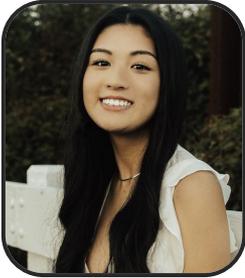


Who is Impacted by Short-Term Rentals in Pierce County?

Community Impact Analysis & Engagement Strategies



Our Group



Anna Templeton



Bahja Ali

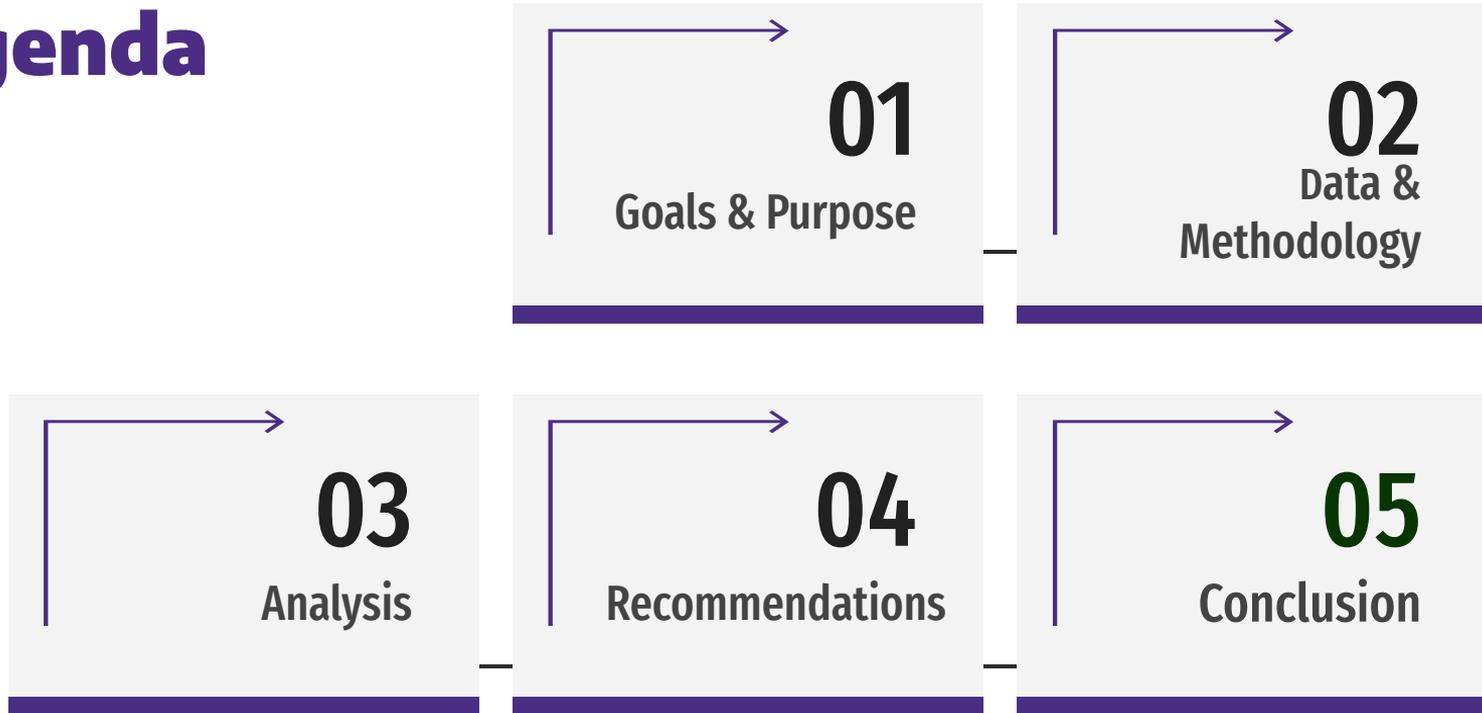


Nardia Duarte



Liam Hunter

Agenda



Goals & Purpose

Pierce County Comprehensive Plan 2023 Project Timeline



Research Questions

- 1) *Who is directly and indirectly impacted by short-term rentals?*
- 2) *Are there common characteristics among communities that have a high density of short-term rentals?*
- 3) *How does academic literature and STR public comments inform engagement methods for future comprehensive planning?*

