

# Mount Rainier Eruption Disaster Estimate

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Estimate the property damages  
caused by the lahar flow of Mount  
Rainier, when it erupts.



**\$20,444,839,872**

Structure and Land Value Aggregate

# Baseline Breakdown

- Land Value
  - \$7,423,983,520
- Structure Value
  - \$9,598,431,685
- Market Value
  - \$20,444,839,872

# County Breakdown

- King - 2825 properties at risk
  - \$1,721,535,754
- Pierce - 29627 properties at risk
  - \$18,705,970,469
- Thurston - 110 properties at risk\*
  - \$17,333,647

# Data Collection

- Pierce County
  - Complete data in one file

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  - Complete data in one file
- Thurston County
  - No latitude/longitude
  - Geocoding



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- King County
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# Data Collection

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- Thurston County
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- Lewis County
  - No downloadable data found

# Thurston County Issues

**17583** parcels found in affected zip codes

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**7359** successfully geocoded

# Zillow Estimates

- Tax value vs. Market value

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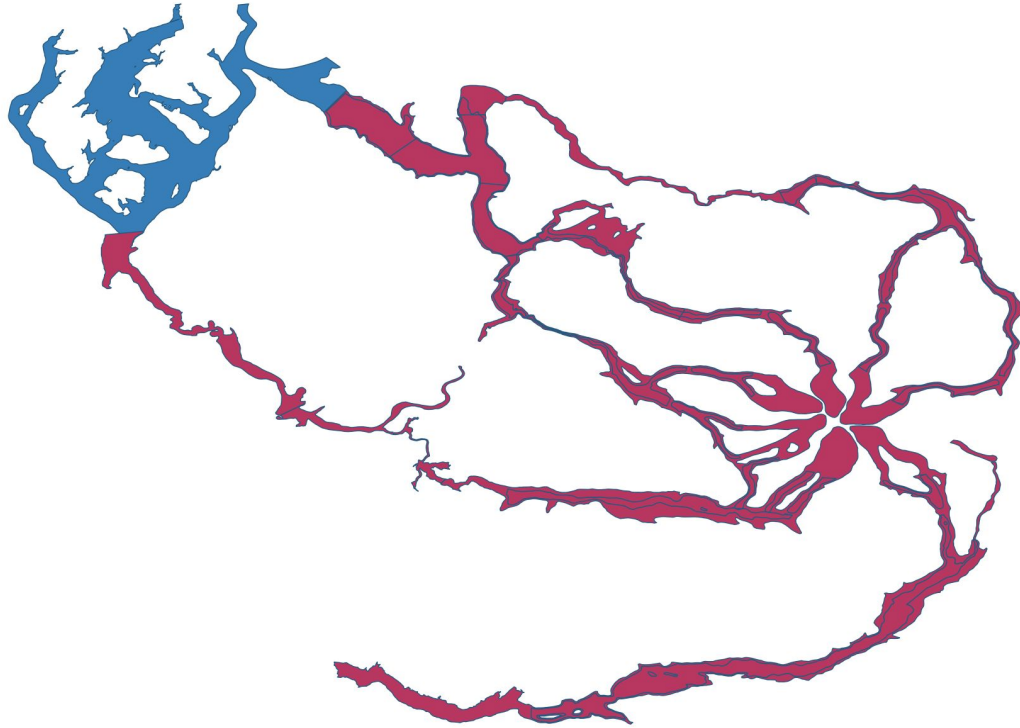
# Zillow Estimates

- Tax value vs. Market value
- 894 values retrieved from King County
- Zestimate™ mean 120.1053% greater than assessed taxable value mean
- P-value of related t-test: 1.047270257179071e-163

