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Exploratory Data Analysis

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Persona

- Large budget
- Show off
- Waterfront
- Renovated
- High grade & good condition
- Resell within a year



5 promising waterfront objects

Good grade, condition & great potential for quick ROI



Object 1

Object 2

Object 3

Object 4

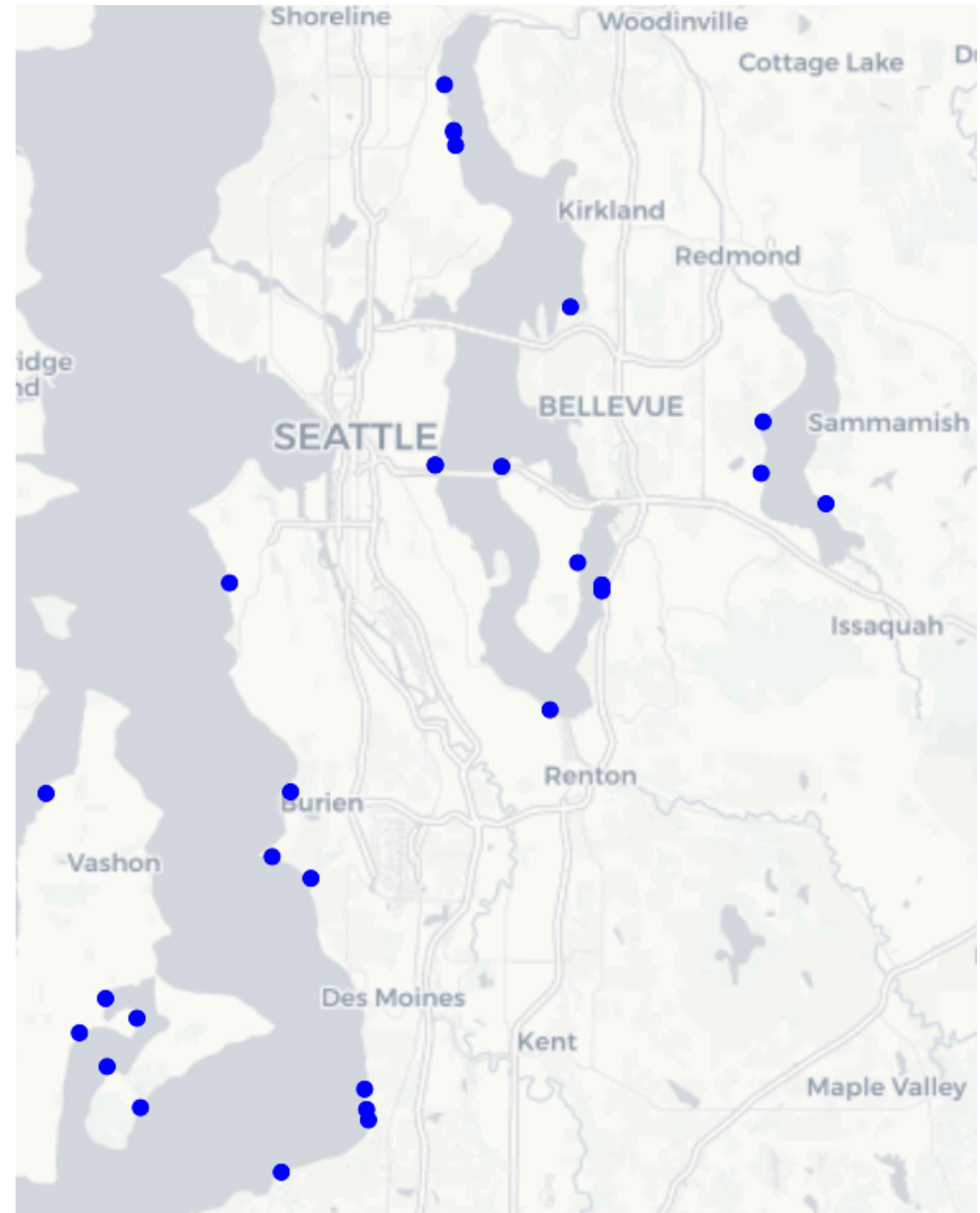
Object 5

A number of questions need to be considered

#1	Show off	How can we identify if an object is suitable for showing off ?
#2	Renovated	Do objects need to be renovated or just in great condition or newly built?
#3	High grades and condition	What range of values are we looking for?
#4	Reselling within a year	How can we achieve good profits quickly?
#5	High budget	What is the expected budget for an object?
#6	Waterfront	Are all waterfront objects interesting?

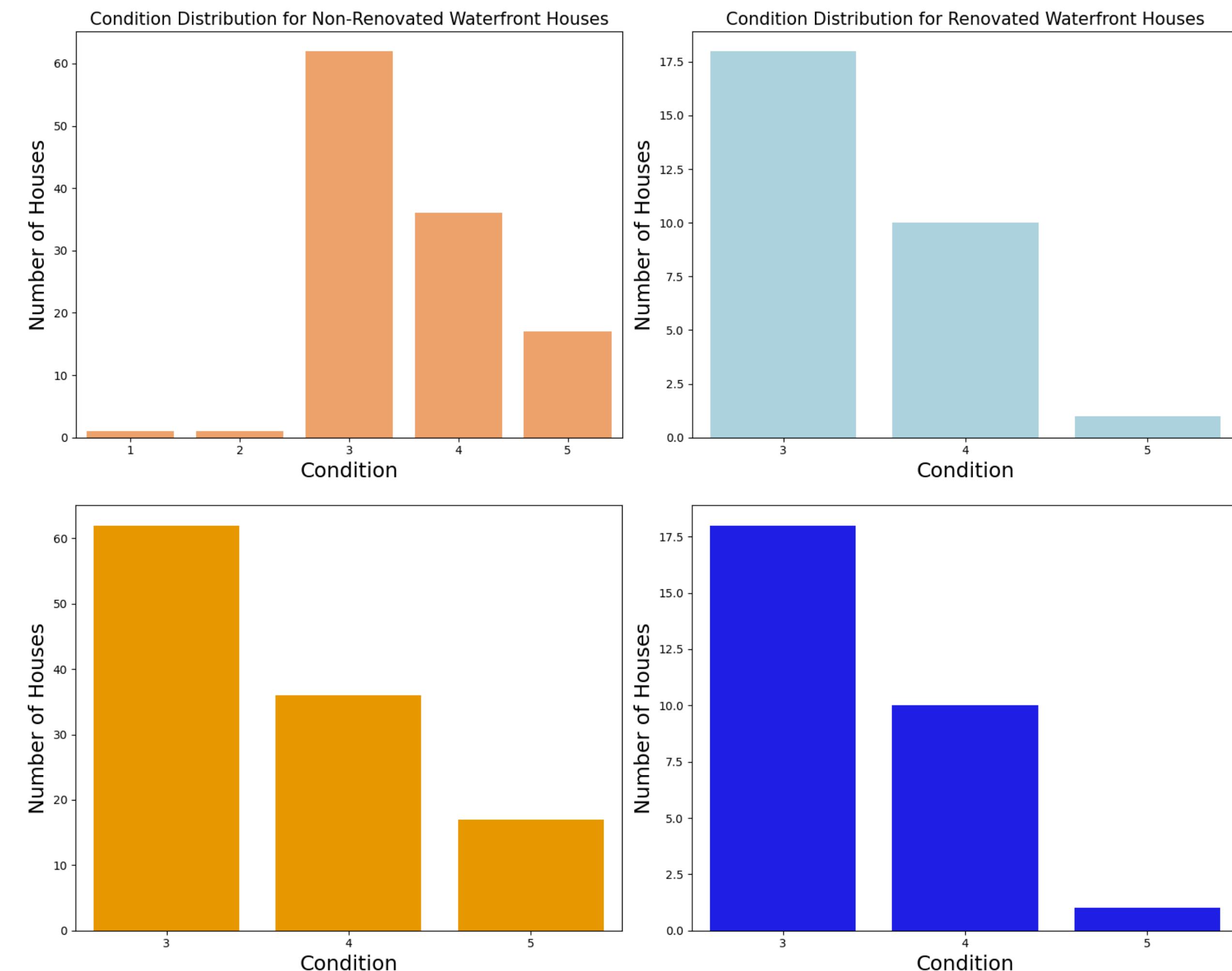
There are currently only 29 renovated waterfront objects available

