

Basic Planning Data, Water Demand Forecasting

	Page
Basic Planning Data, Water Demand Forecasting	2-1
2.1 Current Population, Service Connections, Water Use, and Equivalent Residential Units.....	2-1
2.1.1 Current Population.....	2-1
2.1.2 Total Service Connections	2-1
2.1.3 Water Use Data Collection	2-1
2.1.4 Equivalent Residential Units.....	2-3
2.2 Projected Land Use, Future Population, and Water Demand	2-4
2.2.1 Projected Land Use.....	2-4
2.2.2 Projected Population	2-6
2.2.3 Projected Residential and Non-Residential Water Needs	2-9
2.2.4 Projected Non-Revenue Water	2-10
2.2.5 Water Rates.....	2-11
2.2.6 Water Demand Forecasting.....	2-11

Tables

2-1	Sizes and Types of Meters by Customer Class	2-2
2-2	Average Annual Water Production and Water Use by Customer Class (in 100 cubic feet)	2-3
2-3	Equivalent Residential Units (ERUs) and Meter Size.....	2-4
2-4	Projected Residential and Non-Residential Water Demands (in ERUs).....	2-9
2-5	Historic Non-Revenue Water Use	2-10
2-6	Average Annual Demand Forecast by Customer Class Without Conservation (mgd).....	2-12
2-7	Average Annual Demand Forecast by Customer Class With Conservation (mgd).....	2-13
2-8	Peak Day Demand Forecast by Customer Class Without Conservation (mgd).....	2-13
2-9	Peak Day Demand Forecast by Customer Class With Conservation (mgd)	2-13

Figures

2-1	Zoning Classifications Based on Area and Development.....	2-5
2-2	ERUs in Pipeline at Time of Demand Projection.....	2-7
2-3	Plateau Zone Population Projections.....	2-7
2-4	Cascade View Zone Population Projections	2-8
2-5	Average Annual Demand Projections for District Service Area.....	2-14
2-6	Peak Day Water Demand Projections for District Service Area.....	2-14

Basic Planning Data, Water Demand Forecasting

The planning basis for this Water Comprehensive Plan is the 1994 *King County Comprehensive Plan* and its 1998 updates, the King County *Sensitive Areas Folio*, and detailed information about future development from both District and King County records. Zoning is in accordance with the latest zoning maps (1997) furnished by King County. The requirements and recommendations of the 1989 *East King County Coordinated Water System Plan* and its 1996 update are incorporated into the plan where applicable.

2.1 Current Population, Service Connections, Water Use, and Equivalent Residential Units

2.1.1 Current Population

As of December 31, 1999, approximately 39,800 people lived within the District's corporate boundaries. Nearly 38,000 lived in the Plateau Zone and 1,800 lived in the Cascade View Zone. According to the July 1999 Puget Sound Regional Council (PSRC) data, an average household size within the District's Plateau Zone is estimated to be 2.82 persons per household and in the Cascade View Zone it is estimated to be 2.65 persons per household.

2.1.2 Total Service Connections

At the end of December 2000, the District had a total of 16,905 service connections, ranging from 3/4-inch single-family meters to 4-inch public/institutional meters, within the water service area. A breakdown of the sizes and types of meters in each customer class is shown in Table 2-1.

2.1.3 Water Use Data Collection

Existing water use data were developed based on well production records, metered water use for each customer, results of the District's leak-detection program, and estimates of water used for construction, fire fighting, and main flushing. In accordance with the requirements of the March 1994 *Conservation Planning Requirements*, historical water use data for the past 5 years, expressed in units of cubic feet (cf), are presented in Table 2-2. Summaries of the monthly water use data for each source of supply and for each customer class are included in Appendix K.

TABLE 2-1
Sizes and Types of Meters by Customer Class

Customer Class	Meter Size (inches)	Accounting Code	No. of Connections	Multiplier	ERUs
Residential	3/4	100	11,740	1	11,740
	1	101	122	2.5	305
	1-1/2	102	3	5	15
	2	103	1	8	8
	3	104	0	16	0
Residential	3/4	105	8	2	16
2-on-1 Meter	1	106	0	2	0
Residential—Fire Sprinkler	1	107	57	1	57
	1-1/2	108	0	1	0
		109	0	1	0
Multi-Family	3/4	110	108	1	108
	1	111	120	2.5	300
	1-1/2	112	349	5	1,745
	2	113	50	8	400
	3	114	0	16	0
	4	115	0	25	0
Commercial/Industrial	3/4	120	17	1	17
	1	121	43	2.5	107.5
	1-1/2	122	35	5	175
	2	123	20	8	160
	3	124	4	16	64
	4	125	1	25	25
Public/Institutional	3/4	140	15	1	15
	1	141	10	2.5	25
	1-1/2	142	11	5	55
	2	143	10	8	80
	3	144	7	16	112
	4	145	5	25	125
Irrigation—No Audit	3/4	150	71	1	71
	1	151	55	2.5	137.5
	1-1/2	152	50	5	250
	2	153	14	8	112
	3	154	3	16	48
Irrigation—Audited	3/4	155	27	1	27
	1	156	28	2.5	70
	1-1/2	157	83	5	415
	2	158	12	8	96
	3	159	1	16	16
Total as of December 31, 2000			13,081		16,905

