

**PERIODIC WATER REPORT  
PUMPAGE**

Period 6 2016	SOURCE WATER PUMPED - GALLONS													TO DATE 2016 THIS YEAR	GPM/Month (3 Periode Moving AVE.	WATER USE							
	PERIOD 1 2016 1/14/2016	PERIOD 2 2016 2/11/2016	PERIOD 3 2016 3/10/2016	PERIOD 4 2016 4/7/2016	PERIOD 5 2016 5/5/2016	PERIOD 6 2016 6/2/2016	PERIOD 7 2016 6/30/2016	PERIOD 8 2016 7/28/2016	PERIOD 9 2016 8/25/2016	PERIOD 10 2016 9/22/2016	PERIOD 11 2016 10/20/2016	PERIOD 12 2016 11/17/2016	PERIOD 13 2016 12/15/2016			PERIOD 6 2015 LAST YEAR	TO DATE: 2015 LAST YEAR	TO DATE: 2015 LAST YEAR					
5-5053-001 Manhole Tunnel - (R-1)	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE				
5-5053-002 Manhole Tunnel - (R-2)	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE				
5-5154-001 Manhole - (R-1) # 2)	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE				
5-4853-002 Well # 1 (BRACKISH)	7,461,000	8,763,000	10,017,000	9,896,000	9,513,000	8,817,000												285,582	6,442,015	33,041,000	82,526,000		
5-4854-001 Well # 9 (BRACKISH)	0	3,900	0	19,000	69,000	9,000												100,900	153,315	601,740	3,665,200	5,557,400	
5-4854-002 Well # 14 (BRACKISH)	Pump repair 0	Pump repair 0	Pump repair 0	0	0	0												0	1,708,462	1,887,750	15,963,000	38,173,000	
5-4753-001 Well #15 (BRACKISH)	13,190,000	10,855,000	10,130,000	11,100,000	12,700,000	12,606,000												70,581,000	11,743,154	12,654,900	73,594,000	155,674,000	
5-4953-001 Well # 2 - (R-1) # 2)	Shall closed 0	0	0	0	0	0												0	0	0	0	0	
5-4954-003 (replaces -001) Well # 3 - (R-2)	4,307,000	3,770,000	3,544,000	9,517,000	6,586,000	4,723,000												32,447,000	204,610	5,729,077	3,035,250	NOT IN SERVICE	65,639,000
5-4954-003 (replaces -001) Well # 3 - (R-1) Reserve)	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	0	0	0	0	0	0
5-4952-002 Well # 4	13,042,000	14,979,000	14,750,000	15,512,000	16,012,000	14,712,000												89,007,000	13,166,308	14,695,200	97,383,000	179,538,000	
5-4852-002 Well # 5	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	0	0	0	0	0	0
5-5054-002 Well # 6	6,797,000	6,295,000	8,162,000	8,868,000	9,181,000	4,491,000												43,794,000	6,453,308	7,802,100	39,132,000	79,231,000	
5-5055-001 Well # 7	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	0	0	0	0	0	0
5-4954-002 Well # 8 - (R-2)	6,882,000	7,050,000	6,353,000	2,557,000	5,710,000	5,680,000												34,232,000	5,781,231	5,823,000	38,092,000	79,016,000	
5-4954-002 Well # 8 - (R-1) Reserve)					Hill Leak 235,000	Hill Leak 308,000												543,000	47,214	1,322,000	0	0	16,643,000
<b>TOTAL</b>	<b>51,679,000</b>	<b>51,715,000</b>	<b>52,956,000</b>	<b>57,469,000</b>	<b>60,006,000</b>	<b>51,346,000</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>325,171,900</b>	<b>54,053,162</b>	<b>51,443,440</b>	<b>324,478,200</b>	<b>701,997,400</b>	

**WATER USE - BRACKISH AND RECLAIMED WATER**

	11,241,055	11,644,600	10,000,000	11,644,637	11,161,141	11,807,948	CL = PPM	CL = PPM	CL = PPM	CL = PPM	CL = PPM	CL = PPM	CL = PPM	CL = PPM	11,726,158				
IS/M Gal. Reservoir + Chloride Resuling	CL = 465 PPM	CL = 469 PPM	CL = 500 PPM	CL = 452 PPM	CL = 598 PPM											11,726,158			
Manole Golf Course Irrig (BRACKISH) 8"	14,011,378	12,903,509	13,997,445	13,694,614	16,832,829	15,303,684									86,743,439	506,393	13,983,434	76,312,066	173,895,562
Manole Landscape Irrig (BRACKISH) residential	6,120,000	5,589,000	5,935,000	5,629,000	5,865,000	5,630,000									34,768,000	227,374	6,679,800	41,608,000	89,604,000
Effluent use R1 (R)	609,000	1,445,000	692,000	1,346,000	1,494,000	932,000									6,518,000	30,618	1,200,000	7,120,000	11,747,000
Manole Golf Course Irrig	2,956,600	4,169,800	3,851,700	3,207,700	3,500,000	1,972,900									19,658,700	3,618	2,904,300	22,094,300	45,941,900

**DISTRIBUTION - GALLONS**

	PERIOD 1	PERIOD 2	PERIOD 3	PERIOD 4	PERIOD 5	PERIOD 6	PERIOD 7	PERIOD 8	PERIOD 9	PERIOD 10	PERIOD 11	PERIOD 12	PERIOD 13	TO DATE THIS YEAR	PERIOD 6 42159	TO DATE LAST YEAR	TO DATE LAST YEAR	
To City Grid	17,880,200	17,041,400	17,983,500	20,857,200	21,415,200	14,791,100	0	0	0	0	0	0	0	109,978,600	637,698	100,341,350	222,484,950	
Manole Pot & Brackish (brackish wells & 5501 Meter)	34,154,518	32,772,483	33,305,015	34,500,517	35,846,591	33,725,000								204,304,124	17,855,564	31,285,440	186,982,200	419,516,400
Palms Meter	2,906,482	3,259,417	3,251,985	2,924,483	2,805,409	2,502,000								17,649,776	1,200,105	6,153,300	27,277,000	57,521,684
To Kuanalapa/Harbor	95,800	73,600	75,500	84,800	61,800	102,800								494,400	3,859	55,350	490,650	1,401,050
<b>TOTAL</b>	<b>55,047,000</b>	<b>53,146,900</b>	<b>54,616,000</b>	<b>58,367,000</b>	<b>60,129,000</b>	<b>51,121,000</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>332,426,900</b>	<b>1,973,241</b>	<b>54,099,090</b>	<b>315,091,200</b>	

**PERIODIC WATER REPORT**  
TEMPERATURE AND CHLORIDE

Period 6 2016	PERIOD 1		PERIOD 2		PERIOD 3		PERIOD 4		PERIOD 5		PERIOD 6		PERIOD 7		PERIOD 8		PERIOD 9		PERIOD 10		PERIOD 11		PERIOD 12		PERIOD 13					
	1/14/2016		2/1/2016		2/18/2016		4/7/2016		5/20/2016		6/27/2016		7/26/2016		8/25/2016		9/22/2016		10/20/2016		11/17/2016		12/15/2016							
	Temp.	Chld.	Temp.	Chld.	Temp.	Chld.	Temp.	Chld.	Temp.	Chld.	Temp.	Chld.	Temp.	Chld.	Temp.	Chld.	Temp.	Chld.	Temp.	Chld.	Temp.	Chld.	Temp.	Chld.	Temp.	Chld.	Temp.	Chld.		
Maunalei Tunnel (Lower)	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*		
Maunalei Tunnel (Upper)	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*		
Maunalei (Shaft # 2)	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*		
Well # 1 (BRACKISH)	82	298	81	305	82	295	81	297	82	284	79	306																		
Well # 9 (BRACKISH)	No pumping		84	388	84	428	80	428	78	418	78	418																		
Well # 14 (BRACKISH)	Pump removed				na	na			na	na																				
Well # 15 (BRACKISH)	78	532	78	494	82	533	78	542	78	495	78	521																		
Booster #1 Shaft # 3 - (Header)	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	
Well # 2 (Shaft # 3)	Pump removed																													
Booster #2 Shaft # 3 - (Header)	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	
Well # 3	74	25	74	24	72	25	73	30	73	28	73	48																		
Well # 4	68	20	68	16	68	20	66	18	66	15	67	15																		
Well # 5	*	*	*	*	*	*	*	*	*	*	*	*																		
Well # 6	68	20	68	20	70	20	67	23	67	22	68	25																		
Well # 7	*	*	*	*	*	*	*	*	*	*	*	*																		
Well # 8	74	30	72	35	72	32	71	33	71	28	73	35																		
Well # 12	*	*	*	*	*	*	*	*	*	*	*	*																		

NOTE: 1. Temperature reading is in Fahrenheit.  
 2. Chloride content is in milligrams per liter (mg/L) or in equivalent parts per million (ppm).  
 3. \* Wells or Tunnel not in service. Data not available.  
 4. WELLS # 1, # 9, # 14, #15 CHLORIDES ARE AVG FROM (TNWRE, FQLABS & LWC)





**PERIODIC WATER REPORT**  
TEMPERATURE AND CHLORIDE

Period 13 2014	PERIOD 1		PERIOD 2		PERIOD 3		PERIOD 4		PERIOD 5		PERIOD 6		PERIOD 7		PERIOD 8		PERIOD 9		PERIOD 10		PERIOD 11		PERIOD 12		PERIOD 13	
	1/15/2014		2/12/2014		3/12/2014		4/9/2014		5/7/2014		6/4/2014		7/2/2014		7/29/2014		8/26/2014		9/23/2014		10/21/2014		11/18/2014		12/15/2014	
	Temp.	Chlrd.	Temp.	Chlrd.	Temp.	Chlrd.	Temp.	Chlrd.	Temp.	Chlrd.	Temp.	Chlrd.	Temp.	Chlrd.	Temp.	Chlrd.	Temp.	Chlrd.	Temp.	Chlrd.	Temp.	Chlrd.	Temp.	Chlrd.	Temp.	Chlrd.
Maunalei Tunnel (Lower)	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
Maunalei Tunnel (Upper)	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
Maunalei (Shaft # 2)	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
Well # 1 (BRACKISH)	80	367	80	315	82	343	82	311	82	315	82	320	82	327	82	325	82	337	82	326	82	303	82	314	82	305
Well # 9 (BRACKISH)	82	435	84	443	84	439	83	439	83	440	83	440	83	435	82	440	82	435	78	460	82	440	78	440	78	440
Well # 14 (BRACKISH)	86	823	86	759	86	832	86	812	86	820	86	810	86	815	86	820	86	784	86	790	86	836	86	820	na	na
Well # 15 (BRACKISH)	78	559	78	568	78	541	82	575	80	550	80	560	80	562	78	560	78	508	72	535	78	545	78	524	78	540
Booster #1 Shaft # 3 - (feeder)	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
Well # 2 (Shaft # 3)	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
Booster #2 Shaft # 3 - (feeder)	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
Well # 3	66	45	72	32	72	23	72	25	72	25	72	25	72	30	72	30	78	25	78	25	78	42	74	50	74	48
Well # 4	66	22	68	20	66	20	66	22	66	22	66	22	66	20	66	22	66	22	66	22	66	20	66	25	66	20
Well # 5	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
Well # 6	68	20	68	20	68	26	66	24	66	22	66	22	66	22	68	24	70	22	68	24	68	20	68	35	68	22
Well # 7	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
Well # 8	74	26	72	34	72	35	72	30	72	30	72	32	72	32	72	30	74	28	74	32	72	30	74	30	72	29
Well # 12	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*

- NOTE:
1. Temperature reading is in Fahrenheit.
  2. Chloride content is in milligrams per liter (mg/L) or in equivalent parts per million (ppm).
  3. \* Wells or Tunnel not in service. Data not available.
  4. WELLS # 1, # 9, # 14, #15 CHLORIDES ARE AVG FROM (TNWRE, FQLABS & LWC)





**PERIODIC WATER REPORT**  
TEMPERATURE AND CHLORIDE

Period 13 2014	PERIOD 1 12/08 - 1/05		PERIOD 2 1/17 - 2/13		PERIOD 3 2/14 - 3/13		PERIOD 4 3/14 - 4/18		PERIOD 5 4/19 - 5/8		PERIOD 6 5/9 - 6/5		PERIOD 7 6/6 - 7/3		PERIOD 8 7/4 - 7/31		PERIOD 9 8/1 - 8/28		PERIOD 10 8/29 - 9/25		PERIOD 11 9/26 - 10/23		PERIOD 12 10/24 - 11/20		PERIOD 13 11/21 - 12/15		
	Temp.	Chlrd.	Temp.	Chlrd.	Temp.	Chlrd.	Temp.	Chlrd.	Temp.	Chlrd.	Temp.	Chlrd.	Temp.	Chlrd.	Temp.	Chlrd.	Temp.	Chlrd.	Temp.	Chlrd.	Temp.	Chlrd.	Temp.	Chlrd.	Temp.	Chlrd.	
	Maunalei Tunnel (Lower)	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
Maunalei Tunnel (Upper)	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
Maunalei (Shaft # 2)	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
Well # 1 (BRACKISH)	80	304	80	327	80	302	82	321	82	301	82	293	82	308	82	293	82	357	82	311	82	310	80	316	80	293	
Well # 9 (BRACKISH)	84	424	84	432	84	435	84	423	84	430	84	421	82	425	84	424	84	436	84	434	84	430	84	442	84	424	
Well # 14 (BRACKISH)	86	756	86	807	86	810	86	789	86	765	86	800	86	797	86	818	84	800	82	795	84	800	84	760	86	799	
Well # 15 (BRACKISH)	78	563	78	565	78	562	78	552	78	529	78	546	78	560	78	545	78	547	78	554	78	550	76	565	78	553	
Booster #1 Shaft # 3 - (Header)	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
Well # 2 (Shaft # 3)	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
Booster #2 Shaft # 3 - (Header)	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
Well # 3	*								72	65	74	40	72	38	78	58	74	48	74	45	74	45	74	35	68	42	
Well # 4	66	22	66	22	66	22	66	20	66	30	66	28	66	23	66	22	66	22	66	20	66	22	66	20	66	22	
Well # 5	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
Well # 6	68	26	66	25	66	30	66	23	68	28	68	30	68	26	68	30	68	20	68	22	68	22	68	22	68	20	
Well # 7	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
Well # 8	72	23	72	26	72	28	72	25	72	40	82	50	72	44	72	25	72	40	74	40	72	40	72	42	74	40	
Well # 12	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*

- NOTE:
1. Temperature reading is in Fahrenheit.
  2. Chloride content is in milligrams per liter (mg/L) or in equivalent parts per million (ppm).
  3. \* Wells or Tunnel not in service. Data not available.
  4. WELLS # 1, # 9, # 14, # 15 CHLORIDES ARE AVG FROM (TNWRE, FQLABS & LWC)



**PERIODIC WATER REPORT**  
TEMPERATURE AND CHLORIDE

Period 13 2014	PERIOD 1 12/29 - 1/16		PERIOD 2 1/17 - 2/13		PERIOD 3 2/14 - 3/13		PERIOD 4 3/14 - 4/16		PERIOD 5 4/17 - 5/8		PERIOD 6 5/9 - 6/5		PERIOD 7 6/6 - 7/3		PERIOD 8 7/4 - 8/1		PERIOD 9 8/2 - 8/28		PERIOD 10 8/29 - 9/25		PERIOD 11 9/26 - 10/23		PERIOD 12 10/24 - 11/20		PERIOD 13 11/21 - 12/18		
	Temp.	Chlrd.	Temp.	Chlrd.	Temp.	Chlrd.	Temp.	Chlrd.	Temp.	Chlrd.	Temp.	Chlrd.	Temp.	Chlrd.	Temp.	Chlrd.	Temp.	Chlrd.	Temp.	Chlrd.	Temp.	Chlrd.	Temp.	Chlrd.	Temp.	Chlrd.	
	Maunalei Tunnel (Lower)	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
Maunalei Tunnel (Upper)	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
Maunalei (Shaft # 2)	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
Well # 1 (BRACKISH)	80	304	80	327	80	302	82	321	82	301	82	293	82	308	82	293	82	357	82	311	82	310	80	316	80	293	
Well # 9 (BRACKISH)	84	424	84	432	84	435	84	423	84	430	84	421	82	425	84	424	84	436	84	434	84	430	84	442	84	424	
Well # 14 (BRACKISH)	86	756	86	807	86	810	86	789	86	765	86	800	86	797	86	818	84	800	82	795	84	800	84	760	86	799	
Well # 15 (BRACKISH)	78	563	78	565	78	562	78	552	78	529	78	546	78	560	78	545	78	547	78	554	78	550	76	565	78	553	
Booster #1 Shaft # 3 - (Header)	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	
Well # 2 (Shaft # 3)	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	
Booster #2 Shaft # 3 - (Header)	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	
Well # 3	*	*	*	*	*	*	*	*	72	65	74	40	72	38	78	58	74	48	74	45	74	45	74	36	68	42	
Well # 4	66	22	66	22	66	22	66	20	66	30	66	28	66	23	66	22	66	22	66	20	66	22	66	20	66	22	
Well # 5	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	
Well # 6	68	26	66	25	66	30	66	23	68	28	68	30	68	26	68	30	68	20	68	22	68	22	68	22	68	20	
Well # 7	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	
Well # 8	72	23	72	26	72	28	72	25	72	40	82	50	72	44	72	25	72	40	74	40	72	40	72	42	74	40	
Well # 12	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	

- NOTE:
1. Temperature reading is in Fahrenheit.
  2. Chloride content is in milligrams per liter (mg/L) or in equivalent parts per million (ppm).
  3. \* Wells or Tunnel not in service. Data not available.
  4. WELLS # 1, # 9, # 14, # 15 CHLORIDES ARE AVG FROM (TNWRE, FGLABS & LWC)