- “Non-renovated houses below a specific age do not differ much from renovated houses in terms of condition”
- Let’s check if we can add non renovated houses (newly built) to our search pattern and increase the number of potential objects



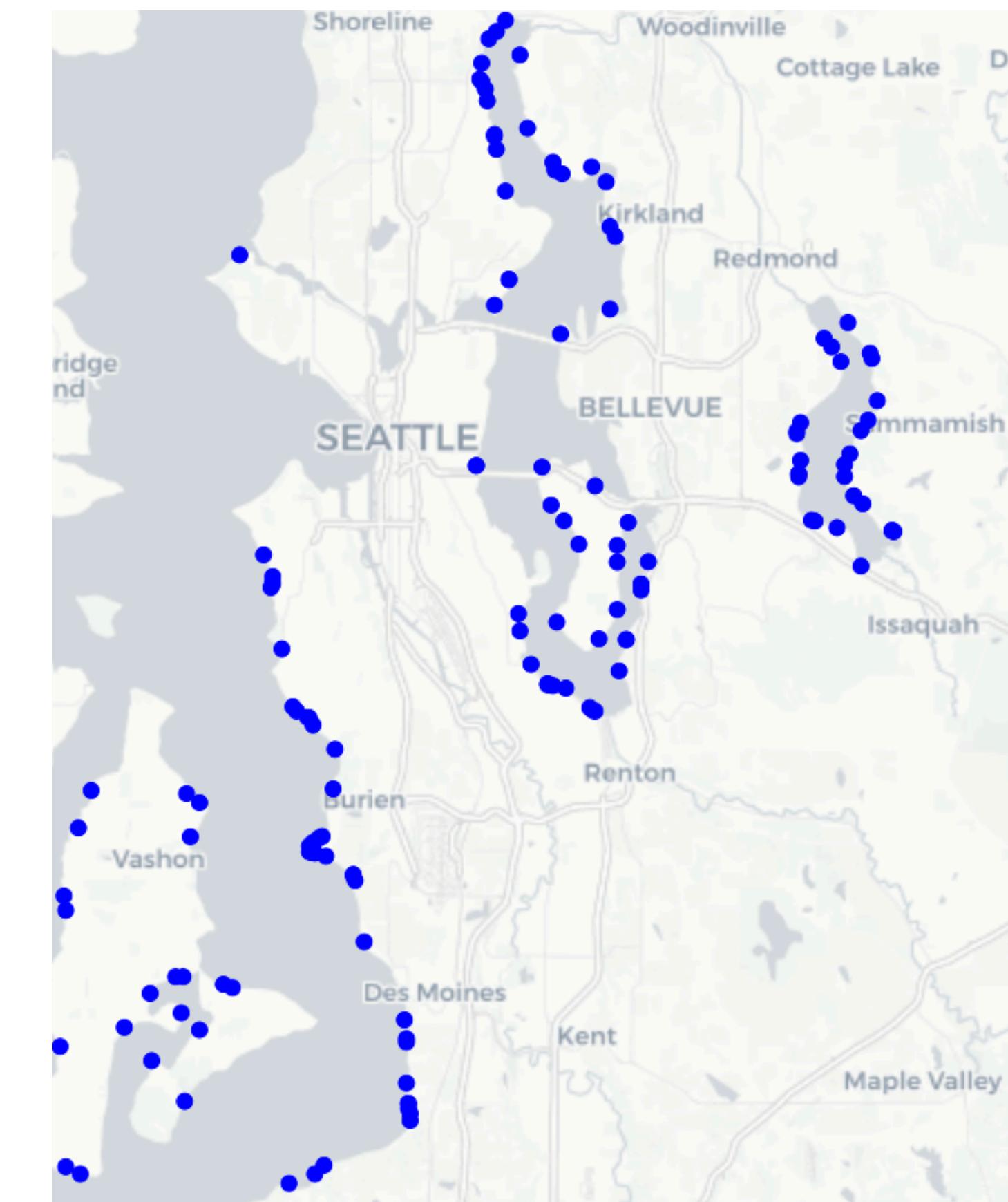
Condition distributions of non-renovated and renovated houses are very similar

- Renovated and non-renovated waterfront houses have a similar distribution around 3 and 4
- Newer houses have a higher tendency to be in condition 5
- Remove outliers (built in 1930s)
- To increase dataset we will review all waterfront houses overall with a set built-starting year for non-renovated objects



