City of Leavenworth
Water System Plan
3. Planning Data

Table 3-10 Projected Water Demand

Zone	Attribute	Existing (1)	6-year ⁽²⁾	20-year ⁽²⁾	Ultimate (3)
Zone 1 (main zone)	ERUs	2,911	3,032	3,178	6,232
	Annual (MG)	323	336	353	751
	ADD (gpm)	615	640	671	1,428
	MDD (gpm) (4)	1,444	1,504	1,577	3,071
	PHD (gpm) (5)	2,440	2,536	2,652	5,042
Zone 2 (existing Ski Hill)	ERUs	70	170	403	923
	Annual (MG)	8	19	45	111
	ADD (gpm)	15	36	85	212
	MDD (gpm) (4)	35	84	200	455
	PHD (gpm) (5)	117	224	440	856
Zone 3 (future upper Ski Hill)	ERUs	-	-	145	545
	Annual (MG)	-	-	16	66
	ADD (gpm)	-	-	31	125
	MDD (gpm) (4)	-	-	72	269
	PHD (gpm) (5)	-	-	199	559
Zone 4 (future top Ski Hill)	ERUs	-	-	58	152
	Annual (MG)	-	-	6	18
	ADD (gpm)	-	-	12	35
	MDD (gpm) (4)	-	-	29	75
	PHD (gpm) (5)	-	-	102	205
Total System	ERUs	2,981	3,202	3,784	7,852
	Annual (MG)	332	355	420	946
	ADD (gpm)	632	676	799	1,799
	MDD (gpm) (4)	1,488	1,589	1,877	3,868
	PHD (gpm) (5)	2,510	2,671	3,133	6,661

Refer to **Section 3.1.4** for source of existing demand figures.

3.3 Topography

The City's water system currently consists of two pressure zones. The UGA encompasses a large portion of the Ski Hill area to the north of downtown. The Ski Hill area spans approximately 200 vertical feet. The planning data in preceding Sections includes two additional pressure zones which will provide service to the area of land not serviceable by the City's existing pressure zones. Please refer to **Figure 2** for system topography and approximate pressure zone boundary contours.

⁽²⁾ Refer to **Section 3.2.2** for 6-year and 20-year growth percentages.

⁽³⁾ Refer to discussion in **Section 3.2.2** on ultimate demands; also refer to the City's Water Distribution System and Sewer Collection System Master Plan for calculation of UGA and UGA expansion area demands.

Existing, 6-year, and 20-year reflect an ADD:MDD peaking factor of 2.35; also see note 3.

⁽⁵⁾ Existing, 6-year and 20-year PHD calculated using Equation 5-1 from the 2009 DOH WSDM; also see note 3.