

**2014**

**ANNUAL SURVEY OF WHOLESALE CUSTOMERS:  
SUMMARY OF RESULTS**

Consumption Data for 2013  
Rates Data for 2014



Seattle  
 Public  
Utilities

**November 2014**



## RESULTS OF THE 2014 SEATTLE SURVEY OF WHOLESALE CUSTOMERS

Each year, Seattle Public Utilities (SPU) asks its wholesale customers to provide information on their current water demand (both retail and wholesale), sources of supply (in addition to SPU), and their water rates. A complete set of this data by wholesale customer and by year is of critical importance in Seattle Public Utilities' efforts to better forecast wholesale demand. Wholesale customers often find the current and historical information provided in this report useful in their own analysis and planning. It also allows them to see how they compare to other wholesale customers and Seattle in a number of areas.

This report summarizes much of the data that was collected in the 2014 wholesale customer survey and is the 21st year the report has appeared in this format. *Seattle Public Utilities appreciates the time and effort each wholesale customer has taken in completing and returning the survey.* Comparative information is presented on water rates, bills and consumption patterns. Questions about this report or requests for data from the surveys should be directed to Bruce Flory at (206) 684-5859. Copies of current and past reports (back to 2005) can be downloaded from the Wholesale Customers page of SPU's website.

### Overview

About half the water produced and treated by Seattle Public Utilities is sold directly to customers in Seattle's retail service area. The rest is sold wholesale to the Cascade Water Alliance and 18 neighboring cities and water districts. These wholesale customers are listed below.

### **Wholesale Customers of Seattle Public Utilities**

#### Cities

- Bothell
- Duvall
- Mercer Island
- Renton

#### Water Districts

- Cedar River Water & Sewer District
- Coal Creek Utility District
- Highline Water District
- Northshore Utility District
- North City Water District
- Olympic View Water & Sewer District
- Soos Creek Water & Sewer District
- Woodinville Water District
- Water District No. 20
- Water District No. 45
- Water District No. 49
- Water District No. 90
- Water District No. 119
- Water District No. 125

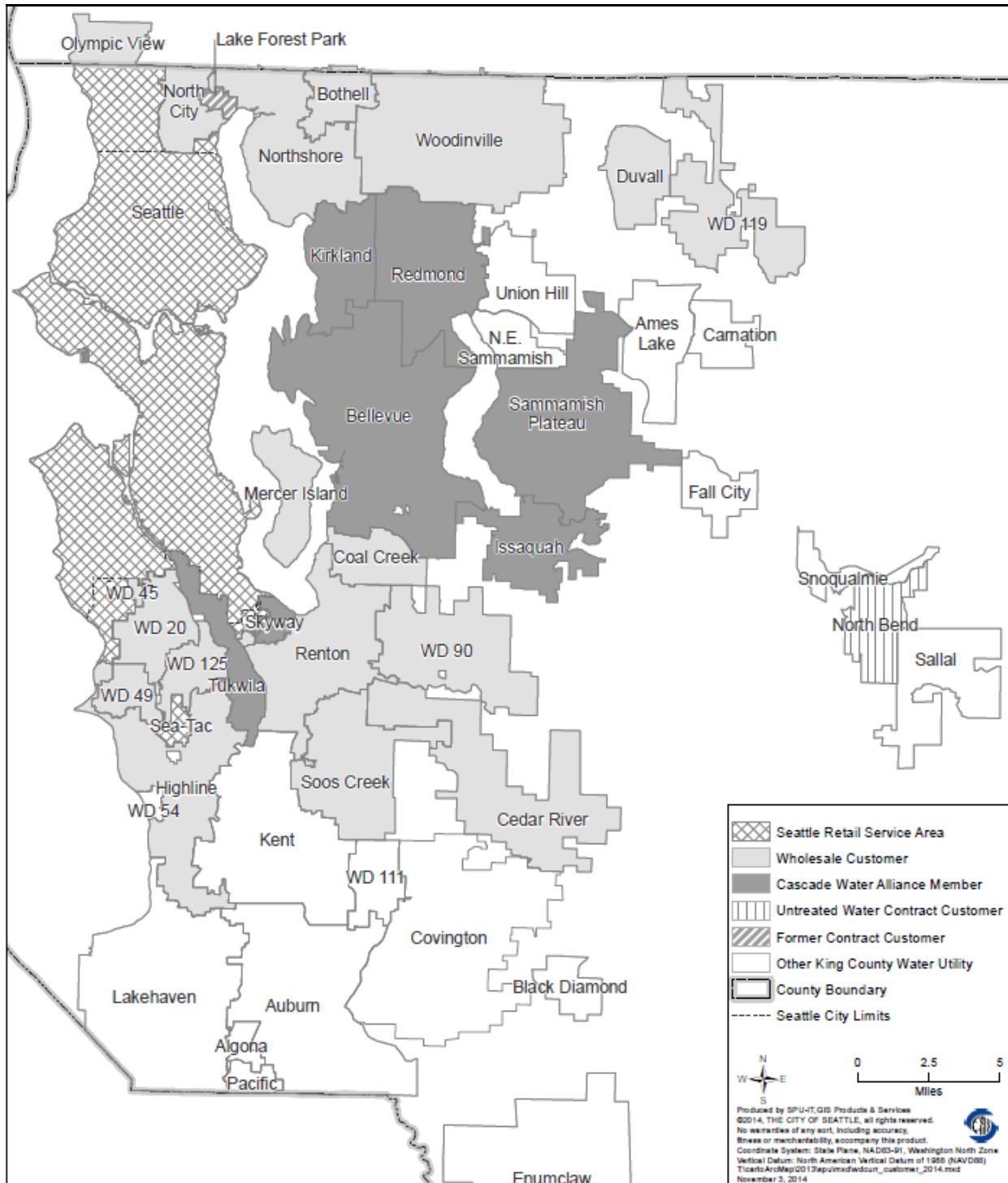
#### Cascade Water Alliance

- City of Bellevue
- City of Issaquah
- City of Kirkland
- City of Redmond
- City of Tukwila
- Sammamish Plateau W & S District
- Skyway Water & Sewer District

Note that the city of North Bend is not included in the survey though it has recently contracted with Seattle Public Utilities to receive untreated mitigation water from the Cedar River watershed. In addition, the City of Edmonds and the Lake Forest Park Water District are no longer wholesale customers of Seattle Public Utilities as of 2012. However, Lake Forest Park has asked to continue participating in the survey and their data is summarized in this report. Also in 2012, the Covington Water District withdrew from the Cascade Water Alliance and is

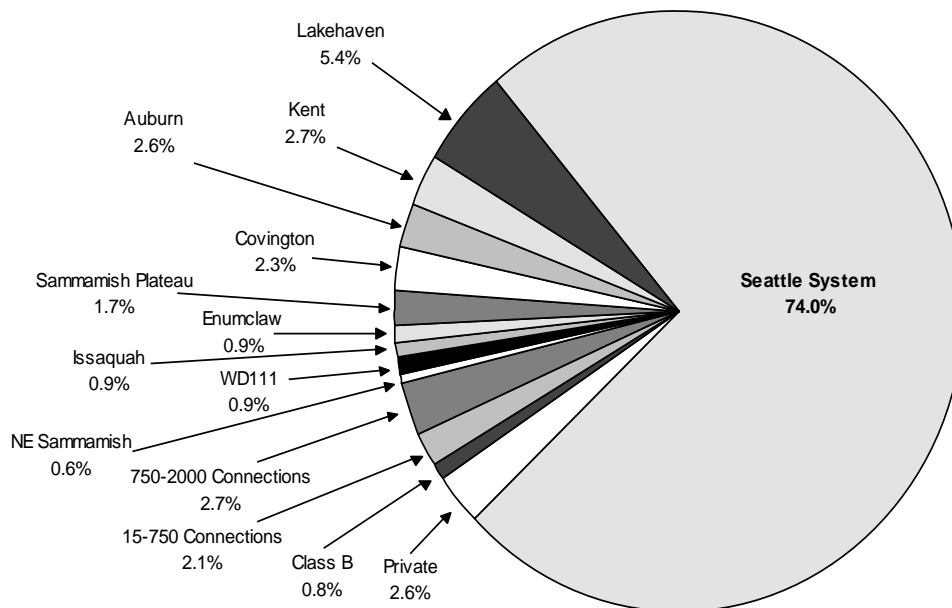
no longer included in the survey. Finally, the Shoreline Water District changed its name to the North City Water District effective January 1, 2014.

### Water Utilities in King County



While there are almost 1,500 public water systems in King County and an estimated fourteen thousand private systems, the 45 largest water utilities serve 95% of the county's population. Seattle and its wholesale customers alone provide water to about 74% of the population of King County as well as 14,500 people in the southwest corner of Snohomish County.

### Percent of Population Served by Water Providers in King County



**Supply:** Seattle Public Utilities has two surface water sources and a small ground water source: the Cedar River system, the South Fork Tolt Reservoir, and the Seattle Well Field (used primarily for summer peaking). On average, the Cedar River system provides about 70 percent of total supply, the South Fork Tolt system delivers 29 percent, and the Seattle Well Field delivers 1 percent. Total annual average firm yield from the current system is estimated at 172 million gallons per day (mgd).

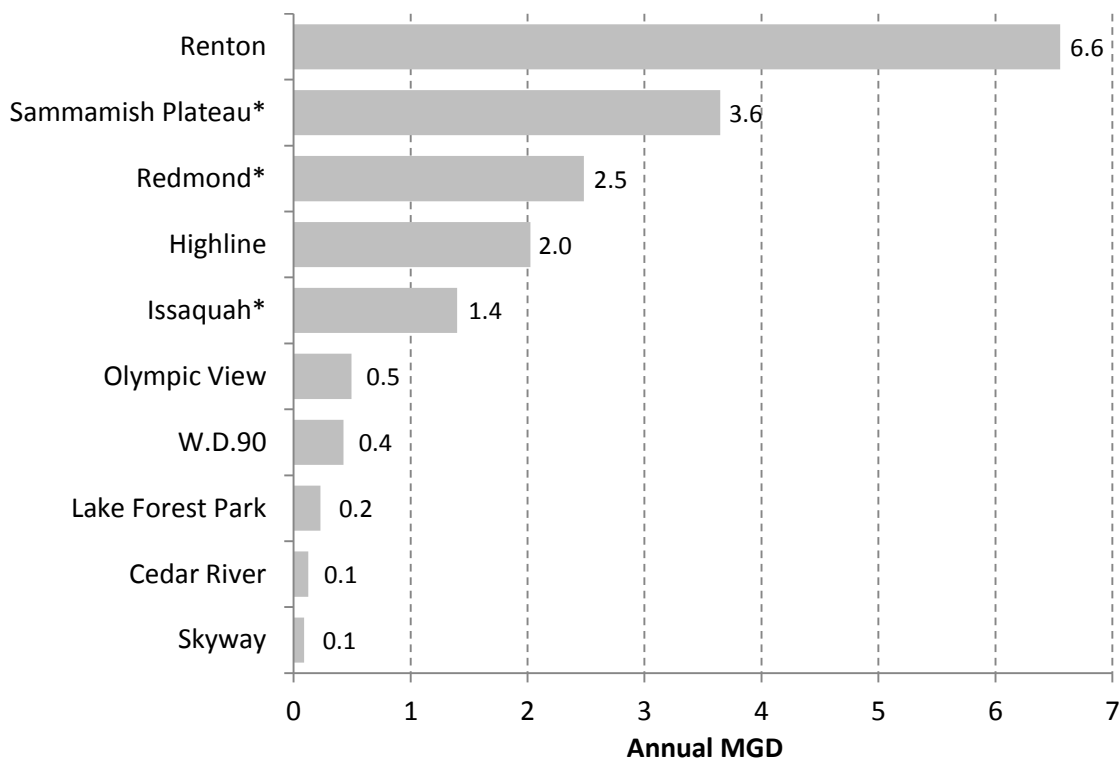
A number of Seattle's wholesale customers have their own sources of supply, which reduces their demand from the SPU supply system. These utilities and the approximate annual capacity of their sources are listed below:

- **Highline** – Wells, 1.9 mgd
- **Issaquah** – Wells, 2.5 mgd<sup>1</sup>
- **Olympic View** – Surface Water, 0.5 mgd
- **Redmond** – Wells, 2.7 mgd
- **Renton** – Wells, 13.2 mgd.
- **Sammamish Plateau** – Wells, 6.7 mgd<sup>1</sup>
- **Skyway** – Well, 0.2 mgd
- **Water District 90** – 0.6 mgd

<sup>1</sup> As reported in the Water Supply Forum's 2009 Regional Water Supply Outlook, Appendix T.

For the most part, Seattle’s wholesale customers do not fully utilize their own sources of supply, using about half on average. As shown in the table below, wholesale customers obtained about 16 mgd from their own sources of supply.

### Water Obtained From Own Sources of Supply: 2013

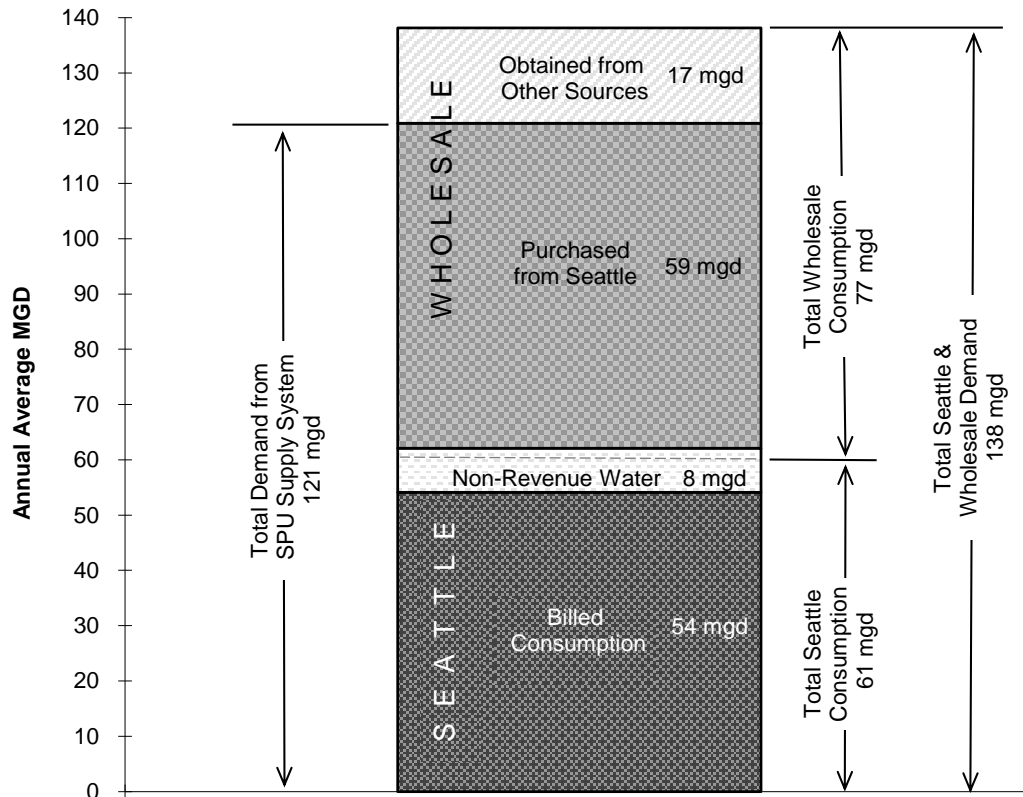


\* Members of Cascade Water Alliance

**Demand:** Seattle and wholesale water demand totaled 138 mgd in 2013, up just 1 mgd from 2011. Of the 138 mgd total, 121 mgd came from the SPU supply system and 17 mgd was obtained from wholesale customers’ own sources of supply. Various components of Seattle and wholesale demand are shown in the chart, below<sup>2</sup>. Seattle demand was 61 mgd including 7 mgd of non-revenue water. Total wholesale demand of 77 mgd consisted of 60 mgd from Seattle (59 mgd purchased and 1 mgd transmission losses) and 17 mgd obtained from other sources. Included in wholesale demand, but not shown separately on the chart, is about 4 mgd of distribution system non-revenue water.

<sup>2</sup> Components may not add to total due to rounding.