PERIODIC WATER REPORT  
PUMPAGE

Period 13	SOURCE WATER PUMPED - GALLONS													TO DATE 2013 THIS YEAR	GPD/Month 13 Periods Moving AVE.	PERIOD 13 2012 11/23 - 12/20	TO DATE 2012 Last Year	TO DATE 2012 Last Year	
	PERIOD 1 2013 12/21 - 1/17	PERIOD 2 2013 1/18 - 2/14	PERIOD 3 2013 2/15 - 3/14	PERIOD 4 2013 3/15 - 4/11	PERIOD 5 2013 4/12 - 5/9	PERIOD 6 2013 5/10 - 6/6	PERIOD 7 2013 6/7 - 7/4	PERIOD 8 2013 7/5 - 8/1	PERIOD 9 2013 8/2 - 8/29	PERIOD 10 2013 8/30 - 9/26	PERIOD 11 2013 9/27 - 10/24	PERIOD 12 2013 10/25 - 11/21	PERIOD 13 2013 11/22 - 12/19						
5-5053-001 Maunalei Tunnel - (Flow)	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE
5-5053-002 Maunalei Tunnel - (Flow)	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE
5-5154-001 Maunalei - (High # 2)	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE
5-4853-002 Well # 1 (BRACKISH)	5,933,000	5,609,000	8,049,000	2,591,000	3,217,000	8,869,000	5,866,000	7,861,000	10,768,000	9,699,000	4,253,000	19,000	6,368,000	79,102,000	217,313 6,084,769	6,271,000	82,662,000	82,662,000	
5-4854-001 Well # 9 (BRACKISH)	0	1,282,200	1,917,400	3,993,100	15,100	928,000	532,100	453,700	1,042,700	2,002,100	1,859,000	3,786,000	544,400	18,355,800	50,428 1,411,985	0	30,636,000	30,636,000	
5-4854-002 Well # 14 (BRACKISH)	2,959,000	3,362,000	0	2,261,000	567,000	863,000	1,319,000	1,674,000	941,000	1,722,000	786,000	1,439,000	3,847,000	21,740,000	59,725 1,672,308	1,713,000	76,444,000	76,444,000	
5-4753-001 Well #15 (BRACKISH)	7,194,000	10,588,000	9,207,000	7,681,000	14,494,000	13,161,000	13,668,000	15,451,000	14,437,000	14,037,000	13,057,000	12,863,000	8,011,000	153,849,000	422,662 11,834,536	13,146,000	88,290,120	88,290,120	
5-4953-001 Well # 2 - (High # 2)	0	0	0	0	0	0	0	0	63,000	0	0	0	0	63,000	173 4,846	0	9,757,000	9,757,000	
5-4954-003 (replaces -001)	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE
5-4954-001 (replaces -001)	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE
5-4952-002 Well # 4	11,726,000	9,662,000	12,714,000	12,453,000	12,024,000	14,468,000	14,201,000	15,757,000	14,451,000	14,078,000	10,804,000	12,708,000	12,842,000	167,306,000	461,280 12,915,846	12,669,000	77,666,000	77,666,000	
5-4852-002 Well # 5	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE
5-5054-002 Well # 6	4,235,000	2,825,000	4,974,000	4,240,000	2,910,000	6,448,000	9,020,000	8,598,000	8,429,000	8,086,000	6,988,000	4,554,000	3,599,000	74,684,000	205,176 5,744,923	5,846,000	117,913,000	117,913,000	
5-5055-001 Well # 7	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE
5-4954-002 Well # 8 - (Flow)	13,586,000	13,612,000	13,307,000	13,163,000	12,537,000	10,483,000	9,558,000	10,033,000	10,006,000	10,957,000	12,254,000	12,544,000	12,556,000	154,596,000	424,714 11,892,000	14,355,000	118,911,000	118,911,000	
5-4954-002 Well # 8 - (High # 2)	0	0	0	0	0	0	0	0	0	969,000	29,000	998,000	2,742 76,769	NOT IN SERVICE	2,742 76,769	57,126,000	57,126,000		
<b>TOTAL</b>	45,633,000	46,740,200	50,168,400	46,382,100	45,764,100	55,240,000	54,164,100	59,825,700	60,137,700	60,561,100	50,970,000	47,940,000	47,767,400	671,293,800	1,844,214 51,637,985	54,000,000	659,405,120	659,405,120	
WATER USE - BRACKISH AND RECLAIMED WATER																			
IS/M Gal. Reservoir :	10,844,000	12,896,000	12,304,000	12,304,000	11,241,000	12,725,500	11,482,000	11,402,000	11,806,000	12,725,000	11,321,000	12,055,000	12,055,000					12,725,000	
Chloride Reading	CL = 497 PPM	CL = 536 PPM	CL = 521 PPM	CL = 530 PPM	CL = 531 PPM	CL = 484 PPM	CL = 484 PPM	CL = 378 PPM	CL = 476 PPM	CL = 487 PPM	CL = 528 PPM	CL = 535 PPM	CL = 535 PPM					CL = 521	
Manele Golf Course Irrig (BRACKISH) #	11,482,462	12,786,977	12,856,243	10,606,734	13,447,372	16,204,094	15,897,202	17,941,758	17,277,545	15,580,857	14,859,544	11,883,157	12,558,599	183,392,542	503,826 14,107,119	13,604,688	184,566,202	184,566,202	
Manele Landscape Irrig. (BRACKISH) residential	5,575,000	5,385,000	5,899,000	5,509,000	5,565,000	5,509,000	5,767,000	6,387,000	6,020,000	5,872,000	5,401,000	4,934,000	4,808,000	72,631,000	199,536 5,587,000	6,092,000	70,744,000	70,744,000	
Effluent use @ Manele Golf Course Irrig AWWTP (city)	2,615,000	1,092,000	3,537,000	2,412,000	2,210,000	1,607,000	2,165,000	2,240,000	2,143,000	2,437,000	2,306,000	2,795,000	1,683,000	29,252,000	80,363 2,250,154	2,133,000	27,096,000	27,096,000	
Koete Golf Course Irrig	3,653,600	4,744,500	5,616,500	4,829,900	4,856,900	1,847,600	6,601,600	4,965,900	5,374,600	4,960,300	3,670,000	2,778,300	3,628,700	57,526,400	158,040 4,425,108	5,972,200	71,440,800	71,440,800	
DISTRIBUTION - GALLONS																			
To City Grid	17,700,800	16,077,500	18,054,800	17,198,300	15,208,200	16,548,400	18,142,400	18,353,000	18,280,900	18,880,500	19,104,000	16,968,600	16,054,300	226,571,700	622,450 17,428,592	20,094,700	235,410,900	235,410,900	
To Manale Brack/Potals	Meter Broken	Meter Broken	Meter Broken	Meter Broken	Meter Broken	Meter Broken	Meter Broken	Meter Broken	Meter Broken	Leak	Leak	Leak	Leak	Leak	1,143,445 32,016,446	31,250,000	405,745,120	405,745,120	
To Manale and Palawai & Ag.	27,812,000	30,503,200	31,887,400	28,979,100	30,317,100	38,309,000	35,586,100	41,198,700	41,702,700	41,538,100	31,726,000	30,842,000	31,812,400	442,013,800	1,214,324 34,001,062	33,799,000	422,581,120	422,581,120	
To Kaunapapa/Harbor	120,200	159,500	226,200	204,700	238,800	382,600	435,600	276,000	154,100	142,500	138,000	129,400	100,700	2,708,300	7,440 208,331	106,300	1,413,100	1,413,100	
<b>TOTAL</b>	45,633,000	46,740,200	50,168,400	46,382,100	45,764,100	55,240,000	54,164,100	59,825,700	60,137,700	60,561,100	50,970,000	47,940,000	47,767,400	671,293,800	1,844,214 51,637,985	54,000,000	659,405,120	659,405,120	

## PERIODIC WATER REPORT

### TEMPERATURE AND CHLORIDE

Period 13 2013	PERIOD 1 12/21 - 1/17		PERIOD 2 1/18 - 2/14		PERIOD 3 2/15 - 3/14		PERIOD 4 3/15 - 4/11		PERIOD 5 4/12 - 5/9		PERIOD 6 5/10 - 6/6		PERIOD 7 6/7 - 7/4		PERIOD 8 7/5 - 8/1		PERIOD 9 8/2 - 8/29		PERIOD 10 8/30 - 9/26		PERIOD 11 9/27 - 10/24		PERIOD 12 10/25 - 11/21		PERIOD 13 11/22 - 12/19		
	Temp.	Chldr.	Temp.	Chldr.	Temp.	Chldr.	Temp.	Chldr.	Temp.	Chldr.	Temp.	Chldr.	Temp.	Chldr.	Temp.	Chldr.	Temp.	Chldr.	Temp.	Chldr.	Temp.	Chldr.	Temp.	Chldr.	Temp.	Chldr.	
Maunalei Tunnel (Lower)	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
Maunalei Tunnel (Upper)	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
Maunalei (Shaft # 2)	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
Well # 1 (BRACKISH)	80	311	82	326	82	352	82	355	82	300	82	309	82	319	82	321	82	309	82	313	82	324	82	325	80	323	
Well # 9 (BRACKISH)	out	out	82	439	82	428	82	425	84	422	84	444	84	437	84	435	84	443	84	431	84	422	84	418	84	435	
Well # 14 (BRACKISH)	86	797	86	797	86	801	86	812	86	842	86	823	86	824	86	808	86	817	86	817	86	795	86	784	*	*	
Well # 15 (BRACKISH)	78	527	78	562	78	550	78	545	78	553	78	576	78	565	78	553	78	577	78	553	78	575	78	547	78	550	
Booster #1 Shaft # 3 - (Header)	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
Well # 2 (Shaft # 3)	*	*																*	*	*	*	*	*	*	*	*	
Booster #2 Shaft # 3 - (Header)	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
Well # 3 (City)	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
Well # 4	64	22	66	20	66	20	66	22	66	20	68	25	66	20	66	20	66	20	66	18	68	22	66	20	66	23	
Well # 5	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
Well # 6	68	28	68	24	68	28	68	28	68	22	68	27	68	24	68	26	68	28	68	25	68	34	68	30	68	21	
Well # 7	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
Well # 8	74	34	74	32	74	32	74	33	72	38	72	35	74	34	74	24	74	30	72	32	72	30	72	38	72	28	
Well # 12	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*

- NOTE:
1. Temperature reading is in Fahrenheit.
  2. Chloride content is in milligrams per liter (mg/L) or in equivalent parts per million (ppm).
  3. \* Wells or Tunnel not in service. Data not available.
  4. WELLS # 1, # 9, # 14 CHLORIDES ARE AVG FROM (TNWRE, FQLABS & LWC)



PERIODIC WATER REPORT  
PUMPAGE

Period 13-12	SOURCE WATER PUMPED - GALLONS														TO DATE 2012 THIS YEAR	GPD/Month 13 Periods Moving AVE.	PERIOD 13 2011 11/25 - 12/22	TO DATE 2011 LAST YEAR	TOTAL 2011 LAST YEAR	
	PERIOD 1 2012 12/23 - 1/19	PERIOD 2 2012 1/20 - 2/16	PERIOD 3 2012 2/17 - 3/15	PERIOD 4 2012 3/16 - 4/12	PERIOD 5 2012 4/13 - 5/10	PERIOD 6 2012 5/11 - 6/7	PERIOD 7 2012 6/8 - 7/5	PERIOD 8 2012 7/6 - 8/2	PERIOD 9 2012 8/3 - 8/30	PERIOD 10 2012 8/31 - 9/27	PERIOD 11 2012 9/28 - 10/25	PERIOD 12 2012 10/26 - 11/22	PERIOD 13 2012 11/23 - 12/20							
5-5053-001 Maunalei Tunnel - (1110)	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE					
5-5053-002 Maunalei Tunnel - (1110)	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE					
5-5154-001 Maunalei - (1110)	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE					
5-4853-002 Well # 1 (BRACKISH)	8,205,000	6,672,000	7,888,000	6,564,000	11,303,000	2,653,000	2,696,000	6,301,000	3,446,000	6,433,000	2,828,000	11,302,000	6,271,000	82,682,000	6,358,616	7,901,000	125,488,000	125,488,000		
5-4854-001 Well # 9 (BRACKISH)	4,532,700	3,625,700	2,135,600	3,717,000	6,147,000	8,442,800	4,035,100	0	0	0	0	0	0	30,636,000	64,166	7,454,900	26,922,800	26,922,800		
5-4854-002 Well # 14 (BRACKISH)	10,756,000	7,192,000	4,369,000	10,214,000	5,873,000	8,287,000	8,589,000	3,564,000	10,609,000	0	3,839,000	3,479,000	1,713,000	76,444,000	210,911	5,418,000	116,644,000	116,644,000		
5-4753-01 Well #15 (BRACKISH)						6,813,400	8,715,720	12,143,400	7,989,600	14,885,000	14,972,000	9,845,000	13,146,000	88,290,120	242,555		0	0		
5-4953-001 Well # 2 - (1110)		1,181,000	1,145,000	384,000	704,000	2,844,000	2,675,000	830,000	4,000	0	0	0	0	9,757,000	26,805	0	0	0		
5-4954-003 (replace - 001)	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE					
Well # 3 - (1110)	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE					
5-4954-003 (replace - 001)	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE					
Well # 3 - (1110)	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE					
5-4952-002 Well # 4	6,683,000		5,276,000	1,000	0	0	0	5,126,000	11,924,000	13,355,000	11,162,000	11,490,000	12,689,000	77,666,000	213,368	10,070,000	138,682,000	138,682,000		
5-4852-002 Well # 5	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	5,974,308	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	
5-5054-002 Well # 6	6,916,000	6,300,000	5,114,000	14,571,000	18,229,000	14,424,000	8,804,000	8,088,000	9,629,000	1,600,000	9,838,000	10,253,000	5,848,000	117,813,000	323,937	5,152,000	99,000,000	99,000,000		
5-5055-001 Well # 7	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	9,070,231	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	
5-4954-002 Well # 8 - (1110)	11,220,000	10,345,000	10,822,000	2,900,000	2,801,000	4,701,000	9,242,000	11,418,000	11,443,000	13,826,000	8,151,000	7,987,000	14,355,000	118,911,000	326,679	11,330,000	112,483,000	112,483,000		
5-4954-002 Well # 8 - (1110)	2,607,000	8,942,000	2,683,000	9,819,000	9,858,000	8,802,000	8,947,000	5,466,000	2,000	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	67,126,000	156,940	NOT IN SERVICE	0	NOT IN SERVICE		
<b>TOTAL</b>	<b>50,898,700</b>	<b>44,267,700</b>	<b>39,632,600</b>	<b>48,150,000</b>	<b>52,715,000</b>	<b>54,747,300</b>	<b>51,683,820</b>	<b>52,837,400</b>	<b>55,028,600</b>	<b>50,099,000</b>	<b>50,890,000</b>	<b>54,356,000</b>	<b>54,000,000</b>	<b>659,405,120</b>	<b>1,811,553</b>	<b>50,723,471</b>	<b>619,217,800</b>	<b>619,217,800</b>		
WATER USE - BRACKISH AND RECLAIMED WATER																				
IS/M Cal. Reservoir : Chloride Reading	14,120,000	12,388,000	12,725,600	11,808,000	12,472,000	13,941,000	12,055,000	12,898,000	11,728,000	12,221,000	11,241,000	14,200,000	12,725,000			12,841,000				
Manele Golf Course Irrig (BRACKISH) #1	14,052,825	12,601,961	10,432,837	12,937,979	15,077,462	15,291,995	18,942,922	14,603,902	15,351,747	13,887,483	15,350,347	14,330,054	13,604,888	184,566,202	507,050	14,197,400	13,749,282	183,936,876	183,936,876	
Manele Landscape Irrig (BRACKISH) residential	5,047,000	4,650,000	4,086,000	4,867,000	5,402,000	5,498,000	5,098,000	5,758,000	6,318,000	6,044,000	6,327,000	5,559,000	6,092,000	70,744,000	194,352	5,441,846	5,438,000	66,921,000	66,921,000	
Effluent use @ Manele Golf Course Irrig	1,786,000	2,818,000	1,293,000	3,284,000	1,832,000	1,542,000	0	4,108,000	2,054,000	2,478,000	1,876,000	1,912,000	2,133,000	27,086,000	74,440	2,084,308	2,053,000	27,774,000	27,774,000	
AWWTP (city)															196,266					
Koala Golf Course Irrig	4,481,300	6,858,200	4,775,200	7,378,800	6,966,200	4,118,400	4,428,700	7,107,100	7,146,700	1,331,400	5,849,100	5,027,500	5,972,200	71,440,800	1,811,553	5,495,446	3,985,600	71,295,000	71,295,000	
DISTRIBUTION - GALLONS																				
TO CITY GRID	PERIOD 1 12/23 - 1/19	PERIOD 2 1/20 - 2/16	PERIOD 3 2/17 - 3/15	PERIOD 4 3/16 - 4/12	PERIOD 5 4/13 - 5/10	PERIOD 6 5/11 - 6/7	PERIOD 7 6/8 - 7/5	PERIOD 8 7/6 - 8/2	PERIOD 9 8/3 - 8/30	PERIOD 10 8/31 - 9/27	PERIOD 11 9/28 - 10/25	PERIOD 12 10/26 - 11/22	PERIOD 13 11/23 - 12/20	TO DATE THIS YEAR		PERIOD 13 11/25 - 12/22	TO DATE LAST YEAR	TO DATE THIS YEAR		
To City Grid	18,037,300	16,587,800	15,973,900	17,393,200	18,699,500	18,992,900	17,864,300	19,417,000	20,982,000	15,234,600	17,968,300	18,065,400	20,084,700	235,410,900	646,733	16,391,300	210,412,700	210,412,700		
To Manele Brack/Potah	32,892,700	26,431,700	22,898,600	28,710,000	33,779,000	33,996,300	32,284,820	31,972,400	31,718,600	31,875,000	32,098,000	35,038,000	31,250,000	405,745,120	1,114,684	30,290,900	397,140,800	397,140,800		
To Manele and Palawai & Ag	32,763,700	27,622,700	23,596,600	30,679,000	33,885,000	35,622,300	33,637,820	33,430,400	33,954,600	34,673,000	32,801,000	36,116,000	33,789,000	422,581,120	3,882	30,841,900	407,734,800	407,734,800		
To Kaunakapala/Harbor	98,700	57,200	62,100	77,800	130,500	132,100	81,700	90,000	90,000	191,400	120,700	174,600	106,300	1,413,100	198,700	90,700	1,070,300	1,070,300		
<b>TOTAL</b>	<b>50,898,700</b>	<b>44,267,700</b>	<b>39,632,600</b>	<b>48,150,000</b>	<b>52,715,000</b>	<b>54,747,300</b>	<b>51,683,820</b>	<b>52,837,400</b>	<b>55,028,600</b>	<b>50,099,000</b>	<b>50,890,000</b>	<b>54,356,000</b>	<b>54,000,000</b>	<b>659,405,120</b>	<b>1,811,553</b>	<b>50,723,471</b>	<b>619,217,800</b>	<b>619,217,800</b>		

60-1-11-00-17-8102

## PERIODIC WATER REPORT

### TEMPERATURE AND CHLORIDE

Period 13-12	PERIOD 1 12/23 - 1/19		PERIOD 2 1/20 - 2/16		PERIOD 3 2/17 - 3/15		PERIOD 4 3/16 - 4/12		PERIOD 5 4/13 - 5/10		PERIOD 6 5/11 - 6/7		PERIOD 7 6/8 - 7/5		PERIOD 8 7/6 - 8/2		PERIOD 9 8/3 - 8/30		PERIOD 10 8/31 - 9/27		PERIOD 11 9/28 - 10/25		PERIOD 12 10/26 - 11/22		PERIOD 13 11/23 - 12/20		
	Temp.	Chlrd.	Temp.	Chlrd.	Temp.	Chlrd.	Temp.	Chlrd.	Temp.	Chlrd.	Temp.	Chlrd.	Temp.	Chlrd.	Temp.	Chlrd.	Temp.	Chlrd.	Temp.	Chlrd.	Temp.	Chlrd.	Temp.	Chlrd.	Temp.	Chlrd.	
Maunalei Tunnel (Lower)	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
Maunalei Tunnel (Upper)	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
Maunalei (Shaft # 2)	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
Well # 1 (BRACKISH)	82	307	82	304	82	311	80	305	80	298	82	300	82	351	82	329	82	303	82	332	82	312	82	319	80	330	
Well # 9 (BRACKISH)	84	429	86	434	86	434	86	424	86	427	86	409	86	410	Off	Off	Off	Off	Off	Off	Off	Off	Off	Off	Off	off	off
Well # 14 (BRACKISH)	84	812	84	812	86	805	86	805	86	797	86	828	78	791	84	787	78	821	86	833	86	824	86	815	86	796	
Well # 15 (BRACKISH)											78	477	78	502	78	504	78	513	78	537	80	477	80	545	78	529	
Booster #1 Shaft # 3 - (Header)	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
Well # 2 (Shaft # 3)	*	*	68	20	68	20	68	18	68	26	68	20	68	20	68	20	68	26	*	*	*	*	*	*	*	*	*
Booster #2 Shaft # 3 - (Header)	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
Well # 3 (City)	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
Well # 4	66	25	66	30	66	30	66	30	66	30	66	30	66	30	66	40	66	20	66	20	66	25	66	20	66	20	
Well # 5	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
Well # 6	68	42	68	38	68	29	68	28	68	27	68	30	68	38	68	24	68	23	68	30	68	31	68	21	66	30	
Well # 7	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
Well # 8	74	43	74	40	74	38	74	40	74	45	74	45	74	34	74	44	74	29	74	26	74	30	74	36	74	35	
Well # 12	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*

- NOTE:
1. Temperature reading is in Fahrenheit.
  2. Chloride content is in milligrams per liter (mg/L) or in equivalent parts per million (ppm).
  3. \* Wells or Tunnel not in service. Data not available.
  4. WELLS # 1, # 9, # 14 CHLORIDES ARE AVG FROM (TNWRE, FQLABS & LWC)



PERIODIC WATER REPORT  
PUMPAGE

Period 13-11	SOURCE WATER PUMPED - GALLONS														TO DATE 2011 THIS YEAR	GPD/Month 13 Periods Moving AVE.	PERIOD 13 2010 11/26 - 12/23	TO DATE 2010 LAST YEAR	Total 2010 LAST YEAR
	PERIOD 1 2011 12/23 - 1/20	PERIOD 2 2011 1/21 - 2/17	PERIOD 3 2011 2/18 - 3/17	PERIOD 4 2011 3/18 - 4/14	PERIOD 5 2011 4/15 - 5/12	PERIOD 6 2011 5/13 - 6/9	PERIOD 7 2011 6/10 - 7/7	PERIOD 8 2011 7/8 - 8/4	PERIOD 9 2011 8/5 - 9/1	PERIOD 10 2011 9/2 - 9/29	PERIOD 11 2011 9/30 - 10/27	PERIOD 12 2011 10/28 - 11/24	PERIOD 13 2011 11/25 - 12/22						
5-5053-001 Maunalei Tunnel - (Line)	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE
5-5053-002 Maunalei Tunnel - (Pipe)	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE
5-5154-001 Maunalei - (Sheet # 2)	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE
5-4853-002 Well # 1 (BRACKISH)	5,951,000	10,362,000	12,792,000	8,709,000	12,009,000	9,448,000	8,428,000	5,907,000	8,924,000	11,819,000	10,833,000	11,603,000	7,901,000	125,466,000	344,742	9,652,769	9,086,000	142,736,000	142,736,000
5-4854-001 Well # 9 (BRACKISH)	10,200	131,200	2,469,000	2,935,800	1,769,800	403,400	921,800	1,513,200	773,200	4,856,900	0	3,883,800	7,454,900	26,922,800	73,964	2,070,985	2,912,800	41,699,600	41,699,600
5-4854-002 Well # 14 (BRACKISH)	5,060,000	10,015,000	542,000	8,749,000	12,003,000	11,586,000	11,948,000	11,981,000	12,013,000	11,541,000	10,540,000	5,250,000	5,416,000	116,644,000	320,451	8,972,615	10,655,000	141,615,000	141,615,000
5-4953-001 Well # 2 - (Sheet # 8)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5-4954-003 (replaces -001) Well # 3 - (COP)	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE
5-4954-003 (replaces -001) Well # 3 - (for Reserve)	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE
5-4852-002 Well # 5	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE
5-5054-002 Well # 6	10,650,000	3,478,000	9,077,000	9,823,000	7,799,000	8,194,000	7,944,000	8,221,000	7,951,000	7,615,000	8,180,000	4,808,000	5,152,000	99,000,000	380,995	10,667,846	8,434,000	141,297,000	141,297,000
5-5055-001 Well # 7	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE
5-4952-002 Well # 8 - (COP)	697,000	10,003,000	4,083,000	6,887,000	8,152,000	8,676,000	8,489,000	9,827,000	11,283,000	11,313,000	11,241,000	10,702,000	11,330,000	112,483,000	8,652,538	309,019	10,937,000	104,535,000	104,535,000
5-4952-002 Well # 8 - (for Reserve)	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE
<b>TOTAL</b>	<b>29,119,200</b>	<b>44,029,200</b>	<b>37,780,000</b>	<b>47,372,600</b>	<b>52,400,800</b>	<b>49,764,400</b>	<b>50,660,600</b>	<b>48,314,200</b>	<b>55,754,200</b>	<b>59,351,900</b>	<b>51,260,000</b>	<b>46,086,800</b>	<b>47,323,900</b>	<b>619,217,800</b>	<b>1,701,148</b>	<b>47,632,138</b>	<b>45,530,800</b>	<b>678,099,600</b>	<b>678,099,600</b>