TABLE 2-2
Average Annual Water Production and Water Use by Customer Class (in 100 cubic feet)

Parameter	1999	1998	1997	1996	1995	1994
Source of Supply Meter Readings	2,014,000	1,890,000	1,744,000	1,784,000	1,698,000	1,739,000
Recharged Water	50	500	9	2,980	8	0
Emergency Interties						
Amount imported	0	0	0	0	0	0
Amount exported	102	0	155	1063	2771	0
Wholesale						
Amount purchased	0	0	0	0	0	0
Amount sold	0	0	0	0	0	0
Peak Day	11,776	15,922	11,083	10,254	6,150	8,356
Peak Month	295,202 (August)	301,738 (August)	357,888 (August)	303,342 (July)	263,369 (July)	258,824 (August)
Non-Revenue Water (unaccounted for)	204,000	96,000	153,000	230,000	195,000	369,000
Estimated Construction Water ^a	15,332	17,978	13,333	11,967	10,941	6,028
Service Meter Readings						
Single Family	1,390,531	1,418,680	1,261,472	1,248,009	1,181,751	1,087,303
Multi-Family	137,272	113,500	104,089	100,342	89,418	79,965
Commercial	75,438	70,375	70,972	62,875	65,960	59,546
Government	19,856	18,152	21,765	17,056	17,231	15,943
Industrial	540	581	818	732	874	629
Agricultural	0	0	0	0	0	0
Irrigation Without Audit ^b	75,126	70,553	47,069	49,406	61,008	55,961
Irrigation With Audit ^b	95,985	92,097	71,899	64,004	76,299	64,831

^aBased on miscellaneous water revenues from hydrant meters, water truck logs, developer extension flushing water charges, etc.

^bIrrigation with and without audits is defined in Section 4.1.

2.1.4 Equivalent Residential Units

An Equivalent Residential Unit (ERU) is defined as the amount of water that is required by a single-family residence. In the District, that amount of water has historically been estimated to be 0.3 acre-foot per year (af/yr), which is an average demand of 268 gallons per household per day. To estimate projected water usage, however, 0.276 af/yr (246 gallons per household per day) is used, which is consistent with the District's proposed conservation program, as described in Chapter 4.

As shown in Table 2-1, approximately 15,700 ERUs were in service in both zones of the District at the end of 1999. Approximately 96 percent of these ERUs were located in the Plateau Zone; the remainder were in the Cascade View Zone.

In the District, the number of ERUs attributed to a specific customer is based on the size of the customer's water meter. The weighting factors for various meter sizes are determined using American Water Works Association (AWWA) capacity ratings. The number of ERUs per meter size is summarized in Table 2-3.

TABLE 2-3
Equivalent Residential Units (ERUs) and Meter Size

Meter Size (inches)	3/4	1	1-1/2	2	3	4	6	8	10
Number of ERUs	1	2.5	5	8	16	25	50	80	115

There are a few cases in which the meter size weighting factor is not used directly. Such cases include the Residential 2-on-1 Meter and the Residential–Fire Sprinkler, as noted in Table 2-1. A Residential 2-on-1 Meter indicates that two single-family homes are served by one 3/4-inch meter. These situations are rare and are contrary to current District policy of one meter per separate dwelling. The existing Residential 2-on-1 Meters are situations in which the initial water customer added a second connection without the District's permission. As these situations are discovered and noted, the rate is adjusted to reflect the added use. The District also tries to encourage customers to rectify the situation through purchase of a second meter. Residential–Fire Sprinklers represent situations in which the residence would normally require only a 3/4-inch meter, but a larger size is required to support the fire sprinkler system.

