

Table 9F Inventory of Puna Subdivisions

Subdivision (Year approved)	Tax Map Keys	# Lots	Lot size	Total Acres	Approx. Land Use	County Zoning	Road Status	Water Status	Disaster Hazards	Miles to Services	Telephone	Electrical
Hawaiian Orchid Island Estates (1958)	1-1-2,3,43,46-51,53-56	205	3 ac. + -	700	Ag	A-1a	PA TF	Catch	LF3 e	3.5 - Volcano	some	some
Mauna Loa Estates (1960-68)	1-1-6 to 12	893	20,000 sf	550	Urban	RS-20	PAdues	Catch	LF3 e	.5 - Volcano	some	some
Royal Hawaiian Estates (1959)	1-1-13-19,43-53,56	1,640	.25-5 ac.	630	Ag	A-1a	County	Catch	LF3 e	2.5 - Volcano	some	some
Ohia Estates (1960)	1-1-60 to 64	756	.25-.3 ac.	280	Urban	RS-10	County	Catch	LF3 e	1.5 - Volcano	some	some
Fern Forest (1958)	1-1-20 to 34	2,579	3 ac.	9,000	Ag	A-3a	PAdues	Catch	LF3 e	6+ - Mt. View	some	some
Fern Acres [Crescent] (1958)	1-1-35 to 42	2,021	2 ac.	4,000	Ag	A-3a*	PAdues	Catch	LF3 e	4+ - Mt. View	some	some
Eden Rock Estates (1960)	1-1-72 to 98	1,809	1 ac.	2,000	Ag	A-1a	PAdues	Catch	LF3 e	5+ - Mt. View	some	some
Royal Gardens (1973)	1-1-66 to 71, 102 to 118,1617	1,827	1 ac.	1,827	Ag?	A-1a		Catch	LF2 gone no access		some	none
Kehena Beach Estates (1964)	1-2-30,31	199	.25-3 ac.	52	Ag*	A-1a*	County	Catch	LF2 ES	10+ -Pahoa	some	none
Pac. Par. Ocean Front (1963)	1-2-28,29	142	.20-3 ac.	38	Con?*	RS?*			LF2 gone no access			
Kalapana Shores (?)	1-2-part of 17	44	.25 ac.	15	Urban?	RA-.5*			LF2 gone no access			
Puna Beach Palisades (1973)	1-2-33 all	72	20,000 sf	36	Ag*	Ag-1a*	County	Catch	LF2 ES	10+ -Pahoa	some	none
Kalapana Gardens (1960)	1-2-11 to 16	738	<.20 ac.	158	Urban?	RS 7.5			LF2 gone no access			
Kalapana Black Sand (1962)	1-2-19 to 27	918	7,750 sf	202	Ag*	A-1a*	PA	Catch	LF2 ES	2.5 -Pahoa	all?	some
Kalapana Seaview Est. (1971)	1-2-34 to 41	693	<.25 ac.	166	Ag*	A-3a	County	Catch	LF2 ES	8+ -Pahoa	some	none
Leilani Estates (1960)	1-3-11 to 44	2,266	1 ac.	2,400	Ag	A-1a	PA dues	Catch	LF1 ES	2.5+ -Pahoa	all	all
Lani Puna Gardens (1973)	1-3-45 all	118	1 ac.	130	Ag	A-1a	County	Catch	LF1 ES	3 -Pahoa	some	some
Waa Waa (1958)	1-4-28 all	177	3-3.5 ac.	527	Ag*	A-3a*	P vol	Catch	LF2 es	4 -Hawn Bch.	none	none
Nanawale Estates (1960)	1-4-29-33,74-77,79-89	4,289	.25-4ac.	1,134	Ur/Ag	RS10/A1 Cty & P		P/Catch	LF2 e	1+ -Pahoa	all?	some
Hawaiian Holidays Estates (1959)	1-4-35 to 44	94	3.89 ac.	366	Ag	A-5a	Private	Catch	LF2 e	2 -Pahoa	all?	some
Kanihuku Village (?)	1-4-34 all	36	5-3 ac.	28	Urban	RS-15	County	County	LF2 e	2 -Pahoa	all	all
Kapoho Beach Lots (1954)	1-4-10,11,25 & 26	185	.25-1.2ac.	50	Ur/Ag	RS10/A1 PAdues		P/Catch	LF1 EST	8 -Pahoa	all?	some