Outcomes

- 1) Provide Pierce County with **a method for data collection through a pilot experiment designed to identify statistical and spatial analysis.**
- 2) Provide Pierce County with **a content analysis and visualization of community perceptions regarding STRs.**
- 3) Provide Pierce County with **a step-by-step engagement process for STR-related discussion.**

Data & Methodology

Short-term Rental Data Collection Protocol

- *Real-time, platform-verified STR listings with key characteristics ideal for understanding active STR activity.*
- *Precise latitude/longitude for accurate mapping & boundary verification*
- *Parcel, zoning, and land-use data*
- *Accurate, transparent, and replicable*



Pilot Short-Term Rental Listing Compilation Protocol

- 1) Navigate to Market Atlas on [Airrio](#) (no login required)
 - a) Home page -> Resources -> Market Atlas -> Try Market Atlas -> Search: "Gig Harbor, Washington, United States"
- 2) Prepare dataset for variable collection:
 - a) Variable ID
 - b) Coordinates X
 - c) Coordinates Y
 - d) Occupancy Rate
 - e) # Guest
 - f) ADR
 - g) Listing URL
 - h) Listing Name
 - i) In/Out of City Limits
 - j) Google Maps Link
 - k) Address
 - l) Tax Parcel Number
- 3) Cross-Reference [Adopted Community Plan](#) for Gig Harbor Community Plan boundaries
 - a) Boundaries shown in the [image](#) to the right
- 4) Select each listing (shown as a red dot on Airrio Market Atlas) that falls within the boundaries specified in "Step 3".
- 5) Document descriptive data
 - a) Data Accessed (*for multiple entries in a singular sitting, list data accessed at the first entry of the session*)
 - b) Occupancy Rate
 - c) Number of Guests allowed
 - d) Average Daily Rate
 - e) Tiny Url (URL of current screen pasted into [tinyurl.com](#))
- 6) Take address or relative location markers such as street intersections and find the equivalent location in [google maps](#).
 - a) After selecting the relative location within google maps, copy the URL for the webpage and identify the Longitudinal (x) and Latitudinal (y) coordinates located within the web address (**Keep in mind that: negatives are significant & google maps places formats this as YX** example shown below, highlighted in green:
 - i) https://www.google.com/maps/@47.6413758,-122.335132,13z?entry=ttu&g_ep=Eg0vMDI2MDIwNC4wIKXMDSoASAFQAw%3D%3D
 - ii) X = -122.335132