## Components of Seattle and Wholesale Water Demand in MGD: 2013

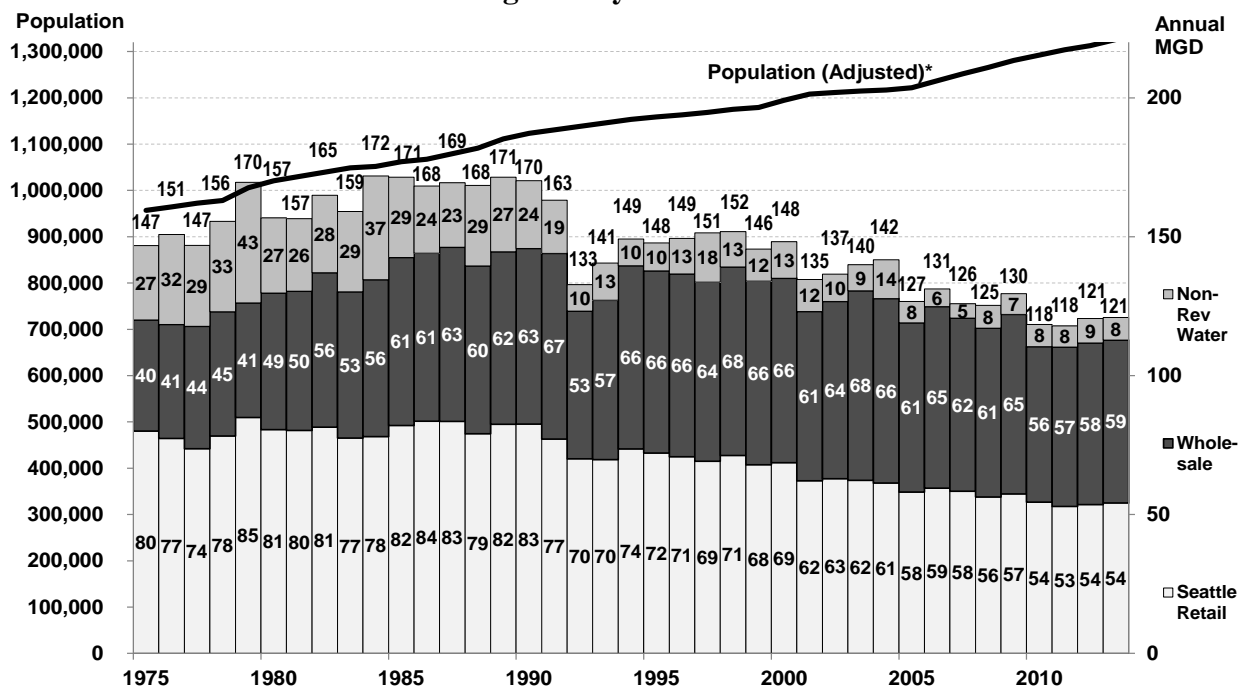


How Seattle system water consumption has changed over time can be seen in the graph below. While population has risen steadily since 1975, total water demand leveled off during the 1980s at about 170 mgd before dropping off sharply due to the 1992 drought. During the rest of the 1990s, the combined effects of higher water rates, the 1993 plumbing code, conservation, and improved system operations kept total consumption at or just under 150 mgd – well below pre-drought levels. Slow economic growth and two recessions since 2000, increasingly efficient appliances and fixtures, and the impact of the 1% Conservation Program (begun in 2000) and the Saving Water Partnership further extended the downward trend so that in recent years, water demand from the SPU supply system has dropped to about 120 mgd. In percentage terms, total Seattle system water consumption has declined 29% since 1990 while population has increased 18%. As a result, total consumption *per capita* is 40% less than it was in 1990.

Wholesale demand from the Seattle water system grew by two thirds from 40 mgd in 1975 to 67 mgd in 1991. Following the 1992 drought though, wholesale demand leveled off (averaging 66 mgd) for the next decade and a half before declining again in the last several years. Seattle retail demand was essentially flat between 1975 and 1991 (averaging 80 mgd) but has trended downward ever since. Finally, non-revenue water was cut by more than half due to actions taken by Seattle just before and during the 1992 drought.<sup>3</sup> Seattle's recent program to cover all its in-city reservoirs plus better monitoring of overflows from the remaining open reservoirs has further reduced non-revenue water.

<sup>3</sup> These actions included reducing in-city reservoir overflows, eliminating regular flushing of Green Lake, relining leaky reservoirs, changing reservoir washing practices, and rehabilitating and replacing other reservoirs.

## Population\* and Components of Annual Water Demand in MGD Seattle Regional System: 1975-2013



\* Population has been adjusted downwards to reflect that some wholesale customers have other sources of supply in addition to what they purchase from SPU. For example, only 62% of Olympic View's population is counted, the proportion of its total water consumption that is provided by SPU.

### Water Rates

Residential and commercial rates in effect during 2014 for each wholesale customer and Seattle are summarized in Tables 1.1 and 1.2. Quite a variety of rate levels and structures are evident. All wholesale customers levy a commodity charge and a fixed monthly charge or meter charge (which, in a few cases, also includes a minimum level of consumption per month). There are three basic commodity rate structures and one hybrid: uniform rates, seasonal rates, inclined block rates, and seasonal rates with blocks. Fixed monthly charges on a 3/4" meter, the usual size for residential meters, average \$19.10 per month with a range of \$12.32 per month to \$39.00 per month. The range of fixed monthly charges on 2" meters, typical of commercial accounts, is even greater: \$17.50 per month to \$215.24 per month. Note that several wholesale customers do not include the state utility tax and other taxes or fees that might be assessed on water sales in their published rates. In order to make rates and bills comparable between utilities, those taxes and fees have been added back into the rates as shown in Tables 1.1 and 1.2 and into the bill calculations.

**Residential Rates:** Of all the utilities surveyed, only the one former wholesale customer (Lake Forest Park) has a uniform rate structure, i.e., a single rate per ccf for all volumes and times of the year. This rate appears in the table as an inclined block structure rate with just one block. Only one wholesale customer (Tukwila) has straight seasonal rates: a single rate in the winter and a single higher rate in the 4 month summer season. Sixteen wholesale customers have simple inclined block rates with from two to five blocks. The size of the blocks is indicated in the "Break Points" column of the tables. For example, Water District 49 has three blocks: the first from 0 to 5 ccf per month, the second from 6 to 8 ccf per month and



the last for 9 or more ccf per month. There is considerable variation in the number and size of the blocks and in the rates themselves. Finally, eight wholesale customers and Seattle use various combinations of seasonal and block rates. Olympic View, Woodinville, and Water Districts 90, 119 and 125 have a block structures that shift to higher rates in the summer. So does Soos Creek, except there is no higher summer rate in the first block. Similarly, Mercer Island has multiple blocks but no higher summer rates in the first two blocks. Seattle and Highline have single winter rates with blocks only in the summer.

The diversity of residential rate structures results in very different price signals to customers during the peak season. Residential customers of wholesale utilities face marginal summer rates ranging from \$2.73 to \$17.53 per ccf. The average summer end-block rate (including Seattle) is \$6.70 per ccf. Eight wholesale customer plus Seattle now have end-block rates exceeding \$7.00 per ccf. Issaquah has the highest summer end-block rate: \$17.53 per ccf for consumption in excess of 25 ccf per month.

**Commercial Rates:** About a third of all wholesale customers (9) apply the same rates and rate structures to both their commercial and residential customers. Two wholesale customers change the rates charged but maintain the same structure. The remaining fifteen plus Seattle change the rates *and* the structure, usually shifting from inclined block and hybrid structures to uniform or seasonal rates, but occasionally just reducing the number of blocks. The highest rate is \$7.78 per ccf and the average summer end block rate (including Seattle and uniform and seasonal rates) is \$4.83 per ccf.

**Customer Bills:** Figures 1.1 through 1.4 and Tables 1.3 and 1.4 compare monthly residential bills across wholesale customers. Three consumption levels, defined below, are used throughout:

**Monthly Consumption Levels Used in Calculating Bills**

| Level of Household Consumption | Winter    | Summer    | Average Annual |
|--------------------------------|-----------|-----------|----------------|
| Low                            | 4 ccf/mo  | 6 ccf/mo  | 4.67 ccf/mo    |
| Medium                         | 8 ccf/mo  | 12 ccf/mo | 9.33 ccf/mo    |
| High                           | 16 ccf/mo | 24 ccf/mo | 18.67 ccf/mo   |

Figures 1.1, 1.2 and 1.3 graphically display monthly residential bills by wholesale customer at low, medium, and high levels of consumption. The figures also rank wholesale customers (including Seattle) by the size of their bills revealing two interesting facts. One is that there are big differences in what households pay for water among different utilities. Monthly bills from utilities with the highest rates are as much as two and a half times as large as those from utilities with the lowest rates. Average monthly bills range from \$22.20 to \$51.41 at the low level of consumption and \$60.87 to \$141.19 at the high level of consumption.

A utility’s average residential water bill is a function of both its rates *and* its average residential consumption. A problem with most comparisons of water bills across utilities (including the comparisons in Figures 1.1 through 1.3) is that the comparisons use a single level of consumption to calculate the bills. But if the chosen level of consumption is typical for one utility, it may not be for another. Consider two utilities having exactly the same rates. One could have higher average bills than the other because its average consumption is higher. To correctly compare average bills across utilities, each utility’s bill should be calculated at its

average level of consumption. This has been done in Figure 1.4. Average monthly residential consumption ranges from 5.1 ccf per month in Skyway to 8.2 ccf per month in Woodinville. In Figure 1.4, Redmond has the lowest average residential bill while Water District 119 tops the list with both higher than average consumption and among the highest rates.

There are many possible explanations for the wide variation in residential rates and bills. These include utilities having:

- different financial policies,
- different levels of investment in new and replacement infrastructure,
- different proportions of rate revenue, non-rate revenue, and debt,
- different proportions of residential and commercial customers,
- different cost allocations between customer classes,
- different customer densities,
- and different rates of customer and service area growth.

The other phenomenon revealed by the graphs is how much wholesale customer rankings can change at different levels of consumption, i.e., the wholesale customer with the lowest bill at one level of consumption may be far from the lowest at other levels of consumption. For example, Water District 20 and Sammamish Plateau are in the middle of the pack at low consumption but are among the *lowest* bills at high consumption. Issaquah is a good example of the opposite pattern, moving up 22 positions in the bill rankings between low and high consumption levels. Finally others, such as Water Districts 49 and 125, maintain their relative ranking at all levels of consumption. (Table 1.4 summarizes the different rankings from Figures 1.1 through 1.3.)

There are two factors that explain the shifts in relative rankings of wholesale customer bills at different levels of consumption. One is different rate structures. For example, an inclined block structure tends to favor low volume users while a flat rate structure favors high volume users. Perhaps even more important is the relative magnitudes of the fixed and variable components of the rates. Higher meter charges relative to volume charges result in higher bills for low volume users and proportionally lower bills for high volume users. The combined impact of these factors can be seen in Table 1.4. In general, wholesale customers with relatively high meter charges and relatively low volume charges move down in the rankings (their bills get smaller compared to other wholesale customers) as consumption increases. Wholesale customers with lower meter charges and higher or steeply inclining volume charges tend to move in the opposite direction, placing higher in the rankings as consumption increases. In many cases, the "meter charge effect" offsets the "rate structure effect" so that the wholesale customer maintains its ranking across all consumption levels. Table 1.3 displays monthly bills at the medium level of consumption (graphed in Figure 1.2) and the difference between winter and summer bills by wholesale customer. Note that the summer/winter differential is not the differential in *rates* but in *bills*. Many wholesale customers have a differential of less than 50% even though bills are calculated with 50% more consumption in summer than in winter. This means that the average rate charged per ccf by these wholesale customers is actually *less* in the summer than in the winter. This seemingly contradictory result is due to the impact of the meter charge which is spread over a greater number of ccf in the summer. This effect diminishes as the level of consumption rises and the meter charge represents a smaller and smaller proportion of the total bill. Issaquah, Tukwila, Soos Creek, Woodinville, Seattle, Duvall and Mercer Island have differentials of more than 50%, a sign that the *average* rate charged per ccf in the summer is greater than in the winter.

## Consumption Patterns

**Annual Consumption:** Figures 2.1 and 2.2 display annual water purchases from SPU and annual retail water sales by wholesale customer for 2013. Note that annual purchases from SPU are often very different than wholesale customers' retail demands. Purchases from SPU are less than the actual demand of wholesale customers who have their own sources of supply or who buy from others. And while most Cascade members still obtain water directly from SPU's transmission system, they no longer purchase it directly from SPU. Instead, the Cascade Water Alliance pays SPU for what is owed and then bills its members. Some water purchased by Cascade is wheeled to members who may not have direct connections to the Seattle system such as Issaquah and Sammamish Plateau (for example, some of the water shown in Figure 2.1 as "purchased" by Bellevue ends up in Redmond or Issaquah).

Tables 2.1 and 2.2 provide a historical perspective by displaying 14 years of data on annual retail consumption by wholesale customer and wholesale purchases from Seattle. Historical consumption data for years prior to 2008 have not been obtained from Issaquah and Sammamish Plateau.

**Consumption Trends:** A new graph in this year's report is Figure 2.3 that shows the growth, or in most cases, the decline in total retail water consumption for Seattle and each of the wholesale customers over the 18 year period 1995 to 2013. Only seven utilities, most in expanding and fast growing areas, (Duvall, Water District 119, Water District 90, Redmond, Cedar River, Bothell, and Water District 45) have experienced positive water demand growth since 1995. All the rest are using less water than they did 18 years ago. On average, wholesale customers have seen their water consumption decline by 6.6% over the period or 0.4% annually. The largest decreases have been in North City (formerly Shoreline), Seattle, and Water District 49 where water demand has dropped by over 25% or about 1.7% a year. This indicates that for Seattle and most of its wholesale customers, the combined effect of conservation programs, fixture and appliance codes, and rising water rates has more than offset the impact of growth in the customer base.

**Non-Revenue Water:** Figure 2.4 ranks wholesale customers by percent of non-revenue water in 2013, i.e., the percent of their total water purchases and production that is not sold. Percent non-revenue water for 2010, 2011, and 2012 is also shown. Table 2.3 shows annual distribution system percent non-revenue water by wholesale customer for the years 1999 through 2013 and the average for each wholesale customer for as many years as data is available – usually back to 1994. Percent non-revenue water is calculated as follows:

$$(PS + PO + OS - RS - WS) \div (PS + PO + OS)$$

where

- PS = Water Purchased from Seattle
- PO = Water Purchased from Others
- OS = Water obtained from Own Supply
- RS = Water Sold Retail
- WS = Water Sold Wholesale

There are many causes of non-revenue water. Some are necessary and/or beneficial such as water main flushing, reservoir cleaning and water taken from hydrants for fire fighting, street cleaning and some construction projects. Others, however, are undesirable and represent

wasted water or lost revenues. These include leaks from pipelines and reservoirs, inadvertent reservoir overflows, theft and slow customer meters. For a newer water system efficiently operated, the percentage of non-revenue water might be expected to creep down towards 5%. Non-revenue water in the 10% range should prompt some analysis of what might be the cause, and non-revenue water in excess of 15% is definitely a call to action.<sup>4</sup>

The average level of non-revenue water for wholesale customers was 9.6% in 2013<sup>5</sup>. Since 1994, average wholesale distribution system non-revenue water has varied from 5.3% to 9.9% averaging 7.5% over the whole period.

Measurement problems contribute to at least some of the year-to-year variation in non-revenue water evident in Table 2.3 and Figure 2.3. Billing lags and supply meter inaccuracies are two problems that make the precise measurement of non-revenue water difficult. Because of differences in the length of billing lags, the measure of annual wholesale water sales generally doesn't span the exact same period as the measure of annual purchases and production. These two measures of water consumption, the difference of which provides our estimate of non-revenue water, may be offset by as much as two months. Fortunately, these months are in the middle of winter when consumption tends to be relatively constant from month to month. The problem would be much worse if the end of the year coincided with the peak season.

Slow *wholesale* meters have represented a much more serious problem in measuring non-revenue water by reducing the apparent difference between the amount of water entering a wholesale customer's system and the amount of water sold by that wholesale customer. Extremely low levels of non-revenue water (under 3%) suggest that there is probably some kind of metering problem. Negative non-revenue water, i.e., when metering data implies that more water has been sold than was produced and/or purchased, is a sure sign that one or more meters measuring incoming water is slow. In 2013, there were no wholesale customers with negative non-revenue water. The 1.2% non-revenue water registered by Northshore was the lowest.

Inaccurate wholesale meters can lead to equity issues between individual wholesale customers and skew the allocation of costs between SPU retail and wholesale customers. At the time of this writing, SPU has been negotiating with several of its wholesale customers who have had very low or negative non-revenue water in recent years. The goal is to identify and repair malfunctioning meters and provide more realistic non-revenue water estimates based on a

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<sup>4</sup> The new state Water Efficiency Rule requires water utilities to report their Distribution System Leakage (DSL) to the Department of Health annually, and to take action if the 3-year moving average exceeds 10%. Note that non-revenue water is different than DSL. All water produced or purchased but not sold is considered non-revenue water. DSL starts with non-revenue water but subtracts out all authorized uses of water that do not generate revenue but can be measured or estimated. These include water used for reservoir cleaning and overflowing, main and hydrant flushing, firefighting, and other hydrant use such as construction and street sweeping. If measured, transmission losses can also be deducted in calculating DSL. A utility's estimate of DSL will be less than its non-revenue water to the extent that these non-revenue-generating but authorized uses are taken into account.

<sup>5</sup> Seattle non-revenue water averaged 6.0% for 2005 through 2013. Percent of non-revenue water for Seattle is not included in Figure 2.3 because it is not directly comparable to wholesale non-revenue water. For wholesale customers, non-revenue water is a distribution system concept. Water lost in transmission from Seattle's sources to wholesale meters is not part of the calculation. However, Seattle non-revenue water consists of both distribution and transmission losses to Seattle plus wholesale transmission losses. Comparing Seattle and wholesale non-revenue water would be misleading unless the distribution system component of Seattle non-revenue water could be isolated. Unfortunately, that is not possible with currently available data.

utility's past history or sometimes, a utility's own supply meters that may be located downstream of SPU's meters. Water purchases from SPU for the years in question will then be recalculated based on the new estimates of non-revenue water. For example, a wholesale customer with a history of non-revenue water in the 7% to 9% range before experiencing two years of negative non-revenue water might have their meters worked on and their non-revenue water adjusted back up to a more reasonable level for them, say 7%.