WATER USE - BRACKISH AND RECLAIMED WATER

15/M Gal. Reserve : Chloride Reading	14,209,000 CL = 540 PPM	13,326,000 CL = 494 PPM	10,453,000 CL = 435 PPM	9,807,630 CL = 614 PPM	13,598,000 CL = 694 PPM	11,241,000 CL = 561 PPM	11,082,000 CL = 656 PPM	9,380,967 CL = 648 PPM	9,275,000 CL = 600 PPM	13,413,000 CL = 566 PPM	11,440,000 CL = 627 PPM	11,563,000 CL = 446 PPM	12,841,000 CL = 661 PPM			13,940,000 CL = 562 ppm			
Maunalei Golf Course Irrig (BRACKISH) 8"	7,890,547	15,519,646	13,216,696	14,494,260	14,742,748	15,364,411	13,769,447	13,931,755	15,858,630	16,911,074	14,768,049	13,700,331	13,749,282	183,936,676	505,321	14,148,990	12,841,518	202,917,667	202,917,667
Maunalei Landscape Irrig (BRACKISH) residential	2,528,000	4,755,000	4,086,000	4,578,000	5,048,000	5,881,000	5,671,000	5,963,000	5,864,000	5,934,000	5,968,000	5,307,000	5,438,000	66,921,000	183,849	5,147,769	5,340,000	82,967,000	82,967,000
Effluent use @ Maunalei Golf Course Irrig (AWWTR city)	2,488,000	3,448,000	914,000	1,487,000	1,905,000	2,839,000	2,911,000	2,379,000	2,310,000	1,329,000	1,913,000	1,788,000	2,053,000	27,774,000	76,302	2,136,462	1,191,000	24,811,000	24,811,000
Koala Golf Course Irrig	4,472,500	4,080,100	3,805,800	6,710,200	5,925,400	8,208,800	5,360,500	6,681,100	7,188,000	6,427,400	5,487,900	3,201,800	3,985,600	71,295,000	195,865	5,484,231	2,087,800	61,949,600	61,949,600

DISTRIBUTION - GALLONS

PERIOD 1 12/23 - 1/20	PERIOD 2 1/21 - 2/17	PERIOD 3 2/18 - 3/17	PERIOD 4 3/18 - 4/14	PERIOD 5 4/15 - 5/12	PERIOD 6 5/13 - 6/9	PERIOD 7 6/10 - 7/7	PERIOD 8 7/8 - 8/4	PERIOD 9 8/5 - 9/1	PERIOD 10 9/2 - 9/29	PERIOD 11 9/30 - 10/27	PERIOD 12 10/28 - 11/24	PERIOD 13 11/25 - 12/22	TO DATE THIS YEAR	PERIOD 13 11/26 - 12/23	TO DATE LAST YEAR	TOTAL LAST YEAR
To City Grid	11,317,500	13,419,100	13,117,400	16,440,900	15,880,600	16,773,900	16,311,300	17,960,200	19,133,100	18,835,400	19,336,700	15,495,300	210,412,700	578,057	16,185,592	209,356,899
To Maunalei Branch/Potal	17,522,200	29,740,200	24,287,000	26,907,600	35,705,800	32,303,400	32,256,600	30,373,200	34,673,200	38,749,900	30,895,000	30,325,800	397,140,800	1,091,046	30,549,292	460,364,600
To Maunalei and Palawai @ Ag.	17,772,200	30,548,200	24,620,000	30,862,600	36,449,800	32,894,400	34,227,800	30,268,200	36,520,200	40,423,900	31,828,000	30,478,800	407,734,800	31,384,216	467,347,600	467,347,600
To Kaunala/Harbor	29,500	61,900	42,600	69,100	70,400	96,100	121,700	87,800	100,900	82,800	94,300	112,700	1,078,300	2,840	82,331	63,100
<b>TOTAL</b>	<b>29,119,200</b>	<b>44,029,200</b>	<b>37,780,000</b>	<b>47,372,600</b>	<b>52,400,800</b>	<b>49,764,400</b>	<b>50,660,600</b>	<b>48,314,200</b>	<b>55,754,200</b>	<b>59,351,900</b>	<b>51,260,000</b>	<b>46,086,800</b>	<b>619,217,800</b>	<b>1,701,148</b>	<b>47,632,138</b>	<b>678,099,600</b>

2012 JAN 11 AM 11:42  
RECEIVED  
COMMISSION ON WATER  
RESOURCE MANAGEMENT



## PERIODIC WATER REPORT

### TEMPERATURE AND CHLORIDE

Period 13-11	PERIOD 1 12/23 - 1/20		PERIOD 2 1/21 - 2/17		PERIOD 3 2/18 - 3/17		PERIOD 4 3/18 - 4/14		PERIOD 5 4/15 - 5/12		PERIOD 6 5/13 - 6/9		PERIOD 7 6/10 - 7/7		PERIOD 8 7/8 - 8/4		PERIOD 9 8/5 - 9/1		PERIOD 10 9/2 - 9/29		PERIOD 11 9/30 - 10/27		PERIOD 12 10/28 - 11/24		PERIOD 13 11/25 - 12/22	
	Temp.	Chldr.	Temp.	Chldr.	Temp.	Chldr.	Temp.	Chldr.	Temp.	Chldr.	Temp.	Chldr.	Temp.	Chldr.	Temp.	Chldr.	Temp.	Chldr.	Temp.	Chldr.	Temp.	Chldr.	Temp.	Chldr.	Temp.	Chldr.
Maunalei Tunnel (Lower)	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
Maunalei Tunnel (Upper)	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
Maunalei (Shaft # 2)	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
Well # 1 (BRACKISH)	82	350	82	335	82	349	82	329	82	308	82	317	82	312	86	304	82	327	82	318	82	317	80	315	82	315
Well # 9 (BRACKISH)	82	438	84	460	84	464	84	457	84	437	84	444	82	445	84	431	84	430	84	431	84	439	84	439	84	432
Well # 14 (BRACKISH)	86	788	86	780	86	788	86	837	86	836	86	815	86	822	86	809	86	834	86	834	86	819	86	820	86	822
Booster #1 Shaft # 3 - (Header)	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
Well # 2 (Shaft # 3)	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
Booster #2 Shaft # 3 - (Header)	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
Well # 3 (City)	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
Well # 4	66	20	66	23	66	25	66	20	66	20	66	19	68	22	66	21	66	18	67	20	66	21	68	24	66	25
Well # 5	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
Well # 6	68	30	68	35	68	38	68	26	68	24	68	34	68	30	68	30	68	25	68	25	68	26	68	22	68	28
Well # 7	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
Well # 8	74	38	74	40	72	44	74	42	74	42	74	40	74	42	74	38	74	45	74	34	72	40	74	42	74	38
Well # 12	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*

- NOTE:
1. Temperature reading is in Fahrenheit.
  2. Chloride content is in milligrams per liter (mg/L) or in equivalent parts per million (ppm).
  3. \* Wells or Tunnel not in service. Data not available.
  4. WELLS # 1, # 9, # 14 CHLORIDES ARE AVG FROM (TNWRE, FQLABS & LWC)







# PERIODIC WATER REPORT

## TEMPERATURE AND CHLORIDE

Period 13 - 09	PERIOD 1 12/26-1/22		PERIOD 2 1/23-2/19		PERIOD 3 2/20-3/19		PERIOD 4 3/20-4/16		PERIOD 5 4/17-5/14		PERIOD 6 5/15-6/11		PERIOD 7 6/12-7/09		PERIOD 8 7/10-8/06		PERIOD 9 8/07-9/03		PERIOD 10 9/04-10/01		PERIOD 11 10/02-10/29		PERIOD 12 10/30-11/26		PERIOD 13 11/27-12/24		
	Temp.	Chlrd.	Temp.	Chlrd.	Temp.	Chlrd.	Temp.	Chlrd.	Temp.	Chlrd.	Temp.	Chlrd.	Temp.	Chlrd.	Temp.	Chlrd.	Temp.	Chlrd.	Temp.	Chlrd.	Temp.	Chlrd.	Temp.	Chlrd.	Temp.	Chlrd.	
Maunalei Tunnel (Lower)	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
Maunalei Tunnel (Upper)	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
Maunalei (Shaft # 2)	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
Well # 1 (BRACKISH)	80	310	80	330	80	311	82	328	82	321	82	311	82	327	82	327	80	311	82	320	82	318	82	316	82	312	
Well # 9 (BRACKISH)	82	450	83	462	82	472	84	473	84	461	84	449	84	469	84	467	84	442	84	453	out of service		out of service		out of service		
Well # 14 (BRACKISH)	84	778	84	778	84	777	84	800	86	769	84	772	86	808	86	802	84	785	84	798	84	782	84	795	84	790	
Booster #1 Shaft # 3 - (Header)	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
Well # 2 (Shaft # 3)	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
Booster #2 Shaft # 3 - (Header)	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
Well # 3 (City)	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
Well # 4	68	22	66	24	66	25	68	30	68	24	68	30	66	25	66	20	66	21	66	22	66	18	66	18	66	25	
Well # 5	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
Well # 6	68	33	64	28	68	27	66	34	68	30	68	32	68	37	68	32	68	35	68	38	66	28	66	28	68	28	
Well # 7	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
Well # 8	74	48	74	50	74	40	74	44	74	49	74	45	74	45	74	40	74	42	74	42	72	45	72	45	74	45	
Well # 12	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*

- NOTE:
1. Temperature reading is in Fahrenheit.
  2. Chloride content is in milligrams per liter (mg/L) or in equivalent parts per million (ppm).
  3. \* Wells or Tunnel not in service. Data not available.
  4. WELLS # 1, # 9, # 14 CHLORIDES ARE AVG FROM (TNWRE, FQLABS & LWC)



PERIODIC WATER REPORT  
PUMPAGE

91245  
91246

PID No. 4142  
SEQ No. \_\_\_\_\_

	WATER CONSUMPTION GALLONS													THIS YEAR TO DATE	CURRENT PD (PD 13) LAST YEAR	TO DATE (PD 13) LAST YEAR	TOTAL LAST YEAR	
	PERIOD 1 2008 12/28-1/24	PERIOD 2 2008 1/25-2/21	PERIOD 3 2008 2/22-3/20	PERIOD 4 2008 3/21-4/17	PERIOD 5 2008 4/18-5/15	PERIOD 6 2008 5/16-6/12	PERIOD 7 2008 6/13-7/10	PERIOD 8 2008 7/11-8/7	PERIOD 9 2008 8/8-9/04	PERIOD 10 2008 9/05-10/02	PERIOD 11 2008 10/03-10/30	PERIOD 12 2008 10/31-11/27	PERIOD 13 2008 11/28-12/25					
Maunalei Tunnel - (Low)	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE
Maunalei Tunnel - (Up)	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE
Maunalei - (Shaf) # 2	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE
Well # 1 (BRACKISH)	11,463,000	1,725,000	10,923,000	12,778,000	13,261,000	13,231,000	14,954,000	11,114,000	13,350,000	13,017,000	12,711,000	11,556,000	3,326,000	143,409,000	6,393,000	133,495,000	133,495,000	
Well # 9 (BRACKISH)	955,000	5,994,000	5,357,000	5,262,000	5,826,000	5,015,000	4,803,000	2,787,000	4,749,000	4,879,000	4,271,000	3,912,000	1,314,000	55,124,000	524,000	54,518,000	54,518,000	
Well # 14 (BRACKISH)	11,673,000	12,329,000	11,903,000	11,776,000	12,646,000	12,053,000	13,491,000	9,249,000	8,353,000	12,110,000	11,319,000	9,354,000	11,060,000	147,316,000	6,775,000	144,679,000	144,679,000	
Well # 2 - (Shaf) # 3	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	605,000 (a)	275,000	0	0	880,000	N/A	NOT IN SERVICE	NOT IN SERVICE	
Well # 3 - (City)	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	N/A	NOT IN SERVICE	NOT IN SERVICE	
Well # 3 - (Hill Reservoir)	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	
Well # 4	20,318,200	18,537,700 **	17,582,600	19,650,600	19,921,400	22,298,000	20,348,700	16,856,500	23,245,200	18,813,100	19,100,800	18,257,500	13,997,400	248,927,700	15,054,900	237,058,100	237,058,100	
Well # 5	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	
Well # 6	10,984,000	13,171,000	12,245,000	11,494,000	6,402,000 ***	8,852,000	9,154,000	7,002,000	7,972,000	8,429,000	8,135,000	7,947,000	7,573,000	119,360,000	11,165,000	172,331,000	172,331,000	
Well # 7	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	
Well # 8 - (City)	3,846,000	5,299,000	4,413,000	3,987,000	9,869,000	9,588,000	10,850,000	8,800,000	10,115,000	10,673,000	9,688,000	7,455,000	6,225,000	100,788,000	3,256,000	60,584,000	60,584,000	
Well # 8 - (Hill Reservoir)	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	
TOTAL	59,239,200	57,055,700	62,423,600	64,947,600	67,925,400	71,037,000	73,600,700	55,808,500	67,784,200	68,526,100	65,479,800	58,481,500	43,495,400	815,804,700	43,167,900	802,665,100	802,665,100	
15M Gal. Reservoir : Chloride Reading	8,744,700 CL=560PPM	2,645,300 CL=691PPM	4,063,700 CL=545PPM	5,359,600 CL=532PPM	5,008,400 CL=535PPM	6,648,300 CL=552PPM	8,460,800 CL=521PPM	7,768,500 CL=504PPM	4,172,400 CL=541PPM	6,902,800 CL=555PPM	8,673,700 CL=498PPM	10,765,552 CL=616PPM	11,644,637 CL=575PPM		8,318,800 CL=502PPM			
Manele Golf Course Irrig (BRACKISH)	14,470,063	15,798,756	17,324,106	17,578,101	20,115,270	19,079,308	20,449,662	15,516,119	20,355,083	16,546,698	17,801,468	16,153,739	8,896,914	220,084,787	11,109,792	223,044,022	223,044,022	
Manele Landscape Irrig.	2,447,610	3,219,660	3,141,770	3,418,880	4,346,930	4,195,770	8,630,600	6,767,100	8,783,900	8,008,900	6,295,000	6,634,000	4,576,800	70,466,920	2,219,650	55,411,850	55,411,850	
Effluent use @ Manele Golf Course Irrig AWWTP (city)	2,336,000	1,932,000	2,030,000	2,570,000	1,898,000	2,268,000	2,974,000	1,715,000	2,198,000	1,898,000	2,201,000	2,240,000	2,291,000	28,551,000	3,577,000	33,545,000	33,545,000	
Koole Golf Course Irrig	5,372,900	7,797,100	2,955,300	7,044,500	9,130,100	10,664,500	8,399,500	4,693,300	6,876,300	8,484,900	4,731,600	2,220,200	2,744,000	81,114,200	24,900	75,859,600	75,859,600	
	DISTRIBUTION GALLONS																	
	PERIOD 1 12/28-01/25	PERIOD 2 1/26-2/22	PERIOD 3 2/23-3/21	PERIOD 4 3/22-4/18	PERIOD 5 4/19-5/16	PERIOD 6 5/17-6/13	PERIOD 7 6/14-7/11	PERIOD 8 7/12-8/8	PERIOD 9 8/9-9/05	PERIOD 10 9/06-10/03	PERIOD 11 10/04-10/31	PERIOD 12 11/01-11/28	PERIOD 13 11/29-12/26	THIS YEAR TO DATE	PERIOD 13 LAST YEAR	TOTAL LAST YEAR	TOTAL LAST YEAR	
To City Grid	14,730,600	18,394,600	16,548,200	15,402,000	16,183,900	18,348,200	19,896,800	15,720,300	17,954,300	19,003,900	17,688,600	15,319,700	13,749,900	218,941,000	14,387,400	230,544,200	230,544,200	
To Manele District, ADA, Ag. Activities near Airport.	44,409,200	38,585,700	45,765,600	49,466,800	51,654,400	52,597,000	53,596,700	40,006,500	49,697,200	49,424,100	47,676,800	43,079,500	29,697,400	595,656,700	28,746,900	569,750,100	569,750,100	
To Kaunapali/Harbor	99,400	75,400	109,800	79,000	87,100	91,800	107,200	81,700	132,700	98,100	114,400	82,300	48,100	1,207,000	33,600	2,370,800	2,370,800	
TOTAL	59,239,200	57,055,700	62,423,600	64,947,600	67,925,400	71,037,000	73,600,700	55,808,500	67,784,200	68,526,100	65,479,800	58,481,500	43,495,400	815,804,700	43,167,900	802,665,100	802,665,100	

\*\* revised 4/8/08  
\*\*\* Managing Well #6 Pumpage  
(a) Compilation of pumpage between 5/08 and 10/08

### PERIODIC WATER REPORT TEMPERATURE AND CHLORIDE

	PERIOD 1 12/28-1/24		PERIOD 2 1/25-2/1		PERIOD 3 2/21-3/20		PERIOD 4 3/21-4/17		PERIOD 5 4/18-5/15		PERIOD 6 5/16-6/12		PERIOD 7 6/13-7/10		PERIOD 8 7/11-8/7		PERIOD 9 8/8-9/04		PERIOD 10 9/05-10/02		PERIOD 11 10/03-10/30		PERIOD 12 10/31-11/27		PERIOD 13 11/28-12/25		
	Temp.	Chldr.	Temp.	Chldr.	Temp.	Chldr.	Temp.	Chldr.	Temp.	Chldr.	Temp.	Chldr.	Temp.	Chldr.	Temp.	Chldr.	Temp.	Chldr.	Temp.	Chldr.	Temp.	Chldr.	Temp.	Chldr.	Temp.	Chldr.	
Maunalei Tunnel (Lower)	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
Maunalei Tunnel (Upper)	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
Maunalei (Shaft # 2)	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
Well # 1 (BRACKISH)	80	311	N/A	N/A	80	323	80	324	80	319	80	320	80	318	80	325	82	333	80	322	82	342	80	320	80	313	
Well # 9 (BRACKISH)	82	437	84	464	80	448	84	457	84	468	84	478	N/D	478	84	460	84	456	84	456	82	450	84	470	84	458	
Well # 14 (BRACKISH)	84	797	84	750	84	772	84	748	84	764	84	793	86	763	84	778	86	783	86	773	86	793	84	792	84	710	
Booster #1 Shaft # 3 - (Header)	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
Well # 2 (Shaft # 3)	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
Booster #2 Shaft # 3 - (Header)	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
Well # 3 (City)	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
Well # 4	66	25	68	24	66	25	66	25	66	24	66	18	66	20	67	22	66	25	66	25	68	28	66	21	66	25	
Well # 5	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
Well # 6	66	28	66	20	68	34	68	31	68	30	68	28	68	27	68	33	68	30	68	30	68	36	66	25	68	27	
Well # 7	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
Well # 8	72	45	74	48	74	44	72	41	74	48	72	40	74	38	74	40	74	45	74	50	72	44	72	39	72	37	
Well # 12	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*

- NOTE:
1. Temperature reading is in Fahrenheit.
  2. Chloride content is in milligrams per liter (mg/L) or in equivalent parts per million (ppm).
  3. \* Wells or Tunnel not in service. Data not available.
  4. WELLS # 1, # 9, # 14 CHLORIDES ARE AVG FROM (TNWRE & FQLABS) PER JH, C.J.





