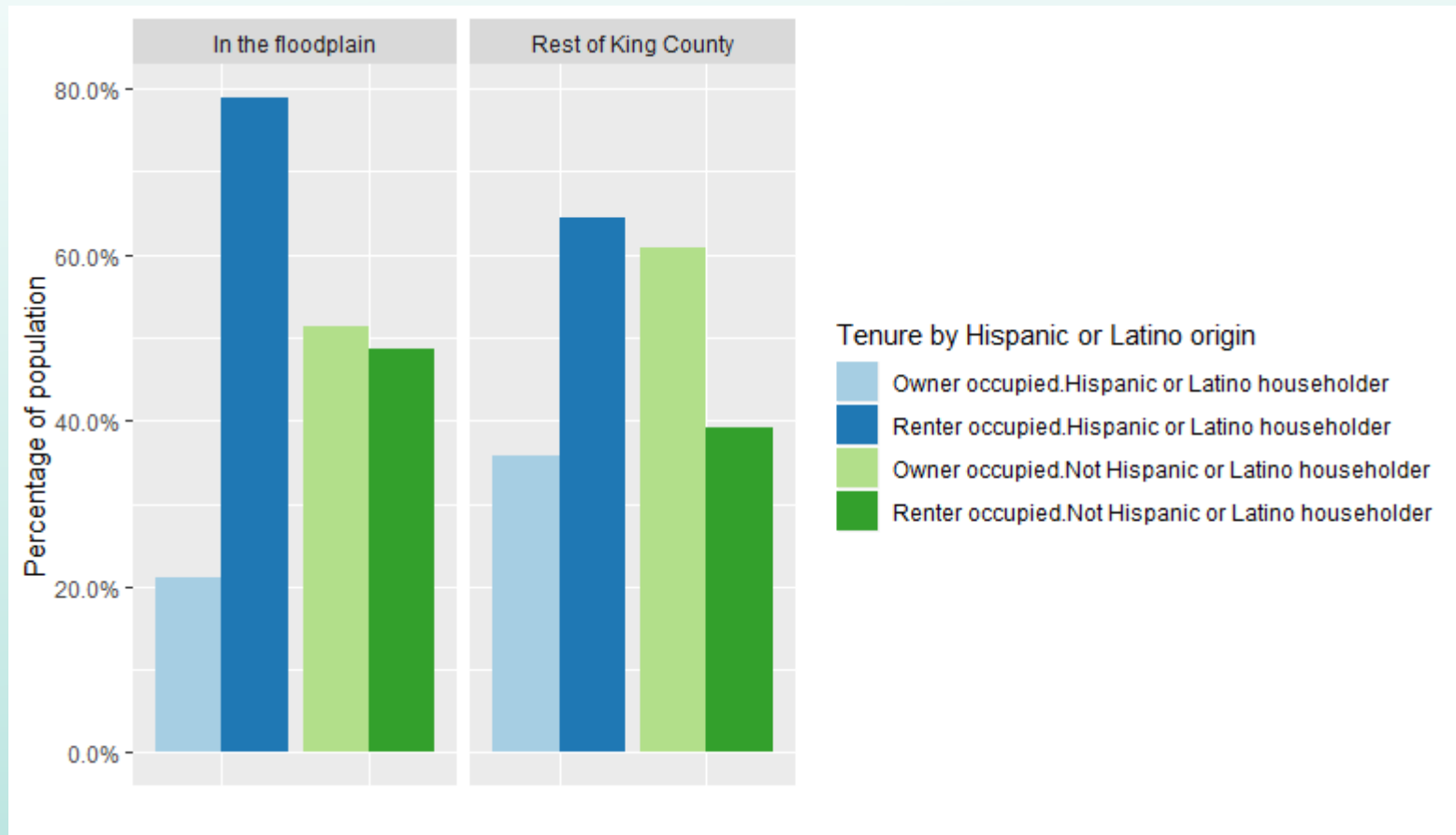


# Preliminary Results – Tenure by Race

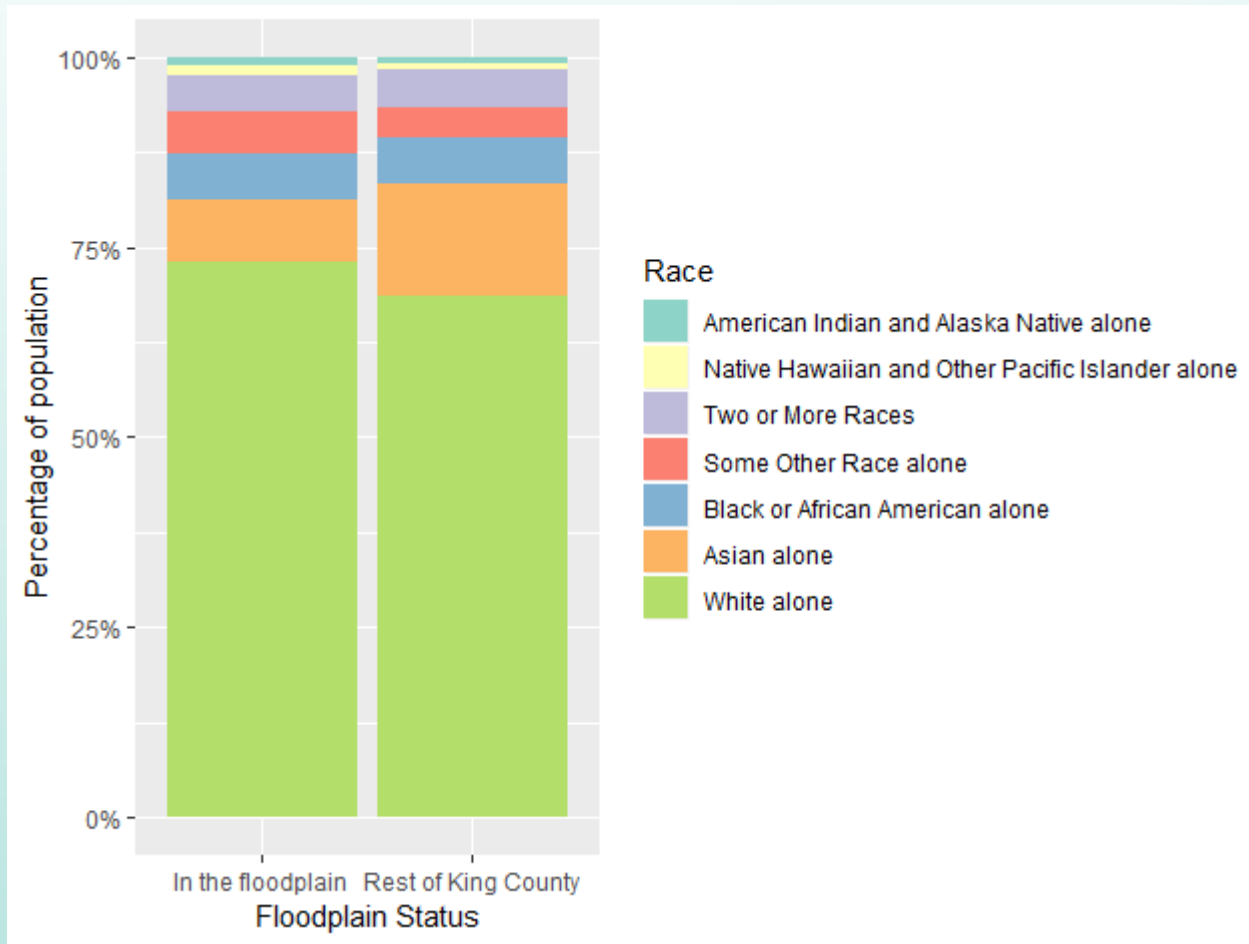




# Preliminary Results – Tenure by Hispanic



# Preliminary Results – Population by Race



Population in floodplain  
• 30,979 people

# Preliminary Results – Watersheds



# 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**

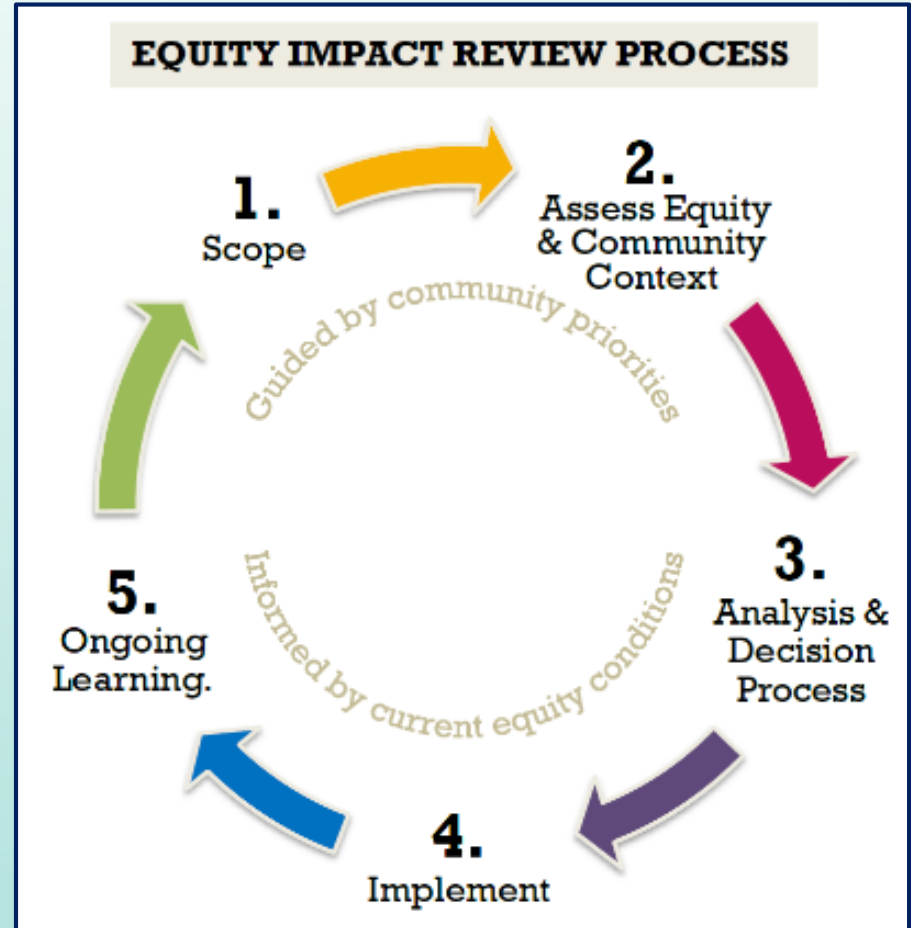