**Per Household and Per Account Consumption:** Figures 2.5 and 2.6 rank wholesale customers and Seattle on the basis of 2013 *single family consumption per household* and *total consumption per account*. The first measure is often used by wholesale customers in their analysis of current and projected water demand and in their calculation of Equivalent Residential Units (ERUs). Of those reporting, the wholesale customer with the highest single family consumption per household is Woodinville at 202 gallons per day (gpd) followed by Sammamish Plateau at 200 gpd. The weighted wholesale average for 2013 was 171 gpd (7.0 ccf per month). Skyway reported the lowest consumption per household with 125 gpd. The variance in per household use between wholesale customers is due to more than just different attitudes towards water conservation. Wholesale customers at the top of the list (Woodinville, Sammamish Plateau, Mercer Island) tend to have some or all of the following characteristics associated with higher water use: larger lot sizes, higher household incomes, and higher average persons per household. Utilities (including Seattle) with consumption per household at the low end of the scale tend to have just the opposite characteristics: denser development with smaller lots, lower average household incomes, and fewer persons per household.

In addition to annual average consumption per single family household, Figure 2.5 also shows peak (4 month) season consumption per household.

There is much greater variation in total consumption per account across wholesale customers as can be seen in Figure 2.6. The weighted wholesale average is 305 gpd. Total consumption per account in Seattle is slightly less than the wholesale average at 292 gpd. This is *not* an indication of the relative efficiency of water use among the different utilities. Rather, higher levels of total consumption per account are closely associated with higher proportions of non-residential and multifamily customers. Wholesale customers at the bottom of the list serve predominantly single family customers. Utilities at the top of the list with the highest consumption per account – Tukwila, Bellevue, Renton, Bothell, Water District 125, and Redmond – also have the highest proportions of non-residential and multifamily consumption, (50% or more of the total – Tukwila is 90%). Total consumption per account and percent of consumption that is *not* single family are highly correlated all the way down the line.

Finally, Table 2.4 provides some history on single family consumption per household by wholesale customer for the period 1994-2013. The overall downward trend in average consumption per household for both wholesale customers and Seattle is apparent in Figure 2.7. The average decline since 1994 has been about 30%. The range, from low to high, of wholesale consumption per household over time is also depicted in the graph. Like Figure 2.3, this graphically illustrates the impact on water demand of conservation programs, water efficiency codes for new fixtures and appliances, and rising water and sewer rates.

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# Table 1.1

## A Comparison of 2014 Residential Rates

| Purveyor:                     | 3/4" mtr ch<br>per month | Includes<br>Minimum | Seasonal |         | Inclined Block   |                  |                  |                  |         | Break Points** |
|-------------------------------|--------------------------|---------------------|----------|---------|------------------|------------------|------------------|------------------|---------|----------------|
|                               |                          |                     | Winter   | Summer* | 1st              | 2nd              | 3rd              | 4th              | 5th     |                |
| W.D. 20                       | \$20.50                  | 0                   | -        | -       | \$2.14           | \$2.73           | -                | -                | -       | 10             |
| W.D. 45                       | \$17.50                  | 0                   | -        | -       | \$2.50           | \$3.50           | \$4.50           | -                | -       | 5/12.5         |
| W.D. 49                       | \$16.00                  | 0                   | -        | -       | \$3.05           | \$3.75           | \$5.25           | -                | -       | 5/8            |
| W.D. 90                       | \$25.25                  | 2.5                 | Block    | Block   | \$2.90/\$3.65*** | \$3.35/\$4.10*** | \$4.00/\$4.75*** | -                | -       | 7.5/12.5       |
| W.D. 119***                   | \$39.00                  | 0                   | Block    | Block   | \$2.39/\$3.02*** | \$3.02/\$3.95*** | \$3.95/\$4.94*** | \$4.80/\$5.72*** | -       | 7/14/21        |
| W.D. 125***                   | \$12.50                  | 0                   | Block    | Block   | \$3.19/\$3.30*** | \$3.59/\$3.70*** | \$3.94/\$4.05*** | -                | -       | 5/10           |
| Bellevue <sup>T</sup>         | \$20.06                  | 0                   | -        | -       | \$4.01           | \$5.53           | \$7.08           | \$10.55          | -       | 10/15/50       |
| Bothell <sup>T</sup>          | \$12.55                  | 0                   | -        | -       | \$2.47           | \$3.62           | \$4.67           | \$5.93           | \$6.79  | 5/10/15/25     |
| Cedar River                   | \$18.70                  | 1                   | -        | -       | \$2.47           | \$4.30           | \$5.00           | \$7.53           | -       | 5/15/25        |
| Coal Creek                    | \$20.69                  | 0                   | -        | -       | \$3.30           | \$4.29           | \$5.48           | \$7.86           | -       | 5/15/50        |
| Duvall                        | \$24.30                  | 2                   | -        | -       | \$3.62           | \$4.65           | \$5.69           | \$6.72           | \$7.78  | 4/6/8/10       |
| Highline***                   | \$14.40                  | 0                   | \$3.55   | Block   | \$3.55           | \$4.20           | -                | -                | -       | 5              |
| Issaquah <sup>T</sup>         | \$13.10                  | 0                   | -        | -       | \$1.69           | \$4.03           | \$7.48           | \$12.19          | \$17.53 | 2/7/15/25      |
| Kirkland <sup>T</sup>         | \$20.59                  | 2                   | -        | -       | \$4.94           | \$6.49           | -                | -                | -       | 12             |
| Lake Forest Park <sup>T</sup> | \$29.78                  | 0                   | -        | -       | \$3.37           | -                | -                | -                | -       | -              |
| Mercer Island*** <sup>T</sup> | \$12.32                  | 0                   | Block    | Block   | \$2.93           | \$4.95           | \$5.43/\$5.54*** | \$7.99/\$8.31*** | -       | 5/10/15        |
| North City <sup>S T</sup>     | \$27.25                  | 0                   | -        | -       | \$2.87           | \$4.40           | \$5.93           | -                | -       | 5/12           |
| Northshore <sup>T</sup>       | \$14.51                  | 0                   | -        | -       | \$3.23           | \$4.30           | \$5.38           | -                | -       | 5/10           |
| Olympic View*** <sup>T</sup>  | \$17.52                  | 0                   | Block    | Block   | \$2.12/\$2.37*** | \$3.10/\$3.70*** | -                | -                | -       | 20             |
| Redmond                       | \$13.40                  | 0                   | -        | -       | \$1.65           | \$3.30           | \$4.95           | \$6.60           | -       | 4/10/20        |
| Renton                        | \$17.60                  | 0                   | -        | -       | \$2.54           | \$3.41           | \$4.30           | -                | -       | 5/10           |
| Sammamish Plateau             | \$24.42                  | 0                   | -        | -       | \$1.68           | \$2.05           | \$3.31           | \$5.50           | -       | 6/12/25        |
| Skyway                        | \$16.45                  | 0                   | -        | -       | \$3.65           | \$4.62           | \$5.83           | \$7.43           | -       | 4/6/12         |
| Soos Creek***                 | \$13.80                  | 0                   | Block    | Block   | \$1.75           | \$3.55/\$4.24*** | \$4.45/\$5.35*** | \$5.05/\$6.06*** | -       | 5/10/15        |
| Tukwila                       | \$15.00                  | 0                   | \$2.80   | \$3.90  | -                | -                | -                | -                | -       | -              |
| Woodinville                   | \$19.50                  | 1                   | Block    | Block   | \$4.65/\$5.81*** | \$6.90/\$8.06*** | -                | -                | -       | 12.5           |
| Seattle***                    | \$13.75                  | 0                   | \$4.99   | Block   | \$5.13           | \$6.34           | \$11.80          | -                | -       | 5/18           |

\* All utilities with seasonal rates use a 4 month peak season.

\*\* Break Points are the number of ccf per month at which the next rate block is attained. For example, W.D. 45 charges \$2.50 per ccf for the first 5 ccf consumed, \$3.50 per ccf for the next 7.5 ccf per month, and \$4.50 per ccf for all consumption in excess of 12.5 ccf per month.

\*\*\* WD 90, WD 119, WD125, Highline, Mercer Island, Olympic View, Soos Creek, Woodinville, and Seattle have both seasonal and block rates. For example, WD 90's 2nd block rate of \$3.35/ccf increases to \$4.10 during the peak season. Only Tukwila has simple seasonal rates with no blocks.

<sup>S</sup> Base Service Charge for North City (formerly Shoreline) is based on square footage of buildings, not meter size.

<sup>T</sup> Taxes and fees not included in the published rates of these utilities (Bellevue, Bothell, Issaquah, Kirkland, Lake Forest Park, Mercer Island, Northshore, Olympic View, and Shoreline) have been added to the rates shown in this table.

**Table 1.2**  
**A Comparison of 2014 Commercial Rates**

| Purveyor:                    | 2" mtr ch<br>per month | Includes<br>Minimum | Seasonal |         | Inclined Block   |                  |                  |                  |        |                |                  |
|------------------------------|------------------------|---------------------|----------|---------|------------------|------------------|------------------|------------------|--------|----------------|------------------|
|                              |                        |                     | Winter   | Summer* | 1st              | 2nd              | 3rd              | 4th              | 5th    | Break Points** |                  |
| W.D. 20                      | \$102.50               | 0                   | -        | -       | \$2.14           | \$2.73           | -                | -                | -      | -              | 10               |
| W.D. 45                      | \$17.50                | 0                   | -        | -       | \$2.50           | \$3.50           | \$4.50           | -                | -      | -              | 5/12.5           |
| W.D. 49 <sup>T</sup>         | \$211.50               | 0                   | -        | -       | \$3.55           | -                | -                | -                | -      | -              | -                |
| W.D. 90                      | \$65.30                | 2.5                 | -        | -       | \$4.00           | -                | -                | -                | -      | -              | -                |
| W.D. 119***                  | \$68.00                | 0                   | Block    | Block   | \$2.39/\$3.02*** | \$3.02/\$3.95*** | \$3.95/\$4.94*** | \$4.80/\$5.72*** | -      | -              | 7/14/21          |
| W.D. 125                     | \$42.00                | 0                   | \$3.19   | \$3.70  | -                | -                | -                | -                | -      | -              | -                |
| Bellevue <sup>T</sup>        | \$92.33                | 0                   | \$4.09   | \$5.73  | -                | -                | -                | -                | -      | -              | -                |
| Bothell <sup>T</sup>         | \$105.56               | 0                   | \$2.97   | \$5.06  | -                | -                | -                | -                | -      | -              | -                |
| Cedar River                  | \$65.99                | 1                   | -        | -       | \$2.47           | \$4.30           | \$5.00           | \$7.53           | -      | -              | 5/15/25          |
| Coal Creek                   | \$110.08               | 0                   | \$3.80   | \$4.96  | -                | -                | -                | -                | -      | -              | -                |
| Duvall                       | \$24.30                | 2                   | -        | -       | \$3.62           | \$4.65           | \$5.69           | \$6.72           | \$7.78 | -              | 4/6/8/10         |
| Highline                     | \$126.77               | 0                   | \$3.55   | Block   | \$3.55           | \$4.20           | -                | -                | -      | -              | 5                |
| Issaquah <sup>T</sup>        | \$116.88               | 0                   | -        | -       | \$3.41           | \$5.27           | -                | -                | -      | -              | 32               |
| Kirkland <sup>T</sup>        | \$80.58                | 0                   | -        | -       | \$5.56           | -                | -                | -                | -      | -              | -                |
| Lake Forest Park             | \$215.24               | 0                   | -        | -       | \$3.37           | -                | -                | -                | -      | -              | -                |
| Mercer Island <sup>T</sup>   | \$98.56                | 0                   | \$2.69   | \$6.70  | -                | -                | -                | -                | -      | -              | -                |
| North City <sup>S T</sup>    | \$142.79               | 0                   | -        | -       | \$4.16           | -                | -                | -                | -      | -              | -                |
| Northshore <sup>T</sup>      | \$116.10               | 0                   | -        | -       | \$3.76           | \$4.03           | \$4.30           | -                | -      | -              | 5/10             |
| Olympic View*** <sup>T</sup> | \$63.71                | 0                   | Block    | Block   | \$2.12/\$2.37*** | \$3.10/\$3.70*** | -                | -                | -      | -              | 160              |
| Redmond                      | \$81.80                | 0                   | \$2.15   | \$3.70  | -                | -                | -                | -                | -      | -              | -                |
| Renton                       | \$105.52               | 0                   | -        | -       | \$3.48           | -                | -                | -                | -      | -              | -                |
| Sammamish Plateau            | \$155.17               | 0                   | \$1.36   | \$1.99  | -                | -                | -                | -                | -      | -              | -                |
| Skyway                       | \$187.71               | 0                   | -        | -       | \$5.26           | -                | -                | -                | -      | -              | -                |
| Soos Creek***                | \$54.90                | 0                   | Block    | Block   | \$1.75           | \$3.55/\$4.24*** | \$4.45/\$5.35*** | \$5.05/\$6.06*** | -      | -              | 5/10/15          |
| Tukwila                      | \$100.00               | 0                   | \$4.18   | \$5.72  | -                | -                | -                | -                | -      | -              | -                |
| Woodinville                  | \$157.40               | 1                   | -        | -       | \$4.25           | \$4.66           | -                | -                | -      | -              | Prior winter avg |
| Seattle                      | \$24.20                | 0                   | \$4.99   | \$6.34  | -                | -                | -                | -                | -      | -              | -                |

\* All utilities with seasonal rates use a 4 month peak season.

\*\* Break Points are the number of ccf per month at which the next rate block is attained. For example, W.D. 45 charges \$2.50 per ccf for the first 5 ccf consumed, \$3.50 per ccf for the next 7.5 ccf per month, and \$4.50 per ccf for all consumption in excess of 12.5 ccf per month.

\*\*\* WD 119, Olympic View, and Soos Creek have both seasonal and block rates. For example, WD 119's 2nd block rate of \$3.02/ccf increases to \$3.95 during the peak season.

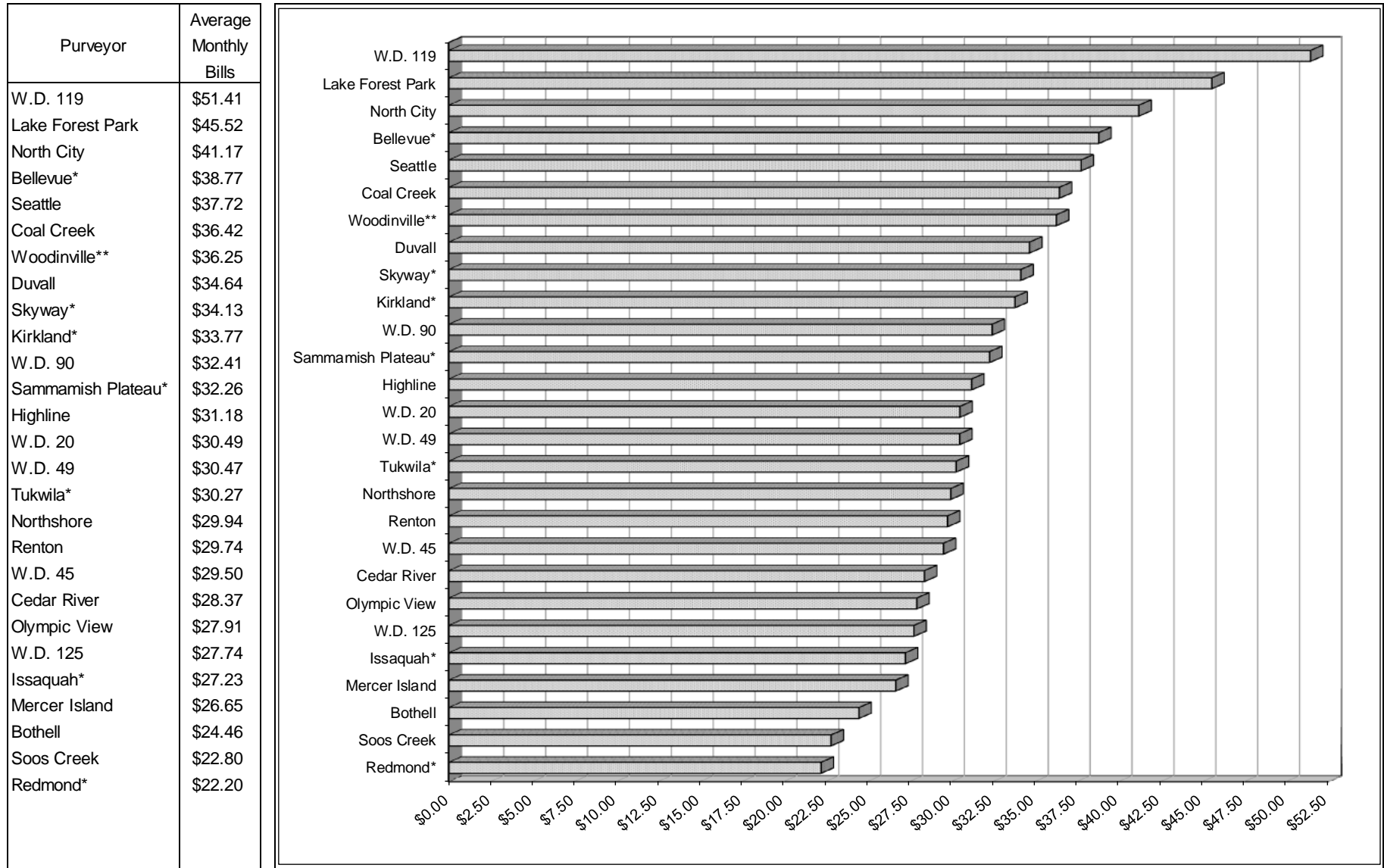
<sup>S</sup> Base Service Charge for North City (formerly Shoreline) is based on square footage of buildings, not meter size.