PERIODIC WATER REPORT  
PUMPAGE

PID No. 4142

SEQ No. 89569 (Per. 12)

89569 (Per. 13)

	WATER PUMPED - GALLONS													THIS YEAR TO DATE	CURRENT PD LAST YEAR	TO DATE LAST YEAR	TOTAL LAST YEAR	
	PERIOD 1 2007 12/28-01/25	PERIOD 2 2007 1/26-2/22	PERIOD 3 2007 2/23-3/22	PERIOD 4 2007 3/23-4/19	PERIOD 5 2007 4/20-5/17	PERIOD 6 2007 5/18-6/14	PERIOD 7 2007 6/15-7/12	PERIOD 8 2007 7/13-8/9	PERIOD 9 2007 8/10-9/06	PERIOD 10 2007 9/07-10/04	PERIOD 11 2007 10/05-11/01	PERIOD 12 2007 11/02-11/29	PERIOD 13 2007 11/30-12/27					
Maunalei Tunnel - (Low)	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE
Maunalei Tunnel - (High)	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE
Maunalei - (Shaft # 2)	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE
Well # 1	10,022,000	5,031,000	8,716,000	11,383,000	10,523,000	10,636,000	11,973,000	11,889,000	11,861,000	11,616,000	11,773,000	11,679,000	6,393,000	133,495,000	133,495,000	145,833,000	145,833,000	
Well # 9	3,766,000	1,699,000	5,112,000	3,624,000	5,825,000	3,777,000	4,724,000	3,930,000	5,402,000	6,385,000	7,538,000	2,211,000	524,000	54,518,000	54,518,000	58,161,000	58,161,000	
Well # 14	12,327,000	8,031,000	12,178,000	12,060,000	11,324,000	10,260,000	12,327,000	12,303,000	10,753,000	11,899,000	12,182,000	12,260,000	6,775,000	144,679,000	144,679,000	111,456,000	111,456,000	
Well # 2 - (Shaft # 1)	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Well # 3 - (City)	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	0	56,517,000	56,517,000
Well # 3 - (High Reservoir)	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE
Well # 4	10,694,700	17,697,800	16,321,000	17,380,800	20,490,300	23,109,400	20,198,200	19,401,200	20,776,000	18,993,800	18,440,800	18,499,200	15,054,900	237,058,100	237,058,100	22,708,800	22,708,800	
Well # 5	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE
Well # 6	12,115,000	12,873,000	13,004,000	12,063,000	14,005,000	13,432,000	16,434,000	13,595,000	14,150,000	13,731,000	13,867,000	11,897,000	11,165,000	172,331,000	172,331,000	94,225,000	94,225,000	
Well # 7	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE
Well # 8 - (City)	3,391,000	3,501,000	3,571,000	3,778,000	4,769,000	4,897,000	6,287,000	5,875,000	5,443,000	5,694,000	5,597,000	4,525,000	3,256,000	60,584,000	60,584,000	122,740,000	122,740,000	
Well # 8 - (High Reservoir)	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE
<b>TOTAL</b>	<b>52,315,700</b>	<b>48,832,800</b>	<b>58,902,000</b>	<b>60,288,800</b>	<b>66,936,300</b>	<b>66,111,400</b>	<b>71,943,200</b>	<b>66,993,200</b>	<b>68,385,000</b>	<b>68,319,800</b>	<b>69,397,800</b>	<b>61,071,200</b>	<b>43,167,900</b>	<b>802,665,100</b>	<b>802,665,100</b>	<b>602,140,800</b>	<b>602,140,800</b>	
IS/M Gal. Reservoir :	14,479,272	12,137,809	11,161,141	14,843,484	8,460,786	7,631,500	5,065,000	12,137,809	5,960,400	5,837,900	7,631,500	12,304,366	8,318,800	125,969,767	125,969,767	9,692,830	129,950,336	129,950,336
Chloride Reading	CL=562PPM	CL=580PPM	CL=566PPM	CL=565PPM	CL=551PPM	CL=566PPM	CL=536PPM	CL=491PPM	CL=529PPM	CL=531PPM	CL=541PPM	CL=590PPM	CL=502PPM					
Manele Golf Course Irrig																		
NP.High Level Aquifers Effluent use @	15,301,120	11,848,380	20,504,910	18,567,810	21,245,390	21,753,678	13,361,221	19,122,456	18,019,245	20,096,856	18,653,637	13,459,527	11,109,792	223,044,022	223,044,022	9,020,840	215,227,946	215,227,946
Manele Golf Course Irrig AWWTP (city)	2,609,000	2,077,000	3,253,000	2,675,000	2,926,000	2,542,000	2,902,000	2,788,000	201,000	2,870,000	1,425,000	3,690,000	3,577,000	33,545,000	33,545,000	3,629,000	33,796,000	33,796,000
Koele Golf Course Irrig	2,793,000	3,790,000	4,698,900	5,867,700	9,459,800	8,337,000	7,955,700	6,820,100	7,761,500	9,689,300	5,426,700	3,235,000	24,900	75,859,600	75,859,600	4,053,500	70,941,400	70,941,400
Manele PD.NonPot. Irrig.	3,977,880	4,306,620	4,957,090	5,416,190	6,072,610	6,301,760	4,618,046	4,128,855	3,478,509	3,188,980	3,367,620	3,378,040	2,219,650	55,411,850	55,411,850	4,420,170	66,500,064	66,500,064
DISTRIBUTION - GALLONS																		
	PERIOD 1 12/28-01/25	PERIOD 2 1/26-2/22	PERIOD 3 2/23-3/22	PERIOD 4 3/23-4/19	PERIOD 5 4/20-5/17	PERIOD 6 5/18-6/14	PERIOD 7 6/15-7/12	PERIOD 8 7/13-8/9	PERIOD 9 8/10-9/06	PERIOD 10 9/07-10/04	PERIOD 11 10/05-11/01	PERIOD 12 11/02-11/29	PERIOD 13 11/30-12/27	THIS YEAR TO DATE	CURRENT PD LAST YEAR	TO DATE LAST YEAR	TOTAL LAST YEAR	
To City Crid	15,297,300	16,052,200	16,305,100	15,671,500	18,591,000	18,058,200	22,203,900	19,358,100	19,512,000	19,361,400	19,382,400	16,363,700	14,387,400	230,544,200	16,760,900	270,520,100	270,520,100	
To Manele District, ADA, Ag. Activities near Airport.	36,809,700	32,458,800	42,327,000	44,447,800	48,162,300	47,782,400	49,222,200	47,523,200	48,792,000	48,894,800	49,933,800	44,649,200	28,746,900	569,750,100	37,845,000	439,059,800	439,059,800	
To Kaunapala	208,700	321,800	269,900	169,500	183,000	270,800	517,100	111,900	81,000	63,600	81,600	58,300	33,600	2,370,800	236,100	2,961,900	2,961,900	
<b>TOTAL</b>	<b>52,315,700</b>	<b>48,832,800</b>	<b>58,902,000</b>	<b>60,288,800</b>	<b>66,936,300</b>	<b>66,111,400</b>	<b>71,943,200</b>	<b>66,993,200</b>	<b>68,385,000</b>	<b>68,319,800</b>	<b>69,397,800</b>	<b>61,071,200</b>	<b>43,167,900</b>	<b>802,665,100</b>	<b>54,842,000</b>	<b>712,541,800</b>	<b>712,541,800</b>	

\* 7th PD PWR shows a high usage for K-pau due to leaks below the K-pau tank

### PERIODIC WATER REPORT TEMPERATURE AND CHLORIDE

	PERIOD 1 12/28-1/25		PERIOD 2 1/26-2/22		PERIOD 3 2/23-3/22		PERIOD 4 3/23-4/19		PERIOD 5 4/20-5/17		PERIOD 6 5/18-6/14		PERIOD 7 6/15-7/12		PERIOD 8 7/13-8/09		PERIOD 9 8/10-9/06		PERIOD 10 9/07-10/04		PERIOD 11 10/05-11/01		PERIOD 12 11/02-11/29		PERIOD 13 11/30-12/27		
	Temp.	Chlrd.	Temp.	Chlrd.	Temp.	Chlrd.	Temp.	Chlrd.	Temp.	Chlrd.	Temp.	Chlrd.	Temp.	Chlrd.	Temp.	Chlrd.	Temp.	Chlrd.	Temp.	Chlrd.	Temp.	Chlrd.	Temp.	Chlrd.	Temp.	Chlrd.	
Maunalei Tunnel (Lower)	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
Maunalei Tunnel (Upper)	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
Maunalei (Shaft # 2)	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
Well # 1	80	346	80	388	81	312	80	319	81	316	80	318	81	326	82	312	80	332	82	326	82	302	80	313	80	303	
Well # 9	79	468	83	468	83	464	78	459	83	483	82	499	84	462	82	449	84	464	84	458	84	455	80	441	82	468	
Well # 14	80	773	84	774	84	770	84	774	84	781	85	783	85	751	83	756	84	781	86	768	94	756	84	762	84	755	
Booster #1 Shaft # 3 - (Header)	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
Well # 2 (Shaft # 3)	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
Booster #2 Shaft # 3 - (Header)	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
Well # 3 (City)	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
Well # 4	63	20	66	19	66	21	65	23	67	25	66	25	66	25	66	22	66	17	66	22	66	40	68	20	66	28	
Well # 5	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
Well # 6	67	26	66	33	67	28	67	31	67	27	66	29	66	36	68	28	68	23	72	25	63	40	68	26	66	30	
Well # 7	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
Well # 8	72	40	73	43	73	40	73	48	73	48	72	56	72	43	72	46	72	60	72	40	74	48	72	41	74	48	
Well # 12	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*

- NOTE:
1. Temperature reading is in Fahrenheit.
  2. Chloride content is in milligrams per liter (mg/L) or in equivalent parts per million (ppm).
  3. \* Wells or Tunnel not in service. Data not available.
  4. WELLS # 1, # 9, # 14 CHLORIDES ARE AVG FROM (TNWRE & FQLABS) PER JH, CJ.

## PERIODIC WATER REPORT HIGH / LOW

	PERIOD 1 12/28-1/25		PERIOD 2 1/26-2/22		PERIOD 3 2/23-3/22		PERIOD 4 3/23-4/19		PERIOD 5 4/20-5/17		PERIOD 6 5/18-6/14		PERIOD 7 6/15-7/12		PERIOD 8 7/13-8/09		PERIOD 9 8/10-9/06		PERIOD 10 9/07-10/04		PERIOD 11 10/05-11/01		PERIOD 12 11/02-11/29		PERIOD 13 11/30-12/27		
	HIGH	LOW	HIGH	LOW	HIGH	LOW	HIGH	LOW	HIGH	LOW	HIGH	LOW	HIGH	LOW	HIGH	LOW	HIGH	LOW	HIGH	LOW	HIGH	LOW	HIGH	LOW	HIGH	LOW	
Maunalei (Shaft # 2)	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
Well # 1	673	638	671	643	673	641	671	640	672	638	671	637	N/A	N/A	635	612	631	627	629	624	627	623	638	609	677	634	
Well # 2 (Shaft # 3)	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
Well # 3	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
Well # 4	1482	1457	1479	1469	1474	1457	1474	1457	1482	1465	1480	1458	N/A	N/A	1465	1459	1464	1458	1472	1454	N/A	N/A	N/A	N/A	N/A	N/A	
Well # 5	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
Well # 6	932	920	932	922	932	920	931	918	928	916	926	916	N/A	N/A	916	899	909	898	1024	889	1127	974	914	899	911	897	
Well # 7	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
Well # 8	960	914	960	915	959	919	959	914	959	914	959	914	N/A	N/A	957	912	952	913	951	913	952	911	951	911	951	911	
Well # 9	661	586	665	624	666	591	660	584	651	588	660	588	N/A	N/A	657	590	652	570	640	571	688	575	567	567	N/A	N/A	
Well # 14	463	445	463	445	463	434	463	444	463	444	462	443	N/A	N/A	461	443	461	442	460	441	460	442	459	429	453	434	
Shaft 3 Bulkhead	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*

Note:

Well #4 chart recorder faulty, needs replacement of servo mechanism

Well #9 Bubbler system is out of order

PERIOD 10

PERIODIC WATER REPORT  
PUMPAGE

PID No. \_\_\_\_\_

	WATER PUMPED GALLONS													THIS YEAR TO DATE	CURRENT PD. LAST YEAR	TO DATE LAST YEAR	TOTAL LAST YEAR
	PERIOD 1 1/29/05-01/26	PERIOD 2 1/27-2/23	PERIOD 3 2/24-3/23	PERIOD 4 3/24-4/20	PERIOD 5 4/21-5/18	PERIOD 6 5/19-6/15	PERIOD 7 6/16-7/13	PERIOD 8 7/14-8/10	PERIOD 9 8/11-9/07	PERIOD 10 9/08-10/05	PERIOD 11 10/06-11/02	PERIOD 12 11/03-11/30	PERIOD 13 12/01-12/28				
Maunalei Tunnel - (Low)	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE
Maunalei Tunnel - (Up)	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE
Maunalei - (Sheet # 2)	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE
Well # 1	8,394,000	12,647,000	12,279,000	10,113,000	12,368,000	12,100,000	12,135,000	8,772,000	12,164,000	12,029,000	11,185,000	9,313,000	11,834,000	145,333,000	7,365,000	76,627,000	100,743,000
Well # 9	5,434,000	3,205,000	0	0	0	7,195,000	3,813,000	4,631,000	6,996,000	5,663,000	4,084,000	4,061,000	4,079,000	49,161,000	7,257,000	47,057,000	68,452,000
Well # 14	0	8,737,000	12,405,000	4,153,000	10,248,000	10,770,000	12,378,000	11,076,000	8,845,000	12,409,000	11,937,000	4,000	8,494,000	111,456,000	10,129,000	69,972,000	110,697,000
Well # 2 - (Sheet # 3)	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	8,636,000	17,173,000	16,808,000	17,833,000	15,410,000	9,023,000	12,280,000	13,438,000	110,401,000	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE
Well # 3 - (City)	2,197,000	2,677,000	11,964,000	15,164,000	24,515,000	0	0	0	0	0	0	0	0	56,517,000	4,568,000	25,034,000	38,482,000
Well # 3 - (Fill Reservoir)	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE
Well # 4	12,691,900	10,016,900	0	0	0	0	0	0	0	0	0	0	0	22,708,800	13,785,600	121,720,400	173,485,500
Well # 5	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE
Well # 6	12,666,000	12,794,000	11,394,000	172,000	0	0	0	0	6,944,000	14,527,000	12,038,000	11,261,000	12,429,000	94,225,000	23,104,000	119,920,000	171,271,000
Well # 7	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE
Well # 8 - (City)	1,159,000	3,679,000	5,019,000	10,358,000	6,538,000	14,131,000	23,209,000	24,758,000	15,446,000	4,332,000	4,886,000	4,657,000	4,568,000	122,740,000	0	8,950,000	10,301,000
Well # 8 - (Fill Reservoir)	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE
<b>TOTAL</b>	<b>42,541,900</b>	<b>53,755,900</b>	<b>53,061,000</b>	<b>39,960,000</b>	<b>53,669,000</b>	<b>52,832,000</b>	<b>68,708,000</b>	<b>65,845,000</b>	<b>68,228,000</b>	<b>64,370,000</b>	<b>53,153,000</b>	<b>41,576,000</b>	<b>54,842,000</b>	<b>712,541,800</b>	<b>66,208,800</b>	<b>469,280,400</b>	<b>673,431,500</b>

PID No. 41142  
SEQ No. 20013 57415  
Part 12 5719114

	6,775,500	9,402,100	10,922,992	12,472,011	11,844,637	11,002,110	12,981,513	11,002,110	5,654,190	4,781,891	14,660,811	8,957,641	9,692,830	129,950,336	5,654,190	71,189,224	100,350,793
15/M Gal. Reservoir : Chloride Reading	CL.360=PPM	CL.466=PPM	CL.501=PPM	CL.481=PPM	CL.478=PPM	CL.518=PPM	CL.567=PPM	CL.546=PPM	CL=536PPM	CL=546PPM	CL=542PPM	CL=408PPM	CL=511PPM				
Manele Golf Course Irrig	13,553,290	16,082,661	17,606,434	8,158,283	16,117,282	23,547,460	19,399,776	17,373,655	24,660,685	24,429,825	11,828,435	13,449,340	9,020,840	215,227,946	18,620,600	139,677,580	198,651,150
NR High Level Aquifers Effluent use @	2,733,000	2,063,000	3,239,000	3,002,000	2,744,000	2,528,000	2,643,000	2,640,000	2,699,000	2,409,000	869,000	2,598,000	3,629,000	33,796,000	2,162,000	21,123,000	29,395,000
Manele Golf Course Irrig AWWTP( city)	6,299,100	5,689,800	4,257,200	1,295,800	6,810,800	7,751,700	10,519,800	11,220,800	6,157,300	3,611,400	1,058,100	2,236,100	4,053,500	70,941,400	9,046,900	51,800,400	72,369,400
Koeele Golf Course Irrig.	4,439,710	4,965,339	4,332,566	3,477,717	5,441,738	5,602,540	5,617,224	7,305,345	5,926,315	5,403,175	5,172,565	4,395,660	4,420,170	66,500,064	4,495,510	38,504,420	55,778,850

	DISTRIBUTION GALLONS													THIS YEAR TO DATE	CURRENT PD. LAST YEAR	TO DATE LAST YEAR	TOTAL LAST YEAR
	PERIOD 1 1/29/05-01/28	PERIOD 2 1/27-2/23	PERIOD 3 2/24-3/23	PERIOD 4 3/24-4/20	PERIOD 5 4/21-5/18	PERIOD 6 5/19-6/15	PERIOD 7 6/16-7/13	PERIOD 8 7/14-8/10	PERIOD 9 8/11-9/07	PERIOD 10 9/08-10/05	PERIOD 11 10/06-11/02	PERIOD 12 11/03-11/30	PERIOD 13 12/01-12/28				
To City Grid	15,766,600	19,014,700	28,220,300	25,567,900	30,880,600	13,895,400	23,017,700	24,485,300	22,120,700	18,510,900	16,634,600	15,644,500	16,760,900	270,520,100	27,519,800	152,782,100	218,352,700
To Manele District, ADA, Ag. Activities near Airport.	26,519,900	34,605,900	24,684,000	14,266,000	22,616,000	38,701,000	45,499,000	41,087,000	45,838,000	45,511,000	36,229,000	25,658,000	37,845,000	439,059,800	38,536,800	315,376,400	453,377,500
To Kaunapapa	255,400	135,300	156,700	126,100	172,400	235,600	191,300	272,700	269,300	348,100	289,400	273,500	236,100	2,961,900	152,400	1,121,900	1,701,300
<b>TOTAL</b>	<b>42,541,900</b>	<b>53,755,900</b>	<b>53,061,000</b>	<b>39,960,000</b>	<b>53,669,000</b>	<b>52,832,000</b>	<b>68,708,000</b>	<b>65,845,000</b>	<b>68,228,000</b>	<b>64,370,000</b>	<b>53,153,000</b>	<b>41,576,000</b>	<b>54,842,000</b>	<b>712,541,800</b>	<b>66,208,800</b>	<b>469,280,400</b>	<b>673,431,500</b>

### PERIODIC WATER REPORT TEMPERATURE AND CHLORIDE

	PERIOD 1 12/29/05-1/26		PERIOD 2 1/27-2/23		PERIOD 3 2/24-3/23		PERIOD 4 3/24-4/20		PERIOD 5 4/21-5/18		PERIOD 6 5/19-6/15		PERIOD 7 6/16-7/13		PERIOD 8 7/14-8/10		PERIOD 9 8/11-9/07		PERIOD 10 9/08-10/05		PERIOD 11 10/06-11/02		PERIOD 12 11/03-11/30		PERIOD 13 12/01-12/28			
	Temp.	Chlrd.	Temp.	Chlrd.	Temp.	Chlrd.	Temp.	Chlrd.	Temp.	Chlrd.	Temp.	Chlrd.	Temp.	Chlrd.	Temp.	Chlrd.	Temp.	Chlrd.	Temp.	Chlrd.	Temp.	Chlrd.	Temp.	Chlrd.	Temp.	Chlrd.	Temp.	Chlrd.
Maunalei Tunnel (Lower)	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
Maunalei Tunnel (Upper)	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
Maunalei (Shaft # 2)	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
Well # 1	80	287	80	290	80	278	81	318	81	325	80	320	81	319	81	314	81	321	82	323	81	390	81	319	82	314		
Well # 9	83	418	83	455	*	*	*	*	*	*	82	474	82	477	82	476	81	470	78	495	82	471	81	452	83	485		
Well # 14	N/A	N/A	84	660	84	620	78	766	83	784	84	782	84	770	82	747	85	772	84	765	82	777	83	*	84	763		
Booster #1 Shaft # 3 - (Header)	*	*	*	*	*	*	*	*	*	*	*	*	*	68	22	68	20	69	18	68	19	68	24	68	20			
Well # 2 (Shaft # 3)	*	*	*	*	*	*	*	*	*	*	69	18	68	22	68	22	68	20	69	18	68	19	68	24	68	20		
Booster #2 Shaft # 3 - (Header)	*	*	*	*	*	*	*	*	*	*	*	*	*	68	22	68	20	69	18	68	19	68	24	68	20			
Well # 3 (City)	72	34	72	34	71	38	72	37	72	36	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	
Well # 4	65	22	68	23	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	66	19	
Well # 5	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	
Well # 6	68	28	68	28	68	28	*	*	*	*	*	*	*	*	*	*	67	23	69	28	*	28	66	27	67	27		
Well # 7	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	
Well # 8	70	34	72	40	72	40	73	43	73	41	73	44	72	42	71	43	72	34	72	35	71	39	72	40	72	43		
Well # 12	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*

- NOTE:
1. Temperature reading is in Fahrenheit.
  2. Chloride content is in milligrams per liter (mg/L) or in equivalent parts per million (ppm).
  3. \* Wells or Tunnel not in service. Data not available.
  4. WELLS # 1, # 9, # 14 CHLORIDES ARE AVG FROM (TNWRE & FQLABS) PER JH, CJ.

