

BCC INFORMATIONAL REPORT - SEPTEMBER 5, 2007

(Harry Krug and Les Fife)

California is a magnet for people looking for new opportunities and has experienced one of the fastest rates of population growth and land use change in the United States. The scale and pattern of population growth will continue to present a major challenge to the protection of California's varied biodiversity and air quality. To assess the potential impacts of future population, FRAP reviewed existing regional and local population patterns and used some simple rules to allocate new residents across the landscape.

County population patterns and future estimates from the Demographic Research Unit of the California State Department of Finance are aggregated into 10 different regions to illustrate recent trends and the potential long-term population changes. The economic recession during the mid-1990s and the subsequent rebound demonstrates the close relationship between employment prospects and migration.

Regional growth rates vary widely across the state. The San Joaquin Valley and other inland regions with relatively good transportation access to major metropolitan areas are growing faster than the state as a whole. The Sacramento Valley is the only bioregion following the projected path for the whole state. The population growth for the four coastal regions was slower than the state during the mid-1990s, and these regions are projected to continue to grow at a slower rate for a number of different reasons. The San Francisco Bay Area and Southern California, the two most densely populated regions in the state, have relatively little land left in which to expand. The Central Coast and the North Coast have considerable potentially developable land but have few existing urban centers or strong transportation networks to support rapid regional economic growth compared to the total size of the regions.

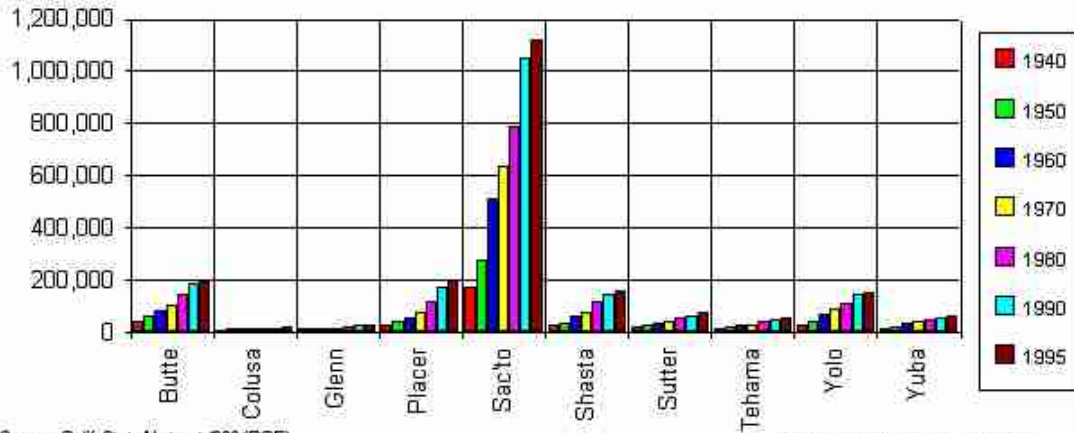
The land use impacts of these increases in population will be accommodated by the expansion of existing residential areas according to what is allowed by zoning and what is economically feasible. Without any major changes in land use economics or policies, a reasonable hypothesis is that the distribution of the new population will closely follow existing patterns. In terms of land use, 14 million acres in the state is occupied with widely scattered residences on 1 to 10 acre parcels while only 4 million acres are covered with subdivisions or urban areas. The remaining 82 million acres has little to no residential land use on it. At the county level, California counties can be grouped into four distinct development patterns.

- Orange County represents the 'suburban' type where most land is either in subdivisions or in unpopulated or very lightly populated wildlands.
- Sacramento County illustrates the 'agricultural/metro' pattern of a major metropolitan area expanding onto an agriculturally based economy and landscape.
- Sonoma, Santa Cruz, and El Dorado counties represent a third pattern where a large fraction of the total landscape already has many homes scattered among wildlands and in the intermix area between urban areas and the wildlands.

- Finally, land use in many counties in California, especially those with a large fraction of federal ownership, remains overwhelmingly wildland or agriculture.

Land use impacts related to future population growth will probably follow these distinct patterns.