2.2 Projected Land Use, Future Population, and Water Demand

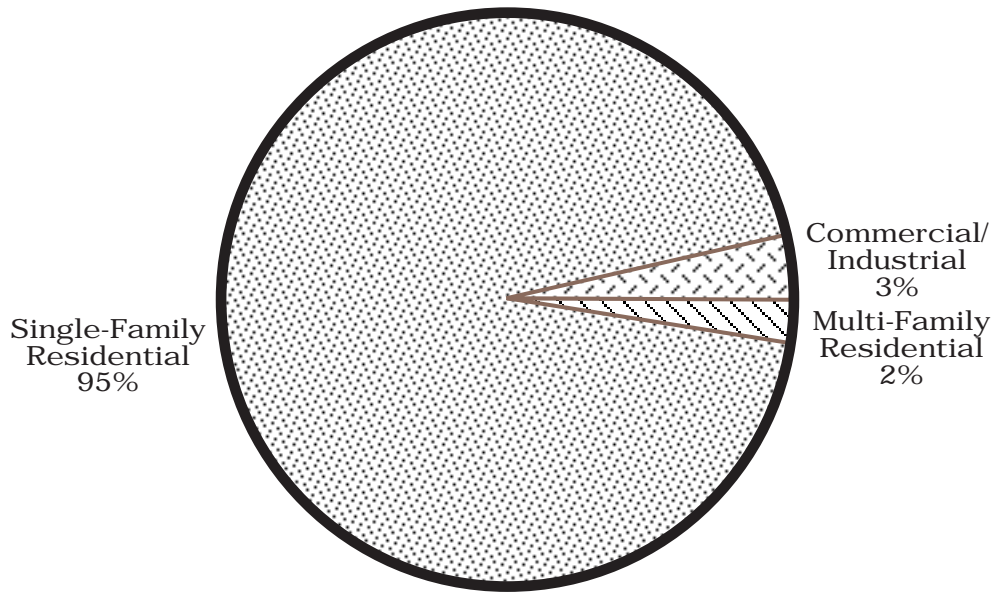
2.2.1 Projected Land Use

Based on the current zoning and the *King County Comprehensive Plan*, which designates almost 60 percent of the District as an urban area, the type of development that is projected to occur throughout the District is primarily residential. This assumption is supported by the type of development applications the District has been processing for future construction. The percentages of land area zoned for single-family residential, multi-family residential (R-12 and greater), and commercial/industrial uses are shown in Figure 2-1. The current King County zoning is shown in Figure 1-8 in Chapter 1.

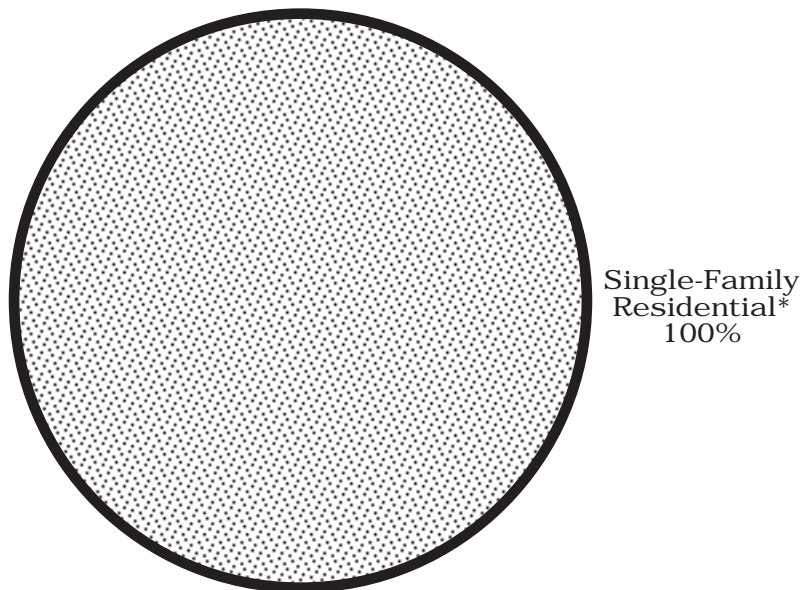
The new City of Sammamish covers a large section of the District zoned for urban uses, including areas that are currently undeveloped or underdeveloped according to current zoning. The City of Sammamish is in the process of developing its Comprehensive Plan, which will govern the zoning of these areas in the future. However, the planning effort will not be completed in time to incorporate it into this plan.

The City of Issaquah recently annexed a southern portion of the District. The City of Issaquah's Comprehensive Plan will also need to be updated and will designate zoning for the new additions to the City. The majority of the area annexed is developed or is in the process of being developed. There are some relatively small areas of the new Issaquah annexation that are undeveloped or underdeveloped. This small area represents less than

Plateau Zone



Cascade View Zone



* Includes one fire station

Figure 2-1
Zoning Classifications Based on Area
Water Comprehensive Plan
Sammamish Plateau Water & Sewer District

1 percent of the District's area and is currently zoned for single-family residential ranging from R-1 to R-6, and one multi-family parcel zoned R-12. When the City of Issaquah adopts a plan with updated zoning for these areas, the District's water demand projections will be updated to reflect any changes.

