CITY OF KINGSBURG
GROUNDWATER SUPPLY ESTIMATE AND METHODOLOGY

2016

Year	Total Well Pumping Max Capacity (GPM)	Annual Well Production (MG)	Annual Well Production (AF)	Groundwater Zone Area (SQ Miles)	Annual Precipitation (in/year)	Annual Precipiation Recharge (AF/Year)	Net Groundwater Withdrawl (AF)	Maximum Peak Groundwater Supply Yield (AF/Y)	Reasonable Groundwater Supply Yield = 50% Maximum Yield (AF)	Reasonable Groundwater Supply Yield (MG)
	(W)			(A)	(P)	1.07 x A x P		W*1440*365/325,900		
2013	8400	1344.40	4125	2.83	5.68	17.199608	4108	13547	6774	2201
2014	8400	1129.50	3466	2.83	4.99	15.110219	3451	13547	6774	2201
2015	8400	855.97	2626	2.83	5.68	17.199608	2609	13547	6774	2201
2016	8400	1100.00	3375	2.83	14.28	43.241268	3332	13547	6774	2201
2017	8400	1200.00	3682	2.83	2.68	8.115308	3674	13547	6774	2201
2018	8400	1250.00	3836	2.83	4.99	15.110219	3820	13547	6774	2201
2019	8400	1300.00	3989	2.83	5.68	17.199608	3972	13547	6774	2201

Assumptions / Methodology

1. Well production (demand) for WY 2016-2018 is estimated.
2. Net Groundwater Withdrawl must be less than the Reasonable Groundwater Supply Yield to have a sufficient confidence level for supply.
3. Based on 30-year historic water table levels, water table has decreased approximately 1 foot per year over that period, it's anticipated that pumps could operate at maximum capacity over the next three consecutive years without water table receeding such that pumping is effected.
4. Reasonable Groundwater Supply Yield (50% of maximum yield) consistently exceeds Net Groundwater Widthdrawl over a six year period which, coupled with groundwater recharge efforts provide a confidence level supply is sufficient to meet demands over this period.
5. Precipitation data taken from http://cdec.water.ca.gov/cgi-progs/prevprecip/PRECIPOUT (Fresno)-progs/prevprecip/PRECIPOUT
6. Groundwater pump capacities and well production data obtained from Kingsburg Water Department.
7. **Round Groundwater Supply Yield down to 2,000 MG for water conservation determination calculations.**