<sup>T</sup> Taxes and fees not included in the published rates of these utilities (Bellevue, Bothell, Issaquah, Kirkland, Lake Forest Park, Mercer Island, Northshore, Olympic View, and Shoreline) have been added to the rates shown in this table.



### Figure 1.1

#### Average Monthly Residential Bills at 2014 Rates and LOW Consumption (4 ccf/mo Winter and 6 ccf/mo Summer Consumption)

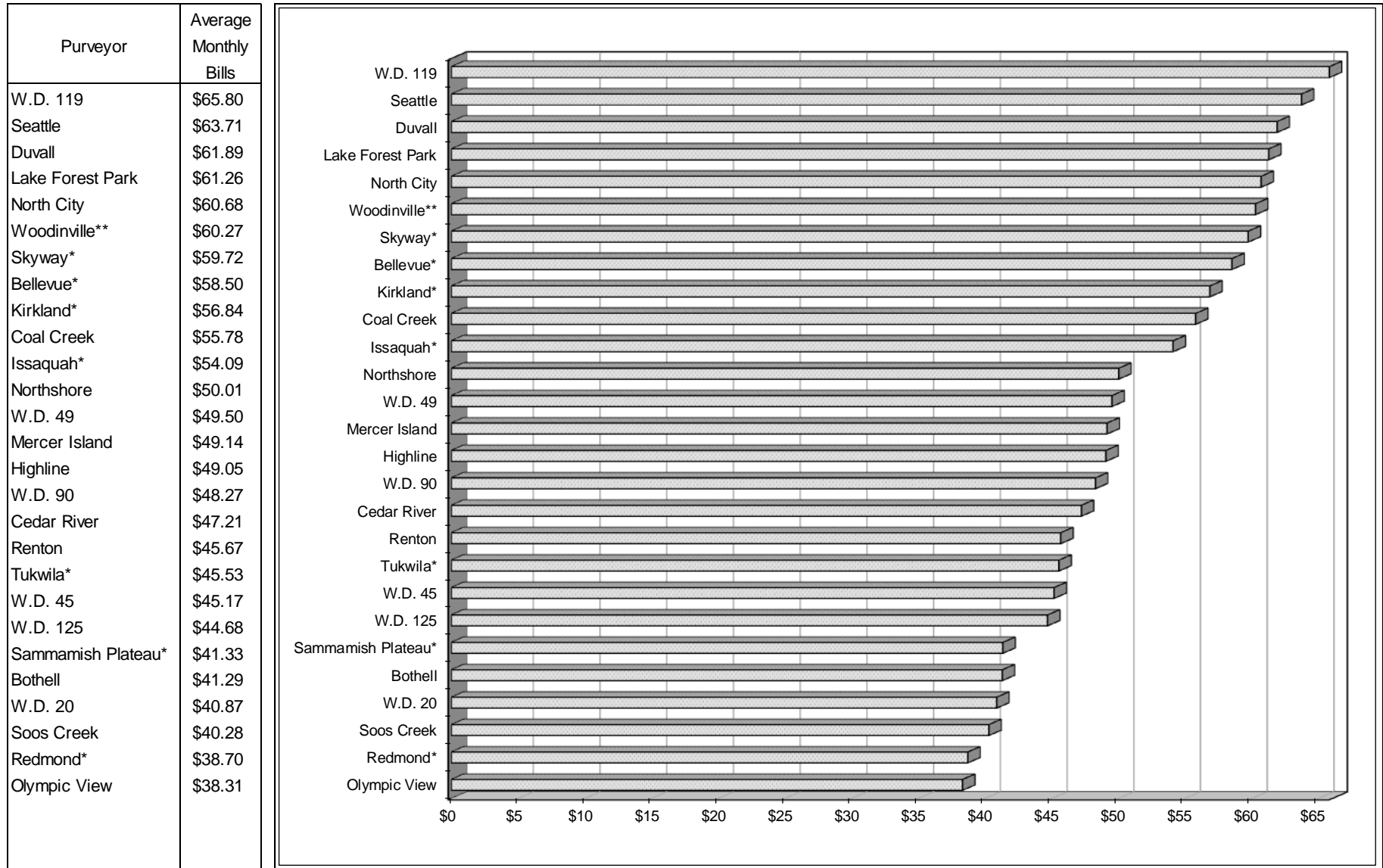


\* Member of Cascade Water Alliance

\*\* Note that some of the revenue Woodinville derives from the extra amount it charges residential customers using more than 12.5 ccf per month is returned to customers in the form of a rebate. Bills for Woodinville are shown net of this rebate.

### Figure 1.2

#### Average Monthly Residential Bills at 2014 Rates and MEDIUM Consumption (8 ccf/mo Winter and 12 ccf/mo Summer Consumption)

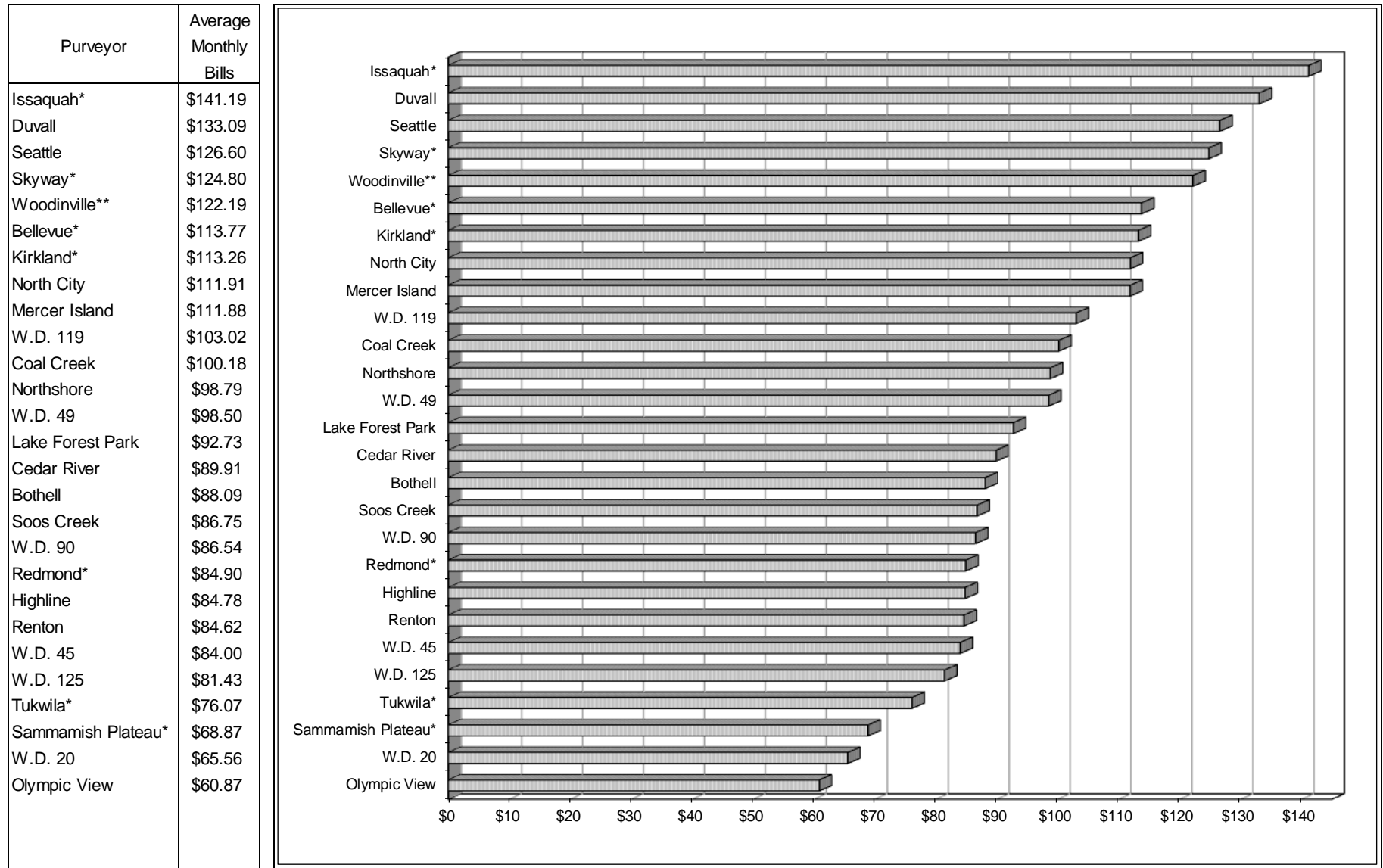


\* Member of Cascade Water Alliance

\*\* Note that some of the revenue Woodinville derives from the extra amount it charges residential customers using more than 12.5 ccf per month is returned to customers in the form of a rebate. Bills for Woodinville are shown net of this rebate.

### Figure 1.3

#### Average Monthly Residential Bills at 2014 Rates and HIGH Consumption (16 ccf/mo Winter and 24 ccf/mo Summer Consumption)

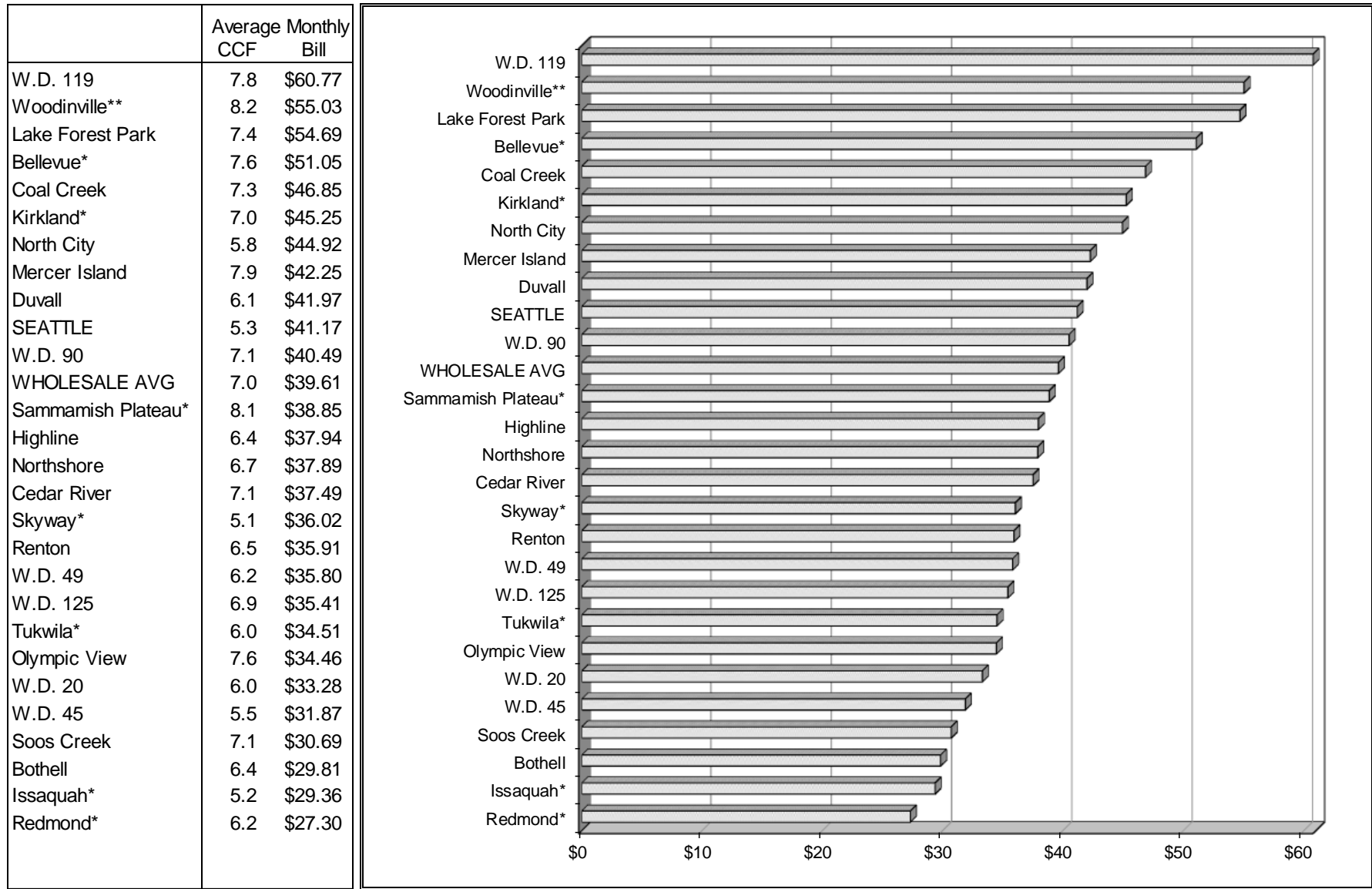


\* Member of Cascade Water Alliance

\*\* Note that some of the revenue Woodinville derives from the extra amount it charges residential customers using more than 12.5 ccf per month is returned to customers in the form of a rebate. Bills for Woodinville are shown net of this rebate.

# Figure 1.4

## Average Monthly Residential Water Bills at Each Utility's Average Consumption



\* Member of Cascade Water Alliance

\*\* Note that some of the revenue Woodinville derives from the extra amount it charges residential customers using more than 12.5 ccf per month is returned to customers in the form of a rebate. Bills for Woodinville are shown net of this rebate.

## Table 1.3

**AVERAGE ANNUAL, WINTER, AND SUMMER RESIDENTIAL BILLS**  
with 2014 Rates & Medium Consumption: 8 ccf/mo Winter, 12 ccf/mo Summer

Ranked from Highest to Lowest

| Rank                     | Purveyor           | Monthly Residential Bills |                |                | Summer/Winter Differential* |
|--------------------------|--------------------|---------------------------|----------------|----------------|-----------------------------|
|                          |                    | Avg. Annual               | Winter         | Summer         |                             |
| 1                        | W.D. 119           | \$65.80                   | \$58.75        | \$79.89        | 36.0%                       |
| 2                        | Seattle            | \$63.71                   | \$53.67        | \$83.78        | <b>56.1%</b>                |
| 3                        | Duvall             | \$61.89                   | \$52.22        | \$81.22        | <b>55.5%</b>                |
| 4                        | Lake Forest Park   | \$61.26                   | \$56.76        | \$70.25        | <b>23.8%</b>                |
| 5                        | North City         | \$60.68                   | \$54.81        | \$72.41        | 32.1%                       |
| 6                        | Woodinville**      | \$60.27                   | \$49.82        | \$81.18        | 63.0%                       |
| 7                        | Skyway*            | \$59.72                   | \$51.95        | \$75.27        | 44.9%                       |
| 8                        | Bellevue*          | \$58.50                   | \$52.14        | \$71.22        | 36.6%                       |
| 9                        | Kirkland*          | \$56.84                   | \$50.25        | \$70.02        | 39.4%                       |
| 10                       | Coal Creek         | \$55.78                   | \$50.06        | \$67.22        | 34.3%                       |
| 11                       | Issaquah*          | \$54.09                   | \$44.11        | \$74.05        | <b>67.9%</b>                |
| 12                       | Northshore         | \$50.01                   | \$43.56        | \$62.92        | 44.4%                       |
| 13                       | W.D. 49            | \$49.50                   | \$42.50        | \$63.50        | 49.4%                       |
| 14                       | Mercer Island      | \$49.14                   | \$41.80        | \$63.81        | <b>52.6%</b>                |
| 15                       | Highline           | \$49.05                   | \$42.80        | \$61.55        | 43.8%                       |
| 16                       | W.D. 90            | \$48.27                   | \$41.43        | \$61.95        | 49.5%                       |
| 17                       | Cedar River        | \$47.21                   | \$41.48        | \$58.68        | 41.5%                       |
| 18                       | Renton             | \$45.67                   | \$40.53        | \$55.95        | 38.0%                       |
| 19                       | Tukwila*           | \$45.53                   | \$37.40        | \$61.80        | <b>65.2%</b>                |
| 20                       | W.D. 45            | \$45.17                   | \$40.50        | \$54.50        | 34.6%                       |
| 21                       | W.D. 125           | \$44.68                   | \$39.22        | \$55.60        | 41.8%                       |
| 22                       | Sammamish Plateau* | \$41.33                   | \$38.60        | \$46.80        | 21.2%                       |
| 23                       | Bothell            | \$41.29                   | \$35.76        | \$52.34        | 46.4%                       |
| 24                       | W.D. 20            | \$40.87                   | \$37.62        | \$47.36        | 25.9%                       |
| 25                       | Soos Creek         | \$40.28                   | \$33.20        | \$54.45        | <b>64.0%</b>                |
| 26                       | Redmond*           | \$38.70                   | \$33.20        | \$49.70        | 49.7%                       |
| 27                       | Olympic View       | \$38.31                   | \$34.48        | \$45.96        | 33.3%                       |
| <b>WHOLESALE AVERAGE</b> |                    |                           |                |                |                             |
|                          |                    | <b>\$50.51</b>            | <b>\$44.18</b> | <b>\$63.16</b> | <b>42.9%</b>                |

\* Note that the summer/winter differential is not the differential in rates but in bills. Most purveyors have a differential of less than 50% even though bills are calculated with 50% more consumption in summer than in winter. This means that the average rate charged per ccf by these purveyors is actually less in the summer than in the winter. This seemingly contradictory result is due to the impact of the meter charge which is spread over a greater number of ccf in the summer.