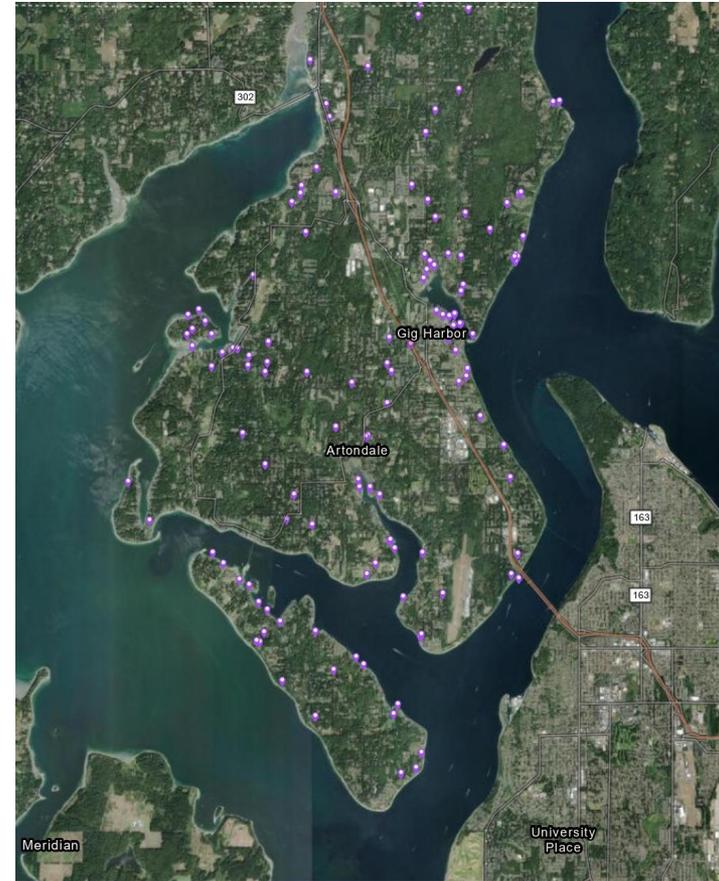


Airbnb ARCGIS

Airbnb Location Data _ Pilot Gig Harbor _
Airbnb: 200' Waterfront classic home ~ AC
on a Private Raf

Table + Add to new sketch 🔍 Zoom to

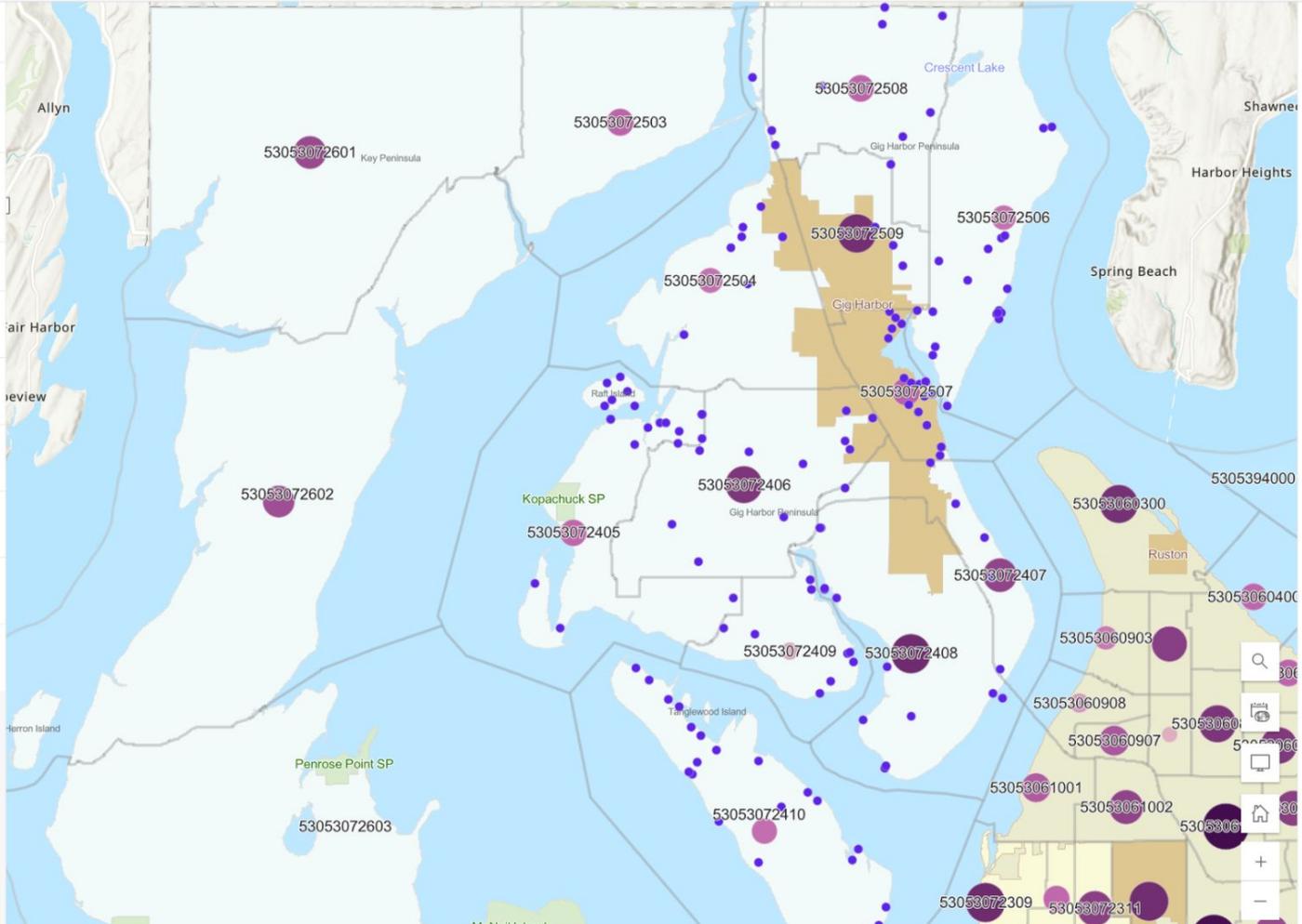
Address if Available	153 Maple Ln NW, Gig Harbor, WA 98335
ADR	\$276
Google Maps Link	View
Guest	6
ID	46
In/Out of City Limits	Out
Listing Name	200' Waterfront classic home ~ AC on a Private Raf
Listing URL	View
Notes	
Occupancy Rate	43.30%
Parcel Number	4995000920
X	47.3323248
Y	-122.6669642



