

Appendix C CUMULATIVE GROWTH CALCULATIONS



Description	SFR (d.u.)	MFR (d.u.)	Retail (s.f.)	Office (s.f.)	Industrial (s.f.)	Schools (s.f.)	Parks (acres)
S. of Pico Canyon/W. of The Old Road	74		83,000	221,000			
Facey Medical Building				79,000			
Stevenson Ranch Phase III	94	667					5
Valencia Town Center Expansion			600,000				
S. of Pico Canyon/W. of Stevenson							18
Whittaker Bermmite	1,244	1,667	1,455,500	1,455,500			
Westridge	254	458				300,000	5
N. Valencia Blvd/E. The Old Road			20,000				
S. Valencia Blvd/E. The Old Road				72,000			
N. McBean Pkwy/W. Rockwell Canyon				250,000			
W. Valencia Blvd/W. Rockwell Canyon				28,000			
Gate-King Industrial Park					4,200,000		
TT 20838		168					
TT 53074	24		100,000				
TT 52355	63						
TT 61811	167						
Valle do Oro Residential		111					
TT 52414	498		618,759			300,000	
TT 47787	7						
TT 47785	20						
Las Lomas	2,000	3,800	225,000	2,300,000		250,000	
<i>Proposed Project</i>				583,619			
TOTAL	4,445	6,871	3,102,259	4,989,119	4,200,000	850,000	28
Growth Factor	3.081	3.081	0.00182	0.00182	0.00208	0.00182	N/A
Population	13,695	21,170	5,639	9,069	8,735	1,545	0

TOTAL POPULATION GROWTH	59,853
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Note: The population growth factor assumes 3.081 persons per household on average. Housing units are multiplied by 3.081 to yield population growth, while employment-generating uses are multiplied by an employment factor to yield employment growth, then it is assumed (conservatively) that 25% of new employees would relocate to the area. Assuming 1/4 of new employees (and their families) move to the area and require housing, the resultant population growth would be new employees multiplied by 3.081 for each respective housing unit required to house each new employee. Employment factors are 2.36 employees per 1,000 square feet for commercial and school uses, and 2.70 employees per 1,000 square feet for industrial uses. (Per SCAG 2003)

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<i>Proposed Project</i>				583,619			
TOTAL	4,445	6,871	3,102,259	4,989,119	4,200,000	850,000	28
Growth Factor	N/A	N/A	0.00236	0.00236	0.00270	0.00236	N/A
Employment	0	0	7,321	11,774	11,340	2,006	0

TOTAL EMPLOYMENT GROWTH	32,442
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Note: Employment growth factors are 2.36 employees per 1,000 square feet for commercial and school uses and 2.70 employees per 1,000 square feet for industrial uses (per SCAG 2003).

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<i>Proposed Project</i>				583,619			
TOTAL	4,445	6,871	3,102,259	4,989,119	4,200,000	850,000	28
Growth Factor	N/A	N/A	0.00059	0.00059	0.00068	0.00059	N/A
Housing	4,445	6,871	1,830	2,944	2,835	502	0

TOTAL HOUSING GROWTH	19,426
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Note: Housing growth factors are equal to the projected employment generated by uses multiplied by 0.25 (25%), which assumes that 1/4 of employees would relocate to the project vicinity and require housing. Commercial and school factor is 2.36 employees per 1,000 square feet, while the industrial factor is 2.70 employees per 1,000 square feet (per SCAG 2003).

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TOTAL	4,445	6,871	3,102,259	4,989,119	4,200,000	850,000	28
Consumption Factor ^c	6,665.0	4,011.5	2.9	2.0	2.416	2.0	N/A
Monthly Natural Gas Consumption (kcf)	29,625,925.0	27,563,016.5	8,996,551.1	9,978,238.0	10,147,200.0	1,700,000.0	0.0
Total Monthly Natural Gas Consumption (kcf)							88,010.9

Notes:

- a) The consumption factor for industrial uses is cubic feet per gas meter per month. This analysis assumes 100,000 square feet of industrial space per meter.
- b) No factor exists for school uses. As such, the office factor was applied.
- c) Consumption factors are in cubic feet per month and are from the South Coast Air Quality Management District's *CEQA Air Quality Handbook* (1993), Table A9-12-A.

cf = cubic feet kcf = thousand cubic feet

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<i>Proposed Project</i>				583,619			
TOTAL	4,445	6,871	3,102,259	4,989,119	4,200,000	850,000	28
Consumption Factor ^c	5,626.5	5,626.5	13.55	12.95	10.50	11.55	N/A
Annual Electricity Consumption (kWh)	25,009,792.50	38,659,681.50	42,035,609.45	64,609,091.05	44,100,000.00	9,817,500.00	0.00

Total Annual Cumulative Electricity Consumption (MWh)	224,231.67
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Notes:

- a) Because no consumption factor exists for industrial uses, the Miscellaneous factor was applied.
- b) Schools include both elementary school and college/university uses. As such, the more conservative college/university factor was applied.
- c) Consumption factors are in kilowatt-hours per dwelling unit or square foot, as applicable, and are from the South Coast Air Quality Management District's CEQA Air Quality Handbook (1993), Table A9-11-A.