\*\* Note that some of the revenue Woodinville derives from the extra amount it charges residential customers using more than 12.5 ccf per month is returned to customers in the form of a rebate. Bills for Woodinville are shown net of this rebate.

# Table 1.4

## Ranking of Purveyor Bills from High to Low at Different Levels of Consumption

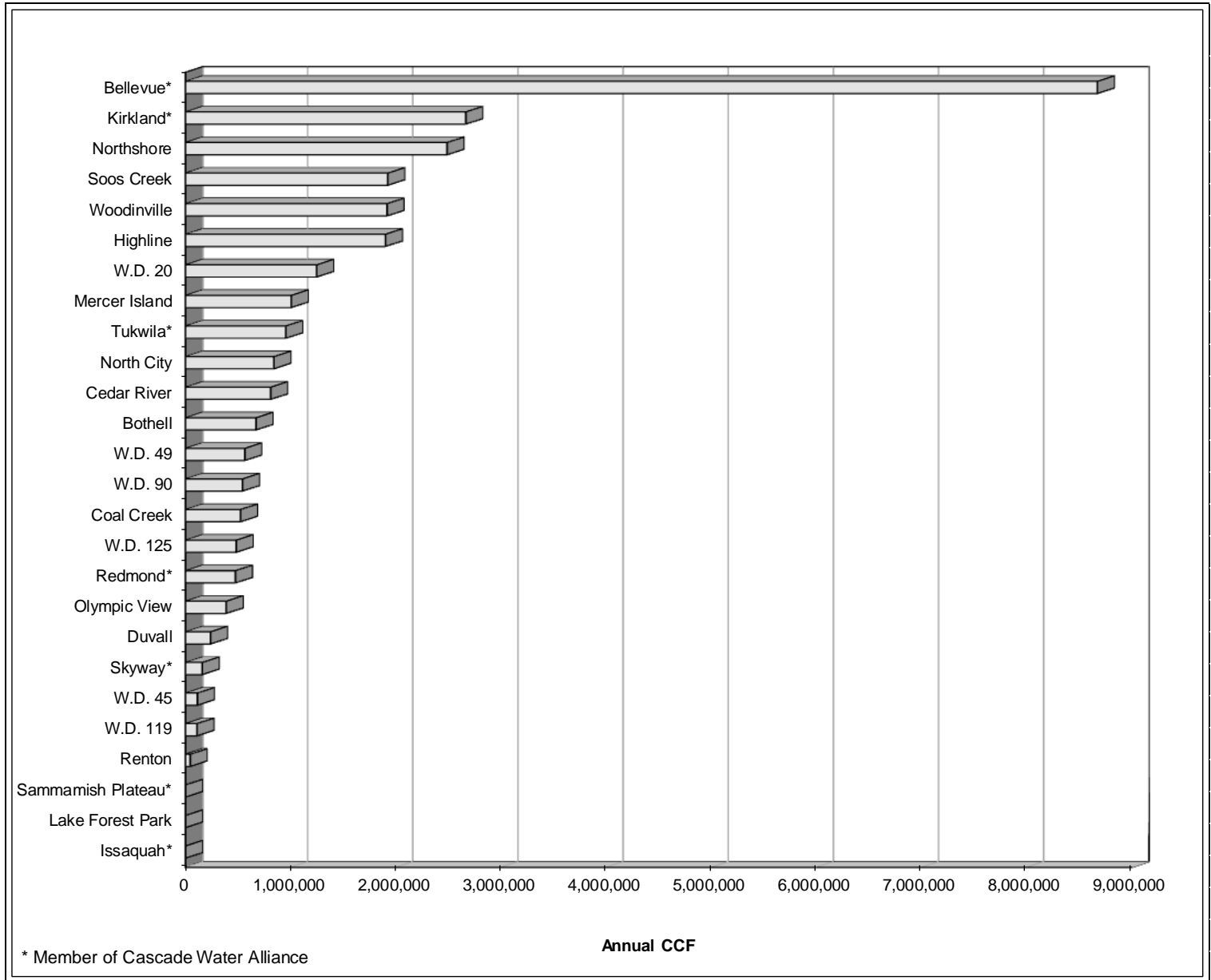
| Ranking at<br>Low Consumption | Ranking at<br>Medium Consumption | Ranking at<br>High Consumption |
|-------------------------------|----------------------------------|--------------------------------|
| 1 W.D. 119                    | 1 W.D. 119                       | 1 Issaquah                     |
| 2 Lake Forest Park            | 2 Seattle                        | 2 Duvall                       |
| 3 North City                  | 3 Woodinville                    | 3 Seattle                      |
| 4 Bellevue                    | 4 Duvall                         | 4 Skyway                       |
| 5 Woodinville                 | 5 Lake Forest Park               | 5 Woodinville                  |
| 6 Seattle                     | 6 North City                     | 6 Bellevue                     |
| 7 Coal Creek                  | 7 Skyway                         | 7 Kirkland                     |
| 8 Duvall                      | 8 Bellevue                       | 8 North City                   |
| 9 Skyway                      | 9 Kirkland                       | 9 Mercer Island                |
| 10 Kirkland                   | 10 Coal Creek                    | 10 W.D. 119                    |
| 11 W.D. 90                    | 11 Issaquah                      | 11 Coal Creek                  |
| 12 Sammamish Plateau          | 12 Northshore                    | 12 Northshore                  |
| 13 Highline                   | 13 W.D. 49                       | 13 W.D. 49                     |
| 14 W.D. 20                    | 14 Mercer Island                 | 14 Lake Forest Park            |
| 15 W.D. 49                    | 15 Highline                      | 15 Cedar River                 |
| 16 Tukwila                    | 16 W.D. 90                       | 16 Bothell                     |
| 17 Northshore                 | 17 Cedar River                   | 17 Soos Creek                  |
| 18 Renton                     | 18 Renton                        | 18 W.D. 90                     |
| 19 W.D. 45                    | 19 Tukwila                       | 19 Redmond                     |
| 20 Cedar River                | 20 W.D. 45                       | 20 Highline                    |
| 21 Olympic View               | 21 W.D. 125                      | 21 Renton                      |
| 22 W.D. 125                   | 22 Sammamish Plateau             | 22 W.D. 45                     |
| 23 Issaquah                   | 23 Bothell                       | 23 W.D. 125                    |
| 24 Mercer Island              | 24 W.D. 20                       | 24 Tukwila                     |
| 25 Bothell                    | 25 Soos Creek                    | 25 Sammamish Plateau           |
| 26 Soos Creek                 | 26 Redmond                       | 26 W.D. 20                     |
| 27 Redmond                    | 27 Olympic View                  | 27 Olympic View                |

### Definition of Consumption Levels:

|        | Winter    | Summer    | Average      |
|--------|-----------|-----------|--------------|
| Low    | 4 ccf/mo  | 6 ccf/mo  | 4.67 ccf/mo  |
| Medium | 8 ccf/mo  | 12 ccf/mo | 9.33 ccf/mo  |
| High   | 16 ccf/mo | 24 ccf/mo | 18.67 ccf/mo |

**Figure 2.1**  
**WHOLESALE CUSTOMERS RANKED BY 2013 ANNUAL DIRECT PURCHASES FROM SPU**

| Wholesale Customer | Purchases         |
|--------------------|-------------------|
| Bellevue*          | 8,671,870         |
| Kirkland*          | 2,664,624         |
| Northshore         | 2,486,656         |
| Soos Creek         | 1,922,452         |
| Woodinville        | 1,915,528         |
| Highline           | 1,900,457         |
| W.D. 20            | 1,245,419         |
| Mercer Island      | 1,003,892         |
| Tukwila*           | 952,619           |
| North City         | 838,799           |
| Cedar River        | 809,005           |
| Bothell            | 670,069           |
| W.D. 49            | 562,840           |
| W.D. 90            | 540,180           |
| Coal Creek         | 521,259           |
| W.D. 125           | 481,332           |
| Redmond*           | 473,834           |
| Olympic View       | 385,411           |
| Duvall             | 235,508           |
| Skyway*            | 157,344           |
| W.D. 45            | 111,838           |
| W.D. 119           | 108,192           |
| Renton             | 43,815            |
| Sammamish Plateau* | 0                 |
| Lake Forest Park   | 0                 |
| Issaquah*          | 0                 |
| <b>TOTAL</b>       | <b>28,702,943</b> |



**Table 2.1**  
**Annual Direct Water Purchases from SPU by Wholesale Customer in CCF: 2000-2013**

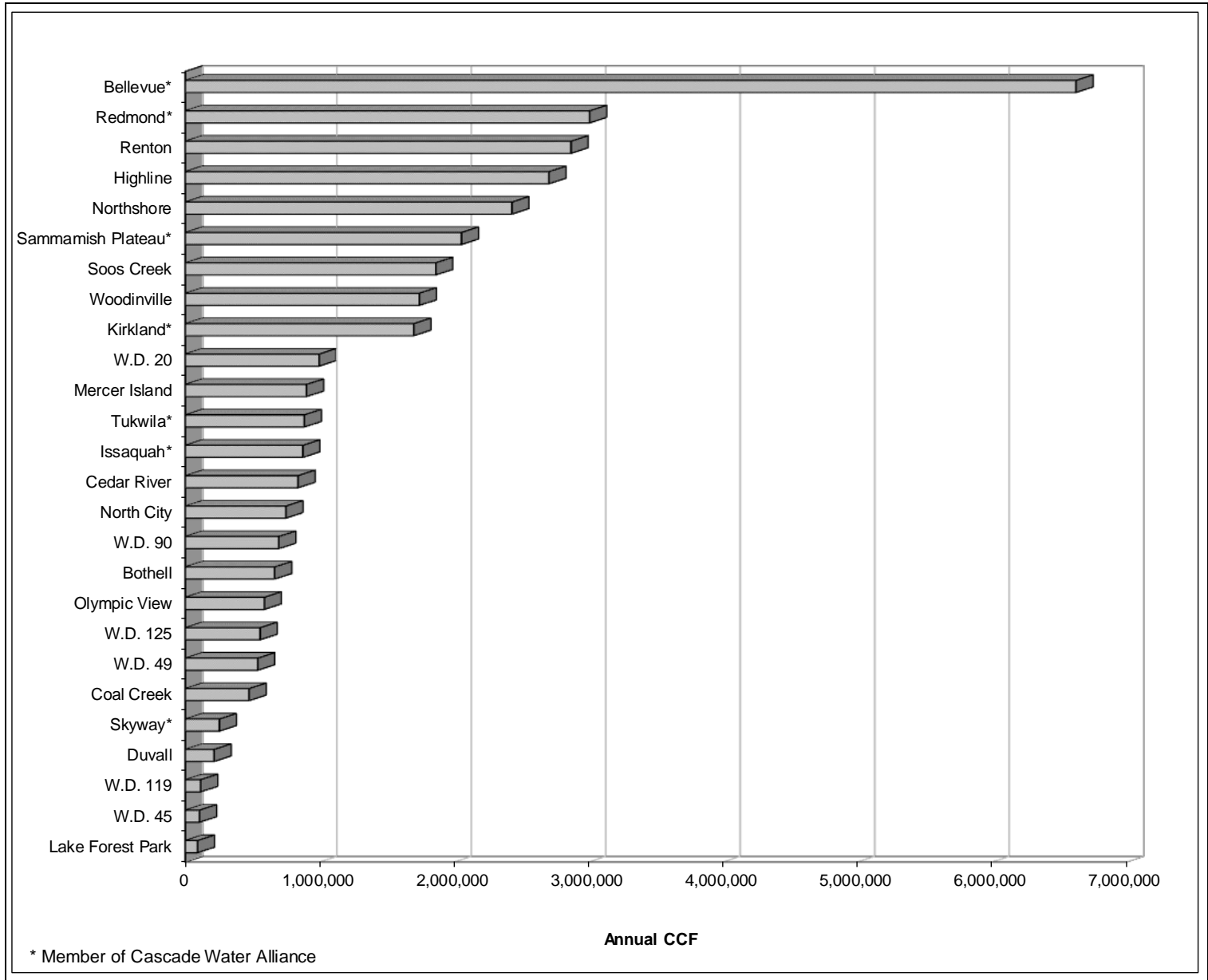
|                  | 2000              | 2001              | 2002              | 2003              | 2004              | 2005              | 2006              | 2007              | 2008              | 2009              | 2010              | 2011              | 2012              | 2013              |
|------------------|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|
| Belleuve*        | 8,012,735         | 7,221,979         | 7,559,140         | 8,124,609         | 8,525,078         | 7,864,907         | 8,474,731         | 8,336,308         | 8,314,028         | 8,573,043         | 7,714,349         | 7,912,285         | 8,440,512         | 8,671,870         |
| Bothell          | 761,656           | 720,652           | 751,322           | 783,847           | 790,903           | 710,804           | 791,591           | 745,144           | 725,123           | 732,256           | 640,359           | 637,415           | 656,581           | 670,069           |
| Cedar River      | 891,413           | 835,740           | 912,348           | 980,516           | 989,535           | 985,386           | 1,071,615         | 947,745           | 872,814           | 924,524           | 800,755           | 758,691           | 701,387           | 809,005           |
| Coal Creek       | 1,124,051         | 942,044           | 1,121,178         | 1,237,310         | 607,964           | 525,361           | 598,753           | 526,420           | 516,395           | 597,952           | 485,859           | 493,533           | 525,773           | 521,259           |
| Duvall           | 211,270           | 168,746           | 202,939           | 257,645           | 244,321           | 236,868           | 242,851           | 230,852           | 222,695           | 253,521           | 224,298           | 233,390           | 232,947           | 235,508           |
| Highline         | 3,020,265         | 2,856,390         | 2,918,609         | 3,233,149         | 2,964,590         | 2,559,715         | 2,565,923         | 2,517,632         | 2,473,927         | 2,351,174         | 2,143,580         | 2,126,929         | 2,105,391         | 1,900,457         |
| Kirkland*        | 3,138,937         | 2,861,685         | 2,989,315         | 3,238,310         | 3,044,835         | 2,833,027         | 3,150,078         | 2,954,510         | 2,980,975         | 3,009,442         | 2,670,036         | 2,660,037         | 2,658,078         | 2,664,624         |
| Lake Forest Park | 22                | 186               | 168               | 16                | 0                 | 2                 | 6                 | 2                 | 9                 | 20                | 10                | 59                | 0                 | 0                 |
| Mercer Island    | 1,198,242         | 1,033,318         | 1,091,347         | 1,165,501         | 1,219,866         | 1,072,336         | 1,139,931         | 1,087,304         | 1,039,660         | 1,032,966         | 855,678           | 924,062           | 992,386           | 1,003,892         |
| North City       | 1,053,182         | 888,156           | 908,984           | 968,906           | 936,967           | 866,334           | 917,711           | 871,042           | 850,414           | 860,299           | 771,973           | 650,376           | 669,971           | 838,799           |
| Northshore       | 2,833,106         | 2,547,889         | 2,833,696         | 2,983,637         | 2,838,343         | 2,556,349         | 2,698,337         | 2,555,901         | 2,441,109         | 2,574,352         | 2,394,673         | 2,463,963         | 2,451,174         | 2,486,656         |
| Olympic View     | 439,561           | 360,013           | 382,872           | 475,345           | 462,990           | 414,859           | 549,538           | 406,617           | 406,802           | 496,479           | 361,712           | 348,497           | 374,499           | 385,411           |
| Redmond*         | 230,796           | 259,585           | 385,288           | 364,646           | 461,140           | 471,211           | 668,574           | 452,805           | 504,742           | 1,242,852         | 499,676           | 705,173           | 652,641           | 473,834           |
| Renton           | 111,747           | 101,894           | 69,078            | 62,364            | 64,549            | 51,841            | 48,314            | 51,959            | 38,125            | 42,490            | 59,904            | 88,749            | 51,086            | 43,815            |
| Skyway*          | 203,520           | 316,097           | 318,079           | 326,364           | 235,574           | 226,417           | 212,135           | 201,841           | 177,990           | 185,047           | 165,814           | 174,797           | 146,535           | 157,344           |
| Soos Creek       | 2,045,482         | 1,993,363         | 2,173,499         | 2,296,099         | 2,336,428         | 2,126,144         | 2,205,083         | 2,126,508         | 1,981,264         | 2,119,629         | 1,873,183         | 2,008,295         | 1,945,924         | 1,922,452         |
| Tukwila*         | 1,096,157         | 1,095,812         | 1,119,261         | 1,092,216         | 1,136,059         | 1,069,148         | 1,068,642         | 1,060,170         | 993,747           | 986,705           | 920,469           | 942,999           | 943,018           | 952,619           |
| Woodinville      | 2,197,389         | 2,040,624         | 2,070,493         | 2,371,019         | 2,243,238         | 1,873,605         | 2,032,328         | 1,996,289         | 1,956,618         | 2,184,773         | 1,781,785         | 1,759,518         | 1,740,966         | 1,915,528         |
| W.D. 20          | 1,366,147         | 1,346,239         | 1,285,424         | 1,427,155         | 1,346,869         | 1,325,298         | 1,416,165         | 1,339,902         | 1,358,086         | 1,386,645         | 1,237,668         | 1,233,990         | 1,215,151         | 1,245,419         |
| W.D. 45          | 156,010           | 105,556           | 137,852           | 133,350           | 127,217           | 116,943           | 105,832           | 95,913            | 94,013            | 95,912            | 100,229           | 106,783           | 107,679           | 111,838           |
| W.D. 49          | 673,859           | 616,296           | 625,111           | 611,986           | 640,512           | 587,490           | 599,956           | 636,898           | 585,791           | 589,113           | 556,683           | 638,260           | 610,235           | 562,840           |
| W.D. 85          | 74,155            | 34,458            | 45,048            | Merged with WD 20 |                   |                   |                   |                   |                   |                   |                   |                   |                   |                   |
| W.D. 90          | 735,758           | 683,434           | 538,035           | 496,043           | 503,774           | 452,581           | 539,675           | 542,270           | 550,935           | 521,397           | 433,468           | 493,819           | 536,673           | 540,180           |
| W.D. 119         | 117,447           | 132,490           | 128,518           | 139,875           | 133,744           | 126,416           | 131,697           | 121,176           | 117,871           | 132,998           | 115,579           | 110,073           | 111,287           | 108,192           |
| W.D. 125         | 778,596           | 560,097           | 580,052           | 560,331           | 646,969           | 603,604           | 623,262           | 597,401           | 549,107           | 587,539           | 514,478           | 495,650           | 495,315           | 481,332           |
| <b>Total</b>     | <b>32,471,503</b> | <b>29,722,743</b> | <b>31,147,656</b> | <b>33,330,239</b> | <b>32,501,465</b> | <b>29,656,646</b> | <b>31,852,728</b> | <b>30,402,609</b> | <b>29,752,240</b> | <b>31,481,128</b> | <b>27,322,218</b> | <b>27,967,343</b> | <b>28,365,209</b> | <b>28,702,943</b> |

\* Members of Cascade Water Alliance. Water shown as "purchased" by individual Cascade members reflects consumption measured through their meters with SPU. However, individual Cascade members are not billed directly by SPU.