Vacationland I & II (1963)	1-4-71 & 72	298	.20-3.2ac.	497	Ur/Ag	RS10/A1 P/suit		P/Catch	LF1 EST	9 -Pahoa	all	some
Vacationland III (1965)	1-4-2,7,27,68,69 & 70	191	2-.25ac.	60	Urban	RS 10	P/suit	Catch	LF1 EST	9 -Pahoa	all	some
Kapoho Papaya Farm Lots (?)	1-4-78 all	40	3 + ac.	130	Ag	A-3a	Private	County	LF2 E	12-Pahoa	?	none
Hawaiian Paradise Park (1959)	1-5-15 to 62	8,843	1 ac. +/-	9,469	Ag	A-1a	PA dues	Catch	LF3 es	2+ -Keeau/Pah	some	some
Hawaiian Parks (1961)	1-5-63 to 75	973	2-.5 ac.	1,416	Urban	A-1a*	County	Private	LF2 e	within subd.	all	all
Hawaiian Beaches (1961)	1-5-76 to 87	1,017	2-.5 ac.	1,416	Urban	A-1a*	County	Private	LF2 e	near	all	all
Hawaiian Shores (1961)	1-5-88 to 111	1,532	2-.5 ac.	1,325	Urban	A-1a*	County	Private	LF2 e	near	all	some
Kaohoe Homesteads (?)	1-5-01 all	96	3 ac.	1,325	Ag	A-1a	?	Catch	LF2 e	1 -Pahoa	?	none
Tangerine Acres (?)	1-5-part of 115	71	.5 acre	71	Urban	RA-.5a	Private	County	LF2 e	1 -Pahoa	all	all
Orchid Land Estates (1958)	1-6-5 to 12,62,63 & 64	2,491	.5,1-3 ac.	5,670	Ag	A-3a	Pvol/suit	Cat/City	LF3 e	within	most	some
Tiki Gardens (1962)	1-6-part of 4	481	2-.25 ac.	120	Ag*	A-1a*	Private	Catch	LF3 e	1 -OrchidLand	some	some
Analoa (1959)	1-6-65 to 99	3,637	2-.5 ac.	1,160	Ag*	A-1A*	Private	Catch	LF3 e	1 -OrchidLand	all	some
Hawaiian Acres (1958)	1-6-13 to 61	3,944	1.8-3 ac.	12,191	Ag	A-3a*	P vol.	Catch	LF3 e	1+ -MV/Kurtishn	some	some
Mauna Lani Lots (?)	1-7-22 & 25	98	1 ac.	101	Urban	RA-.5a	Private	Catch	LF3 e	2 -Mt. View	some	some
Orchid Isle Estates (1961)	1-8-20 to 35	905	.25-3 ac.	292	Ag*	A-1a*	Private	Catch	LF3 e	3.5 -Mt. View	some	none
Aloha Estates (1961)	1-8-36 to 63	1,846	.25-3 ac.	593	Ag*	A-1a*	Private	Catch	LF3 e	3 -Mt. View	some	some
Pacific Paradise Mt. View Manor (1971)	1-8-78 to 85	606	.25-3 ac.	145	Ag*	A-5a*	Private	Catch	LF3 e	2 -Mt. View	some	some
Glenwood Subdivision (1962)	1-8-73 & 74	152	.25-3 ac.	53	Ag*	A-1a*	Private	Catch	LF3 e	2 -Mt. View	some	some
Pacific Paradise Development (1961)	1-8-64, 65 & 66	209	.20 ac.	49	Ag*	A-5a*	Private	Catch	LF3 e	2.5 -Mt. View	some	some
Hawaii Island Paradise Acres (1960)	1-8-14 to 19	449	.20 ac.	100	Ag*	A-5a*	Private	Catch	LF3 e	2.5 -Mt. View	some	some
Pacific Paradise Gardens (1973)	1-8-69 to 72	423	.20 ac.	95	Ag*	A-5a*	County	County	LF3 e	1.5 -Mt. View	all	all
Cymbidium Acres (1968)	1-9-18 & 19	180	.5-5 ac.	172	Ag*	A-20a*	Private	Catch	LF3 e	1.5 -Volcano	some	some
Hoonanea (?)	1-9-20 all	52	.20 ac.	12	Ag*	A-1a*	County	Catch	LF3 e	1.5 -Volcano	all	all

