

A study of backyard cottage policy in Seattle, Washington:  
Existing conditions study, capacity analysis, and survey  
in conjunction with Seattle's Department of Planning and Development

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**Abstract**

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Backyard cottages or detached accessory dwelling units are a type of second unit found in single family residential areas. In Seattle, Washington backyard cottages were legalized in 2009. They are viewed by the Seattle Department of Planning and Development as an infill strategy to accommodate more dwelling units and a tool to increase affordable housing stock. After five years of legalization, the number of cottages is much lower than expected.

Working with DPD, this thesis investigates backyard cottage policy, through the lens of data analysis of built cottages, capacity, and opinions of cottage owners. The first portion is a study of already built cottages, reviewing property values, median household income, and prevalence of apartments, second is a capacity analysis estimating the number of parcels where a cottage could be built, and lastly a survey of those with completed cottages seeking the reasons for cottage construction and what obstacles were present during construction.

The four most important results from this study suggest that properties with cottages have higher property values than those without. Secondly, supply of parcels is not necessarily a barrier in preventing cottage construction. Third, cottages are built primarily to either accommodate family members or as an investment property where rental income will recoup the cost of construction. Lastly, high upfront costs and complicated and lengthy permitting are the largest obstacles for cottage owners.

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Special thanks go out to my thesis committee, Anne Vernez Moudon and Dan Abramson who provided me support and guidance throughout the year.

Most importantly, I would like to thank my wife Kaycee who has been at my side.

## Introduction

This thesis addresses backyard cottage policy in Seattle, a type of accessory dwelling unit built as a secondary unit to a main residence. This thesis will research current cottage policy and examine existing cottage owners through data analysis and a direct survey in an effort to expand cottage production.

This study is a continuation of internship work with Seattle's Department of Planning and Development (DPD). DPD believes that cottages are a viable infill development strategy and a means of providing more affordable housing. Their opinion is that there have not been enough cottages constructed. They expected double the number actually constructed after five years of legalization. This thesis is written through the lens of examining cottage policy in an effort to increase future cottage production. The results from this thesis will be used in a report to the Seattle City Council regarding possible changes to cottage policy, and their role in providing affordable housing.

## What is a cottage and examples of cottages

In Seattle, the following are defining features of a cottage.

- Cottages are separate structures; not connected to the main residence.
- Cottages must be less than 800 square feet including garage and storage areas.
- Property owners must either occupy the cottage or the main residence, absentee or rental ownership is not allowed.
- Unless constructed in an urban center, urban village, or a residential parking zone, there must be two parking spaces provided on site, even if none were provided previously. A process waiving the requirement is included in the code.
- Cottages cannot exceed 23' at roof pitch with lower maximums on narrower lots.
- Newly constructed cottages must be built on parcels greater than 4,000 square feet; parcels must be wider than 40' and deeper than 75', and contain adequate setbacks. Cottages can be built on parcels less than 4,000 square feet if certain requirements are met.
- Cottages can be converted structures, such as a garage being repurposed as a dwelling unit.

Cottages fall into two types—converted units and new construction. Converted units include repurposed guesthouses, art studios, garages, or toolsheds; whereas new units are built from scratch. The backyard cottage code has been used to reclassify smaller residences on the property when a new main residence was constructed on premises. Table 1 is a summary of Seattle's 155 completed cottages as of October 2014.

Table 1: Summary of Seattle’s 155 cottages (as of 10/1/2014)

<b>Feature</b>	<b>Statistic</b>
Converted unit (vs newly constructed)	65 cottages
Contain garage or storage space	50 cottages
Average size of parcel property	7,100 square feet
Average height of cottage	17.8 feet
Built abutting an alley	59 cottages
Average square footage of a cottage	597 square feet
Total number of parking waivers (for required space)	4

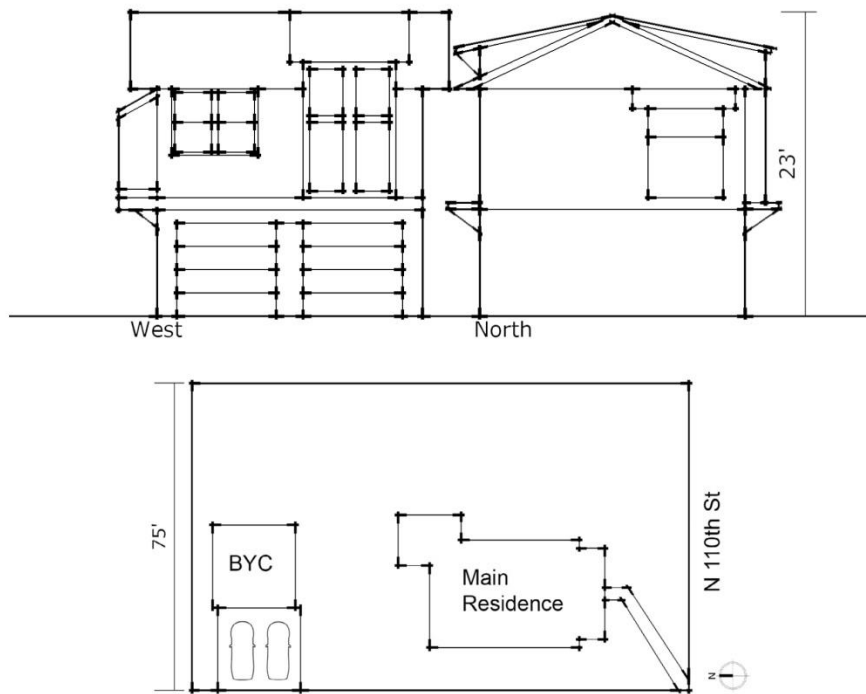
The following are several examples of Seattle’s backyard cottages. The cottages presented are examples clearly visible from the street. Many cottages are difficult or impossible to see from the street or alley, obscured by vegetation, fencing, or other structures. These examples resemble the main residence, however this is not always the case.

Figure 1: Example of a converted cottage



View of cottage from Phinney Ave N, looking east

Front of main residence and cottage from N 110th St, looking north



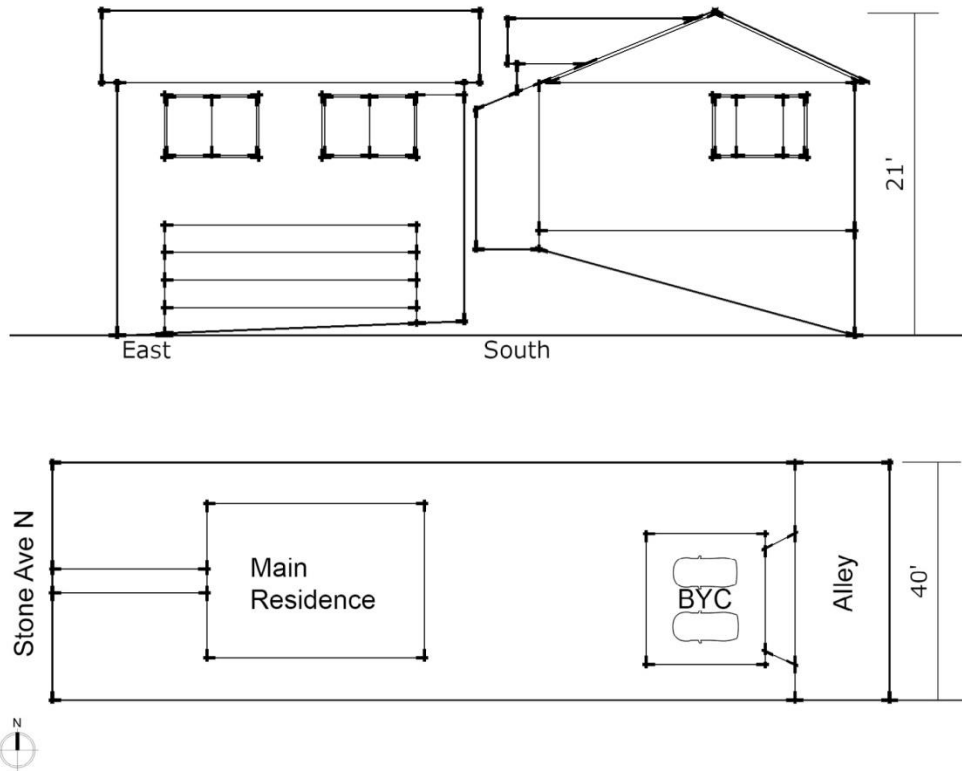
Located in North Seattle (402 N 110<sup>th</sup> St), this cottage is a converted unit where a dwelling unit was added on top of a detached garage. The cottage totals 740 square feet and 23' tall, it is the maximum height allowed. Similar to many cottages throughout the city, it matches the main residence in the building materials used and in color scheme selected. The parking requirement for the property is met through the two car garage.

Figure 2: Example of a newly constructed cottage



View of cottage from rear alley, looking southwest

Front of main residence from Stone Ave N, looking east



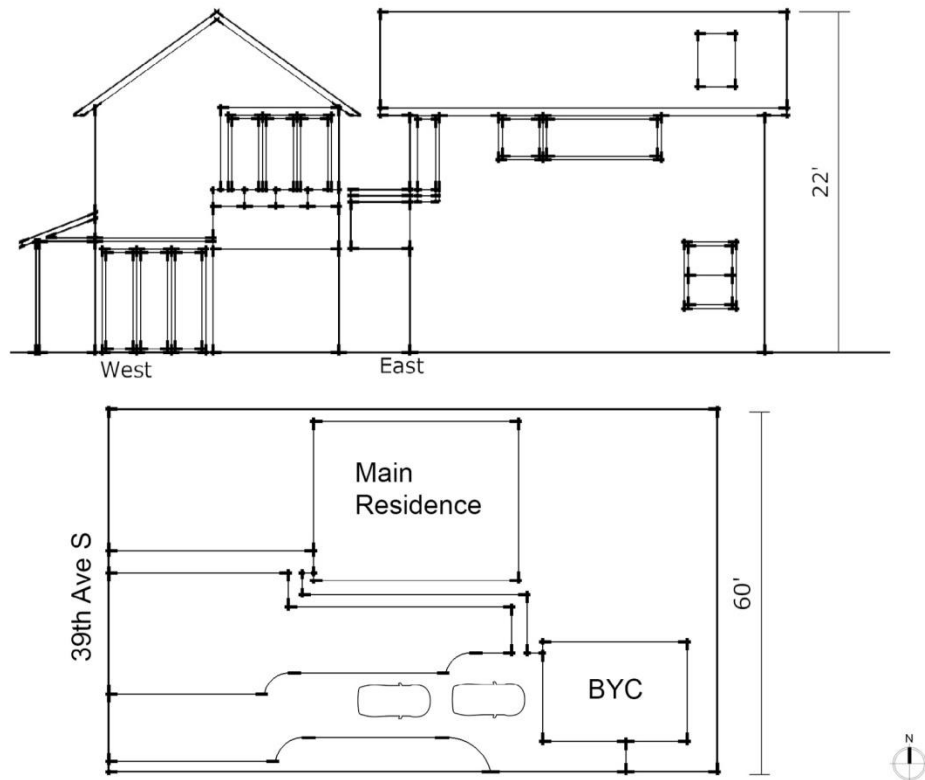
This North Seattle example (8404 Stone Ave N) is an example of a newly constructed, alley accessed unit. The two story cottage has a garage on the ground floor and a dwelling unit above with access from the rear alley. Taking advantage of a lot which slopes downhill, the cottage cannot be seen from Stone Ave N. Onsite parking is accommodated through the garage.

Figure 3: A cottage without a garage



View of cottage from 39th Ave S, looking east

Front of main residence from 39th Ave S, looking east

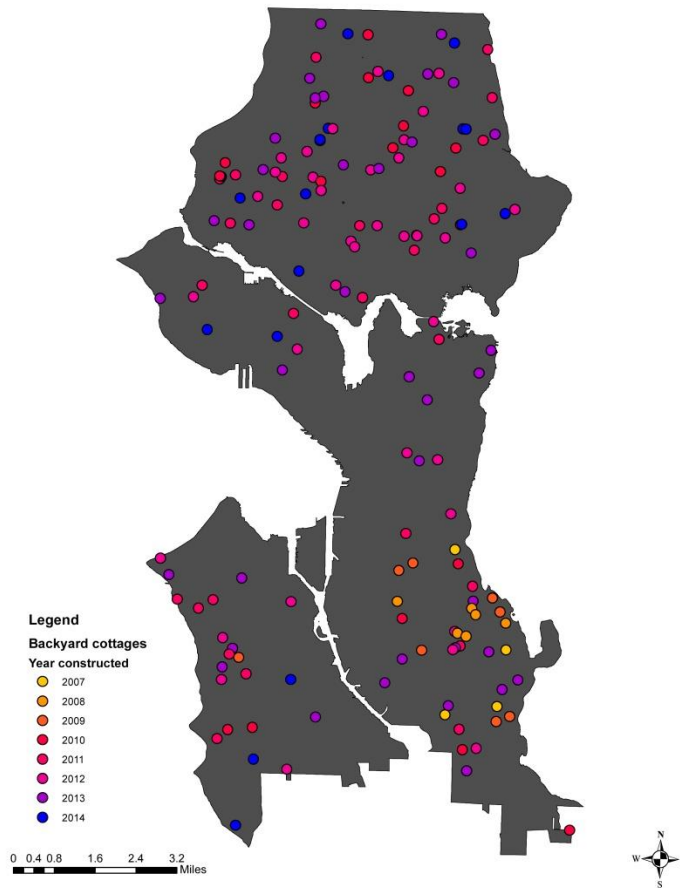


Built in Columbia City, this cottage (3916 46<sup>th</sup> Ave S) is an example of a side yard unit without a garage. It is a newly constructed, two story unit which matches the main residence in color and building materials. It is 790 square feet and 22' tall, parking for the cottage is accommodated on a long driveway.

## Current conditions

As of October 2014, there are 155 completed cottages. Through April 2015, there are approximately 40 cottages in various stages of the permitting process.

Figure 4: Map of constructed cottages as of 10/14



Year	Number of cottages completed
2007	4
2008	6
2009	8
2010	17
2011	26
2012	39
2013	37
2014 (to Oct)	18

This map shows all constructed cottages in Seattle by year of completion. Cottages completed in 2007 and 2008 were part of a pilot program in the Columbia City. After citywide legalization in 2009, cottages are now found throughout the city.

## **Research questions and thesis format**

This thesis has three overarching research questions.