2.2.2 Projected Population

The District has experienced rapid population growth rates since the late 1970s and early 1980s. This pattern continues today. District records of existing customers and records of proposed developments were combined with geographic information system (GIS) property information to project growth over the next 6 years, until 2005. These data were collected and analyzed as ERUs, then converted to population using PSRC data. Two slightly different methods were used to calculate the population of the Plateau Zone and the Cascade View Zone.

2.2.2.1 Plateau Zone

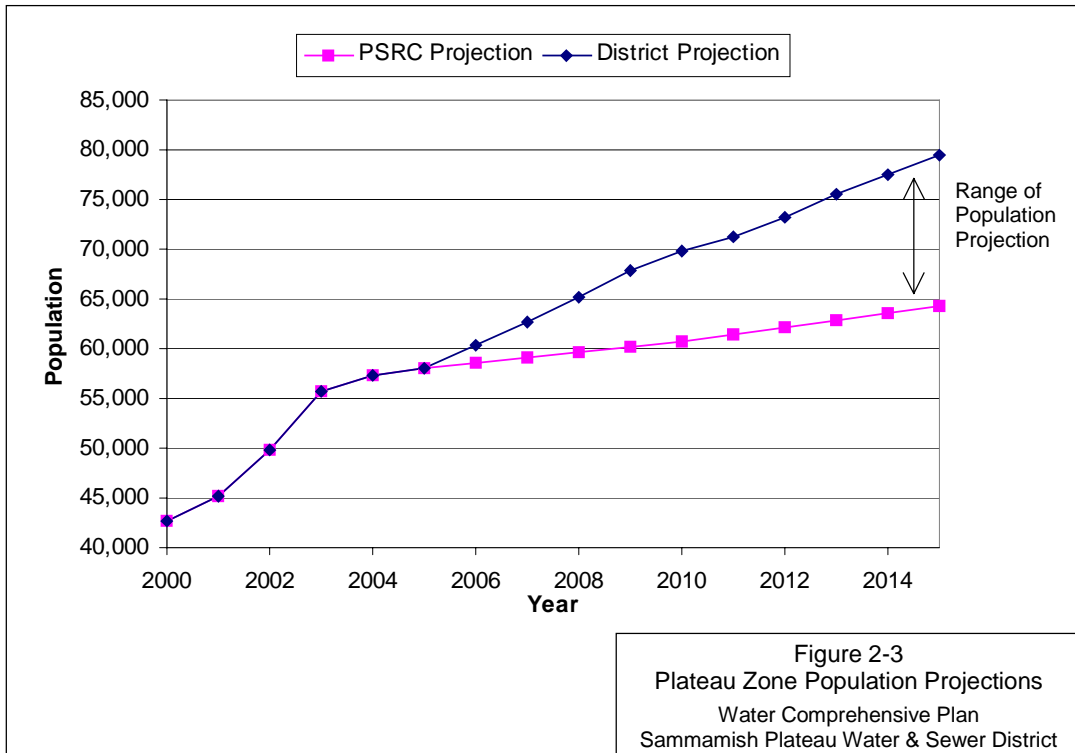
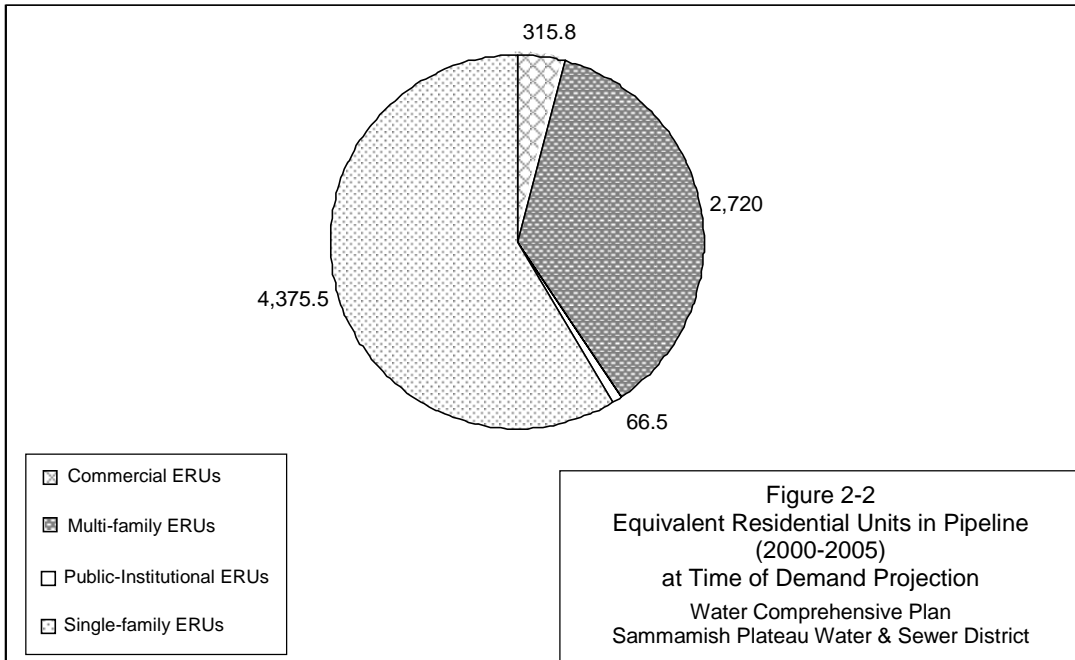
A detailed analysis of individual properties was completed for the Plateau Zone. This analysis forms the basis for the population projections and subsequent water demand projections.