Italic: Covered by lava

vol/suit=voluntary dues/lawsuit in progress

PA = nonconforming Private Association

e/E=earthquake risk S=subsidence risk T=tsunami risk

Table 9E

Zoning and Use Projection for Puna at Current and Potential Populations

Using Current Island Zoning and Land Use Acres per 1,000 Population as a Model

ZONING	Current:		20,000 people		40,000 people		150,000 people		
	Island or Standard*	Puna	Existing Puna Acreage	Puna needs to meet standard	(Shortage) Excess	Puna needs to meet standard	(Shortage) Excess	Puna need to meet standard	(Shortage) Excess
S F Residential	154	129.00	2,684	3,080	(396)	6,160	(3,476)	23,100	(20,416)
M F Residential Resort	22	0.19	4	440	(436)	880	(876)	3,300	(3,296)
Commercial	11	0.05	1	220	(219)	440	(439)	1,650	(1,649)
Industrial	11	2.84	59	220	(161)	440	(381)	1,650	(1,591)
Agricultural	44	23.05	479	880	(401)	1,760	(1,281)	6,600	(6,121)
Open	8,773	9,566.00	198,795	175,460	23,335	350,920	(152,125)	1,315,950	(1,117,155)
Residential ag	2,661	243.00	5,041	53,220	(48,179)	106,440	(101,399)	399,150	(394,109)
	11	30.00	625	220	405	440	185	1,650	(1,025)
LAND USE									
Residential	174	287.00	5,965	3,480	2,485	6,960	(995)	26,100	(20,135)
Manufacturing	3	0.24	5	60	(55)	120	(115)	450	(445)
Mfg. Serv/Whsate	15	12.00	249	300	(51)	600	(351)	2,250	(2,001)
Commercial	6	1.35	28	120	(92)	240	(212)	900	(872)
Services	272	8.18	170	5,440	(5,270)	10,880	(10,710)	40,800	(40,630)
Social/Cultural	13	6.00	123	260	(137)	520	(397)	1,950	(1,827)
Recreation Land**	5	5.77	120	100	20	200	(80)	750	(630)
Devel. Recreation**	5	3.30	66	100	(34)	200	(134)	750	(684)
Transportation	18	0.67	14	360	(346)	720	(706)	2,700	(2,686)
Roads	55	178.00	3,707	1,100	2,607	2,200	1,507	8,250	(4,543)

Data for existing acreage zoning and uses is taken from 1989 County of Hawaii Data Book.

*The current island standard is based on what is presently in existence on the island as a ratio between acres and 1000 people.

**The recreation standard is based on County standards of five acres developed parkland per 1000 people

POLICE AND FIRE LEVEL OF SERVICE

CHART 7 1999 POLICE OFFICERS PER 1000 PEOPLE

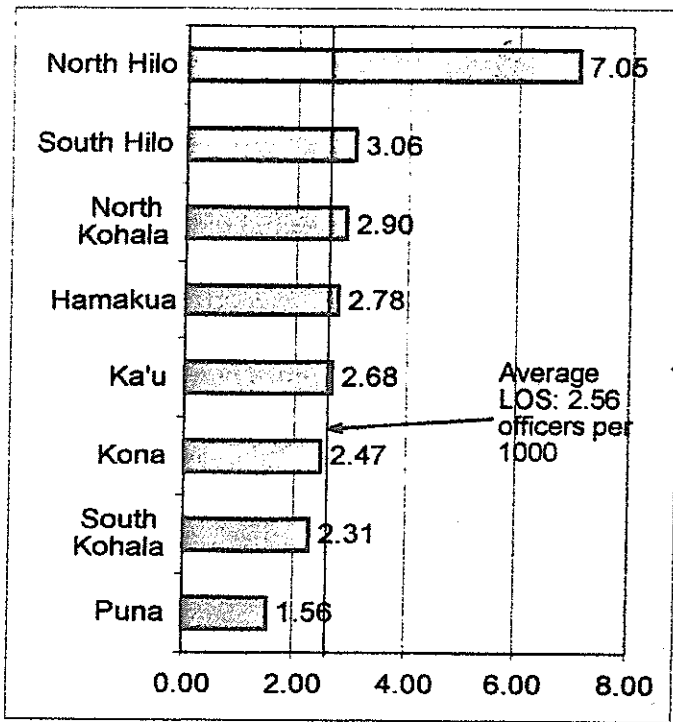
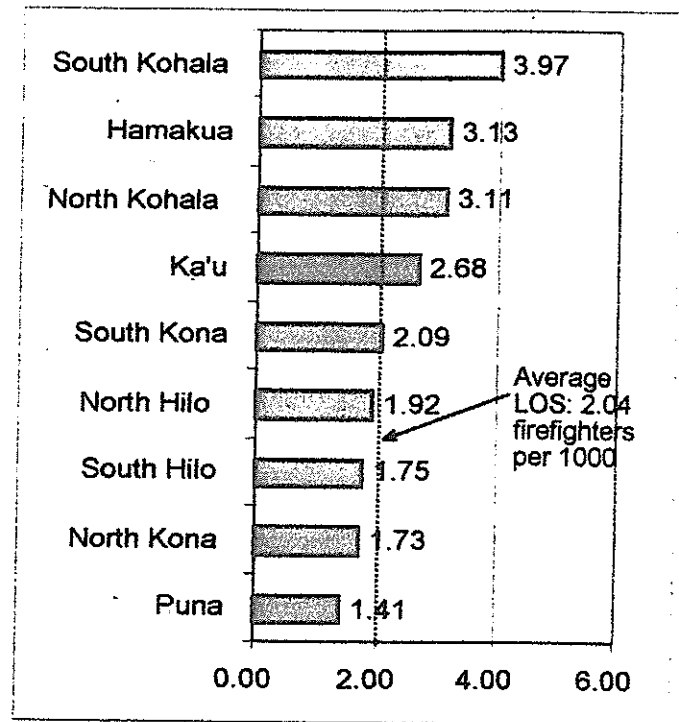