1. How many single family residential parcels can accommodate cottage construction under current land use code?
2. Who builds cottages and why are they built? How can data inform policy decisions?
3. What are the reasons why cottage construction has been lower than expected? What strategies could DPD employ to encourage more cottages?

The thesis is divided into three sections: an analysis of existing cottages, capacity analysis, and survey section. The first section attempts to build a basic profile of cottage builders and to detect spatial patterns by reviewing assessor, demographic, and DPD data. The capacity analysis uses GIS to estimate the number of parcels a cottage could be constructed on using two tests, lot coverage and critical areas ordinances. Lastly, the survey section outlines a March 2015 DPD survey sent to cottage owners seeking the reasons they constructed a cottage, the obstacles of cottage construction, and suggestions for the City.

## **Background references**

The primary resources used in the thesis came from the City of Seattle; either through literature produced by DPD, interviews and discussion with DPD policymakers, fieldwork associated with a DPD internship, and proceedings from the Seattle City Council.

Most of the information came from numerous discussions with DPD policymakers including Land Use Policy Manager Mike Podowski and Senior Planner Geoffrey Wentlandt. Mike Podowski was my supervisor and the author of the land use policy regarding cottages. Podowski and Wentlandt were invaluable resources in explaining the history of cottage legislation in Seattle, the rationales behind policies, and what the City's vision for cottage policy is. Most importantly, they explained the perspective of DPD, Seattle City Council, and the Mayor's office.

In addition, other DPD references consulted were literature for the public. This includes a guide to what a cottage is and best practices (*A Guide To Building a Backyard Cottage*, June 2010), and a packet with basic steps, cottage application, and property covenant (*Establishing a Backyard Cottage*

(Detached Accessory Dwelling Unit, September 2014), and information on the DPD website on backyard cottages and accessory dwelling units.

DPD resources were bolstered by annual reports on cottages. Required by ordinance, DPD must present an annual report to the City Council cataloging Seattle's cottages. Included are narrative descriptions on the cottage and location, photographs of the main residence and cottage (if visible), basic site plans and elevations, and a location map of each cottage. This thesis utilized the 2011 Backyard Cottage Report and the forthcoming 2014 Backyard Cottage Report for data, location, design, and site plans of cottages. I was the primary author of the 2014 report, conducting fieldwork, and assembling the report. A total of 155 cottages were documented in both reports. Field work and site visits of 96 cottages provided basic information on Seattle's cottages.

Prior theses were consulted but determined to be not applicable to this thesis. A 2013 UW UDP thesis by Cynthia Krass focused on density of ADU in four Puget Sound cities. It did not focus on the reasons for construction, policy comparisons, nor the development capacity for cottages given current zoning conditions.

## Section 1: Analysis of built cottages

This section analyzes socioeconomic, assessor, and DPD data on existing backyard cottages and surrounding parcels. The primary goal of the section is to inform policymakers on what the data says about cottage owners. Which factors do cottage properties share and what differentiates cottage owners from their neighbors? Using the locations of completed cottages, this section seeks to establish a baseline in an effort to build a basic profile of typical cottage owners.

This section consists of three studies, first is a study of property values, analyzing properties containing cottages and neighboring single family and multifamily parcels in a quarter mile buffer. Second is a geospatial study of DPD data of reported construction costs. Lastly, median household income data from the US Census was reviewed to see if any further patterns can be established based on address data.

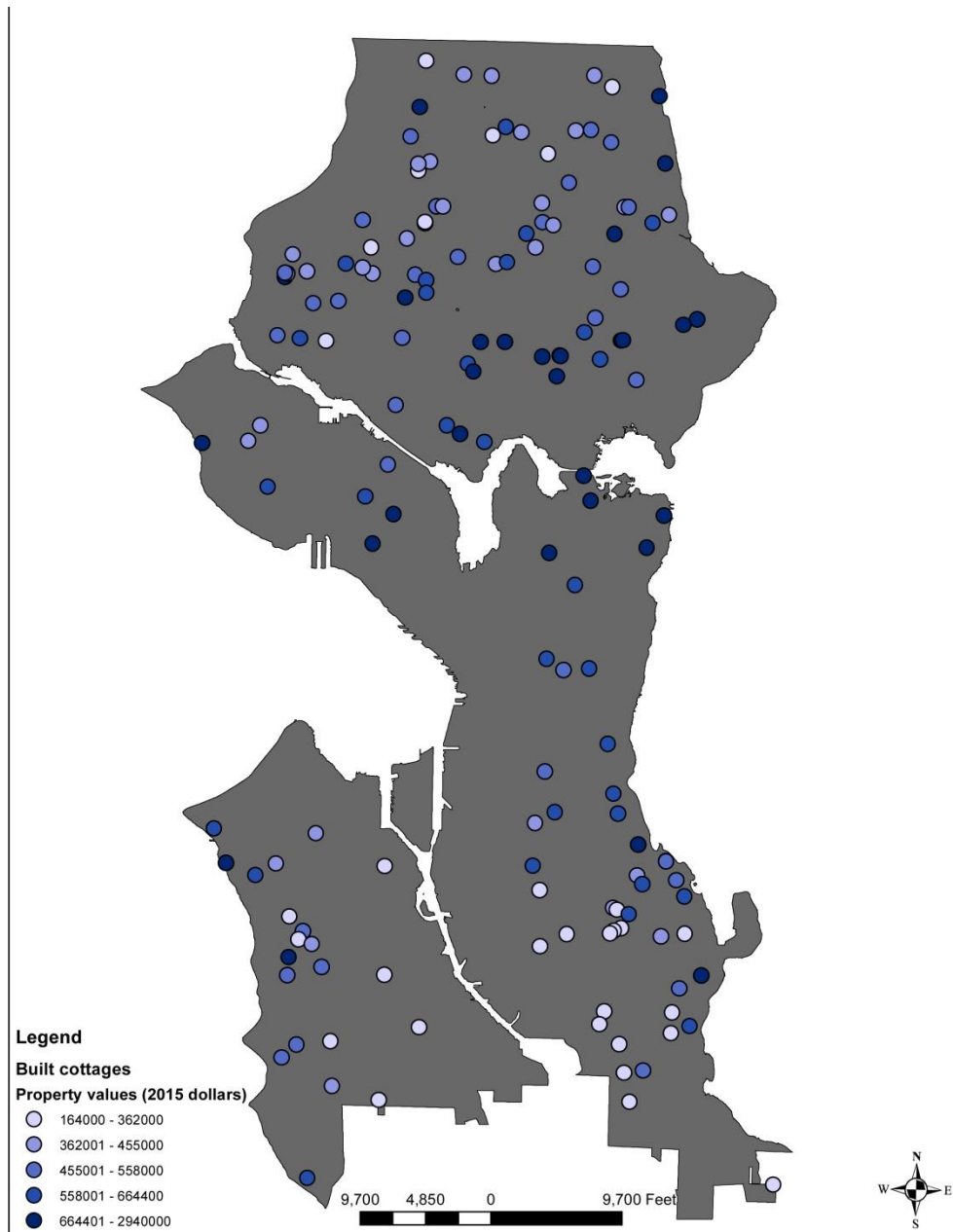
### Property value study

Property values are the combined land and improved values from the King County Assessor Data for the 2014 tax year. Property value can serve as a proxy for wealth, educational attainment, and income. Summarized below is the difference in property values for parcels containing cottages and the citywide average (Table 2). Note the citywide average is for all single family residential parcels regardless of size. The average cottage property value is \$572,600 which is \$54,925 above the average for Seattle is \$515,225. Compared to the all single family residential parcels in Seattle, properties with cottages are slightly larger, and have somewhat higher property values.

Table 2: Summary of property value of cottage parcels

<b>Factor</b>	<b>All single family residential parcels in Seattle (n=127,962)</b>	<b>Parcels containing cottages (n=155)</b>
Average property value (2015)	\$515,225	\$570,150
Range of property values (2015)	\$17,300-\$9,301,000	\$164,000-\$2,940,000
Standard deviation	\$322,000	\$375,000
Average parcel size (square footage)	6,226	7,100
Range of parcel size (square footage)	100-628,703	3500-39,450

Figure 5: Map of cottages property values



The values for properties with cottages are somewhat higher than the rest of Seattle. The map shows generally higher property values in neighborhoods further north in the city, lower property values are found in areas further south.

## **Neighborhood analysis**

The neighborhood analysis reviews property values of single family residential parcels and an inventory of multifamily dwelling units within a quarter mile radius of each cottage. This section is to detect patterns within the neighborhoods surrounding cottages to evaluate the similarities and differences from each other. The purpose of reviewing neighboring parcels is to study how much cottages property values differ from their neighbors. The multifamily dwelling unit count is one measure of a neighborhood's character. It serves as a standardized mechanism to evaluate similarities or differences between cottage locations.

The quarter mile buffer was selected because it represents the time and distance of a five minute walk. Typically five to seven blocks long in diameter, it usually encompasses 400-600 single family parcels. Furthermore, a quarter mile buffer allows for a larger sample, necessary in areas where there are relatively few parcels to sample, a smaller buffer can lead to insignificant or insufficient results. The larger buffer also dilutes outliers such as foreclosed properties and extremely valuable residences.

### **Methodology**

Using GIS, a quarter mile buffer was drawn around each cottage—within each buffer both single family and multifamily residential parcels. For each buffer, a query was conducted for average property value for single family parcels and the number of multifamily units. Property values of the multifamily parcels were not considered. The buffers were analyzed independently of each other in order to evaluate each property separately.

Single family residential parcels included all parcels with a use of “single family residential” and included all parcels regardless of size. Property value was provided by the King County Assessor, joined to the data set by parcel number. Property values from the 2014 tax year were used to standardize data sets. Similarly, the number of multifamily dwelling units was a join between parcel data and assessor data, 2014 King County Assessor data for apartment buildings was used.

### **Results of quarter mile single family buffer**

The results indicate that properties with cottages are worth nearly \$103,000 more than the properties surrounding in a quarter mile radius (Table 3). There are two takeaways from this—either the cottage adds significantly to the value of the property or that cottage builders are wealthier and therefore have higher value properties. On average there are 488 single family parcels within each buffer. The range of

property value average by buffer goes from a low of \$180,668 to \$1,557,970. There are 39 out of 155 instances when the buffer value is higher than the property value.

Table 3: Summary of quarter mile buffer analysis (n = 155)

<b>Factor</b>	<b>Quantities</b>
Average Single family property value	\$467,221
Range of property values	\$180,668-\$1,557,970
Standard deviation of property value	\$190,202
Average number of single-family parcels in buffer	488
Range of properties in buffer	82-867
Standard deviation of parcels in buffer	177

### **Multifamily dwelling unit survey**

Using the same buffers, an inventory of multifamily dwelling units was taken by summing the number of dwelling units on multifamily parcels within the buffer. The number of multifamily dwelling units was sought because it is one measure of a neighborhood’s character. Typically areas with higher concentrations of multifamily dwelling units are more urban and denser than areas with lower concentrations of multifamily dwelling units. The buffer analysis allows for a standardized measure.

The inventory attempts to establish a baseline, what types of neighborhoods are cottages typically built in? Since cottage policy is focused on single family residential areas, very few buffers will have high volumes of multifamily dwelling units. Summarized below are the multifamily dwelling unit buffers used in the study (Table 4). The range of multifamily dwelling units went from zero to 2,583 units within a buffer. The mean multifamily dwelling unit count is 224 units per buffer, with a standard deviation larger than the mean, indicating a wide variation of multifamily units near the cottages.

Table 4: Descriptive statistics of multifamily residential units in buffers (n = 155)

<b>Statistic</b>	<b>Result</b>
Mean	224.83
Median	142
Standard Deviation	317.39
Range	0-2583

## Construction costs

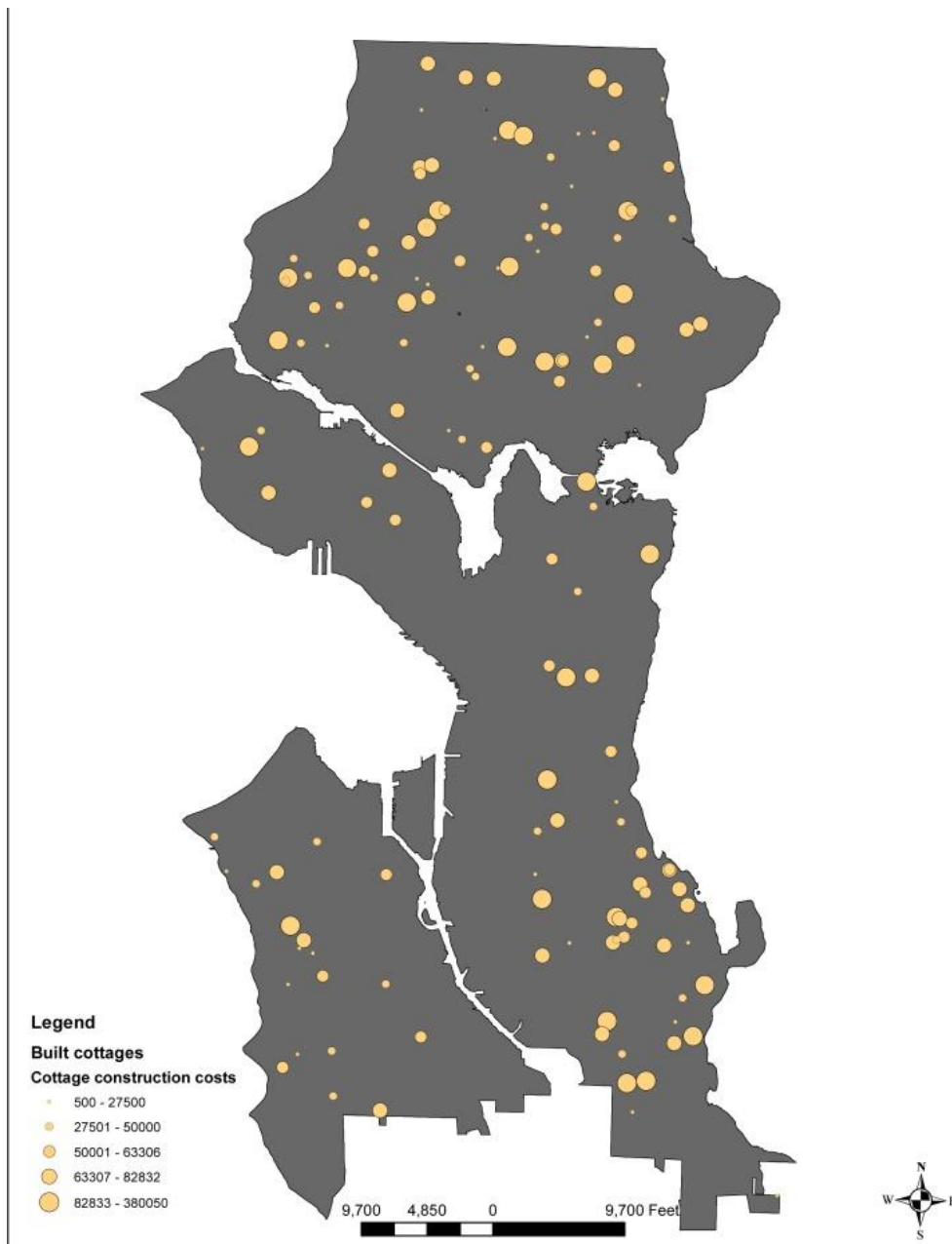
Construction costs excluding permit costs are reported to DPD as part of the permitting process. These costs are self-reported by the homeowner or builder on the permit application. They are checked against standard construction cost rules of thumb by current planners at DPD. Of the 155 cottages constructed, the average cost is \$54,648 with a range from \$500 to \$150,000 (Table 5). The cottages with lower construction costs are the result of minor conversions where small scale improvements were made to existing structures. For example, adding a dwelling unit to an existing garage. I

n this analysis, only 146 cottages were included. Nine cottages were built in conjunction with another residence and the cost of the cottage could not be derived independently. For example, only the cost of the new residence was reported where it is impossible to separate the two. As seen in Table 5, this average reported construction cost is very similar to the average additional property value between properties with cottages and the average for Seattle, referenced in table 2 at \$54,925. Whether or not there is a correlation between higher property values and increased construction costs will have to be evaluated in another study.