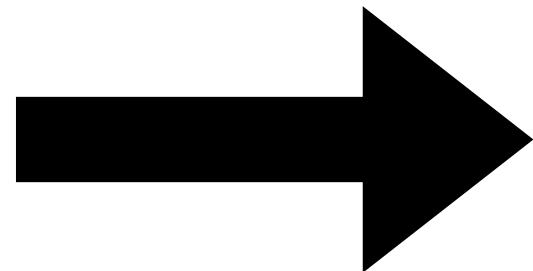
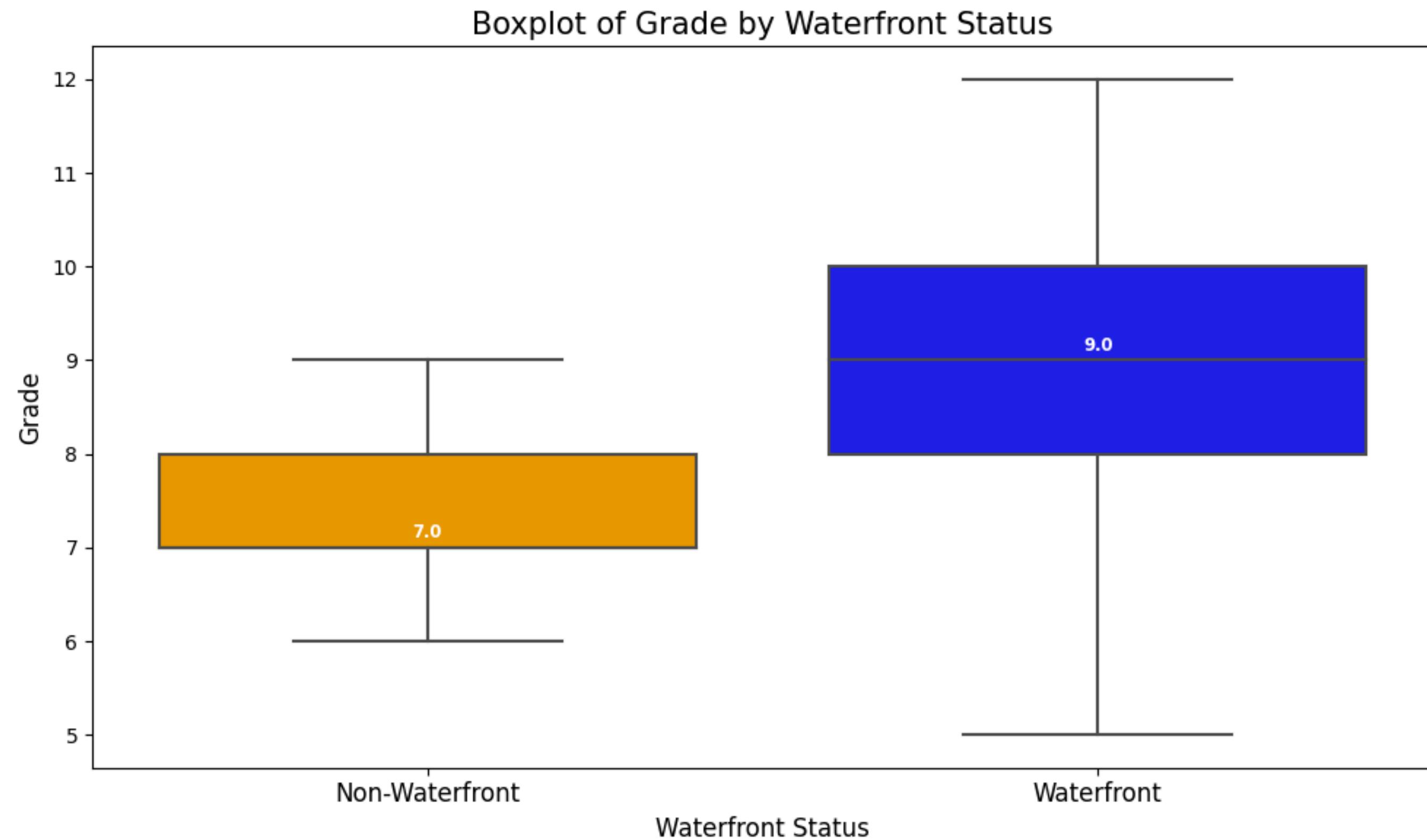
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We now have 146 potential waterfront objects to analyse

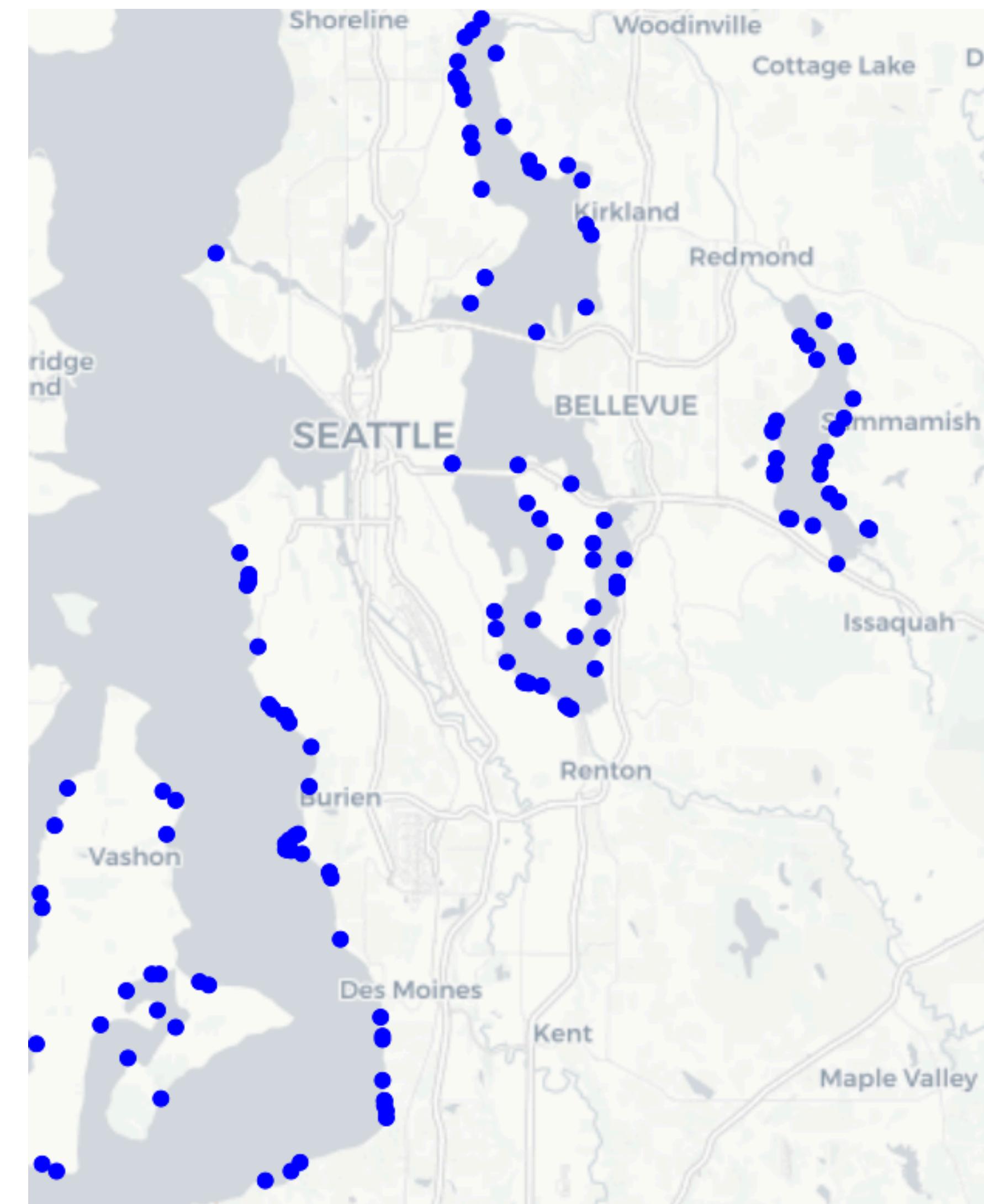
The median grade for waterfront objects of 9 is already significantly higher compared to normal houses