PERIODIC WATER REPORT  
PUMPAGE

PID No. 4142  
SEQ No. 86720

	WATER PUMPED - GALLONS													THIS YEAR TO DATE	CURRENT PD. LAST YEAR	TO DATE LAST YEAR	TOTAL LAST YEAR	
	PERIOD 1 12/31 - 1/27	PERIOD 2 01/28 - 2/24	PERIOD 3 2/25 - 03/24	PERIOD 4 3/25 - 4/21	PERIOD 5 4/22 - 5/19	PERIOD 6 5/20 - 6/16	PERIOD 7 6/17 - 7/14	PERIOD 8 7/15 - 8/11	PERIOD 9 8/12 - 9/08	PERIOD 10 9/09 - 10/06	PERIOD 11 10/07 - 11/03	PERIOD 12 11/04 - 12/01	PERIOD 13 12/02 - 12/29					
Maunalei Tunnel (Lwr)	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE
Maunalei Tunnel (Upr)	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE
Maunalei Shaft # 2	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE
Well # 1	7,508,000	7,665,000	1,635,000	7,938,000	12,091,000	12,162,000	11,813,000	8,450,000	7,365,000	1,427,000	4,724,000	5,920,000	12,045,000	100,743,000	9,286,000	122,276,000	122,276,000	
Well # 9	0	7,952,000	7,693,000	3,491,000	7,182,000	3,417,000	784,000	9,281,000	7,257,000	6,950,000	6,410,000	5,898,000	2,137,000	68,452,000	4,934,000	71,356,000	71,356,000	
Well # 14	NO USE	NO USE	8,926,000	7,705,000	7,725,000	10,163,000	12,770,000	12,554,000	10,129,000	12,827,000	12,798,000	12,841,000	2,259,000	110,697,000	7,800,000	37,285,000	37,285,000	
Shaft # 3 Well #2	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE
Well # 3 (City)	2,188,000	1,504,000	3,790,000	2,560,000	3,060,000	3,307,000	1,700,000	2,357,000	4,568,000	4,249,000	4,076,000	3,226,000	1,897,000	38,482,000	1,581,000	31,192,000	31,192,000	
Well # 3 (Hii Reservoir)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Well # 4	11,699,000	10,865,000	13,185,000	16,206,000	13,281,200	13,580,100	13,075,200	16,043,100	13,785,800	13,520,800	13,474,200	13,070,700	11,699,400	173,485,500	13,429,000	171,524,000	171,524,000	
Well # 5	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE
Well # 6	10,579,000	10,475,000	12,188,000	12,389,000	12,913,000	14,999,000	16,545,000	6,728,000	23,104,000	13,554,000	13,935,000	12,173,000	11,689,000	171,271,000	11,648,000	161,104,000	161,104,000	
Well # 7	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE
Well # 8 (City)	144,000	1,837,000	8,000	990,000	1,549,000	663,000	1,989,000	1,770,000	0	8,000	0	48,000	1,295,000	10,301,000	1,855,000	12,680,000	12,680,000	
Well # 8 (Hii Reservoir)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
<b>TOTAL</b>	<b>32,118,000</b>	<b>40,298,000</b>	<b>47,425,000</b>	<b>51,279,000</b>	<b>57,801,200</b>	<b>58,291,100</b>	<b>58,676,200</b>	<b>57,183,100</b>	<b>66,208,800</b>	<b>52,535,800</b>	<b>55,417,200</b>	<b>53,176,700</b>	<b>43,021,400</b>	<b>673,431,500</b>	<b>50,533,000</b>	<b>607,417,000</b>	<b>607,417,000</b>	
15/M Gal. Reservoir : Chloride Reading	14,570,000 CL=440 ppm	11,081,492 CL=396ppm	12,556,243 CL=396ppm	10,609,169 CL=402ppm	6,266,624 CL=420ppm	2,453,701 CL=444ppm	2,932,768 CL=400ppm	5,065,037 CL=525ppm	5,654,190 CL=507ppm	2,932,788 CL=495ppm	2,932,788 CL=460ppm	2,453,701 CL=464ppm	11,726,158 CL=369ppm	91,234,659	13,676,000	156,780,000	156,780,000	
Manele Golf Course Irrig NP, High Level Aquifers Effluent use @	8,143,420	10,598,900	13,147,200	15,815,300	17,080,300	15,380,650	17,993,720	22,897,490	18,620,600	16,712,750	18,874,230	13,262,740	10,123,850	198,651,150	12,874,970	178,488,664	178,488,664	
Manele Golf Course Irrig AWWTP( city)	2,154,000	3,210,000	1,504,000	3,747,000	2,153,000	1,624,000	2,572,000	1,997,000	2,162,000	2,309,000	1,845,000	2,069,000	2,049,000	29,395,000	2,283,000	36,735,000	36,735,000	
Koala Golf Course Irrig	100	426,000	6,710,300	4,444,700	8,427,600	6,121,200	8,474,600	8,149,000	9,046,900	7,821,700	7,722,300	2,094,400	2,930,600	72,369,400	4,897,400	76,692,800	76,692,800	
Manele PD, NonPot. Irrig.	2,065,580	3,611,100	4,095,800	4,384,700	5,936,700	3,763,350	5,471,280	4,495,510	4,680,400	6,347,250	4,594,770	2,956,260	3,376,150	55,778,850	3,467,030	33,349,336	33,349,336	
	DISTRIBUTION - GALLONS																	
	PERIOD 1 12/31 - 1/27	PERIOD 2 01/28 - 2/24	PERIOD 3 2/25 - 03/24	PERIOD 4 3/25 - 4/21	PERIOD 5 4/22 - 5/19	PERIOD 6 5/20 - 6/16	PERIOD 7 6/17 - 7/14	PERIOD 8 7/15 - 8/11	PERIOD 9 8/12 - 9/08	PERIOD 10 9/09 - 10/06	PERIOD 11 10/07 - 11/03	PERIOD 12 11/04 - 12/01	PERIOD 13 12/02 - 12/29	THIS YEAR TO DATE	CURRENT PD. LAST YEAR	TO DATE LAST YEAR	TOTAL LAST YEAR	
To City Grid	12,846,800	13,775,000	15,635,300	15,768,900	17,475,800	18,922,700	20,152,900	10,685,100	27,519,600	17,654,600	17,790,500	15,324,800	14,800,900	218,352,700	15,023,600	203,045,100	203,045,100	
To Manele District, ADA, Ag. Activities near Airport.	19,207,000	26,482,000	31,439,000	35,340,000	40,279,200	39,322,100	38,442,200	46,328,100	38,536,800	34,724,800	37,406,200	37,729,700	28,140,400	453,377,500	35,449,000	402,441,000	402,441,000	
To Kaunapuu	64,200	41,000	350,700	170,100	46,200	46,300	81,100	169,900	152,400	156,400	220,500	122,400	80,100	1,701,300	60,400	1,930,900	1,930,900	
<b>TOTAL</b>	<b>32,118,000</b>	<b>40,298,000</b>	<b>47,425,000</b>	<b>51,279,000</b>	<b>57,801,200</b>	<b>58,291,100</b>	<b>58,676,200</b>	<b>57,183,100</b>	<b>66,208,800</b>	<b>52,535,800</b>	<b>55,417,200</b>	<b>53,176,700</b>	<b>43,021,400</b>	<b>673,431,500</b>	<b>50,533,000</b>	<b>607,417,000</b>	<b>607,417,000</b>	

### PERIODIC WATER REPORT TEMPERATURE AND CHLORIDE

	PERIOD 1 12/30 - 1/27		PERIOD 2 1/28-02/24		PERIOD 3 2/25- 3/24		PERIOD 4 3/24- 4/21		PERIOD 5 4/22 - 5/19		PERIOD 6 5/20- 6/16		PERIOD 7 6/17 - 7/14		PERIOD 8 7/15 - 8/11		PERIOD 9 8/12 - 9/08		PERIOD 10 9/10 - 10/06		PERIOD 11 10/07 - 11/03		PERIOD 12 11/04 - 12/01		PERIOD 13 12/02 - 12/29		
	Temp.	Chlrd.	Temp.	Chlrd.	Temp.	Chlrd.	Temp.	Chlrd.	Temp.	Chlrd.	Temp.	Chlrd.	Temp.	Chlrd.	Temp.	Chlrd.	Temp.	Chlrd.	Temp.	Chlrd.	Temp.	Chlrd.	Temp.	Chlrd.	Temp.	Chlrd.	
Maunalei Tunnel (Lower)	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
Maunalei Tunnel (Upper)	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
Maunalei - Shaft # 2	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
Well # 1	80	312	88	303	88	303	82	305	86	315	85	320	81	315	85	320	85	295	*	*	81	291	81	286	79	274	
Well # 9	80	468	82	462	82	462	81	464	82	469	82	470	83	464	82	470	83	422	83	419	83	419	83	414	83	418	
Well # 14	84	713	84	713	84	713	82	720	82	720	82	725	83	715	82	725	80	507	83	530	83	514	84	507	84	507	
Booster #1																											
Shaft # 3 (Header)	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
Shaft # 3 (Well # 2)	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
Booster #2																											
Shaft # 3 (Header)	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
Well #3 (City)	76	36	72	34	74	34	73	34	74	36	73	38	73	36	73	38	81	34	72	36	73	35	71	34	71	33	
Well # 3 (Hii Reservoir)	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
Well # 4	66	22	66	22	67	23	68	23	67	24	66	22	66	24	66	22	67	23	67	23	64	22	65	26	66	21	
Well # 5	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
Well # 6	70	29	68	27	67	28	67	28	67	28	66	28	66	28	66	28	76	28	76	28	66	28	66	28	65	28	
Well # 7	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
Well # 8	66	39	72	36	72	36	72	36	72	40	71	42	71	40	71	42	*	*	*	*	*	*	*	*	71	39	
Well # 12	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*

NOTE: 1. Temperature reading is in Fahrenheit.  
 2. Chloride content is in milligrams per liter (mg/L) or in equivalent parts per million (ppm).  
 3. \* Wells or Tunnel not in service. Data not available.



## PERIODIC WATER REPORT HIGH / LOW

	PERIOD 1 12/30-1/27/05		PERIOD 2 01/28 - 2/24		PERIOD 3 2/25- 3/24		PERIOD 4 3/25- 4/21		PERIOD 5 4/22 - 5/19		PERIOD 6 5/20 - 6/16		PERIOD 7 6/17 - 7/14		PERIOD 8 7/15 - 8/11		PERIOD 9 8/12 - 9/08		PERIOD 10 9/09 - 10/06		PERIOD 11 10/07 - 11/03		PERIOD 12 11/04 - 12/01		PERIOD 13 12/ - 12/29		
	HIGH	LOW	HIGH	LOW	HIGH	LOW	HIGH	LOW	HIGH	LOW	HIGH	LOW	HIGH	LOW	HIGH	LOW	HIGH	LOW	HIGH	LOW	HIGH	LOW	HIGH	LOW	HIGH	LOW	
Maunalei (Shaft # 2)	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
Well # 1	691	611	694	607	697	611	697	611	697	611	654	601	647	607	697	603	690	605	685	597	677	595	677	590	687	603	
Well # 2 (Shaft # 3)	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
Well # 3	1058	1040	1059	1040	1058	1033	1057	1037	1056	1036	1056	1036	1055	1036	1044	1022	1052	889	890	874	874	874	1058	1028	1058	1010	
Well # 4	1498	1477	1498	1477	1498	1477	1498	1477	1498	1477	1498	1477	1498	1477	1498	1477	1498	1477	1498	1477	1498	1477	1505	1486	1498	1477	
Well # 5	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
Well # 6	944	936	944	935	944	936	944	934	943	933	941	930	936	926	934	924	936	915	972	966	938	914	956	926	936	928	
Well # 7	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
Well # 8	965	929	967	929	963	929	963	913	963	927	962	927	962	925	961	925	963	959	981	980	961	*	961	960	961	939	
Well # 9	670	576	672	583	636	578	660	578	658	578	656	576	630	620	644	582	632	571	638	573	627	572	630	576	660	576	
Well # 14	537	525	523	515	516	493	516	493	516	493	516	493	516	493	527	495	530	503	527	505	549	506	528	507	533	507	
Shaft 3 Bulkhead	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*

937:

THE ISLAND OF LANAI  
2004 PERIODIC WATER REPORT

PERIOD 13, 2004

	WATER PUMPED GALLONS													THIS YEAR TO DATE	CURRENT PD. LAST YEAR	TO DATE LAST YEAR	TOTAL LAST YEAR	
	PERIOD 1 01/04 - 1/31	PERIOD 2 02/21 - 2/28	PERIOD 3 2/29 - 03/27	PERIOD 4 3/28 - 4/24	PERIOD 5 4/25 - 5/22	PERIOD 6 5/23 - 6/19	PERIOD 7* 6/20 - 7/24	PERIOD 8** 7/25 - 8/14	PERIOD 9 8/15 - 9/11	PERIOD 10 9/12 - 10/09	PERIOD 11 10/10 - 11/06	PERIOD 12 11/07 - 12/04	PERIOD 13 12/05 - 01/01					
Mainline Tunnel (Lwa)	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE
Mainline Tunnel (Upr)	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE
Mainline Shaft # 1	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE
Well # 1	12,357,000	12,577,000	7,529,000	6,646,000	9,525,000	4,738,000	13,026,000	9,097,000	10,877,000	12,044,000	8,248,000	6,326,000	9,286,000	122,276,000	12,863,000	146,227,000	146,227,000	
Well # 2	492,000	604,000	4,458,000	11,473,000	7,847,000	8,515,000	6,944,000	6,556,000	3,932,000	4,874,000	5,363,000	5,364,000	4,934,000	71,356,000	NOT IN SERVICE	70,085,000	70,085,000	
Well # 14	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	54,900	1,044,100	9,232,000	2,528,000	3,705,000	5,608,000	2,860,000	4,453,000	7,800,000	37,285,000	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	
Shaft # 1 Well # 2	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	
Well # 3 (City)	1,519,000	2,652,000	1,100,000	1,657,000	1,832,000	3,485,000	3,127,000	1,612,000	3,995,000	2,293,000	4,078,000	2,261,000	1,581,000	31,192,000	1,735,000	14,105,000	14,105,000	
Well # 3 (Rt. Reservoir)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Well # 4	11,207,000	15,788,000	11,193,000	15,676,000	12,156,000	12,771,000	18,304,000	10,667,000	12,331,000	12,813,000	14,197,000	10,992,000	13,429,000	171,524,000	14,567,000	277,379,000	277,379,000	
Well # 5	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	
Well # 6	10,420,000	14,022,000	10,396,000	11,473,000	11,493,000	11,149,000	16,511,000	10,427,000	13,851,000	15,260,000	13,319,000	11,135,000	11,648,000	161,104,000	11,082,000	162,927,697	162,927,697	
Well # 7	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	
Well # 8 (City)	1,081,000	953,000	801,000	1,029,000	485,000	0	1,847,000	1,241,000	0	2,526,000	0	862,000	1,855,000	12,680,000	882,000	33,911,000	33,911,000	
Well # 8 (Rt. Reservoir)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
TOTAL	37,076,000	46,596,000	35,477,000	47,954,000	43,392,900	41,702,100	68,991,000	42,128,000	48,691,000	55,418,000	48,065,000	41,393,000	50,533,000	607,417,000	41,129,000	724,634,697	724,634,697	

15M Gal. Reservoir Chloride Reading	13,764,000 Cl = 327ppm	13,784,000 Cl = 331ppm	14,661,000 Cl = 341ppm	12,055,000 Cl = 393ppm	12,055,000 Cl = 369ppm	10,454,000 Cl = 451ppm	11,242,000 Cl = 488ppm	13,327,000 Cl = 432 ppm	10,454,000 Cl = 457ppm	11,726,000 Cl = 440ppm	10,644,000 Cl = 427ppm	8,958,000 Cl = 440ppm	13,676,000 Cl = 440ppm	156,780,000	9,692,530 Cl = 390ppm	74,622,916	74,622,916
Maneie Golf Course Irrig. NonPotable High Level Arm'd Effluent use (g)	13,294,890	4,386,025	7,096,354	13,056,565	14,436,630	14,311,615	23,940,354	10,676,451	18,449,060	17,961,540	14,044,180	13,960,030	12,874,970	178,488,664	9,249,309	174,897,009	174,897,009
Maneie Golf Course Irrig. 3WAYFP	3,059,000	4,384,000	3,328,000	2,787,000	2,879,000	2,487,000	2,165,000	3,358,000	2,510,000	2,232,000	2,466,000	2,777,000	2,283,000	36,735,000	2,894,000	33,496,000	33,496,000
Keolu Golf Course Irrig.	4,518,000	7,060,500	2,574,500	3,834,300	4,772,500	4,597,800	10,753,700	8,017,900	8,382,300	9,985,700	4,202,100	3,096,100	4,897,400	76,692,800	4,381,200	77,342,700	77,342,700
Maneie PD-NonPotable Irrig.	2,331,110	2,012,975	2,286,646	1,764,435	2,244,370	2,009,385	3,781,646	2,291,549	3,085,940	2,880,460	2,080,820	3,112,970	3,467,030	33,349,336	1,971,691	30,953,991	30,953,991

	DISTRIBUTION GALLONS													THIS YEAR TO DATE	CURRENT PD. LAST YEAR	TO DATE LAST YEAR	TOTAL LAST YEAR
	PERIOD 1 01/04 - 1/31	PERIOD 2 02/21 - 2/28	PERIOD 3 2/29 - 03/27	PERIOD 4 3/28 - 4/24	PERIOD 5 4/25 - 5/22	PERIOD 6 5/23 - 6/19	PERIOD 7* 6/20 - 7/24	PERIOD 8** 7/25 - 8/14	PERIOD 9 8/15 - 9/11	PERIOD 10 9/12 - 10/09	PERIOD 11 10/10 - 11/06	PERIOD 12 11/07 - 12/04	PERIOD 13 12/05 - 01/01				
To City Grid	12,905,700	17,473,300	12,198,500	13,980,200	13,689,400	14,443,300	21,280,500	13,135,300	17,716,000	19,960,200	17,257,700	13,991,400	15,023,600	203,045,100	13,553,700	227,942,997	227,942,997
To Manie District, ADA, Ap. Artidities near Airport.	24,056,000	28,969,000	23,180,000	33,795,000	29,582,900	27,068,100	47,506,000	28,848,000	30,845,000	35,339,000	30,668,000	27,135,000	35,449,000	402,441,000	27,430,000	493,691,000	493,691,000
To Kaunaloa	114,300	153,700	98,500	178,800	120,600	190,700	204,500	144,700	130,000	128,800	139,300	266,600	60,400	1,930,900	145,300	3,000,700	3,000,700
TOTAL	37,076,000	46,596,000	35,477,000	47,954,000	43,392,900	41,702,100	68,991,000	42,128,000	48,691,000	55,418,000	48,065,000	41,393,000	50,533,000	607,417,000	41,129,000	724,634,697	724,634,697

\*Note: Report for period 7 covers 35 days instead of 28 days.  
\*\*Note: Report for period 8 covers 21 days instead of 28 days.