<https://tinyurl.com/ypddf8bz>

Layers

- Airbnb Location Data _ Pilot Gig Harbor
- Airbnb Location Data _ Pilot Gig Harbor_ Heat Map
- 2020_Census_Tracts
- 2020_Census_Tracts -Population
- 2020_Census_Tracts -Vacant Housing
- 2020_Census_Tracts -Housing
- Zip Codes (Pierce County)
- Washington Counties
- Pierce_County_Base map



Content Cloud

Data Collection Protocol

Data Source:

Public comments submitted to the City of Gig Harbor short-term rental policy process.

Three comment periods:

- March 2022 Planning Commission Study Session
- Feb 2–13, 2023 Public Comment Period
- Feb 14–27, 2023 Public Comment Period

n ≈ 165 total submissions

Test Preparation:

- Stopword and administrative language removal
- Plural/singular standardization
- Synonym consolidation

Content Cloud

Data Collection Protocol

Thematic Grouping:

1. **Policy & Regulation** (e.g., ordinance, permit, zoning)
2. **Ownership & Market** (e.g., property, investors, rent)
3. **Impacts & Attitudes** (e.g., community, housing, noise)

Methodologically informed by Jung (2014), *The Canadian Geographer*.

Word Frequency Analysis:

- Total coded terms: **1,210**
- Category distributions:
 - o Policy & Regulation: **46.9%**
 - o Ownership & Market: **28.8%**
 - o Impacts & Attitudes: **24.4%**

Literature Reviewed

Findings	Implications
Housing Availability	STR growth may reduce long-term rental supply and increase housing prices (Allen, 2017)
Market Transformation	Platforms like Airbnb have reshaped housing markets (Hoffman & Heisler, 2021)
Regulatory Strategies	Cities are adopting licensing, zoning restrictions, and occupancy caps (Valentin, 2020)
Community Impacts	High STR turnover can affect neighborhood stability (Theophilus & Ulrich-Schad, 2025)