No need to further filter the available objects for grade

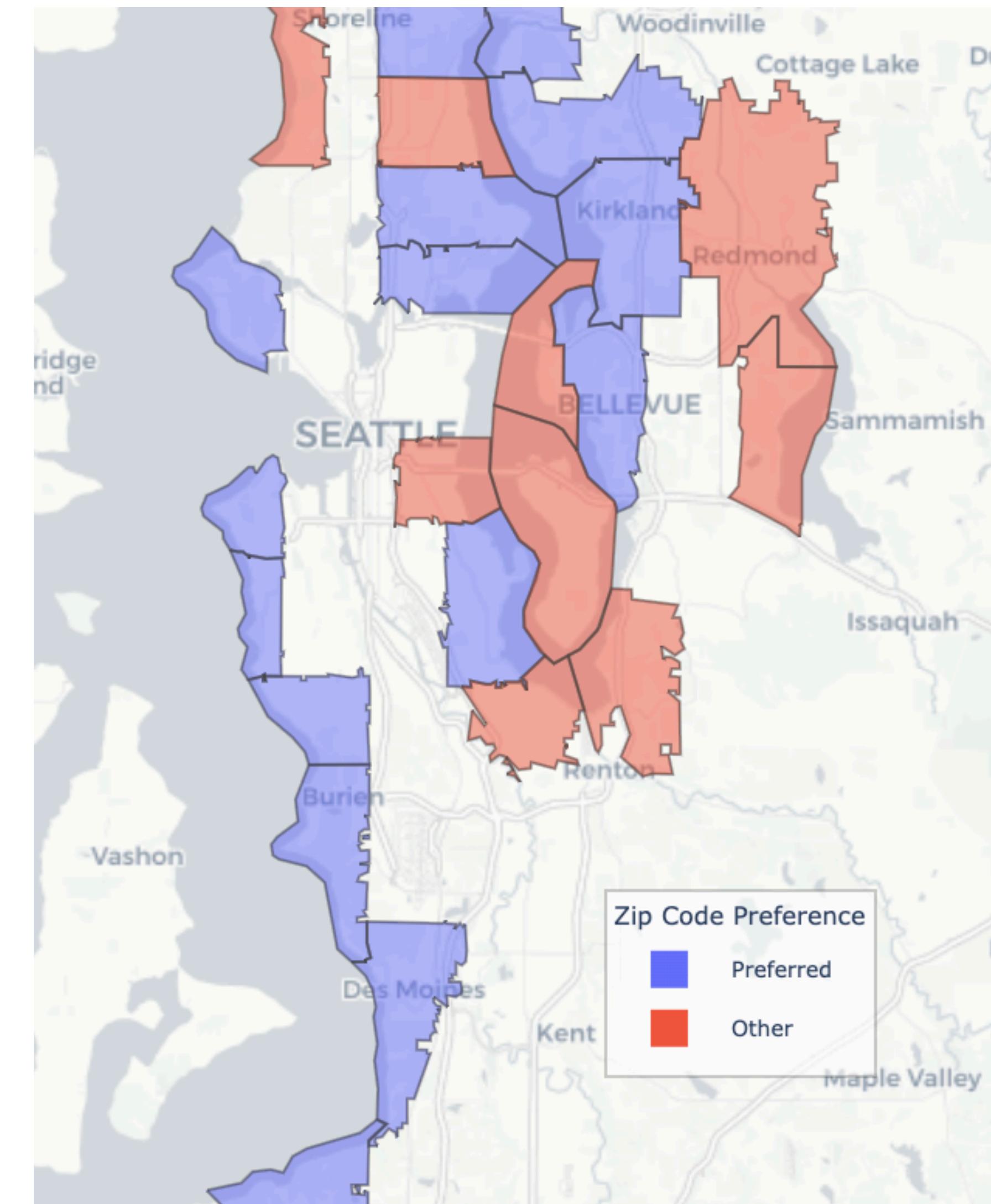
What areas are most interesting to show off your object?

- “Good area to show off should be an area with a large difference of your own lot compared to your neighbours lot size”



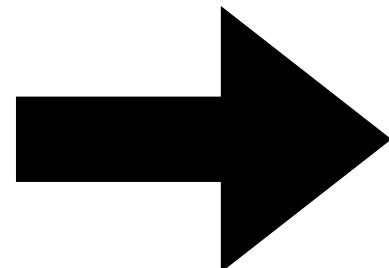
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- “Good area to show off should be an area with a large difference of your own lot compared to your neighbours lot size”
- We highlight zip code areas with a large difference of waterfront lot sizes to neighbouring objects