PID No. 4142  
SEQ No. 70201

done

C

C

363  
130

**THE ISLAND OF LANAI  
2004 PERIODIC WATER REPORT  
CHLORIDE LEVEL & TEMPERATURE**

PERIOD 13, 2004

	PERIOD 1 1/04 - 1/31		PERIOD 2 2/201-02/28		PERIOD 3 2/29- 3/27		PERIOD 4 3/28- 4/24		PERIOD 5 4/25 - 5/22		PERIOD 6 5/23- 6/19		PERIOD 7 6/20 - 7/24		PERIOD 8 7/25 - 8/14		PERIOD 9 8/15 - 9/11		PERIOD 10 9/12 - 10/09		PERIOD 11 10/10 - 11/06		PERIOD 12 11/07 - 12/04		PERIOD 13 12/04 - 1/01	
	Temp.	Chlrd.	Temp.	Chlrd.	Temp.	Chlrd.	Temp.	Chlrd.	Temp.	Chlrd.	Temp.	Chlrd.	Temp.	Chlrd.	Temp.	Chlrd.	Temp.	Chlrd.	Temp.	Chlrd.	Temp.	Chlrd.	Temp.	Chlrd.	Temp.	Chlrd.
Maunalei Tunnel (Lower)	68	22	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
Maunalei Tunnel (Upper)	68	22	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
Maunalei - Shaft # 2	68	24	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
Well # 1	80	326	81	308	81	312	81	309	80	321	81	318	80	296	81	294	81	298	82	292	82	301	82	301	80	312
Well # 9	80	489	78	469	82	461	82	471	82	457	84	471	84	462	84	453	84	478	84	459	84	467	84	467	80	467
Well # 14	*	*	*	*	*	*	*	*	84	685	84	656	84	707	85	702	84	723	85	710	85	715	85	715	84	715
Shaft # 3 (Header) Booster #1	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
Shaft # 3 (Well # 2)	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
Shaft # 3 (Header) Booster #2	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
Well #3 (City)	72	34	72	34	71	32	72	35	72	34	72	35	72	36	72	35	72	36	72	35	72	36	72	36	76	36
Well # 3 (Hii Reservoir)	72	34	72	34	71	32	72	35	72	34	72	35	*	*	*	*	*	*	*	*	*	*	*	*	*	*
Well # 4	63	22	63	22	66	23	67	22	67	22	66	23	66	23	66	22	66	23	67	22	66	23	66	23	66	22
Well # 5	65	25	64	25	65	25	65	25	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
Well # 6	66	29	63	28	63	28	63	29	63	28	64	28	66	30	68	29	67	29	67	29	67	30	67	30	70	29
Well # 7	69	57	69	57	69	57	69	58	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
Well # 8	63	35	*	*	72	40	72	40	72	34	*	*	72	37	72	42	*	*	72	41	72	39	72	39	66	39
Well # 12	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*

NOTE: 1. Temperature reading is in Fahrenheit.  
 2. Chloride content is in milligrams per liter (mg/L) or in equivalent parts per million (ppm).  
 3. \* Wells or Tunnel not in service. Data not available.

# THE ISLAND OF LANA'I

## 2004 PERIODIC WATER REPORT

### High and Low Water Levels

PERIOD 13, 2004

	PERIOD 1 1/04 - 1/31		PERIOD 2 02/01 - 2/28		PERIOD 3 2/29 - 3/27		PERIOD 4 3/28 - 4/24		PERIOD 5 4/25 - 5/22		PERIOD 6 5/23 - 6/19		PERIOD 7 6/20 - 7/24		PERIOD 8 7/25 - 8/14		PERIOD 9 8/15 - 9/11		PERIOD 10 9/12 - 10/09		PERIOD 11 10/10 - 11/06		PERIOD 12 11/07 - 12/04		PERIOD 13 12/05 - 1/01		
	HIGH	LOW	HIGH	LOW	HIGH	LOW	HIGH	LOW	HIGH	LOW	HIGH	LOW	HIGH	LOW	HIGH	LOW	HIGH	LOW	HIGH	LOW	HIGH	LOW	HIGH	LOW	HIGH	LOW	
Maunalei (Shaft # 2)	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
Well # 1	727	689	739	675	741	687	733	685	747	699	753	687	742	687	742	691	731	697	776	695	687	605	697	605	690	601	
Well # 2 (Shaft # 3)	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
Well # 3	1063	*	1063	*	1061	*	1060	*	1061	*	1061	*	1063	1049	1061	1053	1061	*	1121	1105	1056	1041	1059	1038	1060	1040	
Well # 4	1467	*	1467	*	1467	*	1479	*	1478	*	1477	*	1479	*	1477	*	1477	*	1477	*	1498	1477	1498	1477	1498	1477	
Well # 5	1495	*	1496	*	1496	*	1496	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	
Well # 6	950	940	948	938	949	939	947	932	948	938	948	940	948	936	946	936	944	936	942	935	941	935	942	932	943	935	
Well # 8	969	931	*	*	967	930	968	929	967	930	*	*	966	928	967	930	*	*	975	937	961	927	967	923	969	927	
Well # 7	973	*	973	*	973	*	973	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
Well # 9	758	714	762	718	756	696	744	688	738	698	708	652	738	648	704	651	723	670	736	660	666	590	658	579	658	578	
Well # 14	*	*	*	*	*	*	*	*	518	497	518	497	518	497	518	497	521	*	518	497	518	497	*	*	538	517	
Shaft 3 Bulkhead	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*

GENERAL NOTES: Fore notes 1-10, please review previous PWRs.

11 This note pertains to Period 11 2004 onwards. The levels for wells were audited for accuracy and the following were noted:

- Well 1: The air line elevation was changed from 673 feet to 593 feet MSL in November 2000 when the pump was lowered 60 feet. The change in air line elevation was not updated at the time
- Well 3: The transducer elevation was changed from 937 feet MSL to 873.8 feet MSL in December 2001 when repair to the pump occurred. The change in transducer elevation was not recorded in the PWR at that time.
- Well 8: While physically measuring the elevation of the transducer, it was found that the transducer elevation is at 890.5 feet MSL instead of 906 feet MSL.
- Well 9: The air line elevation was changed from 608 feet MSL to 638 feet MSL in October 2003 when the pump was lowered 42 feet. The adjusted air line elevation of 638 feet MSL is erroneous. The correct elevation should be 566 feet MSL.
- Well 14: The water levels shown in the report since the well was put in service in April 2004 are manual readings. Initially, MSL was incorrectly calculated. Readings have been recomputed correctly. Transducer is currently being ordered so that chart recorder can be used.

P110  
4142

107 no 148

11999

# THE ISLAND OF LANAI

## 2003 PERIODIC WATER REPORT

PERIOD 13, 2003

71986 71987 71988 71989 71990 71991 92 93 94 96 97 98 11999

	WATER PUMPED													GALLONS			
	PERIOD 1 01/29 - 1/25	PERIOD 2 1/26 - 2/22	PERIOD 3 2/23 - 3/22	PERIOD 4 3/23 - 4/19	PERIOD 5 4/20 - 5/17	PERIOD 6 5/18 - 6/14	PERIOD 7 6/15 - 7/12	PERIOD 8 7/13 - 8/09	PERIOD 9 8/10 - 9/06	PERIOD 10 9/07 - 10/04	PERIOD 11 10/05-11/01	PERIOD 12 11/02-11/30	PERIOD 13 12/01-01/03	THIS YEAR TO DATE	CURRENT PD. LAST YEAR	TO DATE LAST YEAR	TOTAL LAST YEAR
Maunalei Tunnel (Lwr)	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE
Maunalei Tunnel (Upr)	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE
Maunalei-Shaft No. 2	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE
Well No. 1	12,635,000	6,936,000	9,330,000	10,017,000	11,398,000	11,230,000	8,494,000	15,909,000	12,247,000	12,168,000	11,528,000	11,472,000	1,286,300	134,650,300	7,136,000	142,479,000	142,479,000
Well No. 9	5,261,000	5,289,000	7,386,000	5,736,000	2,431,000	8,474,000	4,266,000	8,257,000	5,730,000	5,574,000	8,012,000	3,669,000	NOT IN SERVICE	70,085,000	5,642,000	67,750,000	67,750,000
Well No. 12	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE
Shaft No. 3 Well 2	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	2,471,720	2,471,720
Well No. 3 (City)	0	22,000	0	477,000	2,967,000	1,263,000	0	1,847,000	1,479,000	636,000	376,000	3,303,000	1,735,000	14,105,000	0	9,609,000	9,609,000
Well No. 3 (Hii Reservoir)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	395,000	395,000
Well No. 4	19,509,000	16,423,000	21,786,000	19,993,000	22,658,000	21,828,000	19,443,000	37,275,000	21,642,000	24,165,000	22,440,000	15,650,000	14,567,000	277,379,000	17,678,000	219,063,000	219,063,000
Well No. 5	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE
Well No. 6	13,970,000	11,338,000	13,379,000	11,373,000	15,212,000	16,023,000	11,390,000	20,541,000	17,823,000	14,133,000	14,019,000	12,644,697	11,082,000	182,917,697	12,450,000	168,617,000	168,617,000
Well No. 7	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE
Well No. 8 (City)	3,183,000	1,874,000	2,780,000	1,763,000	1,243,000	3,725,000	3,115,000	4,634,000	3,852,000	3,103,000	3,547,000	230,000	882,000	33,911,000	2,866,000	31,320,000	31,320,000
Well No. 8 (Hii Reservoir)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<b>TOTAL</b>	<b>54,558,000</b>	<b>41,882,000</b>	<b>54,641,000</b>	<b>49,359,000</b>	<b>55,909,000</b>	<b>62,543,000</b>	<b>46,708,000</b>	<b>88,463,000</b>	<b>62,773,000</b>	<b>59,779,000</b>	<b>59,922,000</b>	<b>46,968,697</b>	<b>29,552,300</b>	<b>713,057,997</b>	<b>45,772,000</b>	<b>641,704,720</b>	<b>641,704,720</b>

	8,958,000	6,903,000	6,287,000	6,267,000	2,933,000	3,955,000	3,955,000	3,955,000	4,498,744	3,433,042	6,902,800	6,902,800	9,692,530	74,622,916	5,065,000	111,800,000	111,800,000
15/M Gal. Reservoir : Chloride Reading	Cl=386ppm	Cl=381ppm	Cl=395ppm	Cl=386ppm	Cl=332ppm	Cl=380ppm	Cl=361ppm	Cl=360ppm	Cl=380ppm	Cl=363ppm	Cl=380ppm	Cl=380ppm	Cl=390ppm				
Manele Golf Course Irrig. from NonPotable High Level Aquifers	11,607,500	10,617,290	14,953,300	12,088,152	16,356,047	14,034,900	10,231,270	23,154,730	13,446,770	14,239,550	13,544,820	11,373,371	9,249,309	174,897,009	14,141,130	175,430,840	175,430,840
Effluent use @ Manele Golf Course Irrig	3,162,000	1,625,000	3,371,000	1,991,000	3,010,000	1,722,000	1,518,000	3,563,000	1,887,000	2,949,000	3,149,000	2,655,000	2,894,000	33,496,000	2,575,000	32,714,000	32,714,000
AWWTP	3,266,700	1,005,600	7,206,500	2,828,700	9,689,400	10,570,600	7,822,100	8,835,300	9,207,200	5,978,100	3,779,800	2,770,500	4,381,200	77,342,700	7,792,100	79,619,100	79,619,100
Koale Golf Course Irrig	1,811,500	2,107,710	2,138,700	1,886,848	1,987,953	3,353,100	2,838,730	3,260,270	2,322,230	2,257,450	2,118,180	2,899,629	1,971,691	30,953,991	2,136,870	17,420,780	17,420,780

	DISTRIBUTION													GALLONS			
	PERIOD 1 12/30 - 1/25	PERIOD 2 1/26 - 2/22	PERIOD 3 2/23 - 3/22	PERIOD 4 3/23 - 4/22	PERIOD 5 4/20 - 5/17	PERIOD 6 5/18 - 6/16	PERIOD 7 6/17 - 7/12	PERIOD 8 7/13 - 8/09	PERIOD 9 8/10 - 9/06	PERIOD 10 9/07 - 10/04	PERIOD 11 10/05-11/01	PERIOD 12 11/02-11/30	PERIOD 13 12/01-12/28	THIS YEAR TO DATE	CURRENT PD. LAST YEAR	TO DATE LAST YEAR	TOTAL LAST YEAR
To City Grid	16,978,300	13,167,800	15,953,000	13,453,200	19,121,800	20,733,600	14,252,300	26,379,600	22,889,900	17,630,900	17,782,100	16,048,797	13,553,700	227,942,997	15,213,300	206,686,100	206,686,100
To Manele District, ADA, & Ag. Activities near Airport.	37,405,000	28,648,000	38,502,000	35,746,000	36,487,000	41,532,000	32,203,000	61,441,000	39,619,000	41,907,000	41,980,000	30,791,000	15,853,300	482,114,300	30,456,000	432,158,720	432,158,720
To Kaunapau	176,700	66,200	186,000	159,800	300,200	277,400	252,700	842,400	264,100	241,100	159,900	128,900	145,300	3,000,700	102,700	2,859,900	2,859,900
<b>TOTAL</b>	<b>54,558,000</b>	<b>41,882,000</b>	<b>54,641,000</b>	<b>49,359,000</b>	<b>55,909,000</b>	<b>62,543,000</b>	<b>46,708,000</b>	<b>88,463,000</b>	<b>62,773,000</b>	<b>59,779,000</b>	<b>59,922,000</b>	<b>46,968,697</b>	<b>29,552,300</b>	<b>713,057,997</b>	<b>45,772,000</b>	<b>641,704,720</b>	<b>641,704,720</b>

Notes: \*\*Starting Period 7, July 13 2002, \*\*Manele Project District NonPotable Irrigation\*\* will be included in Periodic Water Report.

# THE ISLAND OF LANAI 2003 PERIODIC WATER REPORT CHLORIDE LEVEL & TEMPERATURE

PERIOD 13, 2003

71986 71987 71988 71989 71990 71991 71992 71993 71994 71996 71997 71998 71999

	PERIOD 1 1/29 - 1/25		PERIOD 2 1/26 - 2/22		PERIOD 3 2/23 - 3/22		PERIOD 4 3/23 - 4/19		PERIOD 5 4/20 - 5/17		PERIOD 6 5/18 - 6/14		PERIOD 7 6/15 - 7/12		PERIOD 8 7/13 - 8/09		PERIOD 9 8/10 - 9/06		PERIOD 10 9/07 - 10/04		PERIOD 11 10/05 - 11/01		PERIOD 12 11/02 - 11/30		PERIOD 13 12/01 - 1/03			
	Temp.	Chlrd.	Temp.	Chlrd.	Temp.	Chlrd.	Temp.	Chlrd.	Temp.	Chlrd.	Temp.	Chlrd.	Temp.	Chlrd.	Temp.	Chlrd.	Temp.	Chlrd.	Temp.	Chlrd.	Temp.	Chlrd.	Temp.	Chlrd.	Temp.	Chlrd.	Temp.	Chlrd.
Maunalei Tunnel (Lower)	66	22	66	22	66	22	66	22	66	22	*	*	66	21	68	19	68	18	68	17	68	22	68	22	68	23		
Maunalei Tunnel (Upper)	66	22	66	22	66	22	66	22	66	22	*	*	66	21	68	19	68	18	68	18	68	20	68	20	68	20		
5154-01 Maunalei - Shaft No. 2	73	24	73	24	69	22	70	22	70	23	*	*	68	23	68	20	69	19	72	18	68	20	68	20	68	20		
Well No. 1 4853-02	81	368	80	300	82	317	80	307	82	300	80	317	80	304	82	314	82	316	82	316	82	329	82	319	80	314		
Well No. 9 4252-01	83	477	83	477	82	480	84	459	84	452	82	456	80	487	82	488	84	486	81	486	84	484	*	*	*	*		
Well No. 12 4552-01 Booster #1 Shaft No. 3 (Header)	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	
1953-01 Shaft No. 3 (Well No. 2) Booster #2 Shaft No. 3 (Header)	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	
Well No. 3 (City) 4954-01	72	35	72	30	72	30	72	34	72	34	72	34	*	*	76	36	77	35	*	*	72	36	72	37	72	37		
Well No. 3 (Hii Reservoir)	72	35	72	30	72	30	72	34	72	34	72	34	*	*	76	39	77	35	*	*	72	36	72	37	72	37		
Well No. 4 4952-02	67	25	66	22	64	23	68	24	66	23	68	23	68	23	66	23	66	23	68	23	66	23	63	21	63	23		
Well No. 5 4252-02	64	25	64	25	64	27	64	27	65	27	65	27	65	27	65	27	65	27	65	27	67	29	66	27	66	29		
Well No. 6 5054-02	66	31	66	30	63	30	68	31	66	30	64	30	66	30	68	33	68	29	67	29	67	29	67	30	67	30		
Well No. 7 5056-01	69	57	69	57	69	56	69	56	69	56	69	56	69	56	69	56	69	56	69	58	69	56	69	56	69	56		
Well No. 8 4954-02	72	42	70	41	72	42	74	35	73	42	66	42	73	42	72	40	72	42	72	41	70	38	70	38	70	41		

- NOTE:
1. Temperature reading is in Fahrenheit.
  2. Chloride content is in milligrams per liter (mg/L) or in equivalent parts per million (ppm).
  3. \* Wells or Tunnel not in service. Data not available.

# THE ISLAND OF LANAI'

## 2003 PERIODIC WATER REPORT

### High and Low Water Levels

PERIOD 13, 2003

	PERIOD 1 1/29 - 1/25		PERIOD 2 1/26 - 2/22		PERIOD 3 2/23 - 3/22		PERIOD 4 3/23 - 4/19		PERIOD 5 4/20 - 5/17		PERIOD 6 5/18 - 6/14		PERIOD 7 6/15 - 7/12		PERIOD 8 7/13 - 8/09		PERIOD 9 8/10 - 9/06		PERIOD 10 9/07 - 10/04		PERIOD 11 10/05 - 11/01		PERIOD 12 11/02 - 11/30		PERIOD 13 12/01 - 1/03		
	HIGH	LOW	HIGH	LOW	HIGH	LOW	HIGH	LOW	HIGH	LOW	HIGH	LOW	HIGH	LOW	HIGH	LOW	HIGH	LOW	HIGH	LOW	HIGH	LOW	HIGH	LOW	HIGH	LOW	
Maunalei (Shaft No. 2)	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
Well No. 1	741	701	755	683	725	691	735	691	735	691	755	691	736	693	736	693	736	693	735	692	735	689	731	681	731	681	
Well No. 2 (Shaft No. 3)	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
Well No. 3	1066	*	1067	*	1068	*	1064	*	1064	*	1063	*	1063	*	1064	*	1064	*	1064	*	1064	*	1063	*	1063	*	
Well No. 4	1491	*	1492	*	1490	*	1477	*	1477	*	1480	*	1481	*	1467	*	1467	*	1467	*	1467	*	1467	*	1467	*	
Well No. 5	1495	*	1497	*	1496	*	1496	*	1496	*	1495	*	1495	*	1496	*	1496	*	1496	*	1496	*	1496	*	1496	*	
Well No. 6	952	944	952	946	952	947	952	942	952	943	949	939	949	939	946	936	946	935	932	920	944	934	944	934	946	936	
Well No. 8	964	935	968	935	967	935	974	935	974	935	970	933	970	933	968	933	968	933	968	933	969	933	970	933	970	933	
Well No. 7	974	*	975	*	974	*	973	*	973	*	973	*	973	*	973	*	973	*	973	*	973	*	973	*	973	*	
Well No. 9	666	612	666	613	658	614	658	616	679	*	679	*	729	689	699	659	699	659	695	657	702	650	687	650	*	*	
Shaft 3 Bulkhead	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*

- GENERAL NOTES:
- All water levels are in feet above mean sea levels.
  - \* denotes that a well is not in service or the water level data is not available.
  - Starting in the third reporting period of 1994, the water level for well 9 is based on a surveyed well head elevation of 1412.87 feet (msl). All previously reported levels since the well's start-up in Reporting Period 7 in 1993 should be adjusted downward by 28 feet.
  - Bulkhead water level obtained by using benchmark elevation for pump chamber floor of 1510 feet from SUPPLEMENT GROUND - WATER DEVELOPMENT ON LANAI by Dr. H.T. Stearns December 22, 1953
  - Water levels on wells not in service and without water level recorders are manually measured. These measurements are put in high level column.
  - Water level for Well 8 revised in Period 7 in year 2002. All prior readings are approximately 100 feet lower than actual.
  - Water level for Well 9 revised in Period 8 2003. Water level for well 9 revised in Period 11 2003.