Analysis

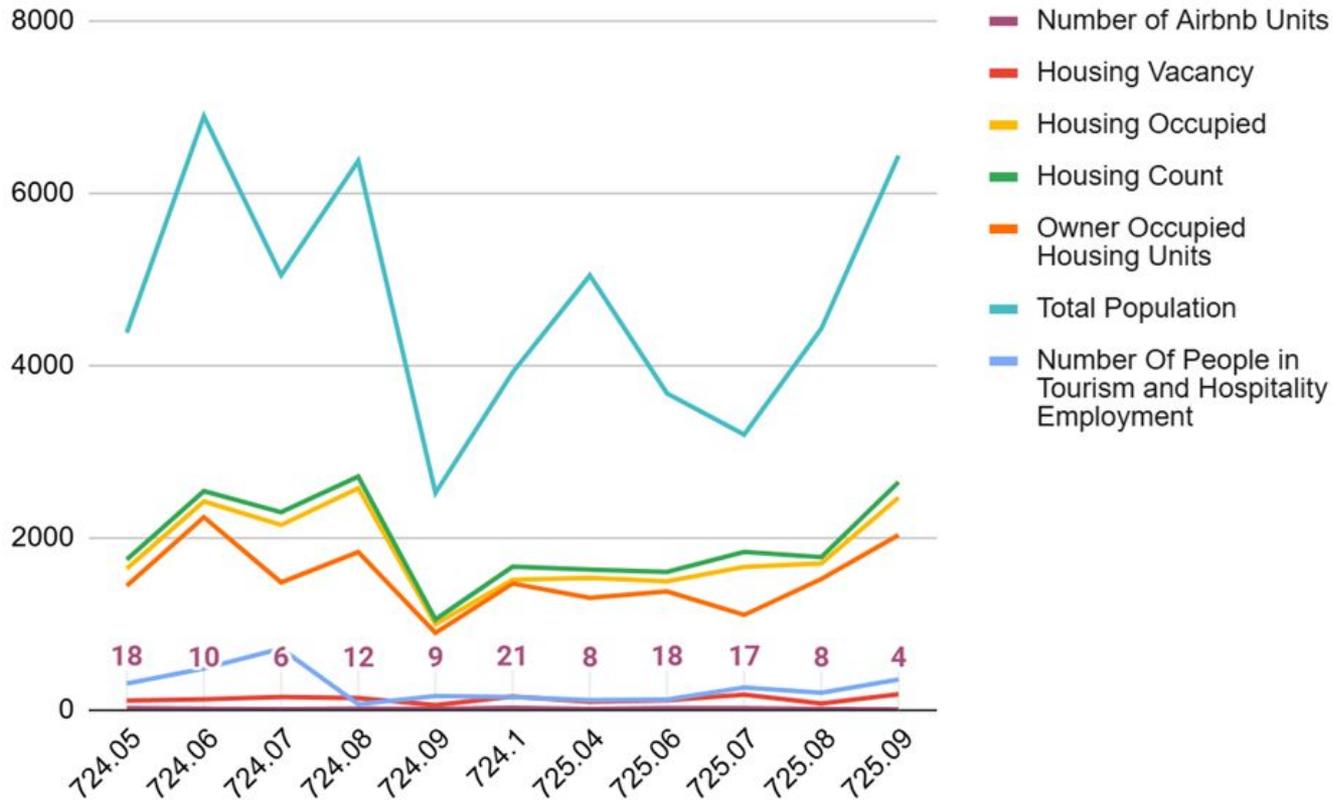


Results from Pilot Study

Census Tract Number	Number of Airbnb Units	Housing Vacancy	Housing Occupied	Housing Count	Owner Occupied Housing Units	Total Population	% of people in Tourism and Hospitality Employment
724.05	18	106	1638	1744	82.50%	4381	6.95%
724.06	10	121	2420	2541	88.07%	6895	6.94%
724.07	6	148	2147	2295	64.47%	5049	14.07%
724.08	12	136	2573	2709	67.68%	6377	1.01%
724.09	9	54	995	1049	85.07%	2520	6.30%
724.1	21	153	1509	1662	87.65%	3921	3.78%
725.04	8	93	1534	1627	79.88%	5048	2.19%
725.06	18	110	1491	1601	85.77%	3676	3.22%
725.07	17	175	1659	1834	60.02%	3197	8.09%
725.08	8	72	1700	1772	85.71%	4430	4.44%
725.09	4	180	2465	2645	76.70%	6438	5.45%

Table #1: Gig Harbor STR's & Housing Dataset Overview (Social Explorer & Pierce County PublicGIS & Pilot Dataset)

Figure 1. Results from Pilot Study



Results from Pilot Study

- *Listings tend to cluster in water-adjacent neighborhoods*
- *Primarily residential with minimal visitor-service employment*
- *High owner-occupancy neighborhoods*