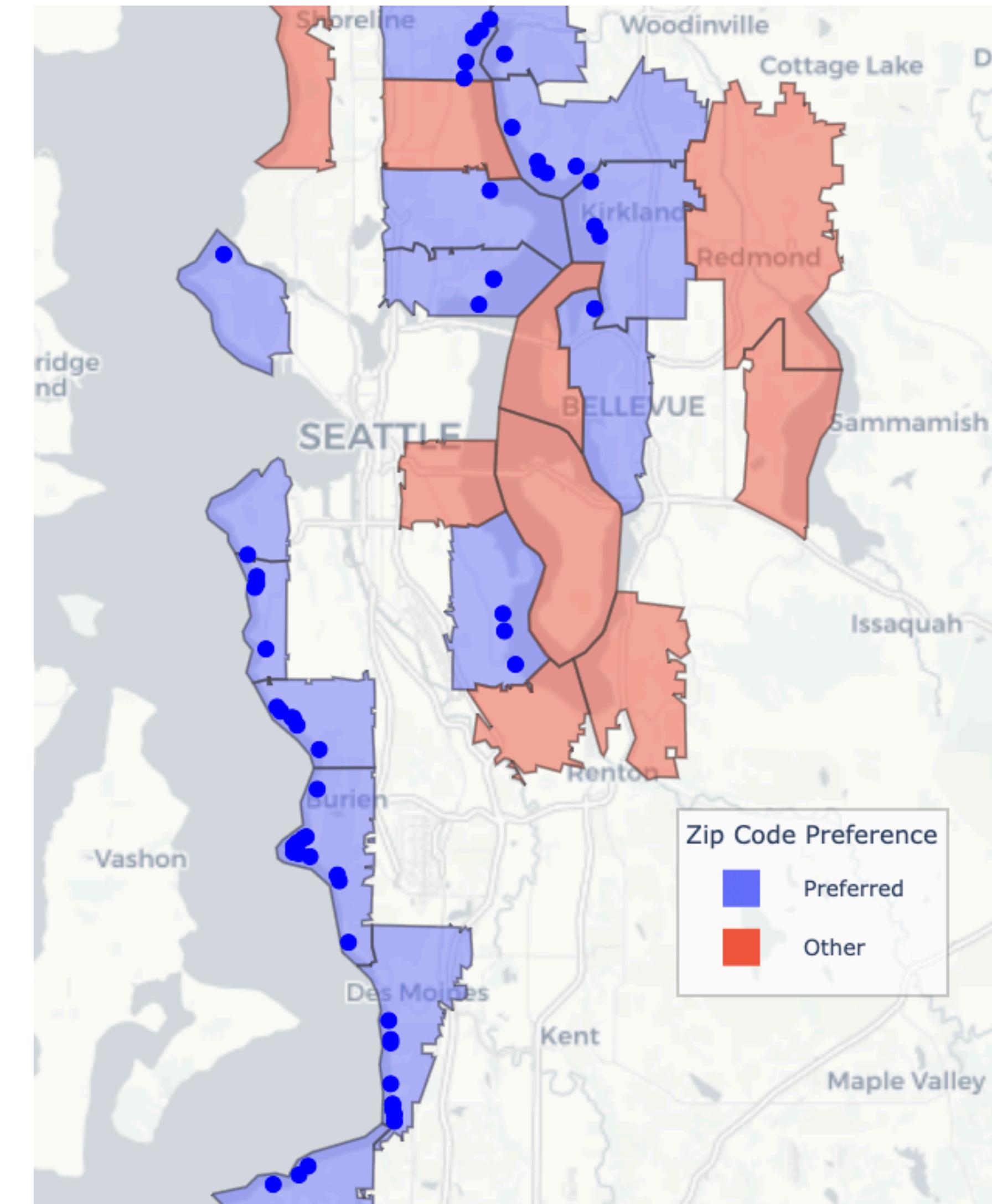


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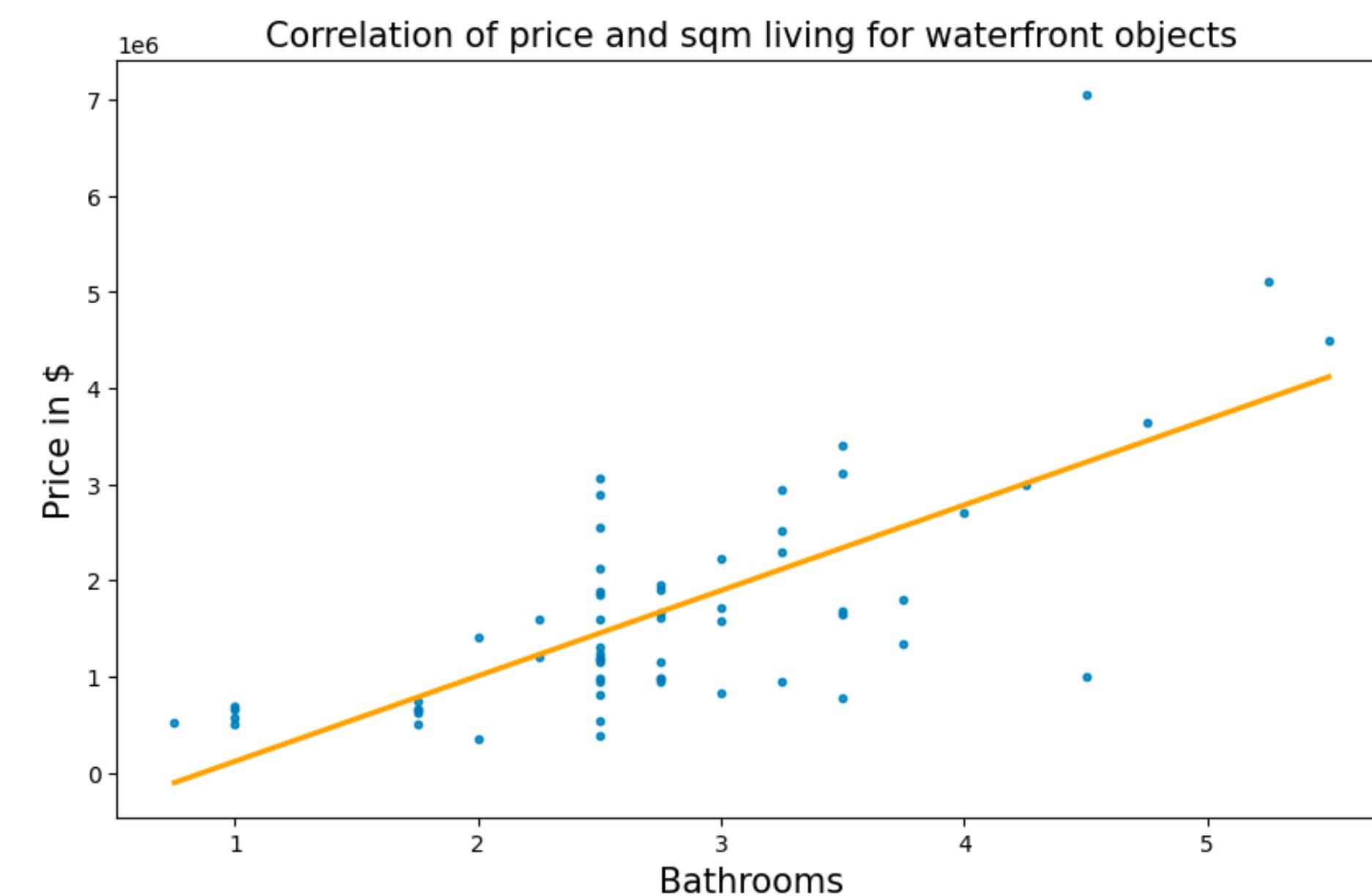
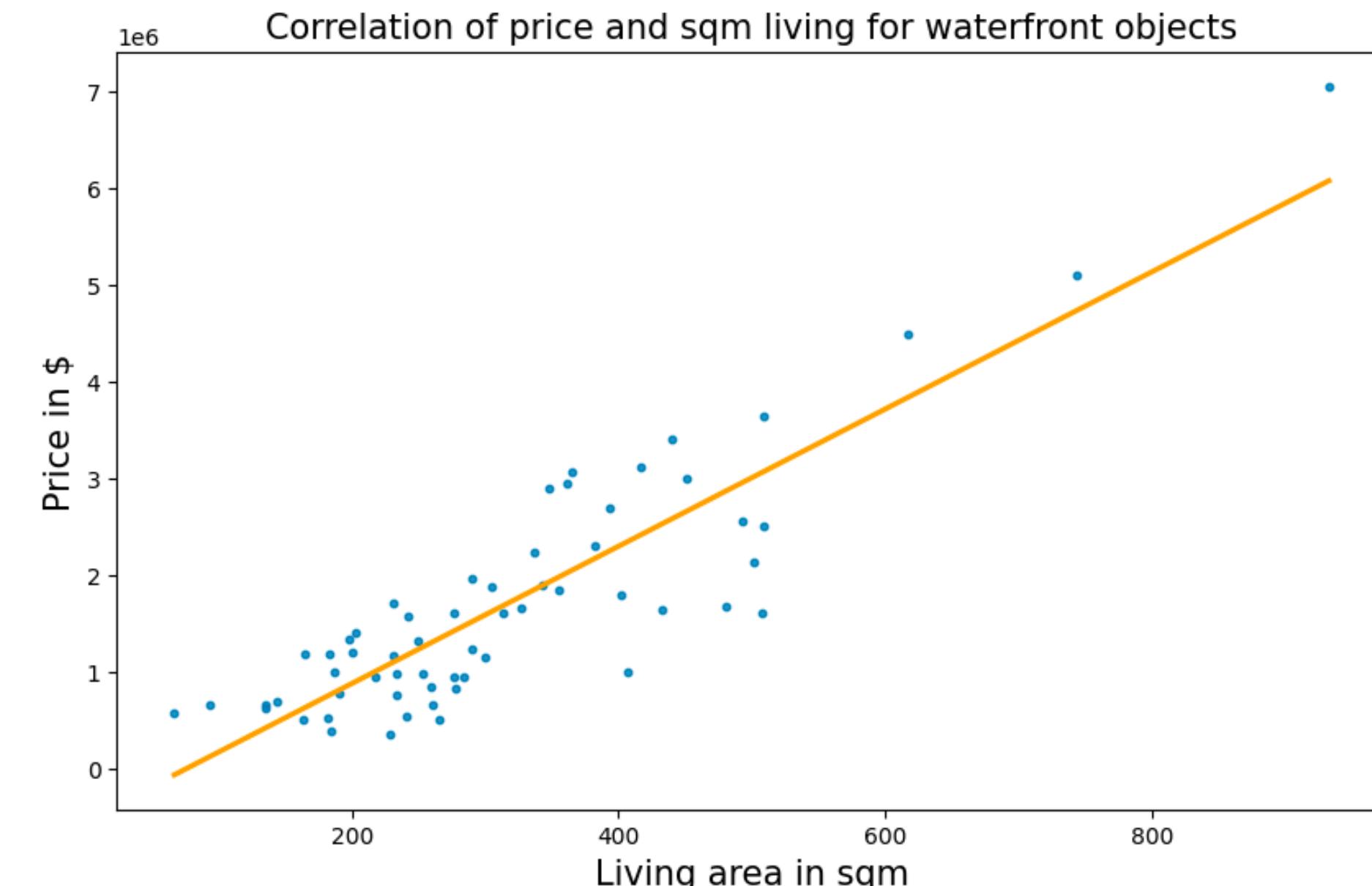