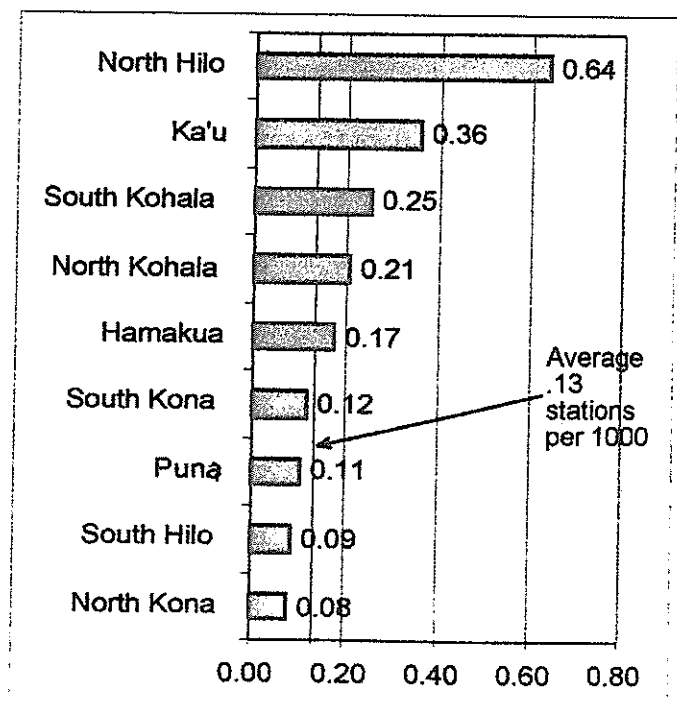
CHART 8 1999 FIREFIGHTERS PER 1000 PEOPLE



Sources:

- Data for population is from the County of Hawaii 1998 Data Book, based on Department of Research and Development estimates for 1995.
- Police officer numbers provided by Police Dept. staff.
- Fire stations and fighters data provided by Fire Dept. staff.