kWh = kilowatt-hours MWh = megawatt-hours

Description	SFR (d.u.) ^a	MFR (d.u.) ^b	Retail (s.f.)	Office (s.f.)	Industrial (s.f.)	Schools (s.f.)	Parks (acres)
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<i>Proposed Project</i>				583,619			
TOTAL	4,445	6,871	3,102,259	4,989,119	4,200,000	850,000	28
Impact Fee Factor ^c	\$775	\$310	\$0.3877	\$0.3877	\$0.3877	\$0.3877	\$0.3877
Fire Impact Fees	\$3,446,653	\$2,131,109	\$1,202,746	\$1,934,281	\$1,628,340	\$329,545	\$0

Total Fire Impact Fees	\$10,672,675
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Notes:

- a) Single-family homes are assumed to be 2,000 square feet on average.
- b) Multi-family homes are assumed to be 800 square feet on average.
- c) Fees for fire service impacts are \$0.38776 per square foot of new development for all land uses.

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<i>Proposed Project</i>				583,619			
TOTAL	4,445	6,871	3,102,259	4,989,119	4,200,000	850,000	28
Growth Factor (tpd)	0.005	0.0032	0.000023	0.00003	0.000031	0.0000036	N/A
Solid Waste (tpd)	22.23	21.99	71.35	149.67	130.20	3.06	0.00

TOTAL DAILY SOLID WASTE GENERATION (tpd)	398
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Notes: Generation factors are in tons per day per dwelling unit or square foot, as appropriate, and are derived from the California Integrated Waste Management Board website. (<http://www.ciwmb.ca.gov/WasteChar/WasteGenRates/default.htm>)

tpd = tons per day

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<i>Proposed Project</i>				583,619			
TOTAL	4,445	6,871	3,102,259	4,989,119	4,200,000	850,000	28
Impact Fee Factor ^d	\$665.00	\$665.00	N/A	N/A	N/A	N/A	N/A
Library Impact Fee	\$2,955,925.00	\$4,569,215.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00

Total Library Impact Fees	\$7,525,140.00
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Notes:

a) Fees for library facilities and materials impacts is \$665 per new residential dwelling unit.

Description	SFR (d.u.) ^a	MFR (d.u.) ^b	Retail (s.f.) ^c	Office (s.f.) ^d	Industrial (s.f.) ^e	Schools (s.f.) ^f	Parks (acres) ^g
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Acreage	2,020.45	624.64	189.91	91.63	142.84	19.51	28.00
Generation Factor (cfs/acre)	0.0015	0.012	0.015	0.015	0.021	0.015	0.0002
Peak Wastewater Generation (gpm)^g	1,360.26	3,364.28	1,278.60	616.88	1,346.36	131.37	2.51
Total Daily Peak Wastewater Generation (gpd)^h							11,664,369
Total Daily Peak Wastewater Generation (mgd)							11.66

Notes:

- a) Single-family homes were assumed to be zoned Residential Low Density at 2.2 dwelling units per acre.
- b) Multi-family homes were assumed to be zoned Residential Moderate at 11 dwelling units per acre.
- c) Retail uses were assumed to be zoned commercial with a Floor-Area Ratio of 0.375:1.
- d) Office uses were assumed to be zoned Commercial Office with a Floor-Area Ratio of 1.25:1
- e) Industrial uses were assumed to be zoned Industrial with a Floor-Area Ratio of 0.675:1.
- f) School uses are assumed to be comparable to Office uses in terms of wastewater generation. Office factor was used.
- g) Peak wastewater generation (gpm) is calculated by multiplying the acreage by the factor (for cfs), multiplied by 60 seconds per minute, then 7.480519 gallons per cubic foot.
- h) Daily generation is calculated by multiplying peak generation (gpm) by 60 minutes per hour, then 24 hours per day to yield gallons per day.

cfs = cubic feet per second gpm = gallons per minute gpd = gallons per day mgd = million gallons per day d.u. = dwelling unit s.f. = square foot

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<i>Proposed Project</i>				583,619			
TOTAL	4,445	6,871	3,102,259	4,989,119	4,200,000	850,000	28
Acreage	N/A	N/A	190	92	143	850,000	28
Consumption Factor (AFY)	0.9	0.4	4.0	4.0	4.0	4.0	5.5
Annual Water Consumption (AFY)	4,001	2,748	760	367	571	3,400,000	154

TOTAL WATER CONSUMPTION (AFY)	3,408,600
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Notes:

- a) Retail uses were assumed to be zoned commercial with a Floor-Area Ratio of 0.375:1.
- b) Office uses were assumed to be zoned Commercial Office with a Floor-Area Ratio of 1.25:1
- c) Industrial uses were assumed to be zoned Industrial with a Floor-Area Ratio of 0.675:1.
- d) Because open space is assumed to consume no water, only park-related consumption is calculated.
- e) Consumption factors provided by Newhall County Water District, which are more conservative than those of Valencia Water Company. Factors were provided for Single-family residential, Multi-family residential, commercial retail, and parks. Commercial factor was used for retail, office, industrial, and school uses.
- f) Water consumption is calculated by multiplying the dwelling units or acreage, as appropriate, by the annual consumption factor.

d.u. = dwelling units s.f. = square feet AFY = acre-feet per year