61 potential objects at Seattle’s waterfront, in great condition and great area to show off your massive estate



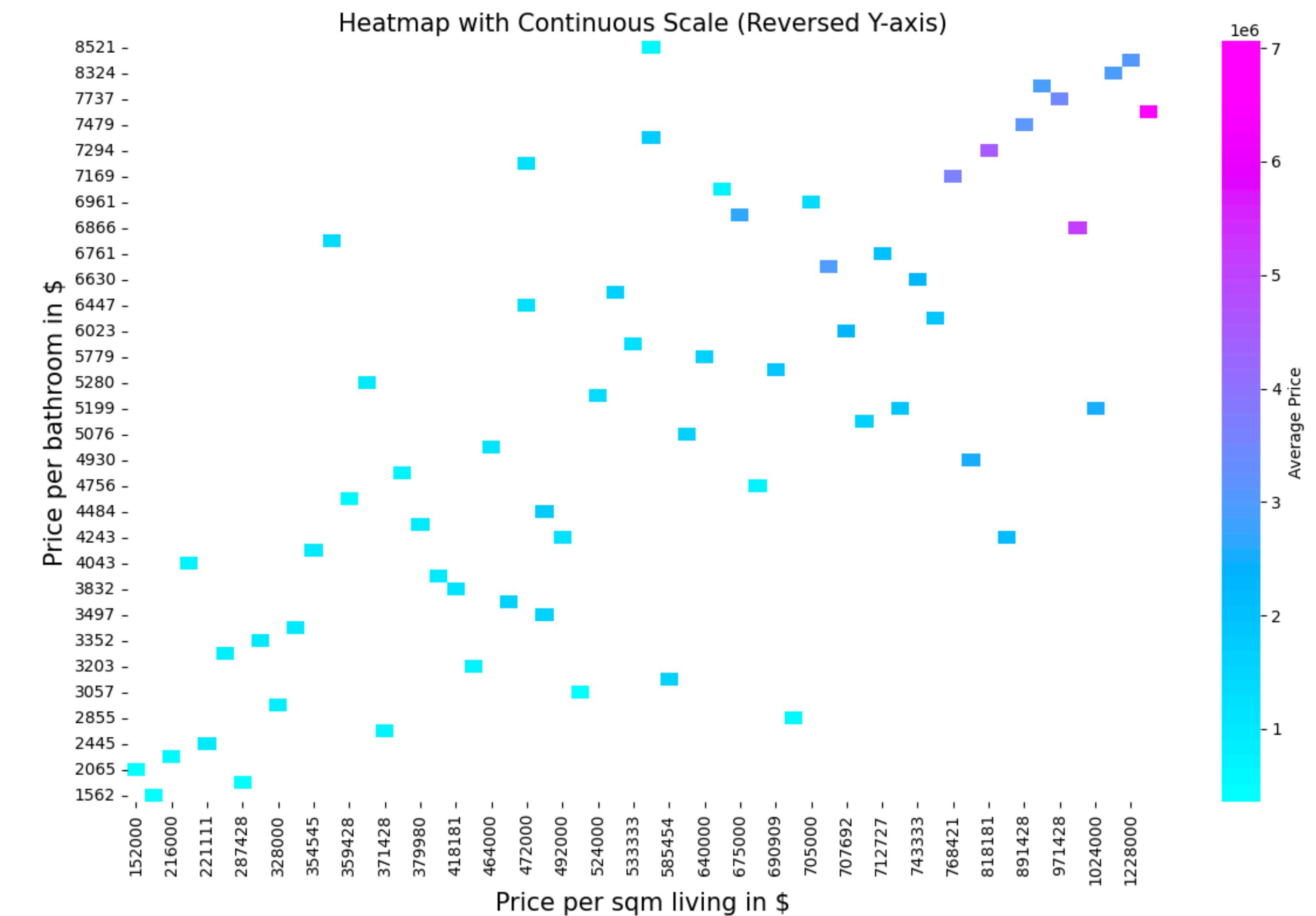
Living space and number of bathrooms are highly correlated with selling prices