Table 5: Cottage construction cost statistics (n = 146)

<b>Statistic</b>	<b>Result</b>
Mean	\$54,982.50
Median	\$56,608
Mode	\$20,000
Standard Deviation	29387.41
Range	\$500-\$150,000

Figure 6: Map of construction costs



The map of cottage construction costs shows that unlike property values, there is no discernible spatial pattern of constructions costs (Figure 5). Many high value cottages can be found in areas with lower property values.

## Census Data and household income

The final set of baseline analysis is reviewing median household income by census block group. Utilizing 2013 3-year American Community Survey (ACS) data, the median household income of each property by block group is compiled. Since cottage construction requires substantial capital expenditures, median household income is a good way of measuring the potential for cottage construction. In areas with higher median household incomes, it is can be assumed that they are more likely to have the financial resources on hand to construct a cottage.

### Methodology

Using GIS, block groups for the 2010 US Census were linked with 2013 ACS 3-year data. The median household income for each cottage address was the basis of my query. The data was compiled and the results can be found below (Table 6). There were 122 census block groups in the study, in some cases multiple cottages were found in the same bloc group. The results indicate that cottage owners on average live in block groups with a median household income that is \$7,472 greater than the citywide average. The range of median household incomes in block groups containing a cottage went from a low of \$30,176 to a high of \$170,500.

Table 6: US Census block group median household income

<b>Factor</b>	<b>All census tracts in Seattle, n=498</b>	<b>Census block group in sample, n=122</b>
Average household income	\$72,676	\$80,148
Range	\$3,393-\$225,813	\$30,176-\$170,500
Standard deviation	\$32,631	\$28,732

### Limitations of study and need for further research

There are several limitations to this portion of the thesis which can broadly be divided into data quality and methodological.

#### Data issues

One limitation is that property values are a snapshot in time where actual improvements to the land are not always immediately reflected in the value. Both constituents of property value, the land value and improved value fluctuate from year to year with values changing..

DPD construction cost data does not always reflect the true cost of a cottage. Although these figures are checked against rule of thumb construction cost estimates by current planners, a widely held

assumption at DPD is that the true costs are much higher than the reported costs due to the incentive to report lower cost since permit cost is a percentage of construction cost. In addition, they do not reflect the true cost of a cottage once architectural, engineering, and permitting fees are taken into consideration. What is reported to DPD is simply the cost of construction which includes cost of materials and labor. It is not the total value or cost of the project.

### **Methodological issues:**

#### **Property value as a measure**

Property value is merely a snapshot in time. Although on average cottage parcels have higher values than those in their neighborhood or in the city, it cannot be determined whether the presence of a cottage truly increases the values of a cottage property.

#### **Size of buffer selection**

A quarter mile or a five minute walk allows for a large sample size of single family residential parcels. However, the correct size buffer is difficult to determine—too small and not enough parcels are evaluated and too large and the sample becomes diluted. Although they were at times large samples, the selection of a quarter mile allows for ample samples across the study, and the dilution of outliers.

#### **Multifamily dwelling unit inventory**

The multifamily dwelling unit inventory had several methodological faults. First, it only sums the number of multifamily dwelling units and does not categorize them by size or density. Therefore, two units in a small building are counted the same as a large apartment complex.

#### **US Census median household income data collection**

Several thousand households live in each block group. In Seattle, it is not uncommon to have adjacent block groups with widely varying median household incomes. For instance, the block groups near the University of Washington (mostly students) are much lower than the ones in the Ravenna Neighborhood (mostly professionals) to the north. For simplicity, this study looked at the average median household income of the entire block group with no regard to the median household incomes of abutting block groups. This limitation leads to coarser results which are reflected in the study.

### **Conclusions**

The most important relationship established is between cottages and property values. Parcels with cottages have higher values than both the average for Seattle, and within a quarter mile radius of the

cottage. Larger differences are noted with the buffer analysis in section one where it was established that cottage properties are on average worth \$103,000 more than neighboring properties. Whether it is the result of cottage constructors having higher value properties to begin with, or value added is still not known.

The difference in amount between property values of parcels containing cottages and the overall property value average of Seattle is very close to the average reported construction cost of cottages (\$54,925 vs \$54,908). Whether there is a relationship between higher property values and the addition of the cottage will have to be the subject of another study.

The study of median household income and number of multifamily dwelling units did not produce as conclusive results. With the relatively small sample size and the coarseness of census block groups, it is difficult to detect a relationship between median household income at cottage locations versus the rest of the city. Although there is a higher average at cottage locations, it is not higher than the average for the entire city. The multifamily dwelling unit study was hampered by flaws in methodology, explained below.

## Section 2: Capacity Analysis

Using GIS, parcel and property data, and critical areas ordinances, the capacity analysis will attempt to estimate the number of parcels where a cottage could be constructed under current land use regulations. The two tests used are lot coverage and presence of a critical area to determine whether a cottage can be built. The end result is a summary table of lots which could accommodate cottages and maps indicating where cottages can and cannot be built under current regulations. There will be two additional maps, one showing where lot coverage prevents cottage construction and one showing environmental factors preventing construction, culminating in a combined map with environmental and lot coverage factors.

### Methodology

This capacity analysis consists of two tests. One is the lot coverage test and the other is the environmental factors test.

Only parcels shown as single family residential uses in the assessor's data are included. These parcels are ones with a current land use of single family residential irrespective of zoning classifications (e.g., 620 parcels are single family uses located in either low rise or commercial zoned areas). Single family land use designation is derived from the King County parcel shapefile from 2014 in the category of "present land use."

Under current regulations, parcels must be larger than 4,000 square feet in order to accommodate newly constructed cottages. Although cottages can be found on parcels smaller than 4,000 square feet, these are conversions of structures built before 1992. The focus of this analysis is on the potential for additional cottages in single family zones, not the conversion or grandfathering of existing units.

Considering all parcels ranging from 4,000 to 628,500 square feet, the average parcel size in the sample is 6,888 square feet (Table 7). The majority of parcels are greater than 5,000 square feet, with 8,843 parcels over 10,000 square feet. Typically larger parcels are found in areas developed more recently such as North Seattle's neighborhoods north of N/NW/NE 85<sup>th</sup> Street, while smaller parcels are found in areas closer to the center of Seattle including atop Queen Anne, Capitol Hill, and Fremont.

Table 7: Statistics on sample single family parcels (>4,000 sq. ft)

Characteristics	Statistic
Mean of parcel size	6,888 square feet
Range of parcel size	4,000 to 628,500
Standard deviation of parcel size	4,647 square feet

Parcels 4,000 to 5,000 square feet	24,746
Parcels 5,000 square feet and greater	79,717
Parcels greater than 10,000 square feet	8,843
Total number of parcels	104,463 parcels in sample

## Lot coverage test

The first test is evaluating available lot coverage in sample parcels to judge whether a parcel could accommodate an average sized cottage. The goal is to separate those with sufficient lot coverage from those without. Lot coverage is the amount of building footprint on the property and is expressed as a percentage. In Seattle, the footprints of main residences and accessory structures such as garages, guesthouses, and sheds count against lot coverage while patios, decks, driveways, and pathways do not. Seattle land use code stipulate for lots greater than 5,000 square feet, lot coverage cannot exceed 35%. For lots under 4,999.99 square feet, the formula for maximum lot coverage is 1,000 [square feet] plus 15% of lot size. For instance, a 4,000 square foot lot has maximum lot coverage of 40% using this formula,  $(1,000+600)/4,000=40\%$ .

In practice, the allowable lot coverage calculations in Seattle’s single family residential zones are more complicated than the formulas above. In order to simplify and generalize for the city as a whole, the absolute maximum lot coverage allowed under the Seattle land use code will be used for a citywide analysis.

### Assumptions

1. A backyard cottage takes up approximately 450 square feet of a parcel’s lot coverage.
2. Accessory structures such as garages, sheds, guesthouses do not count toward lot coverage.
3. The first floor square footage represents the amount of lot coverage taken by a main residence.

### **A backyard cottage takes up approximately 450 square feet of a parcel’s lot coverage.**

This number is an average of 96 permitted and finalized cottages built from January 2011 to October 2014. The range is from a low of 192 up to 800 square feet, taken directly from finalized and approved blueprints submitted to Seattle DPD in which lot coverage prior to and after construction was reported.

### **Accessory structures such as garages, sheds, guesthouses do not count toward lot coverage.**

The square footage of accessory structures such as garages, cottages, bathhouses, guesthouses or sheds are not included. First, accessory structures are much easier to demolish or modify than main residences. Second, approximately a third of Seattle’s constructed cottages are actually “converted”

structures. When an accessory unit is converted—the lot coverage from that unit is used toward the new unit as well, in many cases it is a zero net gain.

**The first floor square footage represents the amount of lot coverage taken by a main residence.**

The first floor square footage provided by the King County Assessor is used in as the amount of lot coverage or footprint taken by the main residence. This number is the gross square footage of the first floor of the primary or main residence. These figures have been verified by checking assessor data against lot coverage reported in cottage blueprints and what did you find?.

**Measurements**

In simplest terms, the method of the lot coverage study is taking the sum of the size of built structures both existing and hypothetical, and dividing that figure by the lot coverage maximum. Depending on the parcel size, differing formulas for the lot coverage maximum will be used. The size of parcels is derived from parcel data created and maintained by the King County government in their parcel shapefile.

For all parcels, the numerator will be the first floor square footage plus 450 representing the amount of lot coverage taken by the average cottage. In other words it is “first floor square footage + 450.” The denominator will depend on the size of the parcel in formulas which are below.

**For parcels under 4,999.99 square feet:**

The following will be used in the denominator:

$$1000 \text{ [square feet]} + (\text{lot size}) \cdot .15$$

The formula is:

$$(\text{First floor square footage} + 450) / (1000 \text{ [square feet]} + (\text{lot size}) \cdot .15)$$

**For parcels over 5,000 square feet, the formula is:**

$$(\text{First floor square footage} + 450) / (\text{Lot size})$$

A database and shapefile will be created for each set. For parcels greater than 5,000 square feet, the screening is simple—numbers greater than 35% will be separate from those under 35% any value above 35% will be deemed ineligible. Meanwhile for parcels 4,999.99 square feet and under, figures with a value 1 will be classified as ineligible. Anything above 1.00 cannot accommodate the construction of a backyard cottage. The output map will show parcels which pass and fail the tests.

**Step-by-step lot coverage test**

The following are detailed steps in the lot coverage test portion of the capacity analysis.

1. Using GIS create a shapefile of all parcels zoned single family residential in Seattle; name this shapefile “SF\_PARCEL.”

2. Identify parcels greater than 4,000 square feet within “SF\_PARCEL,” create shapefile called “SFZ\_ZONE4000.”
3. Use GIS function “select by attribute” to select parcels in “SFZ\_ZONE4000” which contain a current land use type of “Single Family (Res Use/Zone).” This step is necessary to exclude parks, schools, fire departments, and vacant parcels which could impact analysis. Create shapefile called “SF\_PARCEL4000.”
4. Add to GIS the King County Assessor data for single family residential parcels. Using the join function, based on shared PIN; join the assessor data to the “SF\_PARCEL4000” shapefile.
5. Create new columns in the attribute files for “SF\_PARCEL4000” in order to do lot coverage analysis in GIS. There will be two columns, one for lots greater than 5,000 square feet and one for lots under 5,000 square feet. The first column is called “4\_5K\_lotCOV” and the second is called “5K\_lotCOV.” The two columns are necessary for the slightly different formulas used for lot coverage maximums.
6. Calculate lot coverage using the field calculator function in ArcGIS. The fields are contained within the SF\_PARCEL4000 shapefile. The formulas used are the following:
  - a. Lots 5,000 square feet and above use formula in the column “5K\_lotCOV”:
    - i.  $((1^{\text{st}} \text{ floor square footage} + 450)/(\text{lot size})) * (100)$
    - ii. The result of the calculation will be expressed as a percentage. Lots with 35% or greater are not eligible for cottage construction
  - b. Lots which are between 4,000 and 4,999.99 use formula in the column “4\_5K\_lotCOV”:
    - i.  $1^{\text{st}} \text{ floor square footage} + 450 / (1000 + ((\text{lot size}) * (.15)))$
    - ii. The results will be in a range from 0 to approximately 5. Results greater than 1 are not eligible for cottage construction.
7. After the compiled map is created, all parcels which are ineligible are exported into a new shapefile called “NO\_LOT\_COV.”

## **Environmental critical areas test**

The second portion of analysis is screening out and identifying parcels which contain or intersect certain types of environmental critical areas—these will be screened out as ineligible for cottage construction. The goal is to exclude parcels in which it is difficult, costly or not legal to construct cottages. The following critical areas are included: shorelines, riparian corridors, wetlands, and steep slopes.