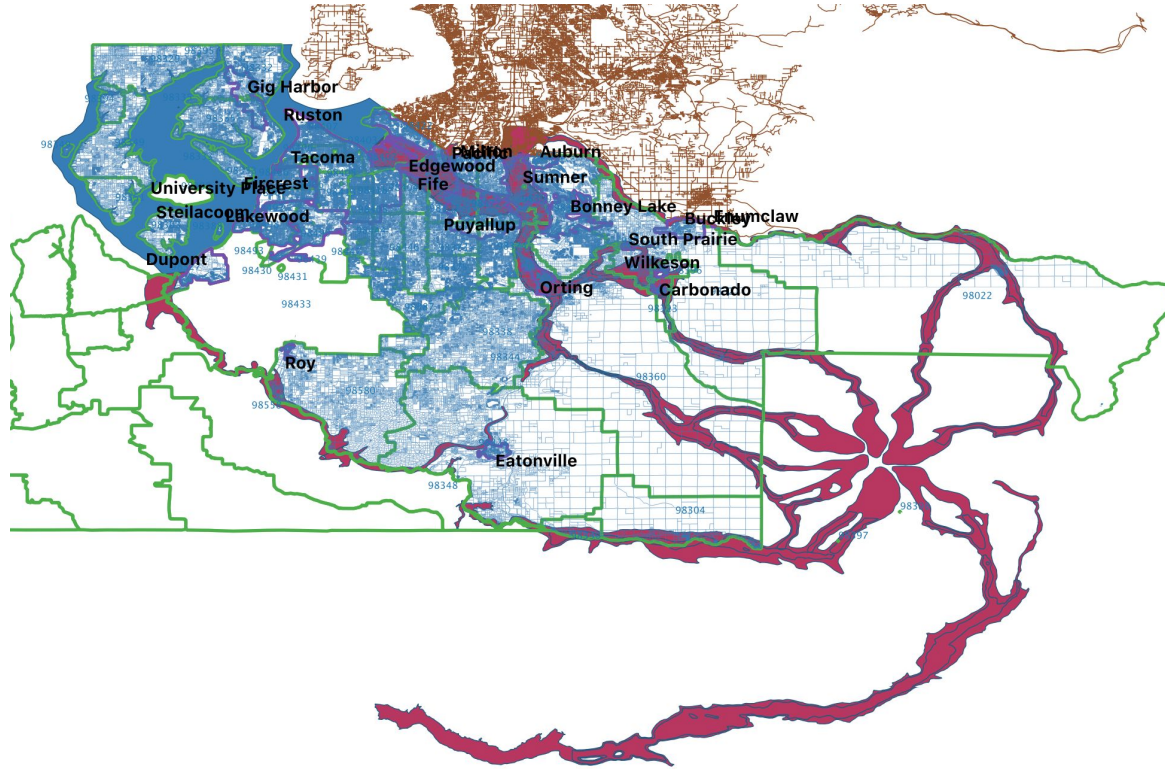


Lahars pose the greatest risk and  
have a definable boundary

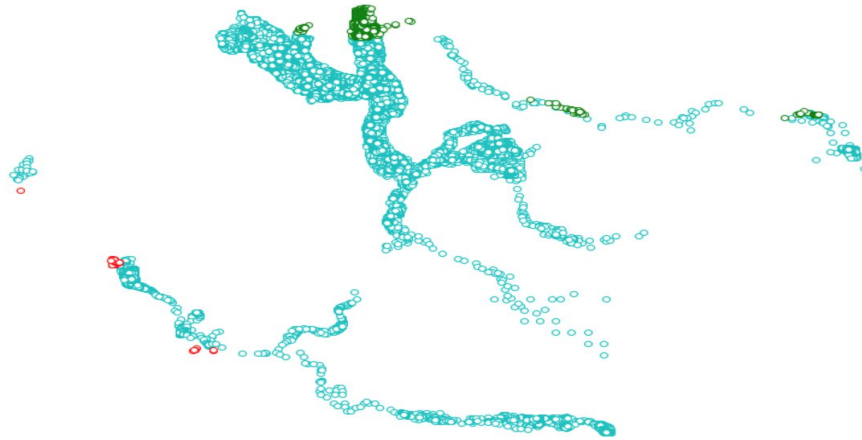
# Lahar Flow Zone



# Lahar Flow Zone



# Lahar Flow Zone



# Next Steps - Modeling

- Start-to-finish interactive modeling
- Geospatial modeling
- Ash clouds

## Next Steps - Data Collection

- Inter-agency cooperation
- Better/more granular data

# Next Steps - Other Factors

- Economic impact
- Extrapolate to other volcanoes/disasters

Thank you.