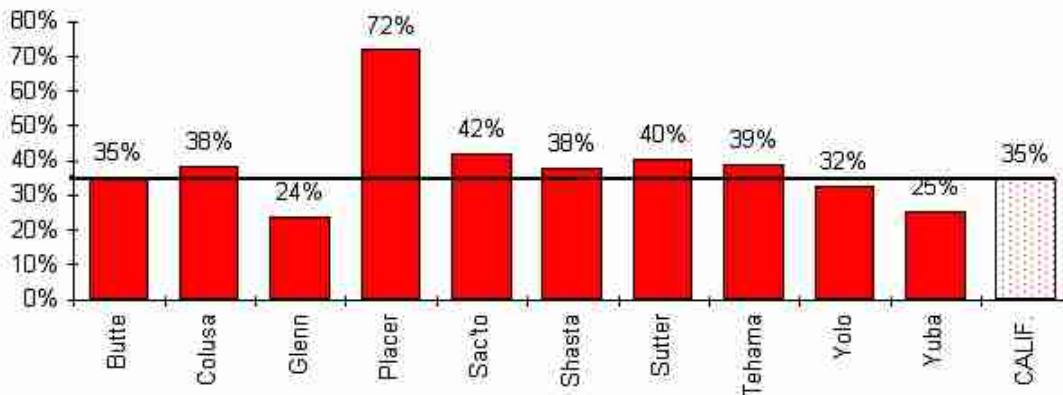
Sacramento Valley counties have grown steadily, 1940-95



Source: Calif. Stat. Abstract 1996 (DOF)

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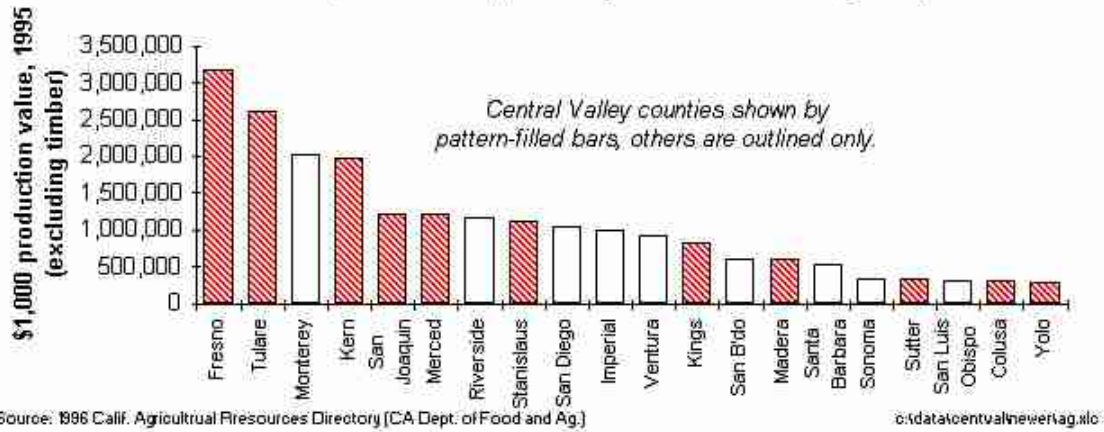
Placer County has outpaced Sacramento Valley counties in percentage of population growth, 1980 to 1995



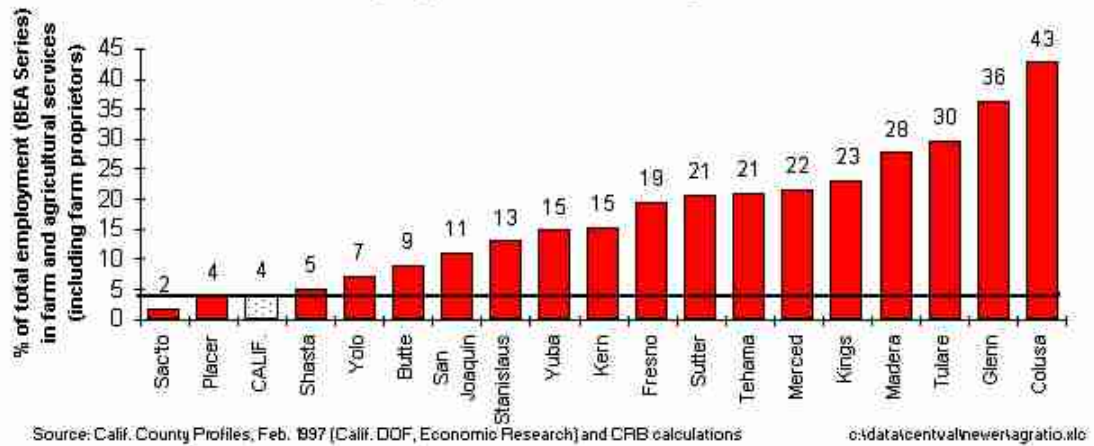
Source: Calif. Stat. Abstract 1996 (DOF) and CRB calculations