## **Shorelines**

Current land use and zoning regulations state cottages and other accessory structures cannot be constructed on parcels with frontages along the Puget Sound, Lake Washington, Lake Washington Ship Canal, and the Duwamish River. This is codified in the Seattle Municipal Code Chapter 23.60.010. This prohibition on cottages in shoreline districts is codified in SMC 23.44.041 section B.

## **Riparian corridors**

Riparian corridors are zones which abut streams, creeks, and culverts used by spawning salmon. Buffer zones of 250' were retroactively created to protect these areas from future development. According to SMC 25.09.055, accessory structures are limited to 150 square feet in riparian corridors which is well below the feasible size for a cottage. In addition to the size limits, there are additional regulations and mitigation requirements which make new construction extremely difficult. For the purposes of the capacity analysis—parcels in riparian corridors are screened out as ineligible.

## **Wetlands**

Wetland areas are zones with both active and filled wetlands. According to the SMC 25.09.055, accessory structures in these areas are limited to 150 square feet. Similar to riparian corridors restrictions, there are many additional regulations which make cottage construction extremely difficult. For the capacity analysis—parcels containing wetland areas are screened out as ineligible.

## **Steep slopes**

Steep slopes are areas with a greater than a 40% slope. According to the SMC 25.09.055, in steep slope areas accessory structures are limited to 300 square feet footprints. In addition, according to SMC 25.09.180 - Development standards for steep slope areas—in order to add to steep slopes, it must be demonstrated that the slope area is remediated through geotechnical means which could be retaining walls or re-grading of the hill. Although steep slopes do not necessarily prohibit cottage construction, they do make it extremely difficult. Therefore, all parcels containing steep slope critical areas are screened out and deemed ineligible.

## **Step-by-step critical areas test**

1. Add “SF\_PARCEL4000” shapefile created above to GIS.
2. Add critical area overlays to the GIS including steep slopes, riparian areas, shorelines, and wetlands.
3. For each critical area, run “select by location” query, the layer to be selected are “SF\_PARCEL4000” and the method is “contains selected feature.” Run analysis for each critical area while exporting data for the layers. Name each new layer with the following, “WET\_PAR,” “STEEP\_SL\_PAR,” “SHORE\_PAR,” “RIP\_PAR.”
4. Using “merge” function, create new shapefile called “NO\_ENV\_FACTOR.”

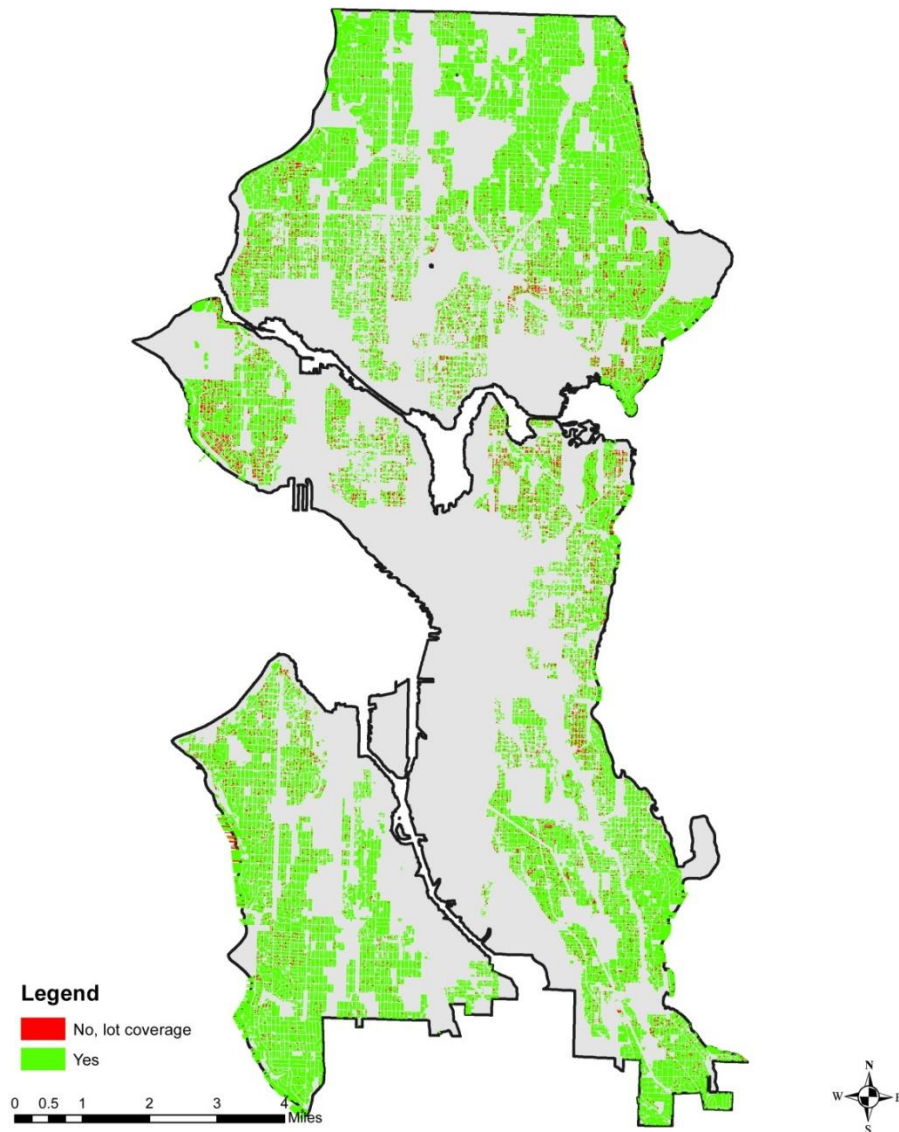
5. Using both “NO\_ENV\_FACTOR” and “NO\_LOT\_COV” create maps which show areas which parcels can take cottages and which cannot.

## Results

This section discusses the results of the geospatial analysis. The first portion is the results of the capacity analysis, first the lot coverage test, then environmental factors.

### Lot coverage map and results

Figure 7: Map of lot coverage test results



This map shows the results of the lot coverage test, parcels in green have sufficient lot coverage while areas in red do not.

These results show that, as expected, there is less margin for lot coverage on smaller lots (Table 8). Nearly 17% of lots 4,000-4,999 square feet are constrained while only 4.2% of lots greater than 5,000 are ineligible. The following patterns appear when using lot coverage as a screening tool.

- Areas north of N/NW 85<sup>th</sup> Street comprising of North Seattle neighborhoods, West Seattle, and South Seattle with the exception of Beacon Hill have the least number of parcels excluded due to lot coverage.
- Neighborhoods ranging from south of N/NW 85<sup>th</sup> St toward I-90 have the more parcels excluded due to lot coverage. These parcels are typically located closer to the city center, and are usually older and smaller than those found in the outlying neighborhoods.

Table 8: Results of lot coverage test

Parcel size	Number of ineligible parcels/ total number of parcels(% of ineligible parcels)
<b>Lot coverage 4000-4999 SF, not eligible</b>	4,236/24,746 (17.1%)
<b>Lot coverage, greater than 5000 SF, not eligible</b>	3,408/79,717 (4.2%)
<b>Total</b>	7,644/104,463 (7.31%)

The following plots show the relationship between size of the parcel and the result of the lot coverage tests (Figure 8 and 9). For the 79,119 parcels greater than 5,000 square feet, the plot below shows the relationship between lot coverage and parcel size. The second plot is for parcels less than 5,000 square feet, plotting the parcel size and the results of the 4,000 to 4,999.99 square foot test.

On parcels greater than 5,000 square feet, there is a clear relationship and correlation between the size of the parcel and the lot coverage. On larger parcels there is typically more capacity available than on smaller parcels. In general, as the size of the parcel increases, the amount of available lot coverage increases. For parcels between 4,000 and 4,999.99 square feet, there is no clear relationship between lot size and lot eligibility. This can be seen in the plot where there appears to be an even distribution of values above and below 1.00 across the size spectrum.

Figure 8: Lot coverage percentage plotted against parcel size, greater than 5,000 square feet.

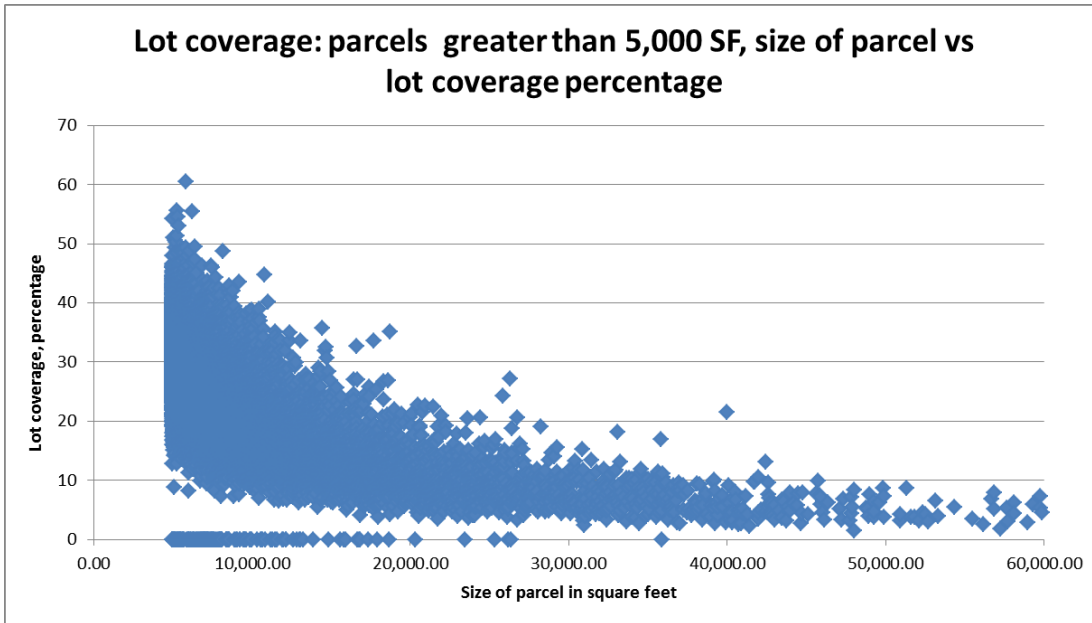
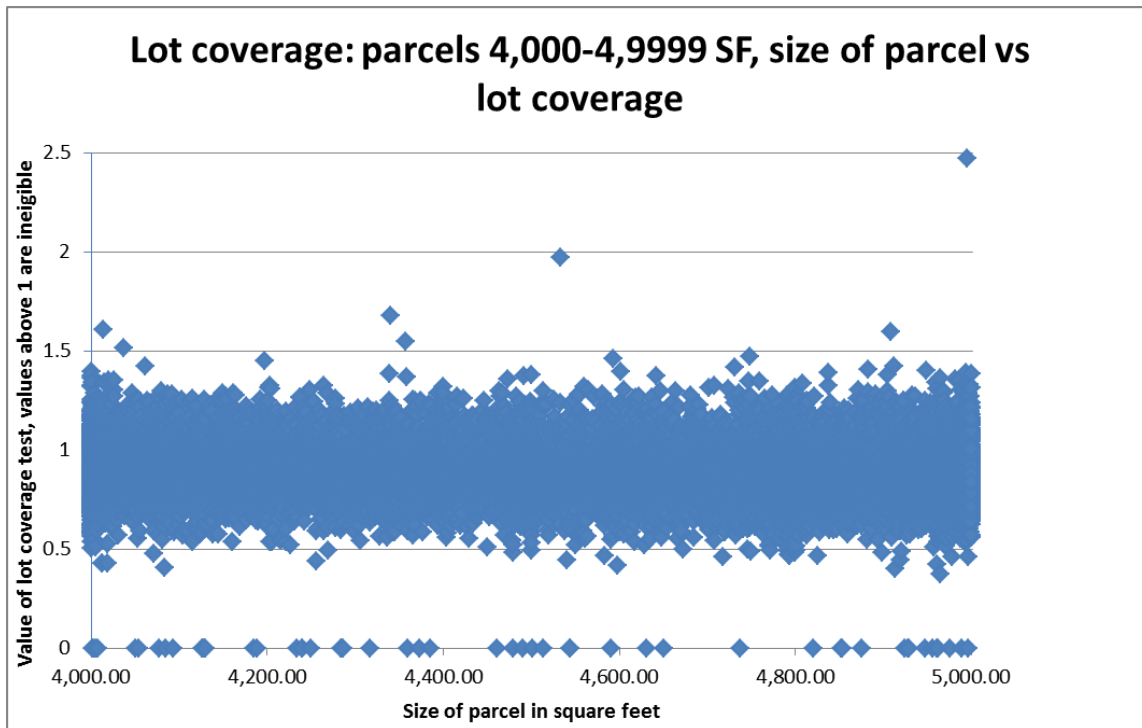
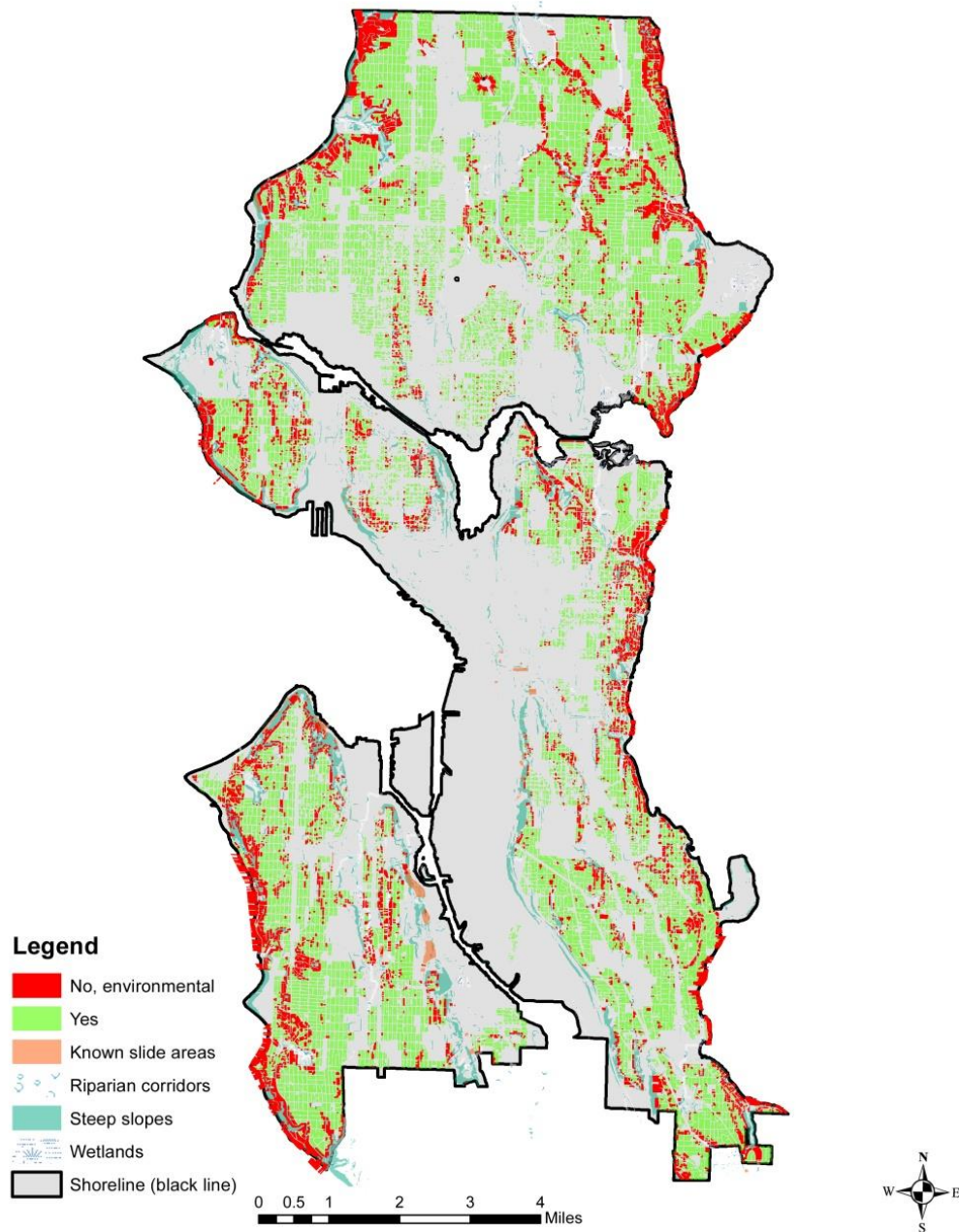