All tax parcels located in the Plateau Zone future service area were identified using a combination of GIS data from King County and assessor maps that were entered into a database. Individual property information, such as area and zoning, were identified using GIS programs and King County data. Customer information, including account identification, meter size, and customer class, was added to the properties that currently receive water service from the District.

Information about current development proposals was then added. This information included the number of ERUs a proposed project represented and the estimated time of development. The existing developments were spread over a 6-year horizon based on their current development status. For example, a project already under construction would most likely be expected to start using water in 2000 or 2001. A development proposal that had just made application to King County might not be expected to start using water until as late as 2005. Development proposals with Developer Extension Agreements at the time of this projection are listed in Appendix G (Developer Extension Agreement). The distribution of ERUs represented by these development proposals is shown in Figure 2-2.

For all of the tax parcels, an estimate was made of their long-term (20-year horizon) development potential. An initial estimate was made using the property's area and zoning. The initial estimate was then fine-tuned by taking into consideration existing development on the property, sensitive areas, topography, and other features of the specific individual property.

The population projection was then compiled, starting with existing customers and adding the known proposed developments over the period until 2005. The resultant annual growth rate during this period ranges from 2 to 11 percent. The population projection between 2005 and saturation was made assuming a continued average growth rate of 4 percent per year, which is consistent with the overall average growth of the area. Build-out or saturation (population of 79,441) is projected to occur in the Plateau Zone in 2015 (Figure 2-3).



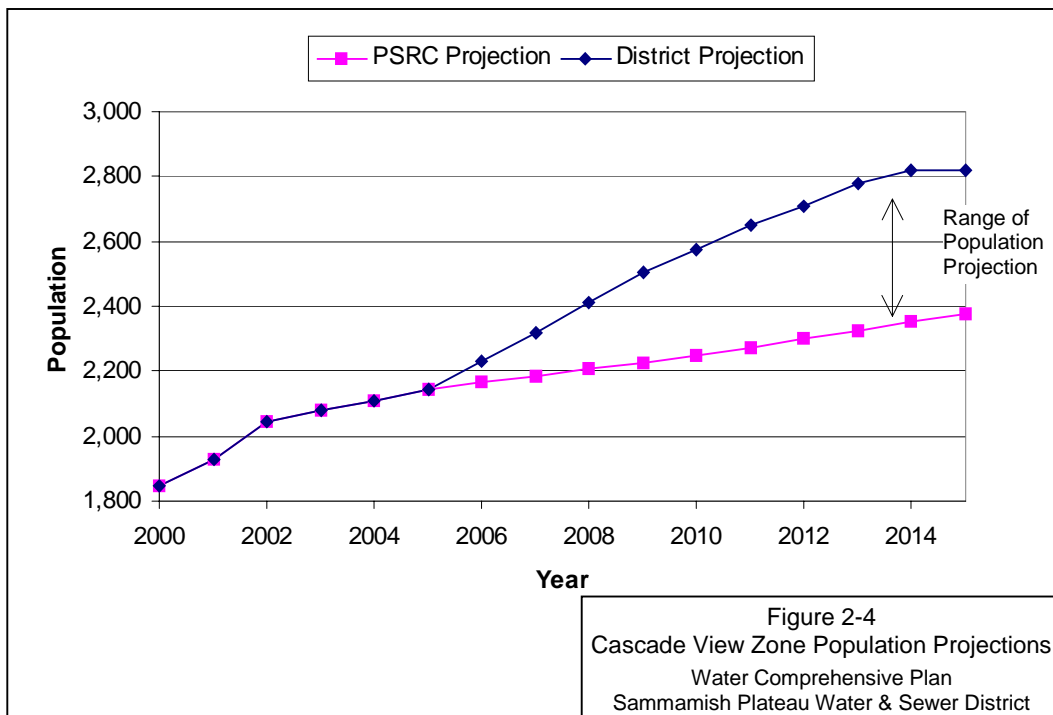
Population projections were derived from the ERU data, as described above, and then a per-capita factor per household was applied from 1999 PSRC data. According to PSRC data, there is estimated to be an average of 2.82 persons per household within the District from 2000 to 2010. Beyond 2010, that number decreases to 2.68 persons per household as the District continues to develop and more multi-family units are constructed. The population and employment forecast issued by the PSRC in July 1999 projects that the growth rate in