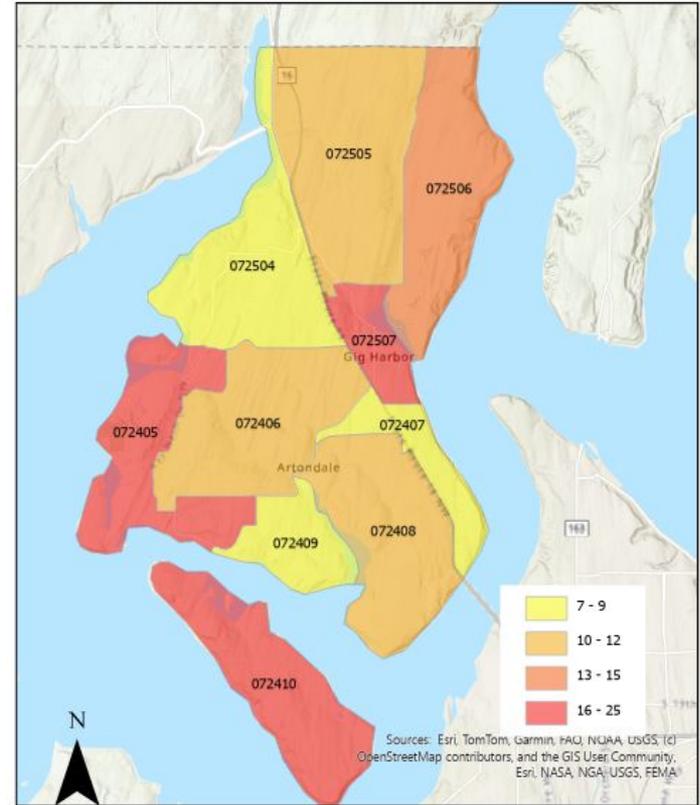


Figure 2. Policy & Regulation Content Cloud



Figure 3. Ownership & Market Content Cloud

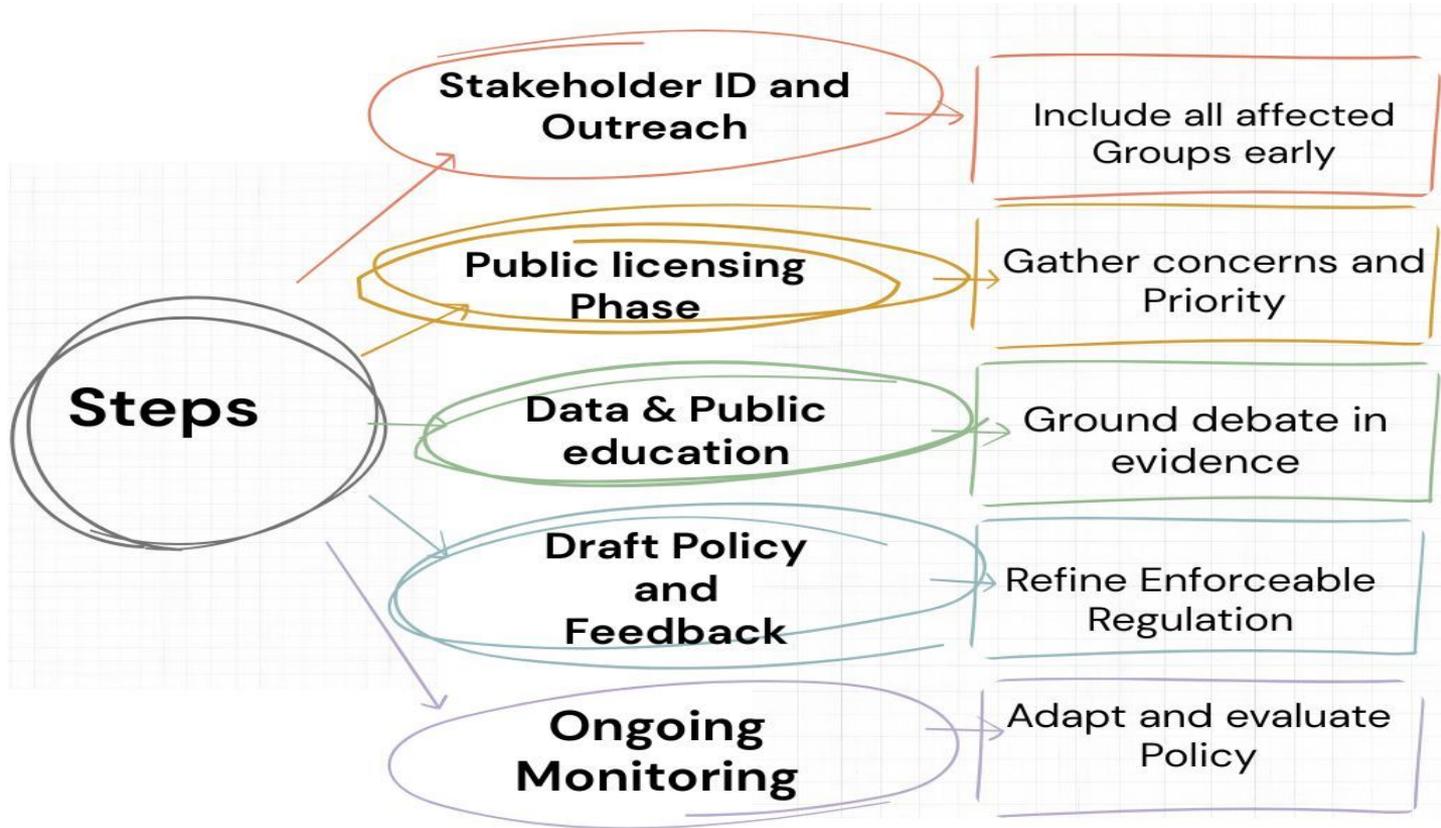


Content Cloud Results

'Policy & Regulation'			'Ownership and Market'			'Impact and Attitudes'		
Terms	N	%	Terms	N	%	Terms	N	%
Ordinance	137	11.3	Property	82	6.8	Community	64	5.3
Regulations	92	7.6	Business	59	4.9	Housing	61	5
Residential	86	7.1	Owners	58	4.8	Home	52	4.3
Permit	74	6.1	Investors	41	3.4	Neighborhood	46	3.8
Limits	68	5.6	Rent	38	3.1	Parking	34	2.8
Commercial	44	3.6	Hotel	29	2.4	Noise	26	2.2
Zoning	22	1.8	Corporations	24	2	Affordable	7	0.6
Enforcement	18	1.5	Investment	9	0.7	Affordability	5	0.4
Registration	14	1.2	Purchase	8	0.7			
Owner-occupied	12	1						
Total	567	46.9	Total	348	28.8	Total	295	24.4

Table #1: Gig Harbor Word Mapping Frequency Table (N = 1,210)
 Percentages are rounded to 1st decimal place, therefore does not total 100%

Literature Review Results



Recommendations

Replicate STR Dataset Protocol on a County-level

- *Select the STR data source(s)*
 - AirROI, AirDNA, Inside Airbnb
- *Create a countywide data dictionary*
 - Defining each variable, its format, and acceptable values. Ensure consistency across staff and future updates.
 - Integrate with County GIS and Planning System
- *Recommend dividing data collection into sections*
 - By community plans, Census Tract
- *Schedule quarterly updates*
 - Instead of a one time and non recurring data pull
- *Integrate community feedback data*
 - Complaints, noise reports, parking issues
 - Connect STR activity with lived experience of the community

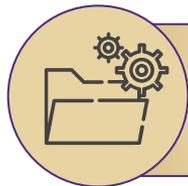
Engagement Methods for Future Comprehensive Planning

- *Include all affected groups early*
- *Gather concerns & priorities*
- *Provide data and implement public education*
- *Refine enforceable regulations*
- *Adapt and evaluate policy*

Conclusion

Takeaways

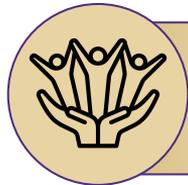
Deliverables



Gig Harbor
STR Dataset



STR Comments
Content Cloud



5-Step Engagement
Strategy

Answers to RQ

1 & 2

The most impacted populations include: Renters, Service workers, and First-time Buyers. High Density STR communities tend to have lower Tourism & Hospitality workforce (Outliers/Limits)

3

Academic literature and community voices showcased that listening to public opinions is more effective when combined with inclusion in policy integration and education in STRs.