Figure 9: Lot coverage percentage plotted against parcel size, between 4,000 and 4,999.99 square feet



## Environmental factors map and results

Figure 9: Map output of environmental factors



This map shows the results of the environmental factors mapped out. Parcels in green did not intersect. The results of the environmental factors can be summed up in the following charts. It is arranged by type of critical area. Summarized below, the number of parcels determined ineligible by each critical area (Table 9). Accounting for parcels where multiple critical areas are present, there are a total of 19,584 parcels ineligible due to environmental factors.

Table 9: Environmental factors, parcels not eligible (out of a total of 104,463 single family parcels)

<b>Steep slope ineligible</b>	<b>Wetland ineligible</b>	<b>Riparian ineligible</b>	<b>Shoreline ineligible</b>	<b>TOTAL</b>
17,053	1,410	2,676	1,075	22,214 parcels
<b>Number of unique ineligible parcels</b>			<b>19,584</b>	

This map shows that parcels screened out by environmental factors are more numerous than ones screened out by lot coverage alone. Parcels screened out for environmental critical areas are more clustered than ones screened out for lot coverage which occurs sporadically. Steep slopes more than any other factor mark a parcel as ineligible. There are many areas of steep slope parcels surrounding the hillsides of prominent Seattle hills including Queen Anne, Magnolia, and near Ballard.

This method counts the number of parcels containing each critical area but can count parcels for each critical area contained. For instance, there are some parcels where there are multiple critical areas on the same parcel. Therefore the 19,584 parcels figure is the most important, representing the grand total of unique parcels excluded.

### Combined results map

Figure 10: Map of combined results—using lot coverage and environmental factors tests



This map is the combined result of both lot capacity and critical areas screening. In green are eligible parcels, in red are ineligible parcels. Overlaid atop the map are the locations of backyard cottages.

The following (Table 10) shows the final count of eligible parcels in each test, and the final count of each parcel counted only once. There are 26,145 parcels not eligible for cottages according to this study.

Table 10: Final results summary table

<b>Number of unique parcels ineligible due to environmental factors</b>	19,584
<b>Number of unique parcels ineligible due to lot coverage</b>	7,644
<b>Total ineligible unique parcels, (each counted once)/total number of single family parcels (percent of ineligible parcels)</b>	26,145/104,663, (25.03%)

### Results by neighborhood and area

Summarized below up the number of eligible parcels by area of the city (Table 11). The city has been divided up into six areas: Queen Anne and Magnolia, Central Seattle, South Seattle, West Seattle, and North Seattle north of 85<sup>th</sup> Street, and North Seattle south of 85<sup>th</sup> Street. The divisions are a way of broadly dividing up the city into sectors roughly based on age of development and platting characteristics. Older, smaller residences and parcels are found in Queen Anne and Magnolia, Central Seattle, and North Seattle south of 85<sup>th</sup> Street, while newer and larger lots are generally found in South Seattle, West Seattle, and North Seattle north of 85<sup>th</sup> Street. Additionally, the number of cottages constructed per sector is included to provide a comparison to reality.

Table 11: Capacity by city sector, number of eligible parcels; construction of cottages by sector.

<b>Sector of the city</b>	<b>Eligible / Ineligible parcels (% ineligible)</b>	<b>Actual cottages constructed by sector of city (% of total number of cottages in city, n = 155)</b>
Queen Anne and Magnolia (areas west of I-5, south of Ship Canal to I-90)	4,847/8,049 (60.2%)	8 (5.1%)
Central Seattle (south of Ship	4,568/7,854	9 (5.8%)

Canal to I-90, areas east of I-5, north I-90)	(58.1%)	
South Seattle (Beacon Hill, Rainier Beach, Columbia City, Georgetown)	13,819/18,079 (76.4%)	38 (24.5%)
West Seattle	16,625/22,235 (74.7%)	21 (13.5%)
North Seattle, Ship Canal to 85 <sup>th</sup> St	18,819/23,567 79.8%	43 (27.75%)
North Seattle, north of 85 <sup>th</sup> St	19,640/24,679 79.6%	36 (23.2%)
Total	26,145/104,463	

The results from this table indicate that the lowest capacity for cottage construction is in the neighborhoods closest to the city center. Queen Anne and Magnolia, and Central Seattle both have the fewest eligible. The highest capacity neighborhoods averaging 79.7% eligible parcels are found in North Seattle, with little difference between areas north or south of 85<sup>th</sup> Street. West and South Seattle are close behind averaging approximately 75% parcel eligibility.

Interestingly there is a relationship between the number of constructed cottages and capacity. Queen Anne and Magnolia, and Central Seattle have the least capacity of any sector, and have the least number of built cottages. Both of these areas also have many parcels deemed ineligible due to size as they are less than 4,000 square feet. The areas with the greatest capacity, both portions of North Seattle and South Seattle have the most cottages built with West Seattle following closely behind.

## Limitations of study and need for further research

Limitations to this capacity analysis study can be broken into two categories: those due to the sample selected and data error, and those related to the methodology.

### Data quality

There are several relatively minor limitations in regard to the subject parcels selected and the quality of the data. The King County provided assessor and parcel data used are reliable. A minor concern is human data entry errors and lags in data acquisition such as when a home is sold, or a parcel is short platted. Data on the size of first floor of primary residences is one to remain stable due to the high cost of renovating, razing, or reconstructing a house.

## **Methodology**

There are several methodological limitations to my capacity analysis study. These can be divided into three categories. These limitations are relatively minor in scope and do not dramatically negatively impact the final results.

1. This study is simplification, to be used a screening tool.
2. Does not account for all factors which could prevent cottage construction, some aspects are simplified.
3. The screening factors such as environmental or lot coverage can be mitigated through variances or grandfathering clauses in the land use code.

### **Considering more detailed aspects of the land use code**

The capacity analysis uses only three aspects of the land use code, lot size, lot coverage, and environmental constraints. It purposefully does not take into account the complicated rules that can be found within the land use code. The Seattle land use code includes a multitude of different lot coverage provisions and calculations based on factors such as presence of an alley or age of the residence. For example, if a parcel contains an alley, half of the alley can be used toward lot coverage—which in some cases can mean the difference between having a cottage or not. In a broad study of the city, it is impossible to factor in for each rule on each property or parcel, as a result, there will be some parcels incorrectly categorized either eligible or ineligible.

Furthermore, this study does not account for existing accessory structures on the property, because accessory structures are more fluid in nature and can often be converted into cottages. However, this omission does lead to a slight limitation in that the results will not lead to a completely accurate count of eligible parcels. In fact, omission of accessory structures will lead to a higher number of eligible parcels because these structures won't count in the numerator.

The other methodological limitation is in one of my assumptions that the average cottage utilizes 450 square feet of lot coverage. This may have been the average, but cottage size varied widely within the sample size. For parcels on the cusp of eligibility or not, this difference could impact the total number. For several cottages constructed, the lot coverage was a determinant in how large they were. Further studies and analyses could look into the impact of having larger or smaller hypothetical cottages. For example looking at what occurs if the cottage is built out to take up 800 square feet of lot coverage.

### **Additional factors**

This method only looks at lot coverage and presence of certain critical areas as screening factors for cottage construction. There are many more regulations and situations which could prevent cottage construction which include irregular lot geometry, insufficient lot width or depth, unforeseen geological or geographical or site limitations, and lack of parking capacity. During preliminary work, it has been determined that the following factors do not occur often and will not skew the results in a meaningful way, but need be pointed out in this section.

Although lot geometry such as lot width or depth is an important factor to whether or not a cottage can be constructed, it will not be included. Through a preliminary survey of Seattle's single family residential parcels, there are very few parcels greater than 4,000 square feet where lot depth or irregular shape restricts cottage construction.

### **Grandfathering clauses**

The screening factors used in the capacity analysis are not always barriers to preventing cottage construction. This analysis cannot account for determined homeowners seeking out grandfathering clauses and variances to build a cottage in areas which are not normally eligible for cottage construction. Similarly, just because a parcel is determined to be eligible does not necessarily mean that cottage construction can occur without problem. In other words, there are ways to get around the rules if a homeowner can present a credible case for their request. For example, just because a parcel is located in a steep slope area does not mean that a homeowner is prevented from building a cottage. Many steep slopes in Seattle have been remediated by retaining walls surrounding the property creating a flat space large enough for a cottage to be built. Within the Seattle land use code, provisions for allowing the conversion of now illegal structures exist in the code.

## **Policy implications and discussion**

Although this is a pilot study, there are several policy implications and suggestions that can be derived from this analysis moving forward. This section of the report should serve as a summary, and will be organized by section. It is also a “next steps” section, outlining where research could move forward.

### **Lot coverage is not an obstacle**

Initially considered to be a potential obstacle to cottage construction, lot coverage restrictions only impacted 7.31% of parcels in the study. Furthermore, the impact of lot coverage limits being an obstacle greatly diminishes as the size of the lot increases with only 4.2% of lots greater than 5,000 square feet excluded.

### **There is ample capacity**

The major policy implication of the analysis is that there is ample capacity under current regulations to build cottages. Although 27,228 parcels were screened out as ineligible, there are still 77,235 (or 74%) where cottage construction could potentially be allowed. Thus developing only 5% of these eligible parcels would add 4,000 dwelling units in the city. For policymakers at DPD, these findings demonstrate that current regulations and land use policies may not be the determining factor for building new cottages. However, regulations could be changed to encourage cottage building, which could include relaxing lot coverage rules or easing critical lands ordinances.

### **Possible relationship between capacity and numbers of cottages actually built**

The capacity analysis has shown that there may be a relationship between areas with more capacity and greater numbers of existing cottages. For example, in Queen Anne and Magnolia there have only been 8 cottages constructed in five years—this sector also has the lowest capacity with only 60.2% parcels eligible.

The results can be used as a basis for DPD to evaluate whether or not they need to change the policy for cottage construction. In addition, the study provides a methodology for further analysis. For example, parcels under 4,000 square feet could be further studied. With close to 18,000 parcels less than 4,000 square feet, such a study might be useful.

## **Section 3: Survey section**

The third and last part of this thesis describes and analyzes the results of a survey sent out to homeowners who have already built cottages. This survey seeks to answer three questions of existing cottage owners.

1. What were the reasons for building a cottage?
2. What were the regulatory and financial obstacles to cottage construction?
3. What are cottage owners' opinions, stories, suggestions, advice, and concerns about the process of building a cottage.

The survey was conducted by DPD, my role was to help write the questions and interpret the results. The survey results have been used by DPD and will be compiled in a report to the Seattle City Council to consider changes to the cottage regulations.

### **Survey administration**

The survey was sent to the 160 homeowners, who, as of February 20, 2015, had completed construction of their cottages, and whose building permits had been "finalized," indicating that construction had concluded. Owners' addresses were taken from DPD's permit database. The survey was sent out February 26, 2015 with a return deadline of March 18, 2015. Those who were surveyed were given the option of filling out either a paper version (to be returned using a postage paid return envelope to DPD), or an online version using the SurveyMonkey platform. A copy of the survey format can be found in the appendix.

The survey had three sections.

- The first section sought to find out the reasons for cottage construction. Respondents were given six potential reasons and were asked to rank them from "very" to "somewhat" to "not important."
- Section two was identification of potential obstacles to cottage construction. Nine possible obstacles were identified; with survey participants to rank them from strongly agree to strongly disagree.
- Lastly, an open ended section where cottage builders could offer advice, suggestions, or feedback to DPD.

Of the 160 surveys sent out, six surveys were returned by the US Postal service as undeliverable. A total of 45 were returned or 28.1% of respondents. In 32 of the 45 surveys, address or location could be determined; two surveys contained names but not addresses; eleven remained anonymous. Higher returns were from cottage owners in West Seattle and in the neighborhoods north of the Lake Washington Ship Canal including Ballard and NE Seattle. There are no confirmed responses from Queen Anne and Magnolia, and few responses from Central Seattle. The following information can be determined from address information (Table 12).

Table 12: Summary of cottage factors based on survey responses

<b>Factor</b>	<b>Cottages of survey respondents (averages) (n = 32)</b>	<b>All cottages (averages) (n = 155)</b>
Construction cost of cottage	\$50,430	\$54,600
Age of cottage	3.5 years	3.5 years
Size of cottage	565 square feet	575 square feet
Property value (2015)	\$508,000	\$570,000

**Survey contents: Section 1, reasons for cottage construction and section 2, obstacles to cottage construction.**

The first portion of the survey sought out the reasons for cottage construction. Surveyed residents were given six assumed possible uses for a cottage, and were then asked to rate how important each factor was with the options of: “not important,” “somewhat important,” and “very important.” Surveyed residents were asked to fill out a matrix indicating their answers, in bold below are the choices given with explanations.