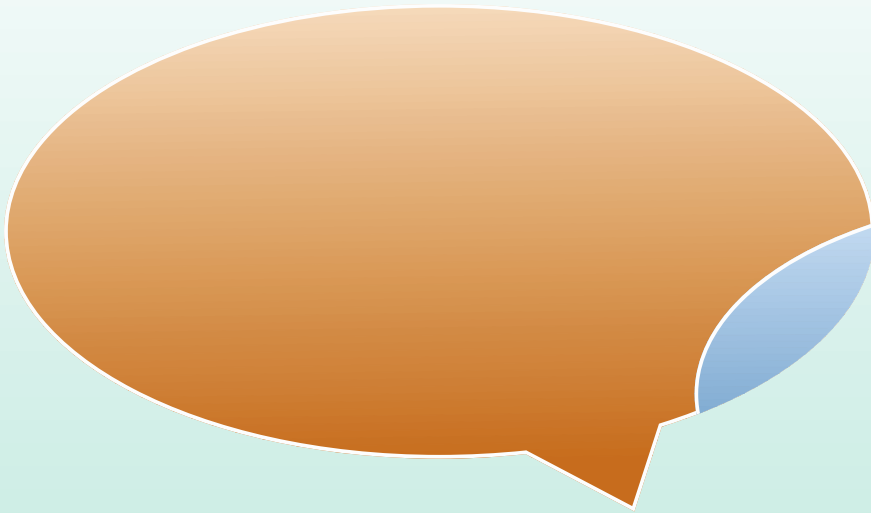
# Data limitations

- 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





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