4142

THE ISLAND OF LANA'I

2002 PERIODIC WATER REPORT

PERIOD 13, 2002

RECEIVED

03 JAN 24 P3:53

92442 92443 92444 92445 92446 92447 92448 92449 92450 92451 92452 92453 92454

WATER PUMPED - GALLONS

	PERIOD 1 12/30 - 1/26	PERIOD 2 1/27 - 2/23	PERIOD 3 2/24 - 3/23	PERIOD 4 3/24 - 4/20	PERIOD 5 4/21 - 5/18	PERIOD 6 5/19 - 6/15	PERIOD 7 6/16 - 7/13	PERIOD 8 7/14 - 8/10	PERIOD 9 8/11 - 9/07	PERIOD 10 9/08 - 10/05	PERIOD 11 10/06-11/02	PERIOD 12 11/03-11/30	PERIOD 13 12/01-12/28	THIS YEAR TO DATE	CURRENT PD. LAST YEAR	TO DATE LAST YEAR	TOTAL LAST YEAR
Maunalei Tunnel (Lwr)	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE
Maunalei Tunnel (Upr)	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE
Maunalei Shaft No. 2	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE
Well No. 1	8,741,000	10,594,000	16,025,000	15,445,000	12,748,000	6,887,000	13,717,000	12,085,000	14,470,000	7,994,000	6,435,000	10,202,000	7,136,000	142,479,000	11,003,000	149,901,000	143,901,000
Well No. 9	5,039,000	54,000	190,000	0	6,638,000	11,895,000	2,648,700	6,396,300	5,720,000	8,418,000	6,766,000	8,243,000	5,642,000	67,750,000	356,000	82,934,000	82,934,000
Well No. 12	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE
Shaft No. 3 Well 2	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	126,720	700,000	0	0	0	1,645,000	0	0	0	0	2,471,720	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE
Well No. 3 (City)	762,000	29,000	872,000	459,000	835,000	3,691,000	1,830,000	0	1,131,000	0	0	0	0	9,609,000	1,608,000	25,011,400	25,011,400
Well No. 3 (Hill Reservoir)	0	0	0	0	181,000	214,000	0	0	0	0	0	0	0	395,000	0	0	0
Well No. 4	14,800,000	12,351,000	15,789,000	15,116,000	14,778,000	18,807,000	18,633,000	18,362,000	20,407,000	17,333,000	15,464,000	19,545,000	17,678,000	219,063,000	17,829,000	200,678,000	200,678,000
Well No. 5	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE
Well No. 6	11,062,000	10,746,000	11,908,000	12,784,000	10,998,000	14,039,000	11,919,000	14,357,000	16,007,000	14,036,000	15,056,000	13,275,000	12,450,000	168,617,000	11,802,000	189,385,000	189,385,000
Well No. 7	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE
Well No. 8 (City)	1,334,000	1,813,000	2,411,000	2,777,000	1,550,000	6,000	2,798,000	3,852,000	2,565,000	2,972,000	4,108,000	2,758,000	2,866,000	31,320,000	907,000	28,003,800	28,003,800
Well No. 8 (Hill Reservoir)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<b>TOTAL</b>	<b>41,738,000</b>	<b>35,387,000</b>	<b>47,195,000</b>	<b>46,687,720</b>	<b>48,428,000</b>	<b>65,639,000</b>	<b>51,455,700</b>	<b>54,852,300</b>	<b>61,945,000</b>	<b>50,753,000</b>	<b>47,829,000</b>	<b>54,023,000</b>	<b>45,772,000</b>	<b>641,704,720</b>	<b>43,505,000</b>	<b>669,913,200</b>	<b>669,913,200</b>

WATER MANAGEMENT  
RESOURCES

15M Gal. Reservoir : End of Period Storage	10,454,000	8,958,000	6,903,000	6,903,000	12,055,000	9,693,000	8,248,000	9,693,000	10,454,000	7,563,000	7,563,000	8,248,000	5,065,000	111,800,000	11,241,000	151,633,000	151,633,000
Chloride Reading Cl=358ppm	Cl=358ppm	Cl=320ppm	Cl=325ppm	Cl=331ppm	Cl=384ppm	Cl=437ppm	Cl=374ppm	Cl=328ppm	Cl=325ppm	Cl=400ppm	Cl=376ppm	Cl=368ppm	Cl=368ppm				
Manele Golf Course Irriq. from NonPotable High Level Aquifer	11,672,020	7,702,690	16,311,940	12,456,160	11,325,310	18,742,500	14,603,060	16,993,130	15,222,820	10,812,010	11,624,030	13,817,940	14,141,130	175,430,840	8,375,050	202,417,640	202,417,640
Effluent use @ Manele Golf Course Irriq	2,559,000	2,686,000	2,171,000	1,685,000	2,662,000	3,045,000	2,191,000	2,794,000	2,738,000	2,028,000	3,261,000	2,319,000	2,575,000	32,714,000	3,658,000	32,227,000	32,227,000
AWWTP Koele Golf Course Irriq	2,824,100	2,359,800	5,840,400	8,020,100	4,669,700	7,009,000	7,925,700	8,088,400	6,300,500	5,820,500	5,449,400	7,719,400	7,792,100	79,619,100	4,352,500	85,378,300	85,378,300
Manele P.D. NonPotable Irriq.	-	-	-	-	-	-	2,264,940	2,575,870	2,401,080	2,880,990	2,802,970	2,358,060	2,136,870	17,420,780	-	-	-

DISTRIBUTION GALLONS

	PERIOD 1 1/30 - 1/26	PERIOD 2 1/27 - 2/23	PERIOD 3 2/24 - 3/23	PERIOD 4 3/24 - 4/20	PERIOD 5 4/21 - 5/18	PERIOD 6 5/19 - 6/15	PERIOD 7 6/16 - 7/13	PERIOD 8 7/14 - 8/10	PERIOD 9 8/11 - 9/07	PERIOD 10 9/08 - 10/05	PERIOD 11 10/06-11/02	PERIOD 12 11/03-11/30	PERIOD 13 12/01-12/28	THIS YEAR TO DATE	CURRENT PD. LAST YEAR	TO DATE LAST YEAR	TOTAL LAST YEAR
To City Grid	13,010,800	12,171,500	14,971,400	15,761,900	13,132,400	17,408,200	16,144,900	17,669,000	19,446,900	16,764,300	19,007,700	15,984,000	15,213,300	206,686,100	14,128,100	238,680,900	238,680,900
To Manele District, ADA, & Ag. Activities near Airport.	28,580,000	22,999,000	32,004,000	30,687,720	35,045,000	37,903,000	34,998,700	36,843,300	42,242,000	33,745,000	28,695,000	37,990,000	30,458,000	432,158,720	29,188,000	427,513,000	427,513,000
To Kaunapapa	147,400	216,500	219,600	238,100	250,600	327,800	312,100	340,000	256,100	243,700	156,300	49,000	102,700	2,859,900	190,900	3,719,300	3,719,300
<b>TOTAL</b>	<b>41,738,000</b>	<b>35,387,000</b>	<b>47,195,000</b>	<b>46,687,720</b>	<b>48,428,000</b>	<b>55,639,000</b>	<b>51,455,700</b>	<b>54,852,300</b>	<b>61,945,000</b>	<b>50,753,000</b>	<b>47,829,000</b>	<b>54,023,000</b>	<b>45,772,000</b>	<b>641,704,720</b>	<b>43,505,000</b>	<b>669,913,200</b>	<b>669,913,200</b>

Notes: \*\*Starting Period 7, July 13 2002, "Manele Project District NonPotable Irrigation" will be included in Periodic Water Report.  
\*Well 9 under repair.



**THE ISLAND OF LANAI  
2002 PERIODIC WATER REPORT  
CHLORIDE LEVEL & TEMPERATURE**

PERIOD 13, 2002

	7/24/02		8/24/02		9/24/02		10/24/02		11/24/02		12/24/02		1/24/03		2/24/03		3/24/03		4/24/03		5/24/03		6/24/03		7/24/03		8/24/03		9/24/03		10/24/03		11/24/03		12/24/03	
	PERIOD 1 1/30 - 1/26		PERIOD 2 1/27 - 2/23		PERIOD 3 2/24 - 3/23		PERIOD 4 3/24 - 4/20		PERIOD 5 4/21 - 5/18		PERIOD 6 5/19 - 6/16		PERIOD 7 6/16 - 7/13		PERIOD 8 7/14 - 8/10		PERIOD 9 8/10 - 9/09		PERIOD 10 9/08 - 10/05		PERIOD 11 10/06 - 11/02		PERIOD 12 11/03 - 11/30		PERIOD 13 12/01 - 12/28											
	Temp.	Chlrd.	Temp.	Chlrd.	Temp.	Chlrd.	Temp.	Chlrd.	Temp.	Chlrd.	Temp.	Chlrd.	Temp.	Chlrd.	Temp.	Chlrd.	Temp.	Chlrd.	Temp.	Chlrd.	Temp.	Chlrd.	Temp.	Chlrd.	Temp.	Chlrd.	Temp.	Chlrd.	Temp.	Chlrd.	Temp.	Chlrd.	Temp.	Chlrd.		
Maunalei Tunnel (Lower)	**	**	66	26	66	26	66	26	70	25	69	26	68	25	68	25	67	24	67	24	66	23	66	23	66	23	66	23	66	23	66	23	66	23		
Maunalei Tunnel (Upper)	**	**	66	26	66	26	68	26	70	25	69	26	68	25	68	25	67	24	67	24	66	23	66	23	66	23	66	23	66	23	66	23	66	23		
Maunalei - Shaft No. 2	**	**	**	**	*	*	73	24	71	23	72	22	71	24	71	24	70	23	70	23	72	22	71	23	71	23	71	23	71	23	71	23	71	23		
Well No. 1	80	325	79	325	79	325	79	331	79	330	79	328	80	313	81	304	81	293	81	300	80	300	80	305	80	316	80	305	80	316	80	316	80	316		
Well No. 9	83	480	80	466	80	466	80	511	84	443	83	449	82	430	82	411	83	415	84	490	82	438	83	450	*	*	83	450	*	*	83	450	*	*		
Well No. 12	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*		
Booster #1 Shaft No. 3 (Header)	67	22	67	22	67	27	67	26	66	27	66	26	67	25	67	25	66	26	66	27	66	27	66	27	65	26	66	27	66	27	65	26	66	27		
Shaft No. 3 (Well No. 2)	67	22	67	22	67	27	67	26	66	27	66	26	67	25	67	25	66	26	66	27	66	27	66	27	65	26	66	27	66	27	65	26	66	27		
Booster #2 Shaft No. 3 (Header)	67	22	67	22	67	27	67	26	66	27	66	26	67	25	67	25	66	26	66	27	66	27	66	27	65	26	66	27	66	27	65	26	66	27		
Well No. 3 (City)	69	33	71	33	70	35	70	34	71	33	72	36	71	36	72	38	72	39	73	38	72	39	72	38	*	*	69	33	71	33	70	35	70	34		
Well No. 3 (I-II Reservoir)	69	33	71	33	70	35	70	34	71	33	72	36	71	36	72	38	72	39	73	38	72	39	72	38	*	*	69	33	71	33	70	35	70	34		
Well No. 4	63	23	63	23	62	24	62	24	66	24	67	22	66	25	67	28	66	23	65	23	66	22	66	22	66	22	68	25	66	22	66	22	68	25		
Well No. 5	68	22	73	21	74	22	73	23	73	25	73	26	74	22	67	23	66	26	66	23	67	26	66	27	64	27	68	25	66	22	66	22	68	25		
Well No. 6	63	31	64	29	64	30	62	30	66	31	65	29	64	30	66	31	66	30	67	30	66	30	73	29	67	30	63	31	64	29	64	30	62	30		
Well No. 7	76	60	75	61	77	62	77	62	72	60	73	60	73	61	73	59	74	60	74	58	74	60	73	61	70	61	76	60	75	61	77	62	77	62		
Well No. 8	66	39	65	42	65	42	65	42	73	37	73	41	72	40	72	44	72	43	73	44	72	42	72	45	72	42	66	39	65	42	65	42	73	37		

NOTE: 1. Temperature reading is in Fahrenheit.  
 2. Chloride content is in milligrams per liter (mg/L) or in equivalent parts per million (ppm).  
 3. \*Well's or Tunnel not in service. Data not available. Well #9 and #3 under repair.  
 4. \*\* Road to Shaft 2 under repair

**THE ISLAND OF LANA'I**  
**2002 PERIODIC WATER REPORT**      PERIOD 13, 2002  
**High and Low Water Levels**

	PERIOD 1 1/30 - 1/26		PERIOD 2 1/27 - 2/23		PERIOD 3 2/24 - 3/23		PERIOD 4 3/24 - 4/20		PERIOD 5 4/21 - 5/18		PERIOD 6 5/19 - 6/15		PERIOD 7 6/16 - 7/13		PERIOD 8 7/14 - 8/10		PERIOD 9 8/10 - 9/09		PERIOD 10 9/08 - 10/05		PERIOD 11 10/06 - 11/02		PERIOD 12 11/03 - 11/30		PERIOD 13 12/01 - 12/28		
	HIGH	LOW	HIGH	LOW	HIGH	LOW	HIGH	LOW	HIGH	LOW	HIGH	LOW	HIGH	LOW	HIGH	LOW	HIGH	LOW	HIGH	LOW	HIGH	LOW	HIGH	LOW	HIGH	LOW	
Maunalei (Shaft No. 2)	**	**	**	**	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
Well No. 1	788	691	769	691	753	683	757	693	753	695	733	697	733	689	730	697	745	681	757	695	759	687	757	691	757	693	
Well No. 2 (Shaft No. 3)	1457	*	1460	*	1460	*	1460	*	1456	*	1456	*	1457	*	1454	1404	1454	1396	1454	*	1454	*	1454	*	1454	*	
Well No. 3	1061	*	1061	*	1051	*	1053	*	1062	*	1063	*	1060	*	1063	1046	1064	1045	1063	*	1064	*	1065	*	1068	*	
Well No. 4	1501	*	1500	*	1492	*	1490	*	1490	*	1493	*	1490	*	1489	*	1485	*	1485	*	1495	*	1487	*	1491	*	
Well No. 5	1498	*	1516	*	1497	*	1500	*	1498	*	1498	*	1497	*	1497	*	1498	*	1499	*	1496	*	1498	*	1499	*	
Well No. 6	958	952	960	950	958	952	958	950	958	950	958	950	956	942	954	946	952	946	952	944	956	944	952	944	952	946	
Well No. 9	736	706	720	702	721	703	716	*	694	671	670	614	658	628	652	628	680	614	662	616	647	614	668	616	666	621	
Well No. 7	976	*	976	*	976	*	978	*	976	*	976	*	975	*	975	*	975	*	976	*	974	*	975	*	976	*	
Well No. 8	868	836	868	836	867	835	867	835	867	835	867	833	970	938	969	937	969	937	969	936	969	935	971	936	972	936	
Shaft 3 Bulkhead	1517	1517	1517	1517	1517	1517	1515	1515	1515	1515	1515	1515	1516	1516	1519	1519	1519	1519	1518	1518	1518	1518	1518	1518	1518	1518	

GENERAL NOTES: 1. All water levels are in feet above mean sea levels.

WELL NOTES: 1. Well 9 was out of service from December 23, 2002 to January 12, 2003

2. \* denotes that a well is not in service or the water level data is not available.

3. Starting in the third reporting period of 1994, the water level for well 9 is based on a surveyed well head elevation of 1412.87 feet (msl). All previously reported levels since the well's start-up in Reporting Period 7 in 1993 should be adjusted downward by 28 feet.

4. Bulkhead water level obtained by using benchmark elevation for pump chamber floor of 1510 feet from SUPPLEMENT GROUND - WATER DEVELOPMENT ON LANAI by Dr. H.T. Stearns December 22, 1953

5. Water levels on wells not in service and without water level recorders are manually measured. These measurements are put in high level column.

6. Water level for Well 8 revised in Period 7 in year 2002. All prior readings are approximately 100 feet lower than actual.

7. \*\* Road to Shaft #2 under repair.

# THE ISLAND OF LANA'I 2001 PERIODIC WATER REPORT

PERIOD 13, 2001

*02/24/01*

	WATER FLOW FROM PIPES TO GALLONS												THIS YEAR TO DATE	CURRENT PD. LAST YEAR	TO DATE LAST YEAR	TOTAL LAST YEAR	
	PERIOD 1 12/31 - 1/27	PERIOD 2 1/28 - 2/24	PERIOD 3 2/25 - 3/24	PERIOD 4 3/25 - 4/21	PERIOD 5 4/22 - 5/19	PERIOD 6 5/20 - 6/16	PERIOD 7 6/17 - 7/14	PERIOD 8 7/15 - 8/11	PERIOD 9 8/12 - 9/08	PERIOD 10 9/09 - 10/06	PERIOD 11 10/07-11/03	PERIOD 12 11/04-12/01					PERIOD 13 12/01-12/29
Maunalei Tunnel (Lwr)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Maunalei Tunnel (Upr)	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	0	NOT IN SERVICE	NOT IN SERVICE	0
Maunalei-Shaft No. 2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Well No. 1	7,640,000	2,156,000	2,900,000	21,340,000	20,742,000	9,794,000	15,179,000	9,487,000	8,381,000	9,845,000	14,456,000	10,978,000	11,003,000	143,901,000	7,629,000	122,457,000	122,457,000
Well No. 9	5,830,000	7,895,000	6,435,000	5,000	999,000	4,646,000	2,576,000	13,613,000	11,997,000	14,893,000	4,296,000	9,392,000	356,000	82,934,000	6,301,000	82,298,000	82,298,000
Well No. 12	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Shaft No. 3 Well 2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Well No. 3 (City)	2,469,400	2,952,000	4,618,000	4,984,000	3,531,000	2,023,000	2,315,000	0	0	0	457,000	54,000	1,608,000	25,011,400	2,697,000	66,040,000	66,040,000
Well No. 3 (Hill Reservoir)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	9,317,000	9,317,000
Well No. 4	12,547,000	14,464,000	13,905,000	14,935,000	16,371,000	11,696,000	13,225,000	19,921,000	15,471,000	16,722,000	17,209,000	16,383,000	17,829,000	200,678,000	13,349,000	193,437,000	193,437,000
Well No. 5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Well No. 6	11,799,000 NOT IN SERVICE	15,363,000 NOT IN SERVICE	14,250,000 NOT IN SERVICE	18,899,000 NOT IN SERVICE	16,868,000 NOT IN SERVICE	10,494,000 NOT IN SERVICE	14,767,000 NOT IN SERVICE	15,996,000 NOT IN SERVICE	15,763,000 NOT IN SERVICE	14,893,000 NOT IN SERVICE	16,628,000 NOT IN SERVICE	13,863,000 NOT IN SERVICE	11,802,000 NOT IN SERVICE	189,385,000	11,992,000	193,004,000	193,004,000
Well No. 7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Well No. 8 (City)	148,000	445,000	0	640,000	0	141,000	1,834,000	4,135,000	3,158,000	3,346,000	6,974,800	6,275,000	907,000	28,003,800	0	3,413,000	3,413,000
Well No. 8 (Hill Reservoir)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<b>TOTAL</b>	<b>40,433,400</b>	<b>43,276,000</b>	<b>42,108,000</b>	<b>58,803,000</b>	<b>58,511,000</b>	<b>38,794,000</b>	<b>49,896,000</b>	<b>63,152,000</b>	<b>54,770,000</b>	<b>59,699,000</b>	<b>60,020,800</b>	<b>56,945,000</b>	<b>43,505,000</b>	<b>669,913,200</b>	<b>41,968,000</b>	<b>669,966,000</b>	<b>669,966,000</b>

15/M Gal. Reservoir : End of Period Storage	8,958,000	10,454,000	13,764,000	13,764,000	13,764,000	12,055,000	11,242,000	12,895,000	12,055,000	11,242,000	8,958,000	11,241,000	11,241,000	151,633,000	12,055,000	116,834,000	116,834,000
Chloride Reading	Cl=400ppm	Cl=380ppm	Cl=370ppm	Cl=347ppm	Cl=337ppm	Cl=363ppm	Cl=385ppm	Cl=404ppm	Cl=433ppm	Cl=389ppm	Cl=377ppm	Cl=418ppm	Cl=405ppm				
Maneife Golf Course Irrig.	13,212,000	14,399,000	14,115,200	18,129,600	14,162,500	12,502,060	18,582,100	18,029,100	19,658,000	17,605,450	17,208,840	16,438,740	8,375,050	202,417,640	9,264,000	213,253,900	213,253,900
Effluent use @ Maneife Golf Course Irrig	3,567,000	2,156,000	2,900,000	2,587,000	2,531,000	2,462,000	2,721,000	1,942,000	2,050,000	2,157,000	1,831,000	1,665,000	3,658,000	32,227,000	1,918,000	30,997,000	30,997,000
AWWTP																	
Koele Golf Course Irrig	2,114,000	4,218,000	6,200,000	6,788,000	4,878,000	6,756,700	9,403,700	9,689,900	9,689,500	7,676,400	6,883,800	6,727,800	4,352,500	85,378,300	5,402,000	74,123,000	74,123,000