**Housing for family members or extended family members**

DPD has recognized that cottages are used for additional living space for family members. Cottages can be used to house elderly parents not old enough to live in assisted living, but too old to live on their own, for children returning from college, space for large families needing more room, and room for extended family. Current regulations state that no more than eight family members total can live in the main residence and cottage combined.

**Rental income – long term lease (6 months or more)**

Many cottages have been leveraged as an investment property where rent supplements the income of the homeowner. Cottages can be rented as an apartment or rental home on the same property as the main residence turning homeowners into landlords. Homeowners use cottages to further utilize side or rear yards as usable, rentable space.

### **Rental income – short term lease such as Airbnb or VRBO**

Several cottages have been utilized as short term rentals such as Airbnb or VRBO. These cottages are rented out in the same fashion as a bed and breakfast or a hotel room whereupon they act as short term, fully furnished living accommodations from one night to several months.

### **Additional useable space such as studio, office, or activity space**

Cottages can be used for additional space including for garage, storage, or as a studio. Approximately 1/3 of cottages are built atop or adjacent to garage or storage space. Cottages can be seen as a cost effective means to gaining additional space when additions to the main residence are impractical or cost prohibitive.

### **Accommodation for occasional house guests or visitors**

Another potential use of a cottage is a guesthouse for out of town visitors or family members visiting for a short period of time.

### **Housing for a live-in service provider such as a child care provider, assisted living professional, or property caretaker**

Another potential use of a cottage is to provide living space for a live-in service provider or property caretaker.

The second portion of the survey sought to find out what the real and perceived barriers to cottage construction were. Those who were surveyed were given nine possible barriers, and were asked to rate whether those were barriers with options ranging from: “strongly agree,” “agree,” “neutral,” “disagree,” and “strongly disagree.”

The primary purpose of this section is to identify areas and opportunity where policymakers could modify regulations and policy in order to develop more cottages.

The nine obstacles were the following:

**The basic cost of construction (aside from permits, and design fees) is a significant barrier to creating a backyard cottage.**

With an average reported construction cost of \$54,600, the cost of constructing a cottage is a barrier for many homeowners. Despite the possible investment returns, the basic cost of construction is a difficult hurdle for many homeowners who lack the cash or equity in their homes.

**Lack of access to financing (loans) is a significant barrier to creating a backyard cottage.**

For many homeowners, it is difficult to get the capital necessary for the associated costs of a cottage construction, design, and permitting. The process of financing is often complicated and requires a good credit rating.

**The cost, time or complexity of obtaining permits is a barrier to creating a backyard cottage.**

To construct a backyard cottage, DPD must review the plans for the cottage to ensure it is up to code. DPD aims plan review to take five weeks under ideal circumstances. In some cases, the process becomes complicated when more information is requested or what is proposed is not up to code, adding complexity, time, and ultimately cost to the project.

In addition to the DPD review process, cottage permitting fees are another factor which could be a barrier to cottage construction. On average, the permit fees are an additional \$1,950 on top of the design and construction costs. The complexity of rule, cost of permits, and length of review time can negatively impact cottage development by dissuading construction.

**The cost of design and engineering fees is a significant barrier to creating a backyard cottage.**

Architectural and engineering fees can add significant cost to the cottage and are not reflected in construction costs. Most cottages require the same attention and detail in their blueprints as a main residence. Designing and constructing smaller spaces can raise the costs of construction and design. Some cottages are built in complicated areas such as steep hills, or heavily vegetated areas require geotechnical engineers to determine soil or slope stability which can add to the cost.

**The cost of utility connections is a significant barrier to creating a backyard cottage.**

Constructed as a second residence, cottages require separate utility connections including electrical and sewer connections. Depending on the siting of the cottage, these costs can become a barrier to cottage construction. New sewer or electrical connections can cost thousands of dollars when such connections do not already exist or are complicated to implement.

**Development regulations such as setbacks, height limits, and lot coverage limits are a significant barrier to creating a backyard cottage.**

There are many restrictions in constructing cottages including regulation of size, setbacks, height limits, and lot coverage. These restrictions can dissuade property owners from pursuing cottage construction due to the number of regulations. For instance, in neighborhoods with smaller parcels, the margins of error in development regulations are much narrower and more difficult to work around.

**The requirement of an on-site parking space for the cottage is a significant barrier to creating a backyard cottage.**

Unless constructed in an urban center, urban village, or a residential parking zone (RPZ), a cottage must have its own onsite parking space in addition to one space for the main residence regardless of whether or not parking existed previously. The requirement to build a parking space can be significant barrier when there is limited space, or in an area relying on street parking. An option exists for parking waivers where it can be demonstrated that there is ample parking capacity in the neighborhood.

**The occupancy requirement (owner must reside in either the cottage or principal unit) is a significant barrier to creating a backyard cottage.**

The owner of the property must occupy either the main residence or the cottage in order to be a legal unit. Cottages cannot be built on rental properties or where there is absentee ownership. This requirement extends when the property is sold.

**Concerns about impacting a neighbor are a significant barrier to creating a backyard cottage. (ie. views, privacy, access to light /air.)**

Cottages are not always seen as welcome additions to a neighborhood. In areas with view corridors, cottage construction can negatively impact views. When built in a dense area, they can be perceived as intrusive to privacy or light and air access.

## **Responses to Section 1**

In this section, the responses to the survey will be related to the average construction cost, size, and property value of the respondents where information was available. Although it is a small sample, in some cases there are interesting conclusions and relationships which can be derived. Tables 13 and 14 are summaries of the results of section 1.

Table 13: Section one: reasons for cottage construction survey responses

Reason		Responses	
		Responses	Percent within each question
Housing for family members or extended family members	Not	10	23.8
	Somewhat	12	28.5
	Very	20	47.6
Rental income – long term lease (6 months or more)	Not	18	40
	Somewhat	10	22.2
	Very	17	37.7
Rental income – short term lease such as Airbnb or VRBO	Not	24	57.1
	Somewhat	11	26.2
	Very	7	16.6
Additional useable space such as studio, office, or activity space	Not	16	36
	Somewhat	9	20.5
	Very	19	43.2
Accommodation for occasional house guests or visitors	Not	14	31.8
	Somewhat	10	22.7
	Very	20	45.5
Housing for a live-in service provider such as a child care provider, assisted living professional, or property caretaker	Not	29	67.4
	Somewhat	10	23.2
	Very	4	9.3
Other	Not	6	35.3
	Somewhat	5	29.4
	Very	6	35.3

Table 14: summary of section one with cottage size, property value and construction cost included.

Reason		Size sq. ft. (# of responses)	Construction cost	Property value
Housing for family members or extended family members	Not	623 (8)	\$65,700 (8)	\$620,000 (8)
	Somewhat	575 (9)	\$40,700 (9)	\$382,000 (9)
	Very	536 (11)	\$55,054 (11)	\$562,200 (11)
Rental income – long term lease (6 months or more)	Not	534 (12)	\$54,600 (12)	\$577,750 (12)
	Somewhat	476 (6)	\$39,705 (6)	\$534,000 (6)
	Very	632 (14)	\$49,800 (14)	\$420,000 (14)
Rental income – short term lease such as Airbnb or VRBO	Not	578 (15)	\$56,600 (15)	\$553,000 (15)
	Somewhat	626 (9)	\$40,800 (9)	\$486,000 (9)
	Very	463 (6)	\$55,600 (6)	\$389,333 (6)
Additional useable space such as studio, office, or activity space	Not	603 (12)	\$61,500 (12)	\$460,000 (12)
	Somewhat	541 (6)	\$31,468 (6)	\$556,200 (6)
	Very	544 (11)	\$53,800 (11)	\$509,000 (11)
Accommodation for occasional house guests or visitors	Not	605 (9)	\$54,501 (9)	\$455,000 (9)
	Somewhat	553 (7)	\$42,000 (7)	\$390,100 (7)
	Very	546 (12)	\$53,800 (12)	\$606,750 (12)
Housing for a live-in service provider such as a child care provider, assisted living professional, or property caretaker	Not	569 (18)	\$52,300 (18)	\$494,800 (18)
	Somewhat	444 (8)	\$44,400 (8)	\$451,200 (8)
	Very	796 (1)	\$89,700 (1)	\$1,030,600 (1)
Other	Not	615 (6)	\$50,092 (6)	\$531,000 (6)
	Somewhat	606 (4)	\$63,240 (4)	\$525,750 (4)
	Very	696 (4)	\$54,600 (4)	\$547,250 (4)

**Housing for family members or extended family members:**

This reason had the strongest response with 32 out of the 45 (71.1%) indicating that it was either somewhat or very important, while 10 (23.8%) stated it was not important.

Referencing the second table, there are several lessons, first, those who indicated it was very important to house additional family built smaller cottages. In addition, the property values for those who answered not important are higher than either those who answered somewhat or very important.

**Rental income – long term lease (6 months or more):**

All survey respondents responded to this question—the only question with a 100% response rate. Approximately 60% of respondents or 27 of the 45 indicated that long term rental income was either somewhat or very important, while the remaining 18 (40%) stated it was not important.

Although it is a small sample, looking at table two, there is a downward progression in property value from not important to very important. Those answering not important having a significantly higher property value than those finding rental income to be very important. In addition, the property value for those answering very important is lower than those answering not important, and is much lower than the average as a whole. Additionally, the cottage size is much larger for those who answered very important.

#### **Rental income – short term lease such as Airbnb or VRBO:**

Of the 42 who answered this question, 57% indicated it was not important, while the remaining 43% responded that it was somewhat or very important. The major takeaway in this reason is that much fewer respondents sought out short term rental income than either long term income or housing for family.

Of the limited sample, there is an inverse relationship to property value and how the question was answered. Those finding it not important had the highest property values, while those answering very important had lower significantly lower property values.

#### **Additional useable space such as studio, office, or activity space:**

Nearly all surveyed answered this question, 44 of the 45 (97.7%). 28 respondents answered that it was either somewhat or very important while 16 indicated it was not important. 19 respondents stated it was very important.

#### **Accommodation for occasional house guests or visitors:**

Approximately two thirds of respondents indicated that this was either somewhat or very important. Only 10 indicated this was not important, while 34 stated it was either very or somewhat important. Similar to housing additional family, 20 indicated this was very important.

The major takeaway in the further analysis is that properties value of those stating it was very important is much higher than those indicating it was not or somewhat important.

#### **Housing for a live-in service provider such as a child care provider, assisted living professional, or property caretaker:**

The majority of respondents, over two thirds stated this was not an important factor. Only four stated it was very important while 10 indicated it was somewhat important.

### **Interpretation of results—section 1**

There are several major takeaways from the first portion of the survey.

- Housing for family is the most prominent use for cottages. 71% of respondents stated that housing for family was either somewhat or very important. Interestingly there was little overlap between those stating housing family was very important and those seeking rental income with a total of six responses overlapping.
- The uses of accommodation for guests and the need for additional space were second in importance to housing for family. Close to 2/3rds of respondents considered accommodation of occasional guests to be somewhat or very important.
- Short term rental income and housing for caretakers of either property or residences is not a popular use of cottages.
- There are few meaningful relationships which can be drawn from the extra analysis section. With few exceptions, this is due to insufficient sample sizes where there is limited data.

## Responses to section 2

Similar to section 1, the following is a review of the answers given and how they relate to construction costs, property values, and cottage size (Table 15 and 16).

Table 15: Summary table for section 2

	Agree	Neutral	Disagree	Total Responses
The basic cost of construction (aside from permits, and design fees) is a significant barrier to creating a backyard cottage	27	11	4	42
	64	26	9.5	%
Lack of access to financing (loans) is a significant barrier to creating a backyard cottage	18	14	10	42
	43	33	24	%
The cost, time or complexity of obtaining permits is a barrier to creating a backyard cottage.	20	10	13	43
	47	23	30	%
The cost of design and engineering fees is a significant barrier to creating a backyard cottage.	20	14	9	43
	47	33	21	%
The cost of utility connections is a significant barrier to creating a backyard cottage.	23	10	10	43
	54	24	24	%
Development regulations such as setbacks, height limits, and lot coverage limits are a significant barrier to creating a backyard cottage.	30	6	7	43
	71	14	17	%
The requirement of an on-site parking space for the cottage is a significant barrier to creating a backyard cottage.	22	11	9	42
	53	27	22	%
The occupancy requirement (owner must reside in either the cottage or principal unit) is a significant barrier to creating a backyard cottage.	20	5	17	42
	48	12	41	%
Concerns about impacting a neighbor are a significant barrier to creating a backyard cottage. (ie. views, privacy, access to light /air.)	15	14	13	42
	36	34	32	%

Table 16: Summary of section two with cottage size, property value and construction cost included.

Question		Size of cottage in sq. ft (# of survey respondents)	Property value	Construction cost
The basic cost of construction (aside from permits, and design fees) is a significant barrier to creating a backyard cottage	Agree	535 (19)	\$482,285 (21)	\$49,357 (21)
	Neutral	642 (5)	\$585,600 (5)	\$52,247 (5)
	Disagree	664 (4)	\$598,750 (4)	\$68,246 (4)
Lack of access to financing (loans) is a significant barrier to creating a backyard cottage	Agree	544 (13)	\$573,786 (13)	\$56,670 (13)
	Neutral	584 (9)	\$438,333 (9)	\$51,735 (9)
	Disagree	622 (5)	\$401,462 (5)	\$40,163 (5)
The cost, time or complexity of obtaining permits is a barrier to creating a backyard cottage.	Agree	565 (13)	\$553,538 (13)	\$51,347 (13)
	Neutral	507 (6)	\$590,414 (6)	\$46,275 (6)
	Disagree	622 (9)	\$352,900 (9)	\$53,410 (9)
The cost of design and engineering fees is a significant barrier to creating a backyard cottage.	Agree	461 (12)	\$455,000 (12)	\$38,313 (12)
	Neutral	656 (10)	\$631,600 (10)	\$61,030 (10)
	Disagree	651 (6)	\$410,127 (6)	\$59,444 (6)
The cost of utility connections is a significant barrier to creating a backyard cottage.	Agree	550 (12)	\$506,322 (12)	\$47,550 (12)
	Neutral	678 (8)	\$510,125 (8)	\$55,789 (8)
	Disagree	533 (6)	\$428,850 (6)	\$51,117 (6)
Development regulations such as setbacks, height limits, and lot coverage limits are a significant barrier to creating a backyard cottage.	Agree	576 (19)	\$523,900 (19)	\$46,524 (19)
	Neutral	548 (4)	\$499,750 (4)	\$64,539 (4)
	Disagree	531 (4)	\$396,833 (4)	\$57,494 (4)
The requirement of an on-site parking space for the cottage is a significant barrier to creating a backyard cottage.	Agree	555 (17)	\$509,555 (17)	\$49,755 (17)
	Neutral	652 (7)	\$494,285 (7)	\$59,526 (7)
	Disagree	493 (3)	\$442,500 (3)	\$49,995 (3)
The occupancy requirement (owner must reside in either the cottage or principal unit) is a significant barrier to creating a backyard cottage.	Agree	549 (15)	\$476,666 (15)	\$48,770 (15)
	Neutral	563 (4)	\$529,250 (4)	\$51,647 (4)
	Disagree	624 (8)	\$507,200 (8)	\$56,733 (8)
Concerns about impacting a neighbor are a significant barrier to creating a backyard cottage. (ie. views, privacy, access to light /air.)	Agree	535 (8)	\$559,100 (8)	\$46,181 (8)
	Neutral	546 (10)	\$539,200 (10)	\$53,969 (10)
	Disagree	637 (9)	\$379,444 (9)	\$55,079 (9)

### **The cost of construction (aside from permits, and design fees) is a significant barrier to creating a backyard cottage**

Answered by 42 of the 45 surveyed, the majority of respondents agreed that this was a barrier with nearly 65% agreeing with this statement and nearly 30% strongly agreeing. Only four respondents disagreed with no respondent strongly disagreeing. Eleven of the sampled or 26% remained neutral.