- Investigating specific object attributes can increase the chance for quick ROI
- “*Large homes and high number of bathrooms indicate high standard of living and justify prices*”
- Correlations: Living (0.88), Above (0.81), Bathrooms (0.71), Grade (0.62)



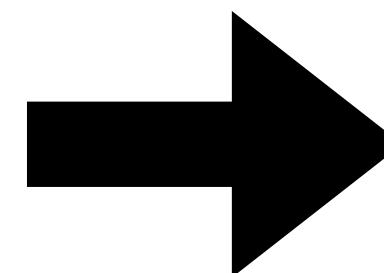
Potential undervalued houses have low prices per bathroom and living size

- Consider that high prices per bathroom can still indicate good value
- Good ROI is only expected from undervalued houses for given attributes

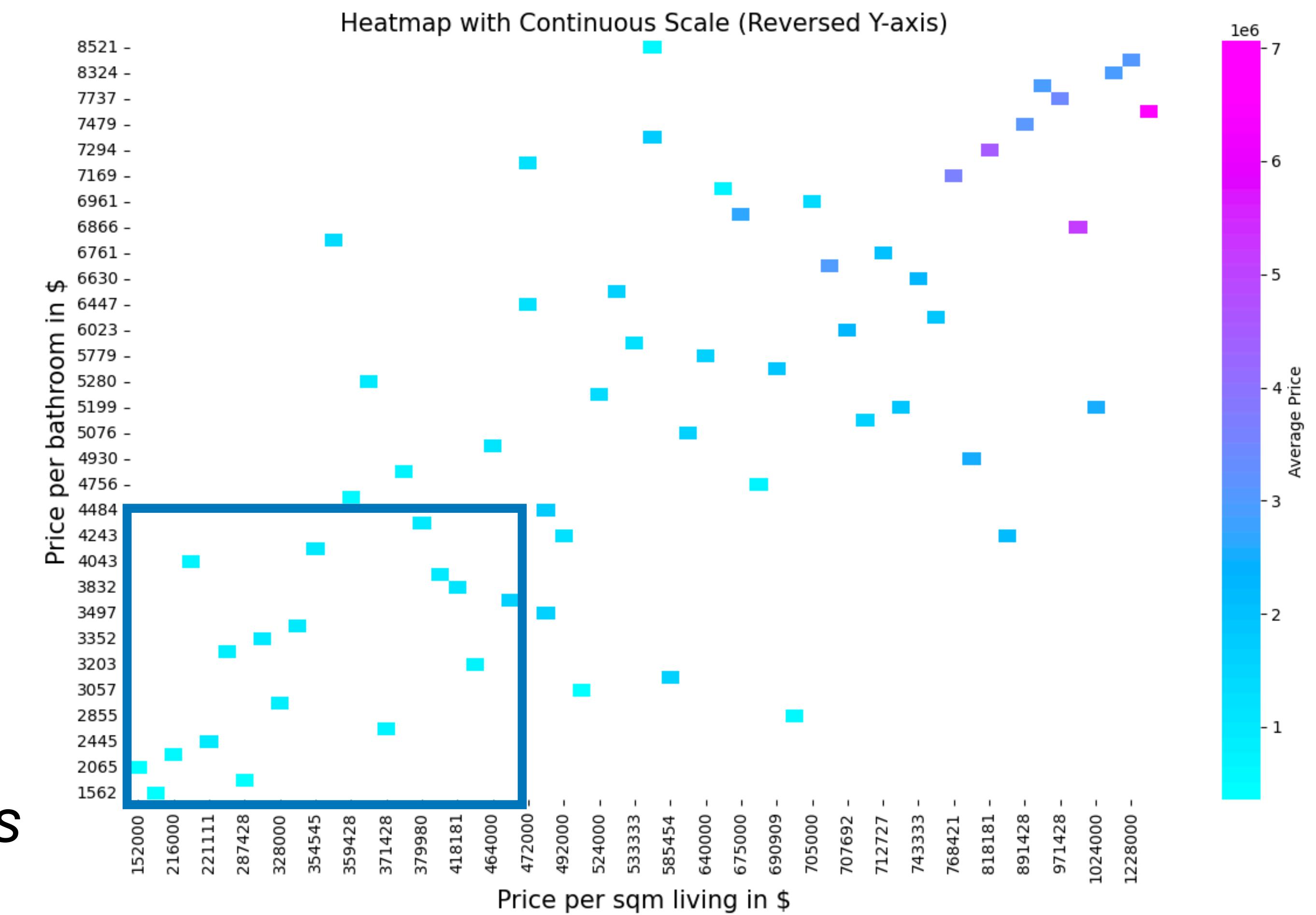


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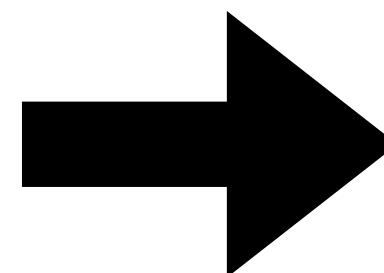