the Plateau Zone will be approximately 1 percent for the next two decades. However, based on communication with both King County and the PSRC, it has been confirmed that all agencies agree with the estimate of approximately 5,000 new connections in the Plateau Zone between 2000 and 2005 based on the District’s list of new connections as presented in Appendix G.

The rate of growth beyond 2005 may vary between the PSRC estimate of 1 percent per year and the District’s estimate of 4 percent per year. Both agencies anticipate build-out to occur at the same level, but when that level is reached depends on a number of factors, such as the status of the District’s water supply, the current building moratorium in the City of Sammamish, issues associated with the Endangered Species Act, and the economic situation in the region. Therefore, the District has committed to reevaluating the population projections when the City of Sammamish’s approved Comprehensive Plan has been issued and the state’s countywide population forecast has been completed, which will revise growth targets for the East Sammamish planning area. This is anticipated to occur around 2003 or 2004.

2.2.2.2 Cascade View Zone

In the Cascade View Zone, a similar analysis was undertaken, but the level of detail required was less than that required for the Plateau Zone because the level of development is considerably less in the Cascade View Zone. PSRC data indicate 2.65 persons per household through 2010, decreasing to 2.51 persons per household into the future. All of the property in the Cascade View Zone is zoned either RA-5 or RA-10. The majority of the property is already subdivided to an extent where further subdivision would not be possible. Saturation in the Cascade View Zone (population of 2,821) is projected to occur by 2014. However, as with the Plateau Zone, saturation may actually occur at a later time, depending on growth after 2005. Therefore, a range is shown for projected population in the Cascade View Zone to reflect lower growth as anticipated by the PSRC. Figure 2-4 presents the projected population for the Cascade View Zone.



2.2.3 Projected Residential and Non-Residential Water Needs

The methodology used to project residential water demands was presented in Section 2.2.2 and was used to determine the projected population for the District's service area. Non-residential water demands were estimated in the same manner as residential water demands. Both residential and non-residential water demands are presented in Table 2-4 in terms of ERUs. There is currently only one non-residential use in the Cascade View Zone—a fire station. A riding stable is also planned for the future.

TABLE 2-4
Projected Residential and Non-Residential Water Demands (in ERUs)

Year	2000	2001	2002	2003	2004	2005	2006	2007
<u>Plateau Zone</u>								
Residential	15,144	16,034	17,682	19,778	20,306	20,552	21,373	22,228
Non-Residential	805.5	810.5	839	950	987.5	986	1027	1068
Total Plateau Zone	15,950	16,845	18,521	20,728	21,294	21,538	22,400	23,296
<u>Cascade View Zone Residential</u>								
	696	728	771	784	795	809	841	875
Total District Demands	16,646	17,573	19,292	21,512	22,089	22,347	23,241	24,171
Year	2008	2009	2010	2011	2012	2013	2014	2015
<u>Plateau Zone</u>								
Residential	23,117	24,041	25,003	26,003	27,044	27,978	28,943	29,642
Non-Residential	1,111	1,155	1,201	1,250	1,299	1,351	1,405	1,460
Total Plateau Zone	24,228	25,196	26,204	27,253	28,343	29,329	30,348	31,102
<u>Cascade View Zone Residential</u>								
	910	946	984	1,023	1,064	1,107	1,124	1,124
Total District Demands	25,138	26,142	27,188	28,276	29,407	30,436	31,472	32,226

Non-residential zoning classifications in the Plateau Zone include Community Business, Regional Business, Industrial, Office, and Mineral. The zoning map is presented in Figure 1-8 in Chapter 1. When specific non-residential information on a parcel was not available, through either an existing customer or proposed development, a value of 4 ERUs per acre was used.

2.2.4 Projected Non-Revenue Water

Non-revenue water use can be estimated by comparing well pump records with metered water records. Metered water records include customer records and water used through hydrant meters, water trucks, and estimates of flushing water used with developer extensions. Non-revenue water can include water from leaks, water used in flushing mains for both maintenance and new construction, and water used from hydrants and not correctly reported for billing. The estimated ERU average demand factor listed in Section 2.1.4 includes the non-revenue component.