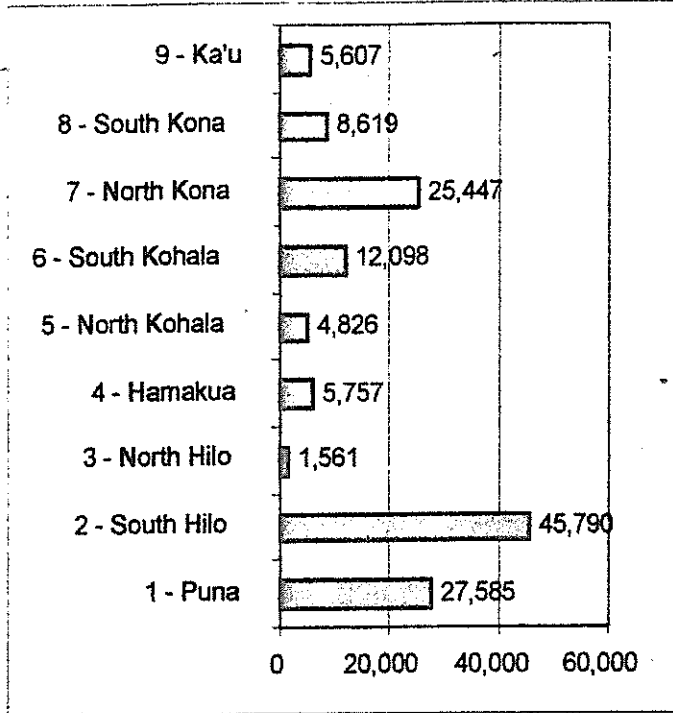
CHART 9 FIRE STATIONS PER 1000 PEOPLE



For complete LOS Study go to <http://www.bonniegoodell.com>

HAWAII COUNTY PARCELS & POPULATION

CHART 1 POPULATION BY DISTRICT 1995



Note: Small-owner subdivisions, many of whom maintain their own annual house counts, believe the 1990 Census and current estimates severely undercount their populations. For example, this estimate assumes approximately 1,000 people, (350± households) in the 13,000 parcels in Ocean View in Ka'u. Yet, by 1996, the housecount had passed 1,000 houses.

CHART 3 BUILD-OUT POPULATION BY DISTRICT AT 3 PEOPLE PER 1999 PARCEL

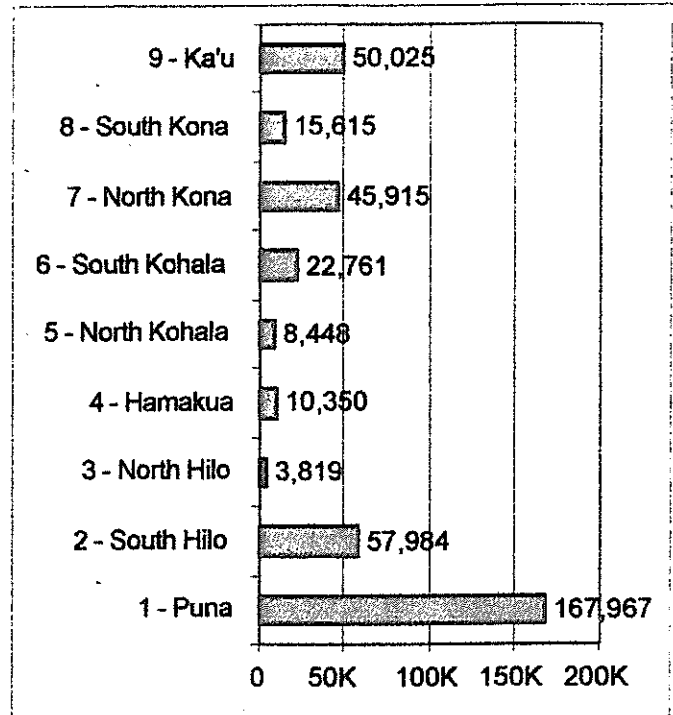
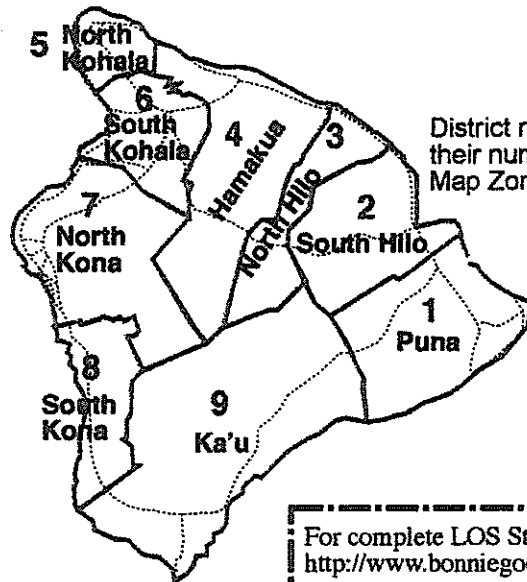
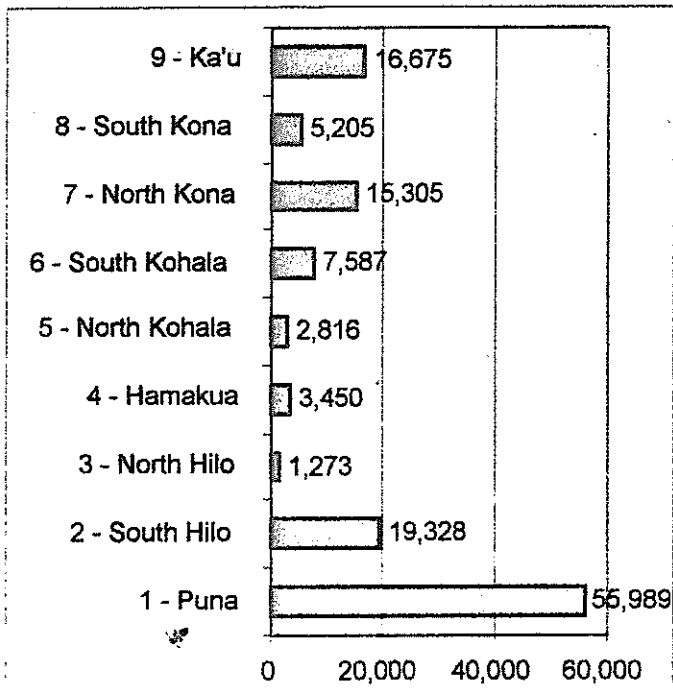