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**Eleven of the top 20 agricultural counties in California
are in the Central Valley
(all 8 San Joaquin Valley Counties are among them)**



**Most Central Valley counties have relatively high proportion of
total employment in farm and agricultural sectors**



Population and Census Data

Population

Area	Year	Period	Population Source	Population
Colusa County	2007	Annual	California Dept of Finance	21,951
Sacramento County	2007	Annual	California Dept of Finance	1,406,804

Shasta County	2007	Annual	California Dept of Finance	181,401
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Measures of Income

Area	Year	Period	Income Type	Income
Colusa County	2004	Annual	Per Capita Personal Income - BEA	\$27,701
Colusa County	2004	Annual	Total Personal Income - BEA	\$566,153,000
Sacramento County	2004	Annual	Per Capita Personal Income - BEA	\$31,987
Sacramento County	2004	Annual	Total Personal Income - BEA	\$43,228,715,000
Shasta County	2004	Annual	Per Capita Personal Income - BEA	\$27,416
Shasta County	2004	Annual	Total Personal Income - BEA	\$4,875,285,000

Area	Year - May	Labor Force	No. of Employed	Unemployment	Rate %
Colusa County	2007	8,850	7,830	1,020	11.5
Sacramento County	2007	693,900	659,800	34,100	4.9
Shasta County	2007	85,200	79,400	5,800	6.8

COLUSA COUNTY

CES Industry	Year	Period	No. of Employed
Total Wage and Salary	2007	May	6,950
Total Nonfarm	2007	May	5,490
Service Providing	2007	May	4,770
Total Private	2007	May	3,230
Residual-Private Services Providing	2007	May	2,510

SACRAMENTO MSA

CES Industry	Year	Period	No. of Employed
Total Wage and Salary	2007	May	929,300
Total Nonfarm	2007	May	919,500
Service Providing	2007	May	799,800
Total Private	2007	May	681,000
Residual-Private Services Providing	2007	May	561,300

SHASTA COUNTY

CES Industry	Year	Period	No. of Employed
Total Wage and Salary	2007	May	67,800
Total Nonfarm	2007	May	67,100
Service Providing	2007	May	58,000
Total Private	2007	May	53,800
Residual-Private Services Providing	2007	May	44,700

Taxable Sales (Calif. Board of Equalization)

Retail

Area	Year	Period	Sales
Colusa County	2005	Annual	\$259,517,000
Sacramento County	2005	Annual	\$21,266,500,000
Shasta County	2005	Annual	\$2,802,937,000

District	Base Fee	# of Permits (2007)	\$5/permit (2007)	# of Permits (2006)
Butte	\$ 1,000.00	1345	\$ 6,725.00	1382
Colusa	\$ 1,000.00	391	\$ 1,955.00	391
Feather River	\$ 1,000.00	1647	\$ 8,235.00	1517
Glenn	\$ 1,000.00	763	\$ 3,815.00	763
Placer	\$ 1,000.00	589	\$ 2,945.00	528
Sacramento	\$ 1,000.00	2187	\$ 10,935.00	2042
Shasta	\$ 1,000.00	627	\$ 3,135.00	445
Tehama	\$ 1,000.00	588	\$ 2,940.00	565
Yolo/Solano	\$ 1,000.00	1230	\$ 6,150.00	1110