Although it is a small sample size, there is a relationship between square footage, property value, and construction cost of the cottage. Those agreeing with this statement owned smaller, less expensive to construct cottages built on lower value properties than those who were neutral or disagreed. Moving from neutral to disagree, cottage size increases, property values increase, and construction costs increase.

### **Lack of access to financing (loans) is a significant barrier to creating a backyard cottage**

This question was answered by 42 of the 45 respondents. Approximately a third of the respondents were neutral on this being a barrier, while 43% agreed this was a barrier, and 24% disagreed. Nearly 30% of the responses agreed with this statement. Interestingly, those who agreed with this statement had higher value cottages, higher property values, but smaller cottages than those who disagreed or were neutral.

### **The cost, time or complexity of obtaining permits is a barrier to creating a backyard cottage.**

There were 43 responses to this question. Nearly 46% of respondents agreed with this as a barrier with 10 respondents both strongly agreeing and agreeing. There were zero responses strongly disagreeing, 13 disagreeing, and 10 respondents remained neutral. Despite a small sample size, amongst respondents who disagreed, responses pointed to lower property values.

### **The cost of design and engineering fees is a significant barrier to creating a backyard cottage.**

No respondents strongly disagreed, while only 9 disagreed. Meanwhile 20 respondents agreed with 16 agreeing, 4 strongly agreeing, and 14 respondents remained neutral.

The respondents who agreed with this barrier had smaller cottages averaging 420 square feet (vs 638) with correspondingly less expensive construction costs at \$38,923 (vs \$59,126 for all other cottages). The square footage of their properties were also nearly 800 square feet smaller.

**The cost of utility connections is a significant barrier to creating a backyard cottage.**

A majority of respondents agreed that the cost of utility connections was a barrier in cottage construction, 9 strongly agreed and 14 agreed. There were ten responses for those who remained neutral and disagreed that this was a barrier.

**Development regulations such as setbacks, height limits, and lot coverage limits are a significant barrier to creating a backyard cottage.**

The majority agreed that development regulations were a barrier in building cottages. Nearly 71% or 30 responses agreed with 15 of those strongly agreeing. Meanwhile 7 responses disagreed while 6 remained neutral.

**The requirement of an on-site parking space for the cottage is a significant barrier to creating a backyard cottage.**

Slightly more than half of the respondents felt that the requirement to build a parking space was a barrier in constructing a cottage. Meanwhile, 11 respondents both strongly agreed and agreed that parking requirements were a barrier while 9 disagreed and 11 remained neutral.

**The occupancy requirement (owner must reside in either the cottage or principal unit) is a significant barrier to creating a backyard cottage.**

Regarding the owner occupancy requirement, there was a degree of balance with 20 respondents agreeing or strongly agreeing, 17 disagreeing or strongly disagreeing, and 5 remaining neutral.

**Concerns about impacting a neighbor are a significant barrier to creating a backyard cottage. (ie. views, privacy, access to light /air.)**

Neighborhood and neighbor concerns were the most evenly split of the barriers surveyed. For this question, the breakdowns are 1/3 for agreeing, neutral, and disagreeing. Despite there being a small sample size, the ones who disagreed with this question had larger cottages and lower property values than the ones who agreed.

**Interpretation of results—section 2**

There are several takeaways from the second portion of the survey.

- The cost of cottage construction is a significant barrier with close to three quarters of respondents stating it was a barrier or concern.

- Approximately half of the respondents stated owner occupancy and parking were barriers to cottage construction.
- The permitting process and cottage development regulations was a barrier for many cottage builders.
- Due to the small sample size, there are insufficient data in further analysis section. No meaningful relationships could be determined.

### **Section three: Open ended questions**

The survey asked two open ended questions of property owners: what ideas or suggestions do you have for the City to help encourage production of more backyard cottages? And is there anything else you'd like to tell us about your experience in creating a backyard cottage in Seattle? Both questions seek out the opinion and stories of cottage builders to see if there are any patterns or anything else that should be looked into. There were 40 responses to the open ended section, 10 remained anonymous, and 27 stated they would be willing to conduct a follow-up interview with DPD staff.

The resulting answers either provided greater depth or the opportunity to comment further on things not addressed in the other portion of the survey. In addition, several respondents gave further insights on what led them to build a cottage, and what it has become or will become in the future. Two respondents elaborated on how the cottage is used to house elderly family members, serving as a bridge between independent living and assisted living. While several others stated how the cottage is an investment property either through short term or long term rentals, with one respondent stating they have had over 100+ short term renters. Several respondents stated how their cottage is an evolving and flexible entity, one response from North Seattle states the cottage is currently used as rental property, with the plan of one day moving in herself while letting her daughter live in the main residence; while another from West Seattle sees her studio eventually turning a rental unit.

Amongst the open ended responses received, there was overall optimism at the backyard cottage policy. All respondents were ultimately pleased with their decision to construct a cottage, no respondents stated they regret building the cottage, or found it to be a waste of time or money.

The open ended section gave an opportunity for respondents to further define barriers and uses to backyard cottages. Several of these barriers were identified in the first portions of the survey such as development standards and owner occupancy requirement. Meanwhile, the open-ended section gave respondents an opportunity to express concern or suggest issues not mentioned in the first portion of the survey. This section will go over the major concerns, compliments, and suggestions from the survey.

## **Issues identified in open-ended responses to the survey**

The open ended questions gave an opportunity for cottage owners to give more elaborate responses to issues mentioned previously in the survey. Instead of merely checking a box, survey respondents could write out their concerns or suggestions to encourage cottage construction. Included below are issues and themes mentioned in both section two: obstacles to cottage construction, and again in the open ended section.

### **Owner occupancy requirement**

The current regulations require property owners to live on premises (either in the cottage or in the main residence). The owner occupancy requirement was mentioned in six responses, all six stating it needed to be repealed or revisited. One respondent elaborated, “we have a rental home where we would consider adding a DADU if the [owner] occupancy requirement were removed.” Another respondent stated how neither Portland nor Vancouver require owner occupancy.

### **Parking standards**

Unless constructed in either a residential parking zone (RPZ) or an urban center or urban village, the code states that with a cottage, there must be two spaces on premises, even when one did not exist previously. The requirement for parking has been a contentious issue for cottage owners and their neighbors.

In the survey, respondents took both sides on the parking requirement with four in favor of repealing it and one in favor of keeping it. The one in favor stated that “every spot helps,” whereas the ones looking to repeal the requirement stated it was either unnecessary or added construction and design difficulties. Another respondent who built a cottage atop a garage stated parking space should not count toward gross floor area of their cottage.

### **Problems with the DPD process**

DPD tightly controls the cottage permitting and building process. To legally build a cottage, a homeowner must submit blueprints and permit fees to DPD, and these plans must be approved before construction can commence. This process can take anywhere from one day to five weeks, averaging four weeks, and costs on average \$1,787 for permitting fees. The process can be made more complicated when further information is requested, new blueprints requested, or a study or evaluation needs to take place, such as a tree or storm water plan. In addition, there are a number of development and code regulations applying to cottages, including setbacks, height, lot coverage, and building codes.

Comments on the DPD process were mentioned frequently in the survey appearing in fourteen surveys—six stating the DPD process was helpful, or a good experience, and eight respondents stating the process was a negative experience.

In addition, there were 12 comments on the development and code regulations, none in favor of the DPD process. Common complaints included rethinking setbacks, or adopting standards for smaller spaces such as window size or electrical systems.

### **Results not identified**

The open ended portion of the survey asked respondents for their suggestions to City policymakers in encouraging construction of more cottages. This section discusses various ideas cottage builders had to encourage production.

### **Examples of cottages, success stories, lists of builders, pre plans**

Five responses mentioned the lack of DPD publications or publicity on the benefits of cottages, or examples of cottages. Along those lines, several responses would have appreciated example blueprints or plans, while several others would have enjoyed having a list of proven contractors and designers. Although there are DPD publications and reports, they are not widely disseminated at this time. One cottage owner mentioned they would have appreciated a step-by-step guide to cottage building. Similarly, there were five responses wishing there was more DPD publications on guiding homeowners through the process of cottage construction.

### **Conversions of cottages**

Approximately 1/3 of permitted cottages are converted units which consist either of adding to an existing unit (such as a garage or guesthouse) or are the legalization or grandfathering in of illegal units. Unit conversion was mentioned three times in the open ended responses. One respondent from West Seattle who built a unit prior to legalization stated the high cost and stress of having to legalize a unit. The other two responses centered around developing new standards for conversions, or allowing for conversions.

### **Conclusions**

There are a several takeaways from the survey.

### **Importance of housing family members**

Prior to the survey, it was speculated that housing for family members was an important reason for cottage construction. The survey confirmed this hypothesis with when 76.8% of respondents stated it was either somewhat or very important reason. As further stated in two surveys in the open ended section, cottages are way of housing elderly parents who need to remain close to their children. Meanwhile, others saw their cottage as one day being their home once they became elderly.

### **Cottages as an investment**

Although not as prevalent as the need to house additional family members, the investment potential of a cottage is a driving factor for many. Approximately half (48%) of the survey respondents stated that income generation (either short or long term) as being somewhat or very important reason in constructing a cottage.

The open ended section of the survey gave a glimpse into the ways a cottage can be leveraged as an investment through both short and long term rentals.

### **The need for additional space**

Whether used as additional space to house guests, or used as an office, studio, or workspace—cottages are seen as a means to achieve more space in a urban environment. Close to 76% of respondents found these uses to either be very or somewhat important.

Several open ended responses outlined how their cottages are utilized for additional space including for studios and storage space.

### **Changes to the DPD process and rules**

The survey identified ways DPD could improve the cottage building process. The majority of respondents agreed (76%) that DPD development requirements were an obstacle to cottage construction. The open ended portion gave cottage constructors a space to elaborate on their concerns.

### **Limitations of the survey**

There are several limitations to this survey. First, it is a self-selected group; those who reply typically are those who have time and/or strong opinions either way on cottage policy. Therefore true attitudes of cottage constructors will not be known. The second limitation is in the design of the questions in sections two where too many options were given as possible answers.

## **Conclusions**

This section sums up the findings from the thesis. First is a summary of results, second is a set of policy recommendations, conclusions, and possible next steps.

### **Summary of results**

#### **There is plenty of parcel capacity to build cottages**

The capacity analysis demonstrated that a large proportion of single family parcels could potentially accommodate a cottage. The capacity analysis helped to answer the question, what is the estimated number of parcels which could accommodate a cottage, close to 77% of all parcels greater than 4,000 square feet as remain eligible.

#### **Areas with higher capacity have more cottages**

A second result of the capacity analysis is establishing the relationship between parcel capacity and the actual numbers of cottages constructed. With the city split into sectors, the areas which had the least capacity also had the lowest numbers of cottages constructed while the sectors with the highest capacity had the most cottages.

#### **Cottage properties are more likely to have higher property values**

Properties with cottages have higher property values. Although it has not determined whether cottages add values or if property owners had higher values to begin with; the analysis demonstrated through two tests that cottage owners sit on more valuable properties.

#### **Cottages are built primarily to house family members, and are seen as an investment property**

Housing additional family members is the largest motivation for property owners in deciding whether or not they should build a cottage. It is by far the most popular reason for constructing a cottage. Close behind housing family is using the cottage as an investment property through either long or short term investment property.

## **Policy recommendations, and possible next steps**

The following are policy recommendations to DPD in an effort to encourage greater production of cottages.

### **Promote opportunities to build cottages**

The capacity analysis section demonstrated that there is an ample supply of eligible lots to build cottages with nearly 75% of all parcels greater than 4,000 square feet eligible. One next step for the city could be promoting more cottages through incentives; examples include, waiving permitting fees, providing tax breaks to homeowners who build cottages, or paying homeowners to construct cottages.

### **Streamline permitting process, provide consistency in policy**

Survey respondents perceived the primary obstacle to building cottages to be the permitting process at DPD—specifically that it took too long, the rules were applied inconsistently or incorrectly or was too restrictive. With legalization only occurring five years ago, there has been “growing pains” with cottage regulations. One suggestion is for DPD to explore ways to make the permitting process more efficient through faster review, and inspections. Relatedly, ensure the rules are applied consistently for all projects. In reviewing cottages—it was unclear in a few instances if the 800 square feet was dwelling space or total square footage.

### **Provide examples of “good” cottages**

Cottage construction could be further encouraged through greater publicity. As suggested in the survey, DPD could provide literature on good examples of cottages throughout the City. In addition, DPD could engage in further public outreach to encourage cottages through public presentations at neighborhood meetings or councils where good examples can be presented to neighborhoods.

### **Provide financial advice and technical advice**

The process to build a cottage has many unknowns both prior to and after construction. There is limited information available on how to build a cottage and what steps are necessary. As indicated in the survey, DPD provides little guidance on the steps and process of building a cottage. Furthermore, homeowners are intimidated by the prospect of being a landlord or property manager once their cottage is completed. One suggestion is to further educate homeowners on the ins and outs of cottage construction including how to finance the unit, and how to rent it out.