CHART 2: 1999 PARCELS BY DISTRICT



District numbers are their numbers as Tax Map Zones.

For complete LOS Study go to <http://www.bonniegoodell.com>

Sources:

- Data for population is from the County of Hawaii 1998 Data Book, based on Department of Research and Development estimates for 1995.
- Data for parcels is from 1999 parcel count provided by County Tax Administrator
- Build-out population is roughly estimated by multiplying the number of parcels in 1998-99 (provided by County Tax times three.

COUNTY PARKS LEVEL OF SERVICE

CHART 4 1999 ACRES PER 1000 PEOPLE OF MAINTAINED COUNTY PARK

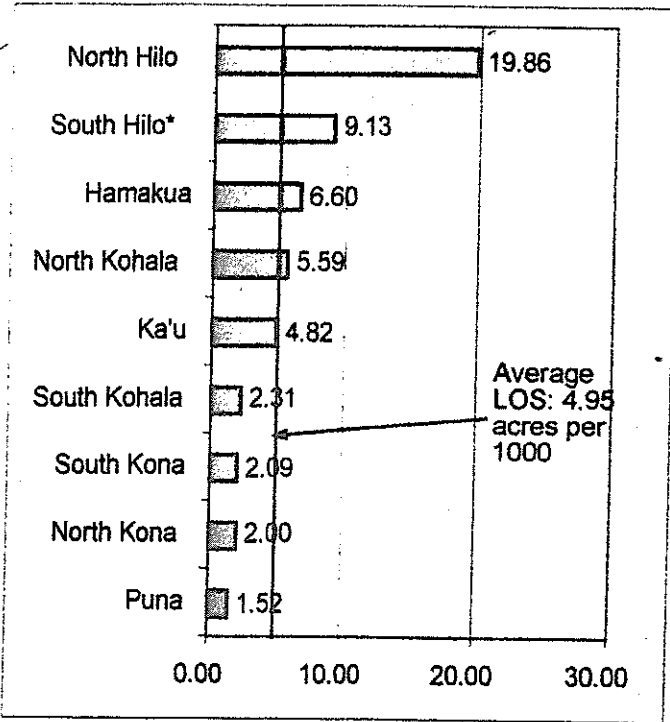
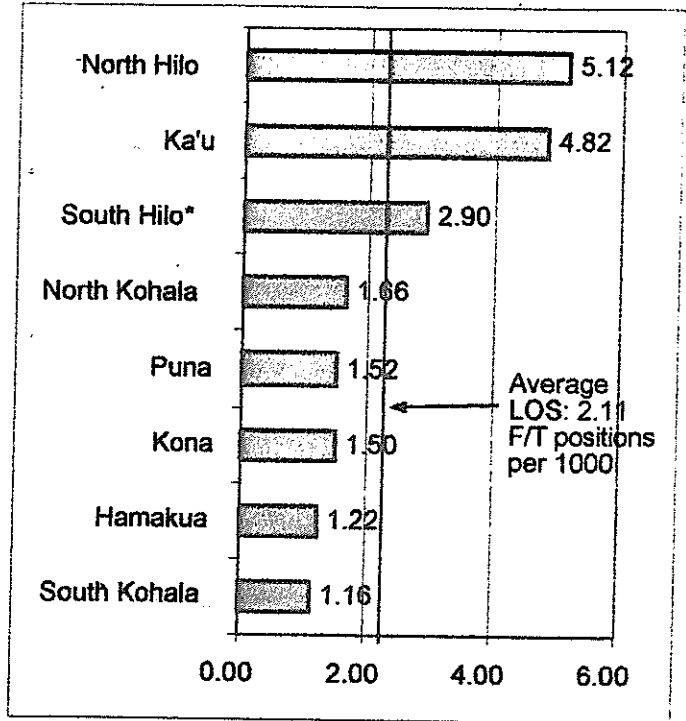
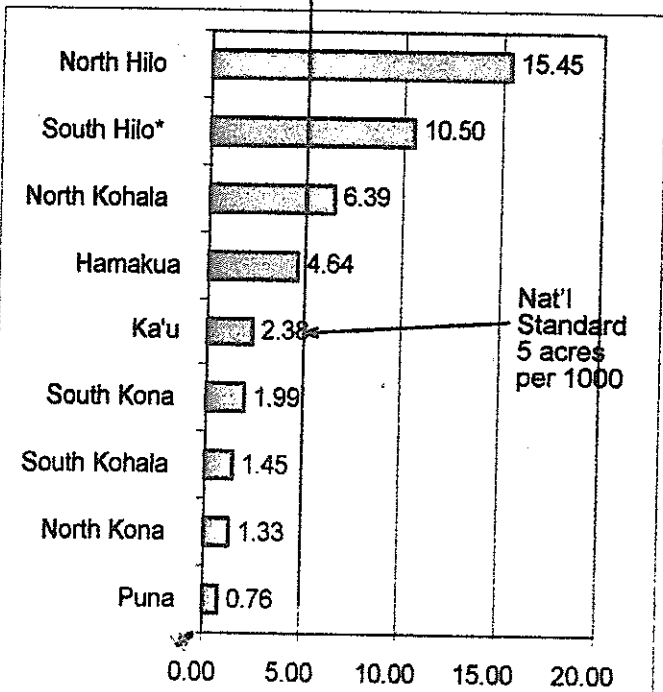