Ozone Trends Summary: Sacramento Valley Air Basin

FAQs

Year	Days > Standard		1-Hour Observations		8-Hour Averages		EPDC	Year Coverage	
	1-Hour		Maximum	3-Year 4th High	Maximum	3-Year Average 4th High			
	State	Nat'l							8-Hour Nat'l
2006	44	7	39	0.143	0.131	0.114	0.097	0.130	—
2005	33	3	25	0.134	0.129	0.117	0.097	0.132	100
2004	29	1	20	0.131	0.138	0.101	0.097	0.134	100
2003	51	5	40	0.140	0.138	0.118	0.100	0.137	99
2002	46	7	34	0.139	0.132	0.120	0.101	0.135	100
2001	44	2	37	0.142	0.133	0.108	0.101	0.138	100
2000	41	5	35	0.138	0.148	0.108	0.105	0.153	100
1999	59	7	43	0.160	0.148	0.129	0.101	0.155	100
1998	62	14	60	0.160	0.148	0.137	0.097	0.161	100
1997	25	3	15	0.143	0.133	0.107	0.097	0.141	100
1996	58	9	44	0.157	0.145	0.126	0.106	0.154	99
1995	50	11	40	0.156	0.145	0.128	0.106	0.149	100
1994	60	9	48	0.145	0.143	0.121	0.104	0.148	100
1993	34	7	22	0.150	0.150	0.120	0.110	0.159	100
1992	74	14	56	0.170	0.150	0.122	0.105	0.158	99
1991	68	14	60	0.190	0.150	0.140	0.105	0.153	99
1990	50	16	44	0.150	0.160	0.127	0.107	0.162	100
1989	68	8	37	0.170	0.160	0.133	0.114	0.166	99
1988	98	35	68	0.180	0.160	0.130	0.114	0.171	100
1987	94	24	73	0.180	0.160	0.127	0.114	0.168	99
1986	66	24	50	0.170	0.180	0.125	0.118	0.173	99
1985	59	19	42	0.200	0.180	0.161	0.118	0.173	100
1984	64	23	46	0.210	0.180	0.138	0.115	0.162	99
1983	62	15	44	0.170	0.160	0.125	0.114	0.163	99
1982	66	17	46	0.160	0.160	0.133	0.112	0.174	99
1981	78	22	63	0.180	0.170	0.142	0.115	0.181	100
1980	73	19	62	0.180	0.190	0.132	0.122	0.212	99

PM10 Trends Summary: Sacramento Valley Air Basin

FAQs

Year	Est. Days > Std.		Annual Average		3-Year Average		High 24-Hr Average		EPDC	Year Coverage
	Nat'l	State	Nat'l	State	Nat'l	State	Nat'l	State		
2006	1.0	53.4	37.8	28.8	28	35	159.6	111.0	140.1	—
2005	0.0	42.4	27.2	27.9	26	35	110.0	109.0	140.6	100
2004	1.0	79.5	34.5	35.2	27	35	169.0	171.0	147.9	100
2003	0.0	30.7	28.4	28.8	29	32	89.0	123.0	101.8	100
2002	0.0	41.0	30.9	31.8	30	32	144.8	96.0	114.5	100
2001	0.0	50.0	30.2	30.5	32	39	122.7	112.0	145.8	100
2000	0.0	42.8	27.9	27.9	30	39	109.3	90.0	127.3	100
1999	4.8	63.8	38.4	39.4	30	39	274.9	179.0	*	100
1998	0.0	59.7	29.0	29.9	28	30	130.0	130.0	70.0	100
1997	0.0	21.6	28.6	28.8	31	30	126.0	126.0	136.6	100
1996	0.0	44.0	32.6	29.9	28	33	98.0	98.0	128.7	100
1995	3.1	57.2	40.7	29.9	30	33	287.2	145.0	134.9	100
1994	1.4	36.1	34.5	33.3	33	35	204.4	154.0	108.2	100
1993	0.0	62.7	36.9	31.2	35	39	113.0	113.0	130.0	100
1992	0.0	70.4	42.3	35.2	37	39	111.0	111.0	141.6	100
1991	0.0	104.0	46.4	39.2	33	42	136.0	136.0	165.6	100
1990	0.0	73.9	51.9	38.5	*	42	153.0	153.0	*	100
1989	0.0	81.5	46.0	41.9	*	42	147.0	147.0	*	98
1988	*	*	51.2	*	*	*	100.0	100.0	*	73
1987	*	*	38.2	*	*	*	97.0	97.0	*	37