Focus on lower quartile
~Top 15 “cheapest” objects

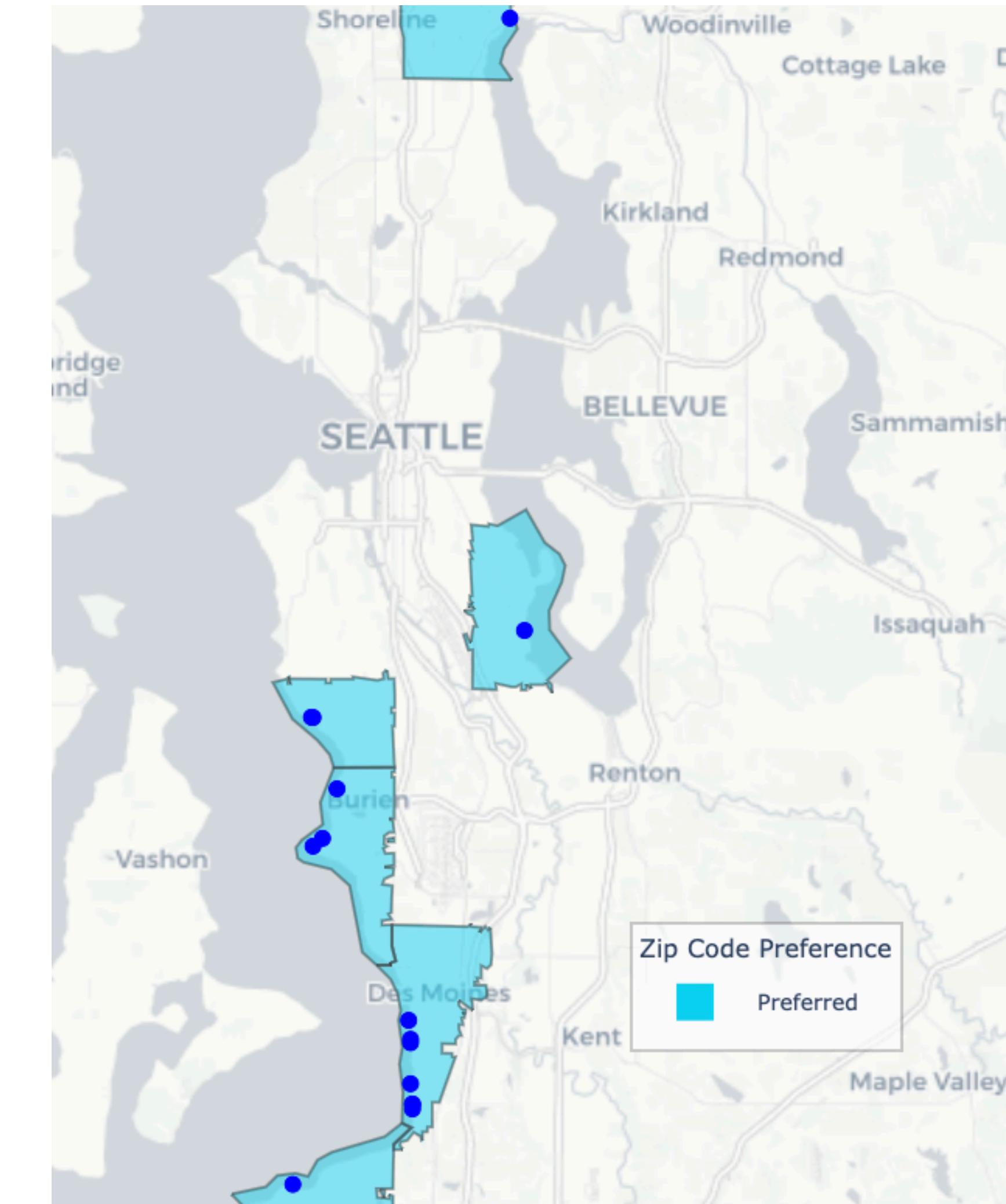


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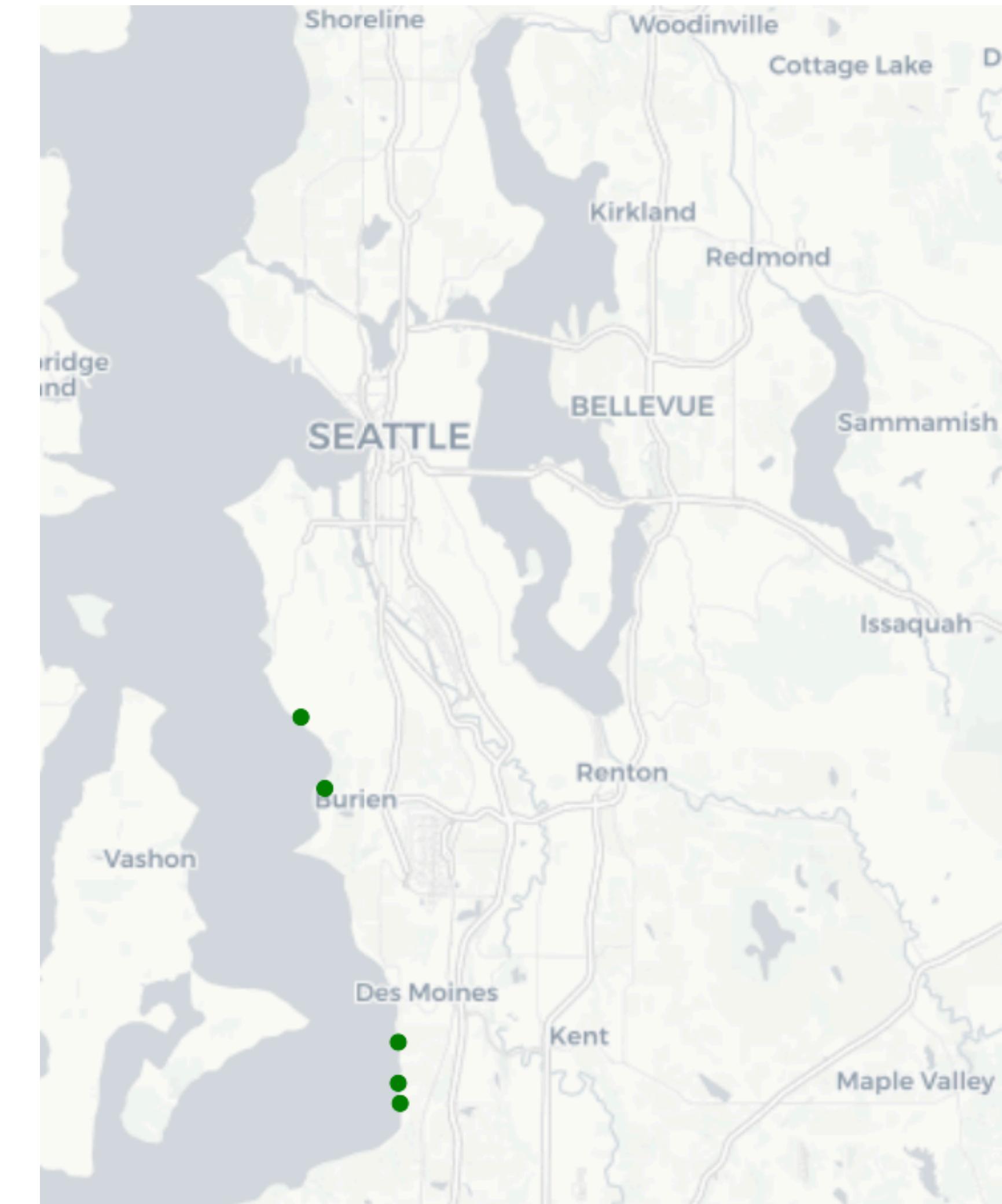


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~Top 15 “cheapest” objects



All top 5 objects located along the coast of Puget Sound in southern Seattle

- Given the median expected house price in Seattle, a high budget (0.8 quantile) relates to ~\$ 700.000
- Top recommended objects are in the \$ 500.000-900.000 range (accommodating for variance in house attributes)

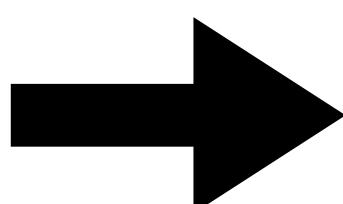


Top 5 Objects

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	Object 1	Object 2	Object 3	Object 4	Object 5
Living size (sqm)	407	163	182	234	278
Bedrooms	3	2	4	4	3
Bathrooms	4.5	2	2	2.5	2.5
Lot size (sqm)	4370	2539	768	2028	995
Price (\$)	995.000	500.000	520.000	750.000	820.000



Potential in-depth analysis: “Second-row houses offer similar views compared to waterfront (hillside setting), yet prices are significantly lower”