The District implemented a 4-year leak-detection program in 1996 to check the entire service area for leaks in the system. The effort located a few areas where water was being lost, but generally the system was found to be in good condition. This is demonstrated by the data presented in Table 2-5, which show that non-revenue water has varied from 5 to 13 percent during the past 5 years. Variation in this data occurs due to a number of factors, such as the level of construction activity and leaks in the system. A water system is generally considered to be in good condition if non-revenue water is less than 10 percent. The leak-detection program will be repeated periodically.

TABLE 2-5
Historic Non-Revenue Water Use

	1994	1995	1996	1997	1998	1999
% Non-Revenue Water	21%	11%	13%	9%	5%	10%

In an effort to reduce water losses through the portions of the system that are prone to leakage, the District has undertaken and almost completed a steel pipe replacement program. The District also replaces small-diameter polyvinyl chloride (PVC) mains each year. Asbestos concrete mains are replaced if they are in poor condition. A systematic asbestos concrete pipeline replacement program will be initiated in 2004.

Water used to flush mains (by contractors and developers) is a large source of non-revenue water in the District. The District is currently experimenting with different methods for measuring the flushing water and considering methods of reducing the volume of water required.

If the District increases its vigilance and monitoring of non-revenue water use, as described in Chapter 4, Conservation, a consistent level of 10 percent or less of non-revenue water should be attainable during periods of intense construction.

2.2.5 Water Rates

The District implemented rates to promote the efficient use of water several years ago. There are four factors in the water rate structure that promote efficient use of water.

Base Rate Plus Commodity Rate. The base rate is paid regardless of the amount of water used; it is based on the size of the meter and does not include any water usage. Water usage is paid for at a commodity rate. This allows the customer to see a more direct consequence of water use.

Inverted Block Rate Structure. The inverted block rate structure used by the District means that the rate paid for the same amount of water increases as more water is used. Details of the inverted block rate structure are provided in Chapter 9.

Sewer Charges Tied to Water Use. In 2000, the District implemented a system for single-family residential customers that ties the customers' winter water use levels to their sewer bill. Winter water use is targeted because it is not likely to include irrigation use, and irrigation use does not affect the sewer system. Non-residential customers in the District have always had their sewer bill tied to their water consumption.

Irrigation Audit Program. The District recognizes that the use of water for irrigation places a large demand on the system during the period of peak demand. In addition, many irrigation systems are not operated as efficiently as they could be. Therefore, the District has an incentive program that offers substantially lower irrigation rates to customers who have their irrigation systems audited and then keep them in good operating condition.

The District's water rate schedules for 2000, 2001, and 2002 are included in Appendix L.

A review of water use patterns in the District shows that rate structures do have an effect on how much water is issued for irrigation in the summer. In the early 1990s, the Cascade View Water District Board of Commissioners implemented a dramatic inverted block rate structure in an effort to impose conservation through rates. The effort was generally successful. When the Cascade View Water District merged with the Sammamish Plateau Water and Sewer District, the District lowered the Cascade View Zone rates to match the rates in the Plateau Zone's inverted block rate schedule. During the first year after the merger, water use remained at about the same as the previous year. However, water use in the Cascade View Zone gradually increased, and use during the peak-demand summer period is now much greater per capita in the Cascade View Zone than in the Plateau Zone. This is most likely due to the larger lot sizes in the Cascade View Zone and, therefore, to more summer irrigation use.

2.2.6 Water Demand Forecasting

Table 2-4 indicates the anticipated ERUs in the Plateau Zone, Cascade View Zone, and combined zones for the period between 2000 and 2015 (saturation). Using the methods described above, saturation development will occur in 2014 in the Cascade View Zone and in 2015 in the Plateau Zone. In reality, some infill development would occur over a longer period. However, the assumptions made here are conservative from a planning perspective.

The water demand forecast for the District indicates continued growth for the next 15 years. However, the water rights currently held by the District limit the amount of growth that can

be served within the Plateau Zone. The Plateau Zone's existing water rights can support only 22,975 ERUs on an annual average basis. According to the water demand forecast, this level will be reached by 2006. When the last groundwater right was issued by Ecology to the District in 1995, Ecology intended the right to cover the District's needs until 2013. However, the growth rate in the District continued at a higher rate than anticipated. The District is planning to obtain additional water and/or water rights to meet projected demands. The supply alternatives under consideration are discussed in Chapter 4.