CHART 6 1999 FULL TIME PARK STAFF PER 1000 PEOPLE



Note: This data overstates the LOS for parks for the small-owner subdivisions. There are a total of four acres of developed county park in Ocean View, for a LOS in Ocean View of less than 2 acres per 1000 people. In Puna, there are no county maintained parks in any of the small-owner subdivisions, where approximately 70% of the population resides. The parks in those districts are predominately in the remnant plantation towns which are surrounded by large landowner parcels.

CHART 5: COUNTY PARK ACRES PER 1000 PEOPLE OF PERMITTED BUILD-OUT POPULATION**



For complete LOS Study go to <http://www.bonniegoodell.com>

*The data for South Hilo does not include 36 acres of cemeteries and other facilities maintained by the Department of Parks and Recreation, or 165 acres for the Municipal Golf Course and 51 acres (7 maintained) for the Zoo. The staffing for South Hilo does not include 37 full time positions for administration, golf course and zoo. The staffing data also does not take into account 156 part time positions, or 360 temporary positions, that are not allocated by district.

Sources:

- Data for population is from the County of Hawaii 1998 Data Book, based on Department of Research and Development estimates for 1995.
- Acreage and personnel data provided by Department of Parks and Recreation staff.
- **Build-out population is roughly estimated by multiplying the number of parcels in 1998-99 (provided by County Tax Administrator) times three.