**Figure 2.2**  
**WHOLESALE CUSTOMERS RANKED BY 2013 ANNUAL RETAIL BILLED SALES**

| Wholesale Customer | Retail Sales      |
|--------------------|-------------------|
| Bellevue*          | 6,622,564         |
| Redmond*           | 3,005,475         |
| Renton             | 2,867,155         |
| Highline           | 2,703,065         |
| Northshore         | 2,427,789         |
| Sammamish Plateau* | 2,053,303         |
| Soos Creek         | 1,861,518         |
| Woodinville        | 1,739,578         |
| Kirkland*          | 1,698,294         |
| W.D. 20            | 994,177           |
| Mercer Island      | 900,575           |
| Tukwila*           | 884,564           |
| Issaquah*          | 872,886           |
| Cedar River        | 837,278           |
| North City         | 746,917           |
| W.D. 90            | 694,406           |
| Bothell            | 663,539           |
| Olympic View       | 586,950           |
| W.D. 125           | 555,828           |
| W.D. 49            | 537,628           |
| Coal Creek         | 472,781           |
| Skyway*            | 252,760           |
| Duvall             | 213,225           |
| W.D. 119           | 112,750           |
| W.D. 45            | 104,627           |
| Lake Forest Park   | 89,863            |
| <b>TOTAL</b>       | <b>34,499,495</b> |



**Table 2.2**  
**Annual Retail Water Sales by Wholesale Customer in CCF: 2000-2013**

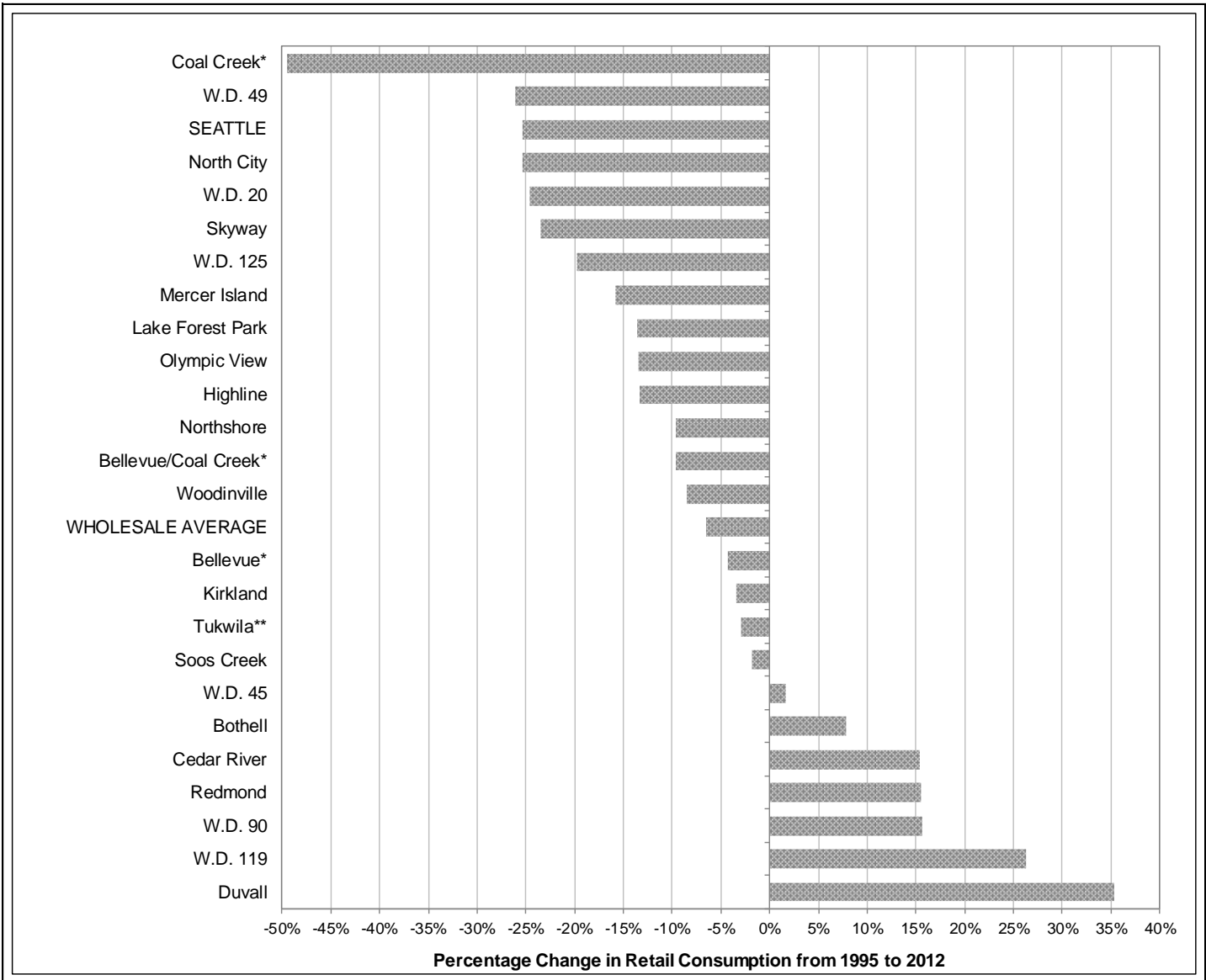
|                    | 2000   | 2001              | 2002              | 2003              | 2004              | 2005              | 2006              | 2007              | 2008              | 2009              | 2010              | 2011              | 2012              | 2013              |
|--------------------|--|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|
| Belleuve*          | 6,791,413  | 6,332,424         | 6,519,723         | 7,055,800         | 7,078,453         | 6,783,981         | No Data           | 6,851,810         | 6,612,399         | 6,908,439         | 6,276,954         | No Data           | 6,652,102         | 6,622,564         |
| Bothell*           | 739,669  | 684,621           | 714,466           | 760,131           | No Data           | 577,806           | 656,619           | 693,484           | 711,427           | 726,962           | 681,145           | 627,483           | 645,746           | 663,539           |
| Cedar River        | 854,728  | 784,795           | 858,905           | 949,620           | 925,955           | 855,114           | 964,037           | 904,362           | 855,210           | 941,306           | 816,633           | 791,574           | 845,321           | 837,278           |
| Coal Creek         | 1,070,525  | 1,013,672         | 1,084,280         | 1,219,567         | 543,762           | 488,466           | 563,705           | 491,502           | 473,088           | 554,686           | 439,423           | 443,453           | 479,094           | 472,781           |
| Duvall             | 191,604  | 187,714           | 197,080           | 231,577           | 218,230           | 205,341           | 223,653           | 220,032           | 216,704           | 239,872           | 200,987           | 215,895           | 216,172           | 213,225           |
| Highline           | 3,229,719  | 3,020,857         | 3,090,006         | 3,302,253         | 3,149,274         | 3,029,761         | 3,066,659         | 2,976,073         | 2,840,910         | 2,920,652         | 2,661,812         | 2,644,611         | 2,659,258         | 2,703,065         |
| Issaquah*          | No Data  | No Data           | No Data           | No Data           | No Data           | No Data           | No Data           | No Data           | 806,842           | 892,875           | 809,031           | 821,652           | 881,251           | 872,886           |
| Kirkland*          | 1,936,149  | 1,645,395         | 1,790,609         | 1,906,772         | 1,739,111         | 1,833,509         | 1,843,186         | 1,729,375         | 1,657,408         | 1,801,406         | 1,574,869         | No Data           | 1,566,695         | 1,698,294         |
| Lake Forest Park   | 140,077  | 102,375           | 107,268           | 116,970           | 105,794           | 101,256           | 106,343           | 96,000            | 92,421            | 106,697           | 94,119            | 97,582            | 90,176            | 89,863            |
| Mercer Island      | 1,104,852  | 954,551           | 1,089,710         | 1,149,546         | 1,155,137         | 984,570           | 996,235           | 978,013           | 931,806           | 1,000,468         | 866,165           | 891,529           | 897,230           | 900,575           |
| North City         | 956,858  | 871,251           | 862,972           | 914,477           | 886,232           | 815,594           | 849,559           | 813,161           | 856,562           | 843,675           | 746,571           | 709,027           | 731,780           | 746,917           |
| Northshore*        | 2,665,229  | 2,831,579         | 2,630,028         | 2,808,235         | 2,676,062         | No Data           | 2,630,374         | 2,501,954         | 2,394,514         | 2,512,510         | 2,334,511         | 2,266,068         | 2,362,615         | 2,427,789         |
| Olympic View       | 671,687  | 607,893           | 648,736           | 703,425           | 699,541           | 627,376           | 659,836           | 612,943           | 600,568           | 683,135           | 585,617           | 575,861           | 558,421           | 586,950           |
| Redmond*           | 2,979,125  | 2,783,755         | 2,940,175         | 3,254,994         | No Data           | No Data           | No Data           | No Data           | 3,085,835         | 3,165,854         | 2,969,511         | 2,832,871         | 2,996,495         | 3,005,475         |
| Renton*            | No Data  | No Data           | No Data           | No Data           | No Data           | No Data           | No Data           | 3,083,313         | 2,900,725         | 3,035,983         | 2,789,845         | 2,830,862         | 2,955,165         | 2,867,155         |
| Sammamish Plateau* | No Data  | No Data           | No Data           | No Data           | No Data           | No Data           | No Data           | No Data           | 2,113,475         | 2,310,814         | 1,976,398         | 1,984,468         | 2,070,994         | 2,053,303         |
| Skyway             | 356,220  | 309,537           | 325,930           | 329,497           | 309,832           | 280,643           | 292,983           | 285,914           | 275,432           | 277,182           | 257,760           | 257,921           | 252,642           | 252,760           |
| Soos Creek         | 1,995,096  | 1,822,072         | 1,941,211         | 2,191,349         | 2,023,063         | 1,870,978         | 2,003,456         | 1,972,069         | 1,832,233         | 1,903,844         | 1,693,450         | 1,737,069         | 1,867,566         | 1,861,518         |
| Tukwila*           | 1,030,948  | 925,230           | 903,189           | 938,989           | 1,000,684         | 1,043,575         | No Data           | 918,957           | 883,576           | 888,759           | 843,254           | 836,866           | 869,865           | 884,564           |
| Woodinville        | 2,104,568  | 1,887,481         | 2,003,091         | 2,232,174         | 2,077,734         | 1,867,062         | 2,044,244         | 1,884,117         | 1,789,966         | 1,987,478         | 1,679,587         | 1,696,919         | 1,724,180         | 1,739,578         |
| W.D. 20            | 1,238,771  | 1,137,766         | 1,137,678         | 1,216,998         | 1,200,605         | 1,144,053         | 1,196,913         | 1,141,240         | 1,099,170         | 1,115,278         | 1,034,602         | 1,005,816         | 1,013,874         | 994,177           |
| W.D. 45            | 145,677  | 130,769           | 138,113           | 132,207           | 121,307           | 108,416           | 99,325            | 90,092            | 89,336            | 90,799            | 97,857            | 100,065           | 105,855           | 104,627           |
| W.D. 49            | 653,378  | 613,239           | 614,343           | 645,016           | 610,845           | 616,020           | 620,546           | 602,572           | 576,403           | 586,525           | 549,063           | 548,355           | 548,241           | 537,628           |
| W.D. 85            | 69,231   | 52,480            | 54,985            | Merged with WD 20 |                   |                   |                   |                   |                   |                   |                   |                   |                   |                   |
| W.D. 90            | 602,704  | 555,734           | 599,564           | 656,449           | 665,985           | 602,173           | 694,640           | 664,617           | 652,558           | 720,856           | 634,419           | 638,859           | 667,072           | 694,406           |
| W.D. 119*          | 106,602  | 103,963           | 108,359           | 124,407           | 113,288           | 105,277           | 126,326           | 109,394           | 109,449           | 116,871           | 102,606           | No Data           | 113,957           | 112,750           |
| W.D. 125           | 729,943  | 641,283           | 718,981           | 678,557           | 652,703           | 611,276           | 636,882           | 637,662           | 616,905           | 654,841           | 574,180           | 559,617           | 570,319           | 555,828           |
| <b>TOTAL*</b>      | <b>Totals Not Calculated Because of Missing Data</b> |                   |                   |                   |                   |                   |                   |                   |                   |                   |                   |                   |                   |                   |
| <b>Seattle</b>     | <b>33,581,789</b>                                    | <b>30,325,199</b> | <b>30,829,010</b> | <b>30,422,909</b> | <b>29,994,131</b> | <b>28,340,298</b> | <b>29,114,620</b> | <b>28,490,213</b> | <b>27,538,310</b> | <b>28,015,569</b> | <b>26,561,023</b> | <b>25,824,242</b> | <b>26,279,721</b> | <b>26,279,721</b> |

\* Consumption data is missing for Bothell in 2004 and Northshore in 2005. Redmond did not provide data for 2004, 2005, 2006, and 2007. Bellevue and Tukwila did not provide data for 2006. Historical data is not available for Renton prior to 2007 nor available to for Issaquah and Sammamish Plateau prior to 2008. Bellevue, Kirkland and WD 119 did not provide data for 2011.