Tables 2-6 and 2-7 present the demand forecasts for single-family residential, multi-family residential, and non-residential water uses within Plateau Zone and the Cascade View Zone without and with water conservation, respectively. The demand forecast is presented as a range of demands for the entire District in terms of mgd. If the District does not implement the conservation plan outlined in Chapter 4, total average annual water demand is anticipated to reach 8.6 mgd by 2015 for a high-demand forecast. With the projected annual average demand of 0.276 af/yr per ERU (246 gpd/ERU), the low-demand forecast will represent a total demand of 7.9 mgd by 2015. This forecast is based on the higher population projections shown in Figures 2-2 and 2-3. The District is proactive in planning conservatively to meet the water needs of the service area. As noted earlier, a revised population projection analysis will be conducted in 2003 or 2004. Water demands will also be revised at that time as appropriate. Figure 2-5 portrays the average annual demand with and without conservation.

The impact of conservation on the forecast water demand is most dramatic when looking at projected peak consumption where water use has historically more than tripled from the average use. The increased consumption is primarily due to outdoor water use during the summer season. Tables 2-8 and 2-9 present the range of peak day water demands, and Figure 2-6 illustrates the projected peak water demands with and without water conservation.

TABLE 2-6
Average Annual Demand Forecast by Customer Class Without Conservation (mgd)

	2000	2001	2002	2003	2004	2005	2010	2015
Plateau Zone								
Single Family	3.63	3.78	4.02	4.55	4.67	4.73	5.75	6.91
Multi-Family	0.43	0.52	0.72	0.75	0.77	0.78	0.95	1.03
Non-Residential	<u>0.22</u>	<u>0.22</u>	<u>0.22</u>	<u>0.25</u>	<u>0.26</u>	<u>0.26</u>	<u>0.32</u>	<u>0.39</u>
Total Plateau Zone	4.27	4.51	4.96	5.56	5.71	5.77	7.02	8.34
Total Cascade View Zone Residential	0.19	0.20	0.21	0.21	0.21	0.22	0.26	0.30
Total SPWSD Service Area	4.46	4.71	5.17	5.77	5.92	5.99	7.29	8.64

TABLE 2-7
Average Annual Demand Forecast by Customer Class With Conservation (mgd)

	2000	2001	2002	2003	2004	2005	2010	2015
Plateau Zone								
Single Family	3.62	3.74	3.94	4.41	4.48	4.49	5.17	6.22
Multi-Family	0.43	0.51	0.70	0.73	0.74	0.74	0.86	0.93
Non-Residential	<u>0.22</u>	<u>0.21</u>	<u>0.22</u>	<u>0.25</u>	<u>0.25</u>	<u>0.25</u>	<u>0.29</u>	<u>0.35</u>
Total Plateau Zone	4.27	4.47	4.86	5.39	5.48	5.49	6.32	7.50
Total Cascade View Zone Residential								
	0.19	0.19	0.20	0.20	0.20	0.21	0.24	0.27
Total SPWSD Service Area	4.46	4.66	5.06	5.59	5.68	5.69	6.55	7.77

TABLE 2-8
Peak Day Demand Forecast by Customer Class Without Conservation (mgd)

	2000	2001	2002	2003	2004	2005	2010	2015
Plateau Zone								
Single Family	9.57	9.97	10.62	12.01	12.33	12.47	15.18	18.25
Multi-Family	1.14	1.37	1.89	1.98	2.04	2.07	2.51	2.72
Non-Residential	<u>0.57</u>	<u>0.57</u>	<u>0.59</u>	<u>0.67</u>	<u>0.70</u>	<u>0.70</u>	<u>0.85</u>	<u>1.03</u>
Total Plateau Zone	11.28	11.92	13.10	14.67	15.07	15.24	18.54	22.01
Total Cascade View Zone Residential								
	0.56	0.59	0.62	0.63	0.64	0.65	0.79	0.90
Total SPWSD Service Area	11.84	12.50	13.72	15.30	15.70	15.89	19.33	22.91

TABLE 2-9
Peak Day Demand Forecast by Customer Class With Conservation (mgd)

	2000	2001	2002	2003	2004	2005	2010	2015
Plateau Zone								
Single Family	9.56	9.86	10.40	11.64	11.83	11.84	13.65	16.41
Multi-Family	1.14	1.36	1.85	1.92	1.96	1.96	2.26	2.45
Non-Residential	<u>0.57</u>	<u>0.57</u>	<u>0.58</u>	<u>0.65</u>	<u>0.67</u>	<u>0.66</u>	<u>0.76</u>	<u>0.93</u>
Total Plateau Zone	11.28	11.79	12.83	14.21	14.46	14.47	16.67	19.79
Total Cascade View Zone Residential								
	0.56	0.58	0.61	0.61	0.61	0.62	0.71	0.81
Total SPWSD Service Area	11.84	12.37	13.44	14.83	15.07	15.08	17.38	20.60