SUBCATEGORY 1980 & 2005	ROG	CO	NOX	SOX	PM10	ROG	CO	NOX	SOX	PM10
ELECTRIC UTILITIES	0	0	0	0	0	0.28	8.22	2.99	0.38	0.62
COGENERATION	0	0	0.01	0	0	0.12	9.09	2.17	0.05	0.48
OIL AND GAS PRODUCTION (COMBUSTION)	0.38	0.66	2.15	0	0	0.81	2.62	4.54	0.01	0.01
MANUFACTURING AND INDUSTRIAL	2.84	8.45	13.48	2.25	2.5	0.82	9.49	6.17	0.39	1.03
FOOD AND AGRICULTURAL PROCESSING	0.78	1.91	9.17	0.1	0.69	0.76	1.71	6.49	0.08	0.54
SERVICE AND COMMERCIAL	0.15	1.1	2.52	0.08	0.13	0.63	3.64	7.19	0.11	0.36
OTHER (FUEL COMBUSTION)	0.06	0.19	0.62	0.02	0.04	0.19	1.03	2.69	0.06	0.13
SEWAGE TREATMENT	0	0	0	0	0	0.04	0.07	0.01	0.02	0
LANDFILLS	0.08	0	0	0	0	0.35	0.05	0.04	0.01	0.01
INCINERATORS	0.02	1.25	0.02	0	0.07	0.03	0.01	0.02	0	0.5
OTHER (WASTE DISPOSAL)	0.17	11.76	0.14	0.02	0.52	0.01	0	0	0	0.01
LAUNDERING	0.97	0	0	0	0	0.07	0	0	0	0

DEGREASING	3.88	0	0	0	0	3.08	0	0	0	0
COATINGS AND RELATED PROCESS SOLVENTS	8.95	0	0	0	0	10.76	0	0.01	0	0.03
PRINTING	2.15	0	0	0	0	1.16	0.18	0.01	0	0
ADHESIVES AND SEALANTS	0.68	0	0	0	0	1.03	0	0	0	0
OTHER (CLEANING AND SURFACE COATINGS)	0.41	0	0	0	0	0.13	0	0	0	0
OIL AND GAS PRODUCTION	6.53	0.28	2.21	0	0	6.24	0.4	2.24	0	0
PETROLEUM MARKETING	32.17	0	0	0	0	8.27	0.14	0.09	0	0
OTHER (PETROLEUM PRODUCTION AND MARKETING)	0.87	0	0	0	0	0.01	0	0	0	0
CHEMICAL	0.73	0.17	0.43	0	0.21	2.18	0.28	0.13	0	0.13
FOOD AND AGRICULTURE	0.45	0	0	0	6.03	0.77	0.01	0.03	0.03	4.52
MINERAL PROCESSES	0.26	1.36	0.24	0.18	2.76	1.18	10.84	2.42	0.34	5.32
METAL PROCESSES	0	0	0	0	0.01	0	0	0	0	0.01
WOOD AND PAPER	0.91	1.07	0.52	0.99	5.4	0.89	0.09	0.13	0	4.92
OTHER (INDUSTRIAL PROCESSES)	0.16	0	0.03	0	0.03	0.04	0.18	0.14	0	0.24
CONSUMER PRODUCTS	17.91	0	0	0	0	18.6	0	0	0	0
ARCHITECTURAL COATINGS AND RELATED PROCESS SOLVENTS	8.95	0	0	0	0	6.93	0	0	0	0
PESTICIDES/FERTILIZERS	7.81	0	0	0	0	5.27	0	0	0	0
ASPHALT PAVING / ROOFING	6.49	0	0	0	0	6.67	0	0	0	0.01
RESIDENTIAL FUEL COMBUSTION	7.78	117.53	6	0.45	17.17	9.45	141.55	6.59	0.49	20.81
FARMING OPERATIONS	8.33	0	0	0	41.17	7.72	0	0	0	35.81
CONSTRUCTION AND DEMOLITION	0	0	0	0	11.57	0	0	0	0	23.76
PAVED ROAD DUST	0	0	0	0	17.17	0	0	0	0	36.28
UNPAVED ROAD DUST	0	0	0	0	59.65	0	0	0	0	55.96
FUGITIVE WINDBLOWN DUST	0	0	0	0	12.12	0	0	0	0	10.34
FIRES	0.04	0.51	0.01	0	0.06	0.05	0.74	0.02	0	0.1
MANAGED BURNING AND DISPOSAL	8.93	147.08	2.8	0.36	13.63	8.58	141.98	2.59	0.35	13.06
COOKING	0.1	0	0	0	0.53	0.21	0	0	0	1.09
OTHER (MISCELLANEOUS PROCESSES)	0	0	0	0	0	0	0	0	0	0
LIGHT DUTY PASSENGER	143.32	1095.57	79.67	2.17	0.83	24.15	211.16	18.9	0.13	1.09