**Figure 2.3**

**PERCENT GROWTH (OR DECLINE) IN RETAIL DEMAND BY UTILITY FROM 1995 TO 2013**

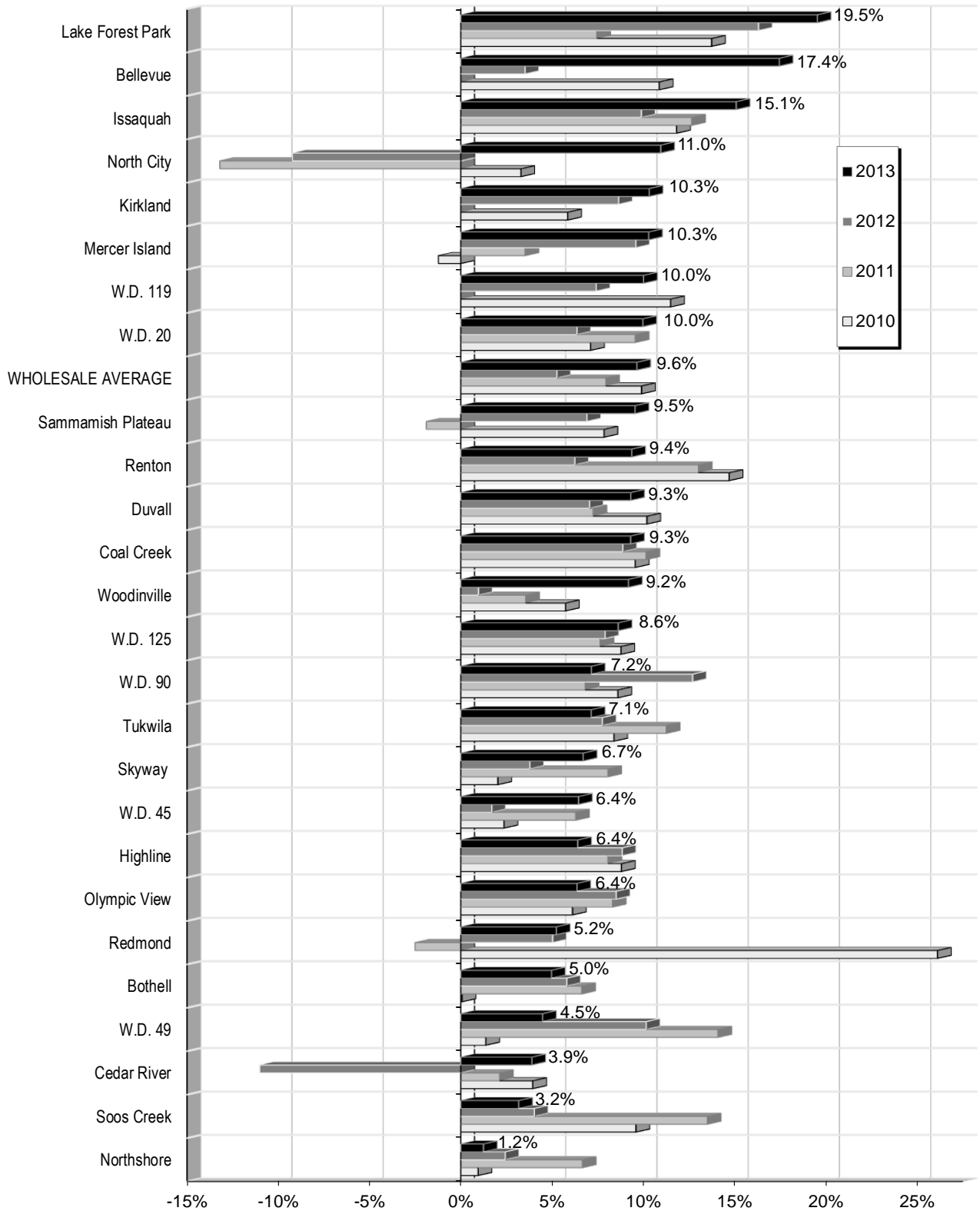
| Utility              | Percent Change |                |
|----------------------|----------------|----------------|
|                      | 1995-2010      | Average Annual |
| Duvall               | 35.3%          | 1.7%           |
| W.D. 119             | 26.3%          | 1.3%           |
| W.D. 90              | 15.7%          | 0.8%           |
| Redmond              | 15.4%          | 0.8%           |
| Cedar River          | 15.4%          | 0.8%           |
| Bothell              | 7.8%           | 0.4%           |
| W.D. 45              | 1.6%           | 0.1%           |
| Soos Creek           | -1.9%          | -0.1%          |
| Tukwila**            | -2.9%          | -0.2%          |
| Kirkland             | -3.4%          | -0.2%          |
| Bellevue*            | -4.3%          | -0.2%          |
| WHOLESALE AVERAGE    | -6.6%          | -0.4%          |
| Woodinville          | -8.5%          | -0.5%          |
| Bellevue/Coal Creek* | -9.7%          | -0.6%          |
| Northshore           | -9.7%          | -0.6%          |
| Highline             | -13.4%         | -0.8%          |
| Olympic View         | -13.5%         | -0.8%          |
| Lake Forest Park     | -13.6%         | -0.8%          |
| Mercer Island        | -15.8%         | -0.9%          |
| W.D. 125             | -19.8%         | -1.2%          |
| Skyway               | -23.5%         | -1.5%          |
| W.D. 20              | -24.6%         | -1.6%          |
| North City           | -25.3%         | -1.6%          |
| SEATTLE              | -25.4%         | -1.6%          |
| W.D. 49              | -26.0%         | -1.7%          |
| Coal Creek*          | -49.5%         | -3.7%          |



\* Growth rates for Bellevue and Coal Creek reflect the impact of the annexation of a large portion of Coal Creek by Bellevue in 2003. Much of the 49% decline in Coal Creek's consumption is due to their transferring more than half their customers to Bellevue. The change in demand for the combined Bellevue/Coal Creek service area is also shown.

\*\* Growth rate for Tukwila is measured from 1996, the year after a large area, including Boeing, was transferred from Seattle's retail service area to Tukwila.

**Figure 2.4**  
**2013 Wholesale Customer Non-Revenue Water as a Percentage of Total Water Use**  
 (2010, 2011 & 2012 Non-Revenue Shown in Gray)



\* Members of Cascade Water Alliance

**Table 2.3**  
**Wholesale Customer Distribution System Non-Revenue Water: 1999-2013**

|                | 1999  | 2000               | 2001   | 2002  | 2003              | 2004  | 2005  | 2006  | 2007  | 2008  | 2009  | 2010  | 2011   | 2012   | 2013  | 1994-2013 Average |
|----------------|-------|--------------------|--------|-------|-------------------|-------|-------|-------|-------|-------|-------|-------|--------|--------|-------|-------------------|
| Bellevue*      | 8.5%  | 7.8%               | 4.6%   | 6.0%  | 5.0%              | 8.6%  | 4.3%  | NA    | 9.2%  | 12.5% | 10.3% | 10.9% | NA     | 3.5%   | 17.4% | 8.1%              |
| Bothell        | 7.9%  | 7.6%               | 7.4%   | 7.1%  | 6.6%              | NA    | 18.7% | 18.8% | 4.6%  | 5.5%  | 4.7%  | 0.1%  | 6.6%   | 5.8%   | 5.0%  | 7.2%              |
| Bryn Mawr**    | 10.4% | Merged with Skyway |        |       |                   |       |       |       |       |       |       |       |        |        |       | 6.7%              |
| Cedar River    | 7.0%  | 5.3%               | 7.0%   | 6.3%  | 4.1%              | 7.3%  | 14.1% | 10.0% | 4.6%  | 1.9%  | 3.0%  | 3.9%  | 2.1%   | -11.0% | 3.9%  | 5.2%              |
| Coal Creek     | 4.9%  | 4.8%               | -7.6%  | 3.3%  | 1.4%              | 10.6% | 7.0%  | 5.9%  | 6.6%  | 8.4%  | 7.2%  | 9.6%  | 10.1%  | 8.9%   | 9.3%  | 5.4%              |
| Duvall         | 7.6%  | 9.3%               | -11.2% | 2.9%  | 10.1%             | 10.5% | 13.1% | 7.7%  | 4.5%  | 2.5%  | 5.2%  | 10.2% | 7.3%   | 7.0%   | 9.3%  | 6.3%              |
| Highline       | 5.8%  | 6.6%               | 4.3%   | 5.0%  | 5.7%              | 10.7% | 7.8%  | 3.2%  | 7.2%  | 10.1% | 8.2%  | 8.8%  | 8.1%   | 8.8%   | 6.4%  | 8.1%              |
| Issaquah*      | NA    | NA                 | NA     | NA    | NA                | NA    | NA    | NA    | NA    | 13.0% | 10.9% | 11.8% | 12.7%  | 9.9%   | 15.1% | 12.2%             |
| Kirkland*      | 2.7%  | -1.3%              | 7.4%   | 2.5%  | 5.0%              | 9.1%  | 0.7%  | 0.9%  | 4.5%  | 10.3% | 7.0%  | 5.9%  | NA     | 8.6%   | 10.3% | 4.8%              |
| Lk Forest Pk   | 11.0% | NA                 | 14.4%  | 13.9% | 15.4%             | 21.0% | 6.0%  | 14.3% | 19.4% | 39.8% | 24.3% | 13.7% | 7.5%   | 16.3%  | 19.5% | 12.7%             |
| Mercer Island  | 6.7%  | 7.8%               | 7.6%   | 0.1%  | 1.4%              | 5.3%  | 8.2%  | 7.4%  | 10.1% | 10.4% | 3.1%  | -1.2% | 3.5%   | 9.6%   | 10.3% | 5.8%              |
| North City**** | NA    | 9.1%               | 1.9%   | 0.8%  | 5.6%              | 5.4%  | 5.9%  | 7.4%  | 6.6%  | -0.7% | 1.9%  | 3.3%  | -13.2% | -9.2%  | 11.0% | 4.0%              |
| Northshore     | 0.0%  | 4.4%               | -12.0% | 6.4%  | 4.8%              | 5.0%  | NA    | 2.5%  | 1.9%  | 0.8%  | 1.2%  | 0.9%  | 6.7%   | 2.4%   | 1.2%  | 2.6%              |
| Olympic View   | 7.3%  | 7.3%               | 2.0%   | -1.4% | -6.2%             | 2.6%  | 7.8%  | 8.5%  | 7.0%  | 5.8%  | 4.4%  | 6.1%  | 8.3%   | 8.5%   | 6.4%  | 5.7%              |
| Redmond*       | 1.7%  | 3.5%               | 2.6%   | 6.5%  | 3.4%              | NA    | NA    | NA    | NA    | 7.2%  | 19.1% | 26.1% | -2.5%  | 5.0%   | 5.2%  | 4.2%              |
| Renton         | NA    | NA                 | 13.5%  | 13.2% | 12.1%             | 13.1% | 14.3% | 17.0% | 20.2% | 18.6% | 16.9% | 14.7% | 13.0%  | 6.2%   | 9.4%  | 14.0%             |
| Samm Plateau*  | NA    | NA                 | NA     | NA    | NA                | NA    | NA    | NA    | NA    | 9.5%  | 3.2%  | 7.8%  | -1.9%  | 6.9%   | 9.5%  | 5.9%              |
| Skyway*        | 7.3%  | 3.4%               | 7.7%   | 2.7%  | 4.3%              | 13.9% | 20.0% | 7.6%  | 5.1%  | 0.7%  | 4.4%  | 2.0%  | 8.1%   | 3.8%   | 6.7%  | 7.1%              |
| Soos Creek     | -4.7% | 2.5%               | 8.7%   | 10.7% | 4.6%              | 13.4% | 12.0% | 9.1%  | 7.3%  | 7.5%  | 10.2% | 9.6%  | 13.5%  | 4.0%   | 3.2%  | 7.8%              |
| Tukwila*       | 13.5% | 6.6%               | 16.7%  | 20.0% | 14.8%             | 11.9% | 2.4%  | NA    | 13.3% | 11.1% | 9.9%  | 8.4%  | 11.3%  | 7.8%   | 7.1%  | 13.3%             |
| Woodinville    | 5.4%  | 4.2%               | 7.5%   | 3.3%  | 5.9%              | 7.4%  | 0.3%  | -0.6% | 5.6%  | 8.5%  | 9.0%  | 5.7%  | 3.6%   | 1.0%   | 9.2%  | 3.3%              |
| W.D. 20***     | 8.3%  | 7.1%               | 6.2%   | 0.6%  | 7.6%              | 3.1%  | 5.5%  | 7.6%  | 5.4%  | 7.1%  | 10.2% | 7.1%  | 9.6%   | 6.4%   | 10.0% | 6.5%              |
| W.D. 45        | 7.4%  | 6.6%               | -23.9% | -0.2% | 0.9%              | 4.6%  | 7.3%  | 6.1%  | 6.1%  | 5.0%  | 5.3%  | 2.4%  | 6.3%   | 1.7%   | 6.4%  | 2.7%              |
| W.D. 49        | 3.4%  | 3.3%               | 0.6%   | 1.7%  | -5.4%             | 4.6%  | -4.9% | -3.4% | 5.4%  | 1.6%  | 0.4%  | 1.4%  | 14.1%  | 10.2%  | 4.5%  | 2.8%              |
| W.D. 85***     | NA    | 13.7%              | 10.8%  | 41.0% | Merged with WD 20 |       |       |       |       |       |       |       |        |        |       | 11.8%             |
| W.D. 90        | 19.4% | 18.1%              | 18.7%  | 9.3%  | 9.2%              | 11.3% | 11.4% | 7.7%  | 7.0%  | 11.0% | 7.9%  | 8.6%  | 6.8%   | 12.7%  | 7.2%  | 13.3%             |
| W.D. 119       | -0.3% | 9.5%               | 21.7%  | 16.0% | 11.4%             | 15.5% | 17.0% | 4.4%  | 10.0% | 7.4%  | 12.4% | 11.5% | NA     | 7.4%   | 10.0% | 8.2%              |
| W.D. 125       | 7.7%  | 9.4%               | 14.3%  | 6.5%  | 15.4%             | 13.5% | 14.4% | 12.7% | 12.7% | 13.8% | 8.5%  | 8.8%  | 7.6%   | 7.9%   | 8.6%  | 11.6%             |
| Wholesale Avg  | 5.8%  | 6.2%               | 6.1%   | 6.8%  | 6.1%              | 9.4%  | 7.3%  | 7.0%  | 8.6%  | 9.7%  | 9.0%  | 9.9%  | 7.9%   | 5.3%   | 9.6%  | 7.5%              |

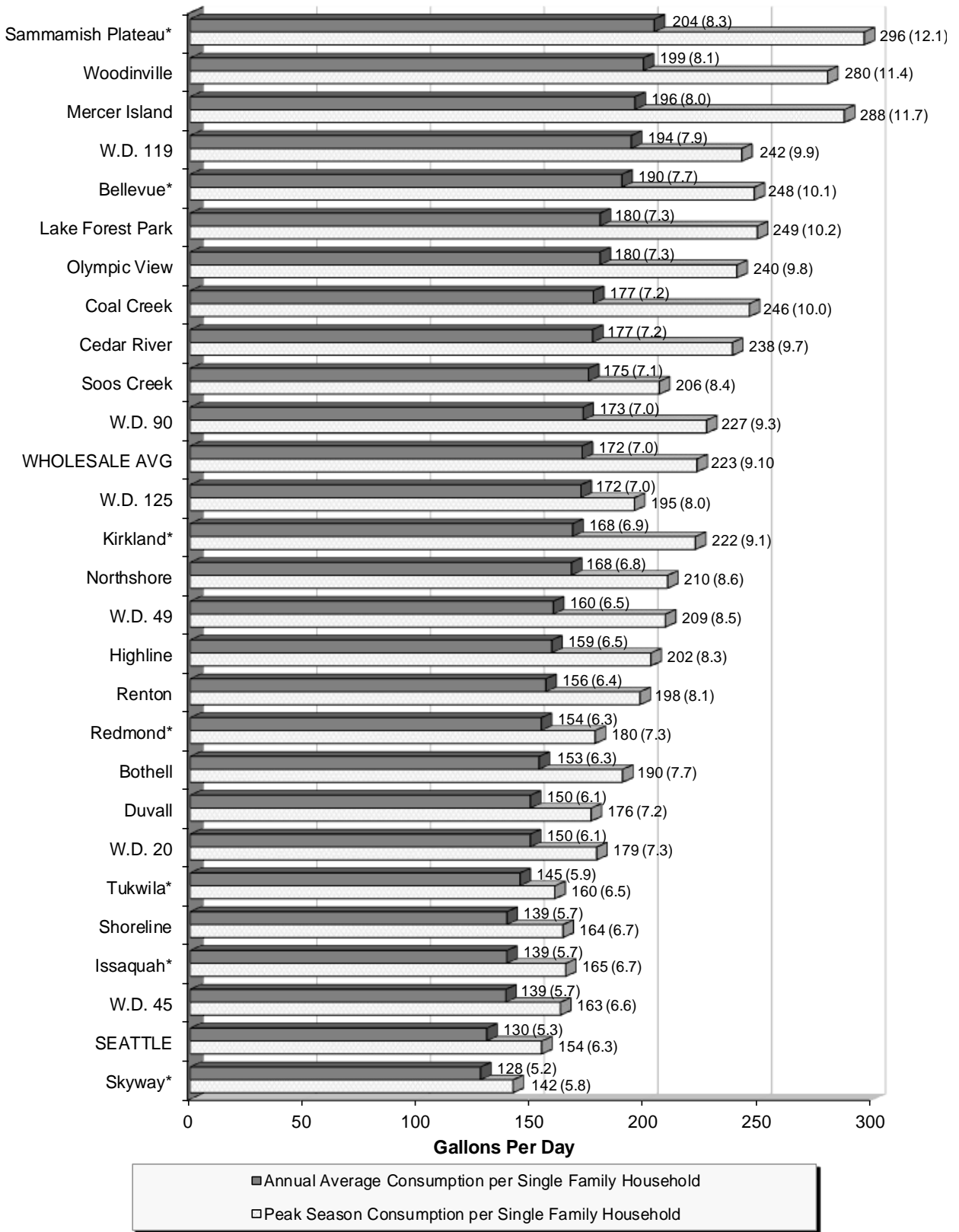
\* Members of Cascade Water Alliance. No history available for Issaquah, and Sammamish Plateau prior to 2008.

\*\* Formerly Bryn Mawr-Lakeridge Water & Sewer District. Skyway Water & Sewer District merged with Bryn Mawr-Lakeridge as of June 1, 1999 and the name was changed back to Skyway in 2002.

\*\*\* Water District 85 merged with Water District 20 in 2003.

\*\*\*\* Shoreline Water District was renamed North City Water District in 2014.