TAXES & ZONING FOR OPPORTUNITY LOS

CHART 10 1999 COMMERCIAL & INDUSTRIAL PARCELS PER 1000 PEOPLE

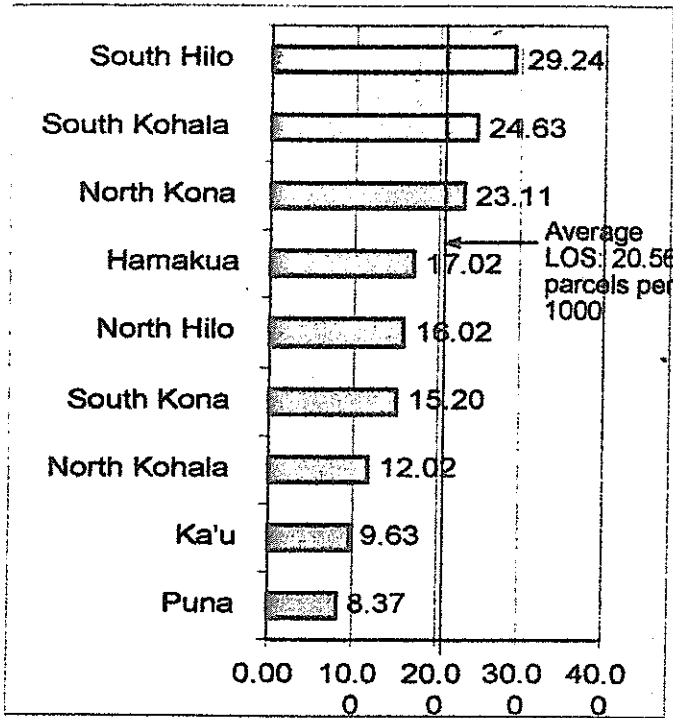
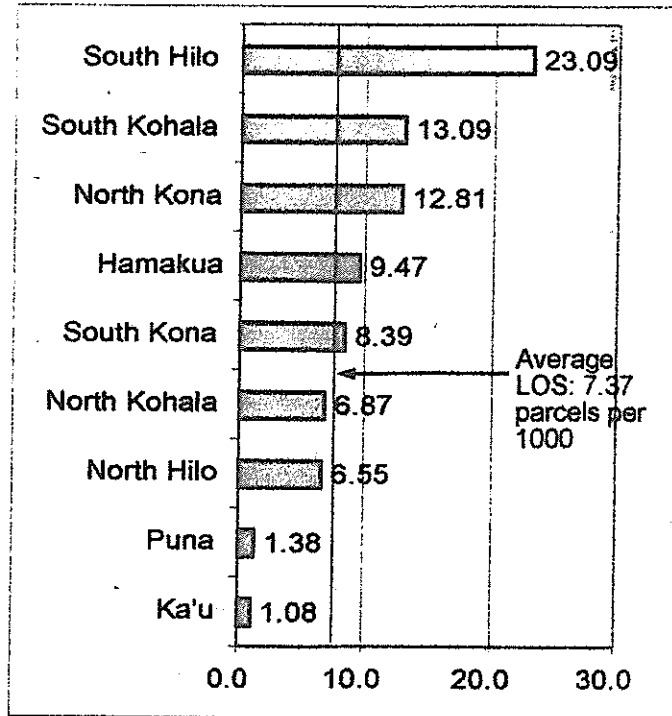


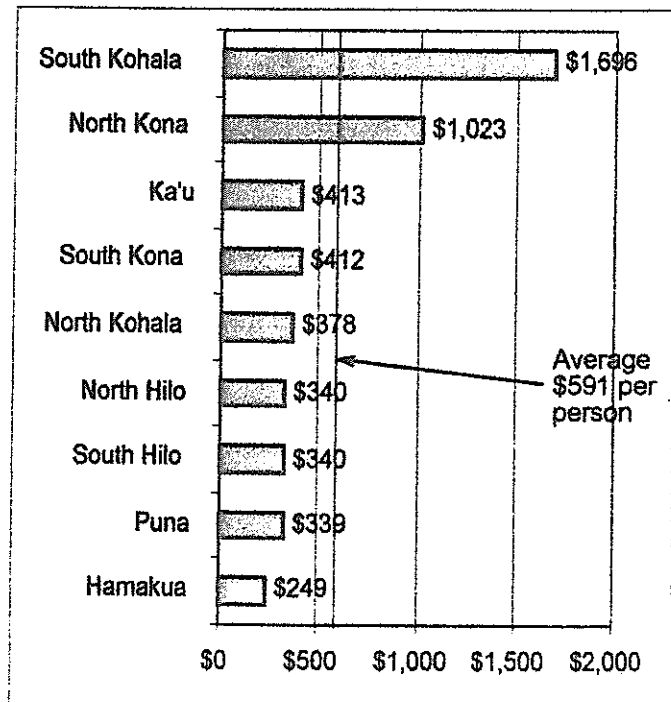
CHART 11 BUILD-OUT SET ASIDE COMMERCIAL & INDUSTRIAL PARCELS PER 1000 PEOPLE



Sources:

- Data for population is from the County of Hawaii 1998 Data Book, based on Department of Research and Development estimates for 1995.
- Build-out population is roughly estimated by multiplying the number of parcels in 1998-99 (provided by County Tax Administrator) times three.
- Tax and numbers of parcels by zoning provided by County Tax Administrator.

CHART 12 1999 PROPERTY TAXES FROM DISTRICTS PER PERSON



For complete LOS Study go to <http://www.bonniegoodell.com>