

Appendix 3.1.4 Water Conservation Information from the Statewide Water Supply Initiative Project (SWSI)

(Source: Davis et al., 2004. <http://www.cwcb.state.co.us/IWMD/pdfDocs/Report/AppendixE.pdf>.)

Colorado Basin water demand forecast by conservation level in acre feet per year.

	2000	2005	2010	2015	2020	2025	2030
Baseline	73,975	82,212	93,166	105,080	117,958	131,122	144,033
Level I	73,975	81,270	91,026	101,695	113,062	124,761	136,037
Level II	73,975	79,761	87,603	97,827	108,711	119,915	130,706
Current *	73,975	79,453	86,906	95,862	105,180	115,005	124,228
Level III	73,975	79,384	86,747	95,410	104,360	113,857	122,709
Level IV	73,975	77,499	82,468	89,608	96,745	103,559	109,382
Level V	73,975	75,613	78,189	82,355	85,866	88,415	89,391

Conservation Effort	Total Estimated 2000 Gross Demand (AFY)	Total Estimated 2030 Demand (AFY)	Percent increase	Percent Reduction from 2030 baseline
Baseline	73,975	144,033	94%	
Level I		136,037	84%	5.6%
Level II		130,706	77%	9.2%
Current		124,228	68%	13.8%
Level III		122,709	66%	14.8%
Level IV		109,382	48%	24.1%
Level V		89,391	21%	37.9

**TABLE 15
ACTIVE CONSERVATION MATRIX**

Level	Types of Programs	Percent Reduction in Future M&I Demand				Cost \$ per AF
		2000	2010	2020	2030	
I	Plumbing codes	n/a*	2.5%	4.5%	6%	\$0
	Fixture standards from National Energy Policy Act					
II	Metering	n/a*	4%	4%	4%	\$100
	Leak detection		(6.5%)	(8.5%)	(10%)	
III	All of the above (Level II)	n/a*	5%	8%	10%	\$500
	Education		(7.5%)	(12.5%)	(16%)	
	Rebates for toilets and washers					
	Audits: residential and commercial					
	Landscape audits					
	Increasing rate structure					
IV	All of the above (Level III)	n/a*	10%	15%	20%	\$1,000
	Steep pricing rate and surcharges		(12.5%)	(19.5%)	(26%)	
	Rebate for landscape changes					
	Turf replacement & restrictions					
	Rebates for irrigation sensors & controllers					
	Sub-metering of master-meter properties					
	Fixture retrofit upon sale of property					
	Ordinance eliminating single-pass cooling					
V	All of the above (Level IV)	n/a*	15%	25%	35%	\$2,000
	Replacement of all inefficient water fixtures & appliances		(17.5%)	(29.5%)	(41%)	
	Eliminate leakage by all customers					
	Eliminate high-water using landscape					
	Install non-water-using urinals by non-residential customers					

n/a* The 2000 level of water use implicit in the county good values includes "current" conservation savings.

The percent reduction indicated for Levels II – V is "above and beyond" the Level I reduction; the cumulative percent reduction is shown in parentheses.

Statewide M&I and SSI Water Demand Projections

TOTAL ESTIMATED 2000 GROSS DEMAND (AFY)	TOTAL PROJECTED 2030 GROSS DEMAND WITHOUT LEVEL I CONSERVATION (AFY)	TOTAL PROJECTED 2030 GROSS DEMAND WITH LEVEL I CONSERVATION (AFY)	PROJECTED LEVEL I CONSERVATION SAVINGS (AFY)	PROJECTED INCREASE IN GROSS DEMAND (AFY)
74,100	143,800	136,000	7,800	61,900 (84%)

COUNTY	2000 GROSS DEMAND (AFY)	2030 GROSS DEMAND (AFY)	INCREASE IN GROSS DEMAND (AFY)	ESTIMATE OF GROSS YIELD AVAILABLE TO MEET 2030 DEMANDS (AFY)	REMAINING GROSS DEMAND GAP (AFY)
Eagle	14,295	28,464	14,169 (99%)	12,461	-
Garfield	11,553	25,061	13,508 (117%)	8,000	4,005
Pitkin	14,176	23,939	9763 (69%)	8,328	-
Gunnison	3,244	4,647	1403 (43%)		
TOTAL	43,268	82,111	38,843 (90%)	28,789	4,005

Information in red from Rick Brown, Colorado Water Conservation Board, personal communication, June, 1, 2007.

Preliminary SSI (Snowmaking) Gap Analysis by County - Baseline Estimate

COUNTY	2000 GROSS DEMAND (AFY)	2030 GROSS DEMAND (AFY)	INCREASE IN GROSS DEMAND (AFY)
Eagle	406	643	237 (58%)
Garfield	406	643	237 (58%)
Pitkin	2,030	3,215	1,185 (58%)
TOTAL	2,842	4,501	1,659 (58%)