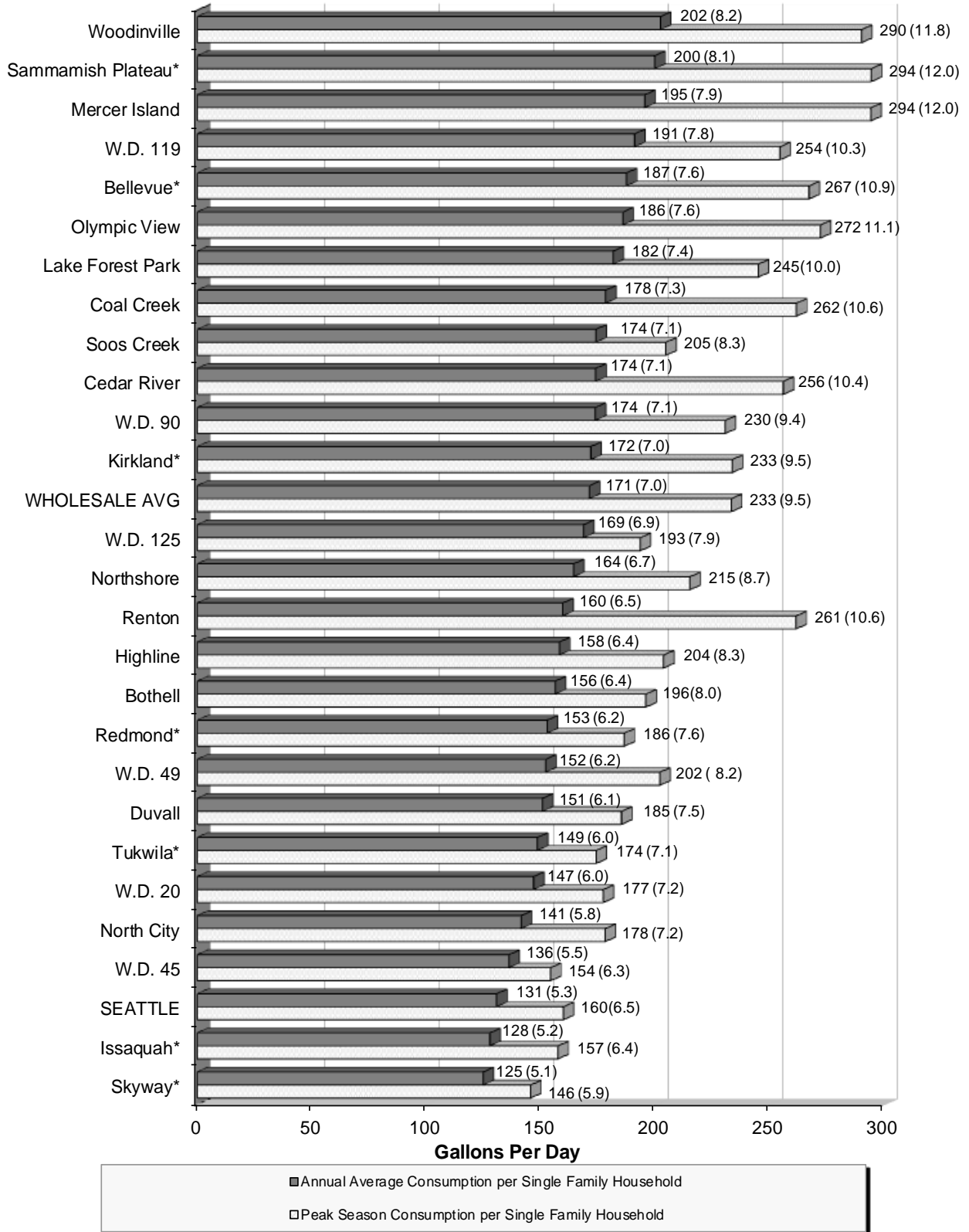
**Figure 2.5**  
**2012 Single Family Consumption per Household**  
**in Gallons per Day (CCF per Month)**



\* Members of Cascade Water Alliance

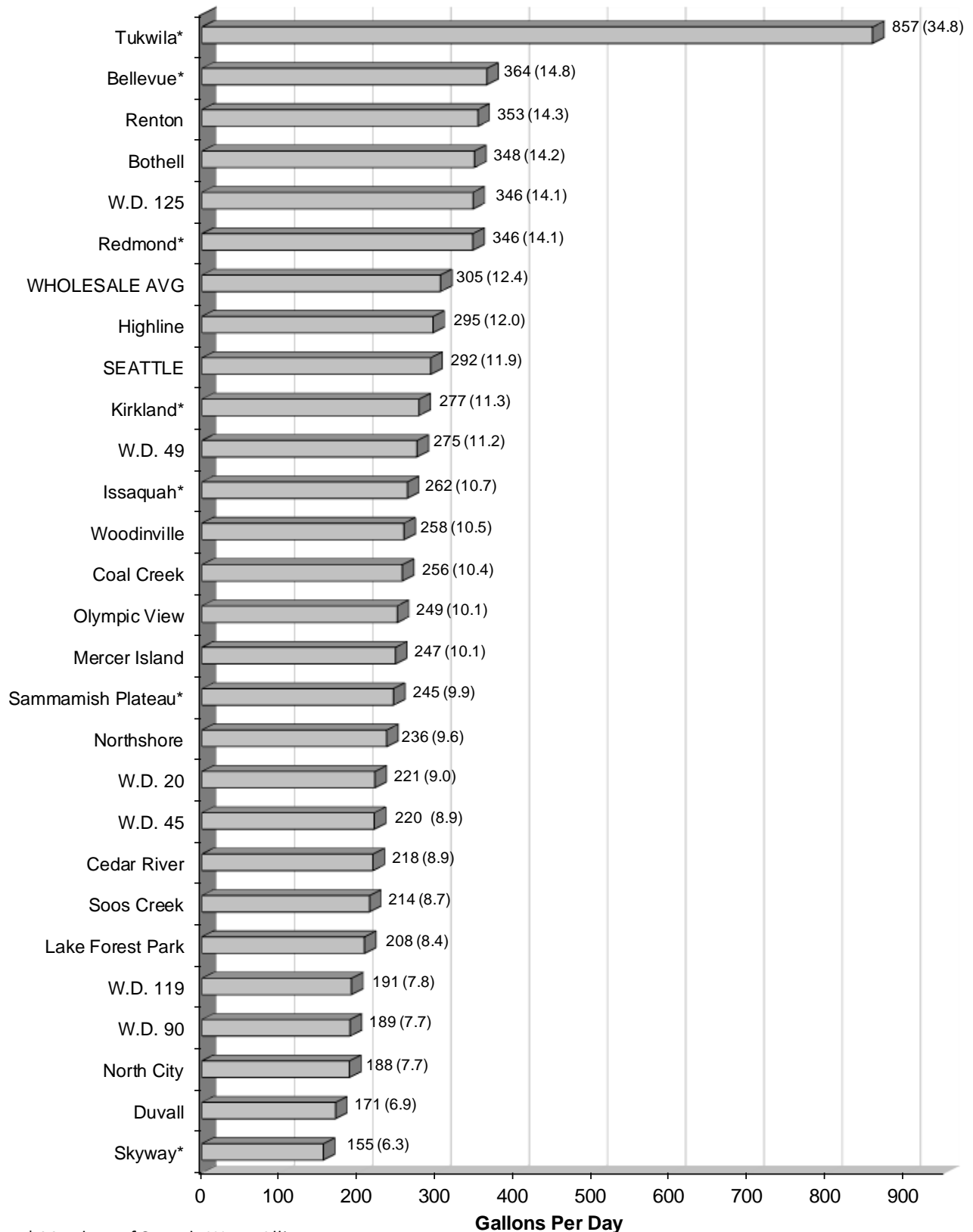
### Figure 2.5

#### 2013 Single Family Consumption per Household in Gallons per Day (CCF per Month)



\* Members of Cascade Water Alliance

**Figure 2.6**  
**2013 Total Consumption per Account**  
**in Gallons per Day (CCF per Month)**



\* Members of Cascade Water Alliance



## Table 2.4

### Single Family Residential Consumption per Household by Wholesale Customer: 1994-2013 (in CCF per Household per Month)

|                          | 1994       | 1995       | 1996       | 1997       | 1998       | 1999       | 2000               | 2001       | 2002       | 2003              | 2004       | 2005       | 2006       | 2007       | 2008       | 2009       | 2010       | 2011       | 2012       | 2013       |
|--------------------------|------------|------------|------------|------------|------------|------------|--------------------|------------|------------|-------------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|
| Bellevue*                | 10.4       | 10.0       | 9.8        | 9.4        | 10.0       | 9.6        | 9.7                | 8.9        | 9.1        | 9.7               | 10.4       | 8.5        | NA         | 8.5        | 7.5        | 8.6        | 7.6        | NA         | 7.7        | 7.6        |
| Bothell                  | 8.5        | 7.9        | 8.1        | 7.9        | 8.4        | 7.6        | 8.0                | 7.5        | 7.6        | 8.0               | NA         | 5.7        | 5.7        | 9.1        | 7.2        | 7.3        | 7.2        | 6.1        | 6.3        | 6.4        |
| Bryn Mawr                | NA         | NA         | NA         | NA         | NA         | 7.5        | Merged with Skyway |            |            |                   |            |            |            |            |            |            |            |            |            |            |
| Cedar River              | 9.9        | 9.7        | 9.7        | 9.1        | 9.6        | 8.9        | 9.5                | 8.0        | 8.6        | 9.1               | 8.6        | 7.8        | 8.5        | 7.9        | 7.4        | 8.3        | 7.1        | 6.8        | 7.2        | 7.1        |
| Coal Creek               | 10.1       | 9.5        | 9.4        | 9.2        | 9.9        | 9.1        | 9.1                | 8.0        | 8.6        | 9.3               | 9.4        | 8.2        | 8.9        | 7.9        | 7.7        | 8.5        | 7.1        | 7.0        | 7.2        | 7.3        |
| Duvall                   | NA         | 8.6        | 8.3        | 8.9        | 9.7        | 8.1        | 8.8                | 7.1        | 7.2        | 8.4               | 7.6        | 6.8        | 7.4        | 6.4        | 6.9        | 7.6        | 6.6        | 6.7        | 6.1        | 6.1        |
| Highline                 | 9.2        | 9.0        | 8.6        | 9.0        | 8.8        | 8.3        | 8.5                | 7.6        | 8.1        | 8.2               | 7.9        | 7.5        | 7.6        | 7.3        | 7.0        | 7.5        | 6.6        | 6.5        | 6.5        | 6.4        |
| Issaquah*                | NA         | NA         | NA         | NA         | NA         | NA         | NA                 | NA         | NA         | NA                | NA         | NA         | NA         | NA         | 5.7        | 6.1        | 5.5        | 5.4        | 5.7        | 5.2        |
| Kirkland*                | 8.8        | 8.6        | 8.5        | 8.5        | 8.6        | 8.2        | 9.3                | 7.5        | 8.0        | 8.9               | 7.8        | 10.4       | 7.8        | 7.8        | 7.3        | 7.8        | 6.8        | NA         | 6.9        | 7.0        |
| Lake Forest Park         | NA         | NA         | 11.4       | 12.8       | 10.7       | 12.2       | 12.2               | 9.9        | 10.4       | 11.3              | 10.3       | 9.8        | 10.2       | 9.2        | 8.8        | 10.2       | 8.9        | 9.2        | 7.3        | 7.4        |
| Mercer Island            | NA         | 10.7       | 9.9        | 9.8        | 11.0       | 10.0       | 10.5               | 9.2        | 10.0       | 10.6              | 10.5       | 9.9        | 9.8        | 8.9        | 8.5        | 9.0        | 7.8        | 8.0        | 8.0        | 7.9        |
| North City               | 8.3        | 7.9        | 7.8        | 7.5        | 7.9        | NA         | 7.7                | 6.7        | 7.0        | 7.4               | 7.0        | 6.5        | 6.5        | 6.3        | 6.8        | 6.7        | 5.8        | 5.7        | 5.7        | 5.8        |
| Northshore               | 9.6        | 9.2        | 9.0        | 8.6        | 9.8        | 8.7        | 8.5                | 8.1        | 8.4        | 8.9               | 8.4        | NA         | 8.4        | 7.6        | 6.9        | 7.4        | 6.8        | 6.5        | 6.8        | 6.7        |
| Olympic View             | 9.9        | 9.8        | 9.5        | 8.9        | 9.5        | 9.0        | 9.3                | 8.1        | 9.0        | 9.7               | 9.2        | 8.3        | 9.0        | 8.4        | 8.0        | 8.7        | 7.5        | 7.5        | 7.3        | 7.6        |
| Redmond*                 | 9.4        | 9.0        | 9.1        | 8.7        | 9.1        | 8.6        | 8.3                | 7.7        | 7.7        | 8.2               | NA         | NA         | NA         | NA         | 6.5        | 6.6        | 6.4        | 6.1        | 6.3        | 6.2        |
| Renton                   | NA         | NA         | NA         | NA         | NA         | NA         | NA                 | NA         | NA         | NA                | NA         | NA         | NA         | NA         | 6.8        | 7.0        | 6.4        | 6.6        | 6.4        | 6.5        |
| Sammamish Plateau*       | NA         | NA         | NA         | NA         | NA         | NA         | NA                 | NA         | NA         | NA                | NA         | NA         | NA         | NA         | 8.7        | 9.7        | 8.2        | 8.1        | 8.3        | 8.1        |
| Skyway*                  | 7.5        | 7.2        | 7.3        | 7.0        | 7.2        | 6.8        | 7.8                | 6.3        | 7.0        | 7.1               | 6.7        | 6.0        | 6.3        | 6.0        | 5.9        | 5.9        | 5.4        | 5.3        | 5.2        | 5.1        |
| Soos Creek               | 8.7        | 8.4        | 8.4        | 7.7        | 8.2        | 7.8        | 7.8                | 7.0        | 7.5        | 8.5               | 8.1        | 6.8        | 6.9        | 7.2        | 7.0        | 7.2        | 6.5        | 6.6        | 7.1        | 7.1        |
| Tukwila*                 | 7.5        | 6.4        | 7.7        | 7.4        | 7.4        | 7.2        | 7.0                | 6.7        | 6.9        | 7.2               | 6.2        | 5.8        | NA         | 6.6        | 6.2        | 6.7        | 6.1        | 5.8        | 5.9        | 6.0        |
| Woodinville              | 12.0       | 11.1       | 11.3       | 10.5       | 11.7       | 10.7       | 11.1               | 10.8       | 10.4       | 11.6              | 10.4       | 9.1        | 10.2       | 8.9        | 8.6        | 9.5        | 7.9        | 7.9        | 8.1        | 8.2        |
| W.D. 20                  | 8.3        | 8.2        | 8.0        | 7.7        | 8.5        | 8.1        | 7.9                | 7.0        | 7.1        | 7.7               | 7.4        | 6.9        | 7.2        | 6.8        | 6.7        | 6.8        | 6.3        | 6.0        | 6.1        | 6.0        |
| W.D. 45                  | NA         | 8.9        | NA         | NA         | NA         | 6.8        | 7.5                | 6.8        | 7.6        | 6.9               | 6.4        | 6.2        | 6.4        | 6.3        | 6.0        | 6.2        | 5.9        | 5.7        | 5.7        | 5.5        |
| W.D. 49                  | 9.1        | 9.6        | 8.7        | 8.5        | 8.4        | 8.2        | 7.9                | 7.2        | 7.7        | 8.1               | 7.7        | 7.2        | 8.0        | 7.1        | 6.8        | 7.3        | 6.6        | 6.5        | 6.5        | 6.2        |
| W.D. 85                  | NA         | NA         | NA         | NA         | NA         | 9.9        | 9.7                | 6.9        | 7.2        | Merged with WD 20 |            |            |            |            |            |            |            |            |            |            |
| W.D. 90                  | NA         | NA         | NA         | NA         | NA         | 8.4        | 9.5                | 8.5        | 8.8        | 8.7               | 8.5        | 7.5        | 8.2        | 7.7        | 7.4        | 8.0        | 6.8        | 6.9        | 7.0        | 7.1        |
| W.D. 119                 | NA         | NA         | NA         | NA         | NA         | 8.1        | 8.2                | 7.7        | 8.1        | 9.1               | 8.2        | 7.5        | 9.0        | 7.6        | 7.6        | 8.1        | 7.1        | NA         | 7.9        | 7.8        |
| W.D. 125                 | 8.4        | 8.3        | 8.3        | 8.2        | 8.3        | 8.1        | 8.3                | 8.5        | 9.4        | 8.5               | 8.1        | 7.8        | 8.0        | 8.0        | 7.5        | 7.9        | 7.1        | 7.0        | 7.0        | 6.9        |
| <b>Wholesale Average</b> | <b>9.7</b> | <b>9.4</b> | <b>9.2</b> | <b>8.9</b> | <b>9.5</b> | <b>8.9</b> | <b>9.1</b>         | <b>8.1</b> | <b>8.4</b> | <b>9.0</b>        | <b>8.7</b> | <b>7.9</b> | <b>8.0</b> | <b>7.8</b> | <b>7.3</b> | <b>7.9</b> | <b>6.9</b> | <b>7.0</b> | <b>7.0</b> | <b>7.0</b> |
| <b>Seattle</b>           | <b>7.9</b> | <b>7.6</b> | <b>7.4</b> | <b>7.1</b> | <b>7.1</b> | <b>7.1</b> | <b>7.3</b>         | <b>6.5</b> | <b>6.7</b> | <b>6.6</b>        | <b>6.4</b> | <b>6.0</b> | <b>6.2</b> | <b>5.9</b> | <b>5.7</b> | <b>5.9</b> | <b>5.4</b> | <b>5.2</b> | <b>5.3</b> | <b>5.3</b> |

\* Members of Cascade Water Alliance. No history is available for Issaquah, and Sammamish Plateau prior to 2008.

No history is available for Renton prior to 2008. Bellevue, Kirkland, and WD 119 did not provide data for 2011.

# Figure 2.7

## Single Family Residential Consumption per Household