### **Revise owner occupancy rules**

The owner occupancy rule was established to ensure stewardship of the property. It was seen as a way of making sure homeowners maintained their properties. Five years into cottage legalization, it is now clear that there is a desire for some to drop this requirement. Having absentee ownership is being explored to increase residential density.

### **Revise parking requirements**

The need to build a second space is an obstacle for many homeowners. When cottage rules were established by DPD the rule was one space was required for each cottage. However the survey has demonstrated that DPD should look into dropping the parking requirement. In some cases, the requirement for an additional space is a burden—especially on smaller parcels where there is less space for parking spaces and a cottage.

### **Look into expanding eligibility to parcels less than 4,000 square feet**

Using the methodology of the capacity analysis, the City could look analyze single family parcels 3,999.99 square feet which consist of nearly 23,000 parcels. At this time there are a handful of cottages on smaller parcels—however these are only grandfathered existing units. One possible change is expanding cottage legalization to smaller parcels. In conjunction with reducing owner occupancy requirements, and parking restrictions, it may be possible to expand cottages to more parcels.

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# Appendix A: survey results and materials

## Section I results

	Housing for family members or extended family members			Rental income – long term lease (6 months or more)			Rental income – short term lease such as Airbnb or VRBO			Additional useable space such as studio, office, or activity space			Accommodation for occasional house guests or visitors			Housing for a live-in service provider such as a child care provider, assisted living professional, or property caretaker			Other			Size of cottage	Property value	cost of cottage	
	Not	Somewhat	Very	Not	Somewhat	Very	Not	Somewhat	Very	Not	Somewhat	Very	Not	Somewhat	Very	Not	Somewhat	Very							
1		1		1			1			1			1			1			1			560	306000	\$46,591.00	
2					1			1			1			1			1					345	207000	\$50,814.00	
3						1			1				1				1			1				230000	\$ 2,000.00
4		1			1				1				1				1								
5		1			1				1				1				1			1		544	1063000	\$63,306.00	
6			1			1					1			1											
7		1			1				1				1				1			1		522	287000	\$55,097.00	
8						1																515	466000	\$20,000.00	
9		1				1				1				1			1			1		766	727000	\$90,000.00	
10			1			1				1				1			1			1		411	355000	\$10,000.00	
11		1			1				1				1				1					352	549000	\$50,000.00	
12			1			1				1				1						1		800	435000	\$40,986.00	
13			1				1				1			1											
14		1				1					1			1											
15		1				1				1				1			1			1		786	440000	\$88,166.00	
16		1				1				1				1			1			1		800	455000	\$88,000.00	
17		1				1				1				1			1			1		596	322000	\$20,000.00	
18		1				1				1				1			1			1		450	306000	\$50,476.00	
19		1				1				1				1			1			1		718	845000	\$55,000.00	
20			1			1				1				1			1			1		381	474000	\$59,811.00	
21		1				1				1				1			1			1		576	535000	\$20,000.00	
22		1				1				1				1			1			1		792	358000	\$30,500.00	
23			1			1				1				1						1					
24		1				1				1				1			1					425	534000	\$40,000.00	
25		1				1				1				1			1								
26			1			1				1				1			1								
27			1			1				1				1			1			1		384	629000	\$43,073.00	
28		1				1				1				1			1								
29			1			1				1				1			1						502000		\$74,307.00
30			1			1				1				1			1					382	760000	\$23,988.00	
31			1			1				1				1			1					382	450000	\$48,218.00	
32			1			1				1				1			1								
33		1				1				1				1			1					563	265000	\$60,725.00	
34			1			1				1				1			1					733	382000	\$80,000.00	
35		1												1			1								
36			1			1				1				1			1								
37			1			1				1				1			1			1		348	716000	\$16,000.00	
38			1			1				1				1			1			1		800	357000	\$90,494.00	
39		1				1				1				1			1					791	590000	\$66,581.00	
40			1			1				1				1			1					362	444000	\$38,988.00	
41		1				1				1				1			1					512	458000	\$57,431.00	
42			1			1				1				1			1								
43			1			1				1				1			1								
44			1			1				1				1			1			1		796	1036000	\$89,736.00	
45			1			1				1				1			1			1					
	10	12	20	18	10	17	24	11	7	16	9	19	14	10	20	29	10	4	6	5	6				
	23.8	28.6	47.6	40.0	22.2	37.8	57.1	26.2	16.7	43.2	20.5	43.2	31.8	22.7	45.5	67.4	23.3	9.3	35.3	29.4	35.3				



Copy of survey:



## City of Seattle

Edward B. Murray, Mayor

### Seattle Department of Planning and Development

Diane M. Sugimura, Director

February #, 2015

Dear \_\_\_\_\_,

**Re: Backyard Cottage Survey**

Right now there is a pressing need in our city to expand the range of housing choices and improve the affordability of housing. We believe that increasing the number of backyard cottages is a good way to help with this important issue.

According to our records you are one of about two hundred homeowners in Seattle who have built a backyard cottage. To help us encourage more homeowners to build cottages, we'd like to ask you a few questions about your experience. Enclosed is a brief survey with questions to help us understand 1.) what prompted you to build your backyard cottage, and 2.) what challenges you faced along the way.

Your responses will be kept completely confidential, and will not be used for any purposes besides an informational report. However, if you are interested, we're also looking for a few volunteers to tell individual stories about creating a backyard cottage to share with City Councilmembers and the community. We'd greatly appreciate if you could take a few minutes to complete the brief survey by either:

- Returning the paper copy in the enclosed pre-stamped envelope; or
- Using Survey Monkey at the following web address:  
*(You may also e-mail to receive a return e-mail with the Survey Monkey weblink)*

The results will be included in a report to the Mayor and City Council. The report will recommend ways to increase production of backyard cottages, which could include a new city program, or changes to regulations. If you have any questions, or would like to discuss, please contact me at 206-684-3586 or [geoffrey.wentlandt@seattle.gov](mailto:geoffrey.wentlandt@seattle.gov).

Sincerely,

Geoffrey Wentlandt, AICP  
Senior Planner

**Backyard Cottage Survey**

**OPTIONAL:** Homeowner name \_\_\_\_\_

**OPTIONAL:** Address of backyard cottage site \_\_\_\_\_

Why did you decide to build a backyard cottage? Please indicate which possible uses of the cottage were very important, somewhat important or not important, in your decision to build a backyard cottage.

<b>Potential Use of Backyard Cottage</b>	<b>Very Important</b>	<b>Somewhat Important</b>	<b>Not Important</b>
Housing for family members or extended family members			
Rental income – long term lease (6 months or more)			
Rental income – short term lease such as Airbnb or VRBO			
Additional useable space such as studio, office, or activity space			
Accommodation for occasional house guests or visitors			
Housing for a live-in service provider such as a child care provider, assisted living professional, or property caretaker			
Other potential use:			

The remaining questions will help identify barriers or challenges to adding a backyard cottage. Responses will help the City come up with strategies to encourage more backyard cottages. Please tell us to what extent you agree that the factor is a barrier to building a backyard cottage based on your experience.

<b>Factor</b>	<b>Strongly Agree</b>	<b>Agree</b>	<b>Neutral</b>	<b>Disagree</b>	<b>Strongly Disagree</b>
The basic cost of construction (aside from permits, and design fees) is a significant barrier to creating a backyard cottage.					
Lack of access to financing (loans) is a significant barrier to creating a backyard cottage.					
The cost, time or complexity of obtaining permits is a barrier to creating a backyard cottage.					
The cost of design and engineering fees is a significant barrier to creating a backyard cottage.					
The cost of utility connections is a significant barrier to creating a backyard cottage.					
Development regulations such as setbacks, height limits, and lot coverage limits are a significant barrier to creating a backyard cottage.					

<p>The requirement of an on-site parking space for the cottage is a significant barrier to creating a backyard cottage.</p>					
<p>The occupancy requirement (owner must reside in either the cottage or principal unit) is a significant barrier to creating a backyard cottage.</p>					
<p>Concerns about impacting a neighbor are a significant barrier to creating a backyard cottage. (ie. views, privacy, access to light /air.)</p>					

What ideas or suggestions do you have for the City to help encourage production of more backyard cottages?

Is there anything else you'd like to tell us about your experience creating a backyard cottage in Seattle?

Would you be willing to do a more in depth interview with City staff about your backyard cottage? If so please provide the e-mail or phone number that is best for reaching you.

Item 4: open ended survey responses:

Question 1: What ideas or suggestions do you have for the City to help encourage production of more backyard cottages?	Question 2: Is there anything else you'd like to tell us about your experience creating a backyard cottage in Seattle	Number
Having online information was helpful. Wished a "designer specialty list" be available.	Cottage is a work studio now, thinking about future with income potential. City has lack of studio space.	1
Setbacks and parking requirements add difficulty for standard sized lots, house was not optimally positioned for a cottage.	DADU provided opportunity for more sustainable life.	2
Need someone w/authority to negotiate land use related issues. Additional parking space probably not needed, size is bit too small to be useful. "We don't want apodments yet this size is about what they are."	[the process] went well, very important to keep owner occupied requirement.	3
Eliminate owner occupancy requirement, lot coverages to be relaxed, don't include decks in lot coverage	Permitting process took a lot of time, DPD helpful [in process]	4
Remove owner occupancy requirement, educate banks and other sources of funding on cottages	Overall positive, DPD helpful	5
New construction and conversions need to have different standards. Cost of preparing plans for existing buildings is costly	Cottage was a converted structure, conversion occurred prior to legalization. Spent \$5,600 to draw new plans, building was almost declared unsafe. Process was stressful and expensive due to having to have structure legalized.	6
Had cottage conversion, had to bring structure to code, thought process was unfair and expensive. States codes are made for average or large dwellings, wants codes changed to reflect smaller spaces such as in window and electrical requirements.	Cottages are good, provide extra income, affordable housing, cottage has allowed homeowner to stay in home despite different life events (such as job loss, return to school). Provides good alternative to other rental units (such as apartments).	7
Make success stories available to public	Heard about cottage through Ballard District Council, planning and permitting "arcane," expensive, and took a long time. Does short term rentals (VRBO) 100+ renters, no problems, good for family visits, cottage to evolve over time, many options in future.	8
Interested in pre-approved designs for a small fee, would cut permitting and architecture costs.	Permitting is complex, 800 sq ft is limiting, conversion of prior garage counted against unit to create small unit. Was building a unit atop a garage, had limited space because garage counted toward square footage.	9
Get rid off the King County wastewater charge, make it a mandatory disclosure	It's fantastic	10
Provide a list of affordable and reliable contractors.	Applicant initially only wanted office above garage, was told she had to have kitchen to get the permit, the cottage used for visiting relatives.	11
More articles in media on architecturally diverse cottages, and the reasons to consider one. Create a nice brochure to hand out at various shows, conferences that show examples. Provide a list of lenders.	Found it positive experience, appreciates strict rules and regulations, too much density is creating crowding and less desirability in certain areas, homeowner plan is downsize in retirement and create rental income with cottage	12
Create a easy to use guide for homeowners to follow, make permitting a one day process.	Suggest a list of contractors in an effort to screen out bad ones, acknowledges that such a list cannot be done.	13
Increase allowed gross floor area, increase height limit so a loft can be included, do not include parking in GFA, allow both cottage and ADU on same property	Enjoys cottage, tenant loves it, height and GFA limits severely limit design and use, people are willing to invest if they get return, heights and GFA limit these, Bring equivalence to ADU and DADU regulations	14
		15
Restrictions on a case by case basis	Good experience	16
Examples online out of touch, paid \$15,000 more than anticipated, would like handbook with list of steps, wish that could've given unit own electrical panel	Great experience	17
Get word out, document cottages and have more information such as contractors, costs, how used,	City light was a pain, inflexible and slow. Permitting was very slow and irritating, code and inspector difficulties with changing rules, new paint required new permit, costs extra due to changing rules and inspectors	18
Allow zero lot line at alley, Allow taller structures, patricianly over garages, remove owner occupancy, reduce KC sewer hookup costs, Streamline shortplattling of lots w/cottages, Allow DADUs on 5000 sq ft lots.	Having a cottage a pleasure, would consider constructing a cottage on a rental property [the property owner surveyed owns] if owner occupancy requirement removed, approves of increasing density of Seattle's SF neighborhoods, "SF zoning=artificial land scarcity."	19

Help citizens understand neighborhood benefits,	Neighbors opposed strongly to cottage.	20
Make permitting process easier to understand, our process required both architect and builder to go to DPD to negotiate process.	Original intent was to build a glorified garage, as a short term place for friends and family to stay, permitting process forced expansion of project to living space, now is a rental space, love the income.	21
City could provide property tax break, could provide appropriate cottage plans	Overall good experience, expensive	22
Make changes to current development regulations, particularly lot coverage,	Due to building restrictions limitations on space of DADU. Good for one person, but not couples or families due to size.	23
Cottage is for 80y mother not ready for assisted living, supports backyard cottages for extended family but not much else	Good experience	24
More widespread media coverage, provide example plans with low cost consultation.	Neighbors happy that cottage was integrated in color and design with main house.	25
Do not relax on street parking, every spot helps	Was everything expected and more \$\$\$, Building department was helpful but slow, conforming issues had to be worked out	26
DPD intake was slow, new regulations not understood, had to reengineer due to setbacks, needed three engineers	Great experience, inconsistency with inspectors, CAMS easy to understand	27
Fewer requirements, less restrictive building and land use codes	Difficult building process but happy to have cottage now	28
Revisit owner occupancy, isn't there a better way, average cottage tour, many fear what they don't know. Incentivize, reduce parking requirement.	Neighbors like the cottage, no complaints, has a small house, city permitting helpful,	29
	Water fee excessive	30
Clarify the codes, make the amendable as possible	Flexibility at permitting office was helpful	31
DPD was a major roadblock and very very uncooperative during permitting and construction	Regulations and requirements kept changing, no common sense on part of DPD inspectors or permitting staff	32
Difficulty and cost of replacing old sewer pipe, suggest neighborhood meetings to get people thinking, try to have articles published		33
The 800 square foot maximum needs to be reviewed and increased	Rent of Seattle rentals keeps rising, city should do something to increase cottages, rents are too high, cottages help.	34
	Permitting process was great, problem with Brightwater sewer costs,	35
Streamline the process, have one inspector, make it easier to get existing construction signed off		36
Would like owner occupancy removed, Vancouver and Portland not require this	City was helpful	37
Lower fees, licensing		38
There are few if any Seattle specific publications, DPD could have a designated expert, process looks daunting	Delays between inspectors and inspections	39
Encourage the projects	Neighbors unhappy during construction	40