(LDA)											
LIGHT DUTY TRUCKS - 1 (LDT1)	46.9	431.39	28.71	0.71	0.25	13.19	129	11.23	0.07	0.44	
LIGHT DUTY TRUCKS - 2 (LDT2)	28.01	325.88	22.54	0.56	0.21	8.71	87.06	10.74	0.05	0.45	
MEDIUM DUTY TRUCKS (MDV)	4.28	51.86	3.44	0.08	0.02	4.32	42.45	5.89	0.03	0.19	
LIGHT HEAVY DUTY GAS TRUCKS - 1 (LHDV1)	10.04	92.62	1.91	0.13	0.02	1.31	8.74	1.26	0.01	0.03	
LIGHT HEAVY DUTY GAS TRUCKS - 2 (LHDV2)	1.36	23.04	0.88	0.03	0	0.34	2.46	0.35	0	0	
MEDIUM HEAVY DUTY GAS TRUCKS (MHDV)	13.36	139.3	3.86	0.14	0.02	2.84	21.74	1.86	0	0.01	
HEAVY HEAVY DUTY GAS TRUCKS (HHDV)	6.25	129.64	5.8	0.08	0.01	2.03	28.03	3.17	0	0	
LIGHT HEAVY DUTY DIESEL TRUCKS - 1 (LHDV1)	0.01	0.04	0.16	0.04	0.01	0.1	0.34	1.74	0.01	0.02	
LIGHT HEAVY DUTY DIESEL TRUCKS - 2 (LHDV2)	0	0.01	0.06	0.01	0	0.07	0.21	1.01	0.01	0.02	
MEDIUM HEAVY DUTY DIESEL TRUCKS (MHDV)	0.05	0.44	2.98	0.36	0.12	0.31	2.14	11.13	0.13	0.34	
HEAVY HEAVY DUTY DIESEL TRUCKS (HHDV)	2.42	10.65	40.27	4.8	2	1.7	7.55	40.22	0.5	0.95	
MOTORCYCLES (MCY)	6.9	39.09	0.56	0.02	0.03	1.57	11.99	0.34	0	0.01	
HEAVY DUTY DIESEL URBAN BUSES (UB)	0.04	0.23	1.13	0.19	0.02	0.1	0.42	2.12	0.03	0.04	
HEAVY DUTY GAS URBAN BUSES (UB)	0.93	18.78	0.48	0.02	0	0.37	4.69	0.45	0	0	
SCHOOL BUSES (SB)	0.55	9.12	0.47	0.04	0.01	0.16	2.21	1.17	0.01	0.04	
MOTOR HOMES (MH)	0.73	20.86	0.8	0.03	0	0.58	16.15	1.49	0	0.02	
AIRCRAFT	4.41	23.47	2.59	0.22	0.24	3.46	21.77	3.19	0.31	0.21	
TRAINS	1.04	3.27	26.28	1.71	0.61	1.1	4.03	23.46	2.3	0.68	
SHIPS AND COMMERCIAL BOATS	0.16	0.35	1.71	0.12	0.1	0.2	0.45	2.15	0.15	0.11	
RECREATIONAL BOATS	7.14	45.27	1.38	0.25	0.33	13.37	87.65	4.14	0.06	1.25	
OFF-ROAD RECREATIONAL VEHICLES	2.51	11.61	0.17	0.02	0.01	4.5	23.26	0.53	0.02	0.03	
OFF-ROAD EQUIPMENT	16.73	132.33	41.59	3.37	3.11	12.07	113.45	33.04	0.07	2.49	
FARM EQUIPMENT	6.22	44.3	52.64	4.6	3.73	3.07	22.39	22.63	0.18	1.51	
FUEL STORAGE AND HANDLING	4.47	0	0	0	0	2.3	0	0	0	0	