	DISBURSEMENT TO GALLONS												THIS YEAR TO DATE	CURRENT PD. LAST YEAR	TO DATE LAST YEAR	TOTAL LAST YEAR	
	PERIOD 1 12/31 - 1/27	PERIOD 2 1/28 - 2/24	PERIOD 3 2/25 - 3/24	PERIOD 4 3/25 - 4/21	PERIOD 5 4/22 - 5/19	PERIOD 6 5/20 - 6/16	PERIOD 7 6/17 - 7/14	PERIOD 8 7/15 - 8/11	PERIOD 9 8/12 - 9/08	PERIOD 10 9/09 - 10/06	PERIOD 11 10/07-11/03	PERIOD 12 11/04-12/01					PERIOD 13 12/01-12/29
To City Grid	14,224,700	18,525,600	18,563,700	22,261,800	19,952,200	12,363,400	18,558,900	19,789,300	16,648,500	17,977,300	23,767,800	19,921,600	14,126,100	238,680,900	14,524,700	259,234,300	259,234,300
To Maneife District, ADA, & Aq. Activities near Airport.	26,017,000	24,516,000	23,240,000	36,280,000	38,112,000	26,136,000	30,990,000	43,021,000	35,849,000	41,460,000	35,961,000	36,753,000	29,188,000	427,513,000	27,279,000	407,509,000	407,509,000
To Kaunalepau	191,700	234,400	304,300	261,200	446,800	294,600	357,100	341,700	272,500	261,700	292,000	270,400	190,900	3,719,300	164,300	3,222,700	3,222,700
<b>TOTAL</b>	<b>40,433,400</b>	<b>43,276,000</b>	<b>42,108,000</b>	<b>58,803,000</b>	<b>58,511,000</b>	<b>38,794,000</b>	<b>49,896,000</b>	<b>63,152,000</b>	<b>54,770,000</b>	<b>59,699,000</b>	<b>60,020,800</b>	<b>56,945,000</b>	<b>43,505,000</b>	<b>669,913,200</b>	<b>41,968,000</b>	<b>669,966,000</b>	<b>669,966,000</b>

Notes: \* Data corrected

**THE ISLAND OF LANAI  
2001 PERIODIC WATER REPORT  
CHLORIDE LEVEL & TEMPERATURE**

PERIOD 13, 2001

	PERIOD 1 12/31 - 1/27		PERIOD 2 1/28 - 2/24		PERIOD 3 2/25 - 3/24		PERIOD 4 3/25 - 4/21		PERIOD 5 4/22 - 5/19		PERIOD 6 5/20 - 6/16		PERIOD 7 6/17 - 7/14		PERIOD 8 7/15 - 8/11		PERIOD 9 8/12 - 9/08		PERIOD 10 9/09 - 10/06		PERIOD 11 10/07 - 11/03		PERIOD 12 11/04 - 12/01		PERIOD 13 12/02 - 12/29			
	Temp.	Chldr.	Temp.	Chldr.	Temp.	Chldr.	Temp.	Chldr.	Temp.	Chldr.	Temp.	Chldr.	Temp.	Chldr.	Temp.	Chldr.	Temp.	Chldr.	Temp.	Chldr.	Temp.	Chldr.	Temp.	Chldr.	Temp.	Chldr.		
Maunalei Tunnel (Lower)	66	21	66	21	65	20	65	20	65	20	66	21	69	20	67	21	66	20	66	20	67	22	66	21	**	**		
Maunalei Tunnel (Upper)	66	21	66	21	65	20	65	20	65	20	66	21	69	20	67	21	66	20	66	20	67	22	66	21	**	**		
Maunalei - Shaft No. 2	69	24	69	24	79	24	68	26	68	26	73	26	72	25	72	28	70	26	70	26	73	25	75	26	**	**		
Well No. 1	79	315	80	310	80	320	80	340	80	340	80	341	80	337	80	337	80	336	80	331	79	327	78	375	80	346		
Well No. 9	80	490	80	475	80	480	80	472	82	468	82	470	83	444	82	470	82	433	82	476	83	490	81	480	80	484		
Well No. 12	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*		
Booster #1																												
Shaft No. 3 (Header)	68	23	68	23	67	22	67	22	67	22	66	23	67	22	67	22	63	25	64	23	65	25	67	25	67	22		
Shaft No. 3 (Well No. 2)	68	23	68	23	67	22	67	22	67	22	66	23	67	22	67	22	63	25	64	23	65	25	67	25	67	22		
Booster #2																												
Shaft No. 3 (Header)	68	23	68	23	67	22	67	22	67	22	66	23	67	22	67	22	63	25	64	23	65	25	67	25	67	22		
Well No. 3 (City)	70	37	70	35	70	34	70	34	70	33	69	35	68	35	*	*	72	32	67	34	66	35	67	33	70	33		
Well No. 3 (Hii Reservoir)	70	37	70	35	70	34	70	34	70	33	69	35	68	35	*	*	72	32	67	34	66	35	67	33	70	33		
Well No. 4	68	23	69	21	69	21	68	22	65	24	65	22	65	22	66	21	62	24	63	23	65	22	64	24	64	23		
Well No. 5	68	29	62	25	62	25	62	25	62	25	63	24	62	25	71	25	69	21	69	23	71	24	73	26	74	23		
Well No. 6	66	31	67	30	66	29	64	29	66	30	67	31	68	30	64	30	62	31	61	30	61	30	61	30	62	31	64	30
Well No. 7	72	64	78	64	78	64	78	64	78	64	78	62	78	64	76	60	77	62	78	60	77	61	76	60	76	60		
Well No. 8	70	31	73	31	73	31	73	31	73	31	70	40	70	45	72	43	71	45	71	45	67	43	66	41	66	41		

- NOTE:
1. Temperature reading is in Fahrenheit.
  2. Chloride content is in milligrams per liter (mg/L) or in equivalent parts per million (ppm).
  3. \* Well's or Tunnel not in service.
  4. \*\*Road to Shaft #2 Inaccessible

**THE ISLAND OF LANAI'  
2001 PERIODIC WATER REPORT  
High and Low Water Levels**

PERIOD 13, 2001

	PERIOD 1 12/31 - 1/27		PERIOD 2 1/28 - 2/24		PERIOD 3 2/25 - 3/24		PERIOD 4 3/25 - 4/21		PERIOD 5 4/22 - 5/19		PERIOD 6 5/20 - 6/16		PERIOD 7 6/17 - 7/14		PERIOD 8 7/15 - 8/11		PERIOD 9 8/12 - 9/08		PERIOD 10 9/09 - 10/06		PERIOD 11 10/07 - 11/03		PERIOD 12 11/04 - 12/01		PERIOD 13 12/02 - 12/29				
	HIGH	LOW	HIGH	LOW	HIGH	LOW	HIGH	LOW	HIGH	LOW	HIGH	LOW	HIGH	LOW	HIGH	LOW	HIGH	LOW	HIGH	LOW	HIGH	LOW	HIGH	LOW	HIGH	LOW	HIGH	LOW	
Maunalei (Shaft No. 2)	745	735	745	735	741	731	741	731	741	731	737	723	731	701	730	700	729	701	731	700	729	710	728	709	**	**			
Well No. 1	781	699	783	691	775	701	775	701	767	673	773	683	757	689	773	699	773	709	771	695	767	687	769	684	767	678			
Well No. 2 (Shaft No. 3)	1456	*	1459	*	1459	*	1459	*	1459	*	1460	*	1460	*	1460	*	1458	*	1459	*	1460	*	1460	*	*	*	*	*	
Well No. 3	1053	1037	1051	1037	1051	1037	1047	1031	1049	1023	1049	1033	1049	1035	*	*	1058	*	1059	*	1056	*	1057	*	1059	*			
Well No. 4	1503	*	1499	*	1499	*	1499	*	1504	*	1504	*	1503	*	1492	*	1492	*	1491	*	1500	*	1502	*	1501	*			
Well No. 5	1499	*	1498	*	1498	*	1498	*	1498	*	1499	*	1498	*	1498	*	1498	*	1498	*	1498	*	1498	*	1498	*	1498	*	
Well No. 6	964	956	964	956	954	952	960	952	952	942	956	925	950	938	950	925	946	936	956	940	954	948	954	948	956	950			
Well No. 9	726	682	724	686	712	670	742	670	746	706	738	650	698	682	702	660	700	655	700	648	682	646	690	650	736	706			
Well No. 7	978	*	978	*	978	*	978	*	977	*	977	*	977	*	977	*	977	*	978	*	977	*	978	*	977	*			
Well No. 8	871	839	857	839	857	839	863	833	863	833	870	835	870	837	873	838	870	837	870	838	870	836	870	836	869	837			
Shaft 3 Bulkhead	1521	1521	1521	1521	1521	1521	1521	1521	1521	1521	1522	1522	1523	1523	1522	1522	1521	1521	1521	1521	1517	1517	1517	1517	1517	1517			

- GENERAL NOTES:**
1. All water levels are in feet above mean sea levels.
  2. \* denotes that a well is not in service or the water level data is not available.
  3. Starting in the third reporting period of 1994, the water level for well 9 is based on a surveyed well head elevation of 1412.87 feet (msl). All previously reported levels since the well's start-up in Reporting Period 7 in 1993 should be adjusted downward by 28 feet.
  4. Bulkhead water level obtained by using benchmark elevation for pump chamber floor of 1510 feet from SUPPLEMENT GROUND - WATER DEVELOPMENT ON LANAI by Dr. H.T. Stearns December 22, 1953
  5. Water levels on wells not in service and without water level recorders are manually measured. These measurements are put in high level column.
  6. \*\* Road to Shaft #2 Inaccessible.
- WELL NOTES:** Well #3 under repair.

4142

THE ISLAND OF LANAI'

2000 PERIODIC WATER REPORT

PERIOD 13, 2000

92249 92400 92401 92402 92403 92404 92405 92406 92407 92408 92409 92410 92411

	WATER PUMPED - GALLONS													*THIS YEAR *TO DATE	*CURRENT PD. *LAST YEAR	*TO DATE *LAST YEAR	*TOTAL *LAST YEAR
	PERIOD 1 1/02 - 1/29	PERIOD 2 1/30 - 2/26	PERIOD 3 2/27 - 3/25	PERIOD 4 3/26 - 4/22	PERIOD 5 4/23 - 5/20	PERIOD 6 5/21 - 6/17	PERIOD 7 6/18 - 7/15	PERIOD 8 7/16 - 8/12	PERIOD 9 8/13 - 9/09	PERIOD 10 9/10 - 10/07	PERIOD 11 10/08-11/04	PERIOD 12 11/05-12/02	PERIOD 13 12/03-12/30				
Maunaloa Tunnel (Lwr)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Maunaloa Tunnel (Up)	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	0	NOT IN SERVICE	NOT IN SERVICE	0
Maunaloa-Shaft No. 2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Well No. 1	6,815,000	3,530,000	4,520,000	6,624,000	16,206,000	18,157,000	17,980,000	15,989,000	13,904,000	0	0	11,103,000	7,629,000	122,457,000	10,272,000	140,322,000	140,322,000
Well No. 9	4,960,000	9,680,000	5,810,000	7,396,000	6,000	8,000	127,000	5,663,000	2,265,000	13,009,000	27,782,000	6,280,000	6,301,000	95,307,000	0	77,203,000	77,203,000
Well No. 12	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Shaft No. 3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Well 2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Well No. 3 (City)	10,533,000	4,963,000	9,302,000	4,388,000	4,019,000	4,747,000	5,910,000	4,207,000	3,239,000	3,673,000	8,504,000	3,531,000	2,697,000	69,713,000	3,616,000	28,010,000	28,010,000
Well No. 3 (H# Reservoir)	8,589,000	728,000	0	0	0	0	0	0	0	0	0	0	0	9,317,000	6,324,000	9,002,000	9,002,000
Well No. 4	0	15,508,000	14,852,000	15,678,000	14,642,000	16,638,000	16,478,000	19,485,000	19,142,000	17,187,000	34,518,000	13,137,000	13,349,000	210,624,000	12,424,000	234,008,000	234,008,000
Well No. 5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Well No. 6	14,565,000	16,748,000	16,529,000	17,180,000	16,328,000	17,307,000	12,884,000	13,109,000	8,265,000	21,788,000	39,575,000	8,522,000	11,992,000	214,752,000	11,630,000	203,502,000	203,502,000
Well No. 7	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	0
Well No. 8 (City)	335,000	679,000	139,000	404,000	220,000	0	107,000	0	608,000	593,000	921,000	0	0	4,006,000	0	24,893,000	24,893,000
Well No. 8 (H# Reservoir)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL	45,817,000	51,836,000	51,162,000	51,670,000	51,421,000	56,857,000	53,486,000	58,453,000	53,423,000	56,250,000	111,300,000	42,573,000	41,968,000	726,216,000	44,266,000	716,940,000	716,940,000
ISM Gal. Reservoir : End of Period Storage	11,241,000	12,472,000	12,472,000	11,241,000	8,248,000	8,248,000	5,654,000	6,903,000	6,266,000	5,438,000	6,903,000	9,693,000	12,055,000	116,834,000	10,454,000	153,940,000	153,940,000
Chloride Reading	Cl=319 ppm	Cl=446 ppm	Cl=446 ppm	Cl=350 ppm	Cl=305 ppm	Cl=330 ppm	Cl=346 ppm	Cl=350 ppm	Cl=360ppm	Cl=490ppm	Cl=430ppm	Cl=380ppm	Cl=370ppm				
Outflow for Irrigation	10,842,100	14,884,900	16,205,100	17,906,100	16,053,500	19,101,000	19,379,800	20,002,000	17,061,000	13,082,400	25,971,000	13,501,000	9,264,000	213,253,900	9,894,500	213,815,800	203,921,300
Effluent use @ Maunaloa Golf Course Imp	2,639,000	3,004,000	1,961,000	2,544,000	2,365,000	2,697,000	2,578,000	1,365,000	3,530,000	2,594,000	4,734,000	1,672,000	1,918,000	33,551,000	2,432,000	31,917,000	29,485,000
AAWWTP	5,099,000	6,953,000	5,376,000	6,954,000	6,634,000	5,993,000	5,817,000	4,786,000	5,966,000	5,119,000	10,835,000	4,308,000	5,402,000	79,242,000	4,845,000	74,078,000	69,233,000

  

	DISTRIBUTION - GALLONS													*THIS YEAR *TO DATE	*CURRENT PD. *LAST YEAR	*TO DATE *LAST YEAR	*TOTAL *LAST YEAR
	PERIOD 1 1/3 - 1/30	PERIOD 2 1/31 - 2/27	PERIOD 3 2/28 - 3/27	PERIOD 4 3/28 - 4/24	PERIOD 5 4/25 - 5/22	PERIOD 6 5/23 - 6/19	PERIOD 7 6/20 - 7/17	PERIOD 8 7/18 - 8/14	PERIOD 9 8/15 - 9/11	PERIOD 10 9/12 - 10/09	PERIOD 11 10/10-11/06	PERIOD 12 11/07-12/04	PERIOD 13 12/05-01/01				
To City Grid	25,155,200	22,180,700	25,777,600	21,763,500	20,318,200	21,782,600	18,737,900	17,114,600	11,832,100	25,735,200	48,494,100	11,871,900	14,524,700	285,288,300	14,971,800	252,765,300	252,765,300
To Irrigation	20,384,000	29,446,000	25,192,000	29,698,000	30,854,000	34,803,000	34,585,000	41,137,000	41,311,000	30,196,000	62,300,000	30,520,000	27,279,000	437,705,000	28,020,000	460,535,000	460,535,000
To Kaunatapu	277,800	209,300	192,400	208,500	248,800	271,400	163,100	201,400	279,900	318,800	505,900	181,100	164,300	3,222,700	274,200	3,639,700	3,639,700
TOTAL	45,817,000	51,836,000	51,162,000	51,670,000	51,421,000	56,857,000	53,486,000	58,453,000	53,423,000	56,250,000	111,300,000	42,573,000	41,968,000	726,216,000	44,266,000	716,940,000	716,940,000

Notes:

**THE ISLAND OF LANA'I**  
**2000 PERIODIC WATER REPORT**  
**Chloride Level & Temperature**

PERIOD 13, 2000

	PERIOD 1 1/02 - 1/29		PERIOD 2 1/30 - 2/26		PERIOD 3 2/27 - 3/25		PERIOD 4 3/26 - 4/22		PERIOD 5 4/23 - 5/20		PERIOD 6 5/21 - 6/17		PERIOD 7 6/18 - 7/15		PERIOD 8 7/16 - 8/12		PERIOD 9 8/13 - 9/09		PERIOD 10 9/10 - 10/07		PERIOD 11 10/08 - 11/04		PERIOD 12 11/05 - 12/02		PERIOD 13 12/03 - 12/30	
	Temp.	Chlrd.	Temp.	Chlrd.	Temp.	Chlrd.	Temp.	Chlrd.	Temp.	Chlrd.	Temp.	Chlrd.	Temp.	Chlrd.	Temp.	Chlrd.	Temp.	Chlrd.	Temp.	Chlrd.	Temp.	Chlrd.	Temp.	Chlrd.	Temp.	Chlrd.
Maunalei Tunnel (Lower)	68	19	66	20	65	21	66	20	66	18	67	21.2	65	20	68	20	68	20	68	20	66	22	65	20	65	20
Maunalei Tunnel (Upper)	66	19	66	20	65	21	66	20	66	18	67	21.2	65	20	68	20	68	20	68	20	66	22	65	20	65	20
Maunalei - Shaft No. 2	67.7	20	67.9	26	68	26	*	*	68	21	68	24.7	68	23	69	25	69	27.2	68	26.2	69	23	67	24	79	24
Well No. 1	81.0	305	79.8	310	80	310	80	306	81.0	339	80	305	82	326	81.3	309	80.0	320	80.0	320	80	310	80	305	80	350
Well No. 9	82.0	470	82.7	464	81	469	*	*	*	*	*	*	81	468	82.2	447	83	470	82	480	82	400	81	430	80	490
Well No. 12	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
Booster #1																										
Shaft No. 3 (Header)	68.2	20	65.4	17	65	18	66	20	65	20	66	19.8	65	19	65	21	66	23.2	66	22	65	21	66	21	67	22
Shaft No. 3 (Well No. 2)	68.2	20	65.4	17	65	18	66	20	65	20	66	19.8	65	19	65	21	66	23.2	66	22	65	21	66	21	67	22
Booster #2																										
Shaft No. 3 (Header)	68.2	20	65.4	17	65	18	66	20	65	20	66	19.8	65	19	65	21	66	23.2	66	22	65	21	66	21	67	22
Well No. 3 (City)	72	33	72.3	31	73	34	72	32	72	32	73	37	73	38	75	33	74	31	73	33	72	32	73	33	73	33
Well No. 3 (Hii Reservoir)	72	33	72.3	31	73	34	72	32	72	32	73	37	73	38	75	33	74	31	73	33	72	32	73	33	73	33
Well No. 4	65	21	67.1	22	65	21	66	20	66.0	21	66	23	66	23	65	22	65.0	21	66.0	22	65	23	66	23	68	25
Well No. 5	*	*	*	*	*	52	*	52	*	32	*	24	67	24	68	32	68.0	32	*	*	67	31	67	33	68	29
Well No. 6	66.3	29	66.3	20	65	27	65.0	27	72.0	28	67.0	32	67	29	67	29	71	30	68	32	67	28	66	29	65	30
Well No. 7	*	*	*	*	*	72	*	72	*	68	*	65	71	65	71	68	71.0	68.0	*	*	71	68	71	70	72	64
Well No. 8	71.0	32	70.5	32	72.0	36	72.0	40	71.0	40	72	31	72	31	74	32	73.0	33.2	74.0	33.0	73	32.0	72	31	73	31

NOTE: 1. Temperature reading is in Fahrenheit.  
2. Chloride content is in milligrams per liter (mg/L) or in equivalent parts per million (ppm).  
3. \* Well's or Tunnel not in service.

# THE ISLAND OF LANAI' 2000 PERIODIC WATER REPORT High and Low Water Levels

PERIOD 13, 2000

	PERIOD 1 1/02 - 1/29		PERIOD 2 1/30 - 2/26		PERIOD 3 2/27 - 3/25		PERIOD 4 3/26 - 4/22		PERIOD 5 4/23 - 5/20		PERIOD 6 5/21 - 6/17		PERIOD 7 6/18 - 7/15		PERIOD 8 7/16 - 8/12		PERIOD 9 8/13 - 9/09		PERIOD 10 9/10 - 10/07		PERIOD 11 10/08 - 11/04		PERIOD 12 11/05 - 12/02		PERIOD 13 12/03 - 12/30			
	HIGH	LOW	HIGH	LOW	HIGH	LOW	HIGH	LOW	HIGH	LOW	HIGH	LOW	HIGH	LOW	HIGH	LOW	HIGH	LOW	HIGH	LOW	HIGH	LOW	HIGH	LOW	HIGH	LOW		
Maunalei (Shaft No. 2)	737	*	712	704	743	733	743	733	741	731	741	731	741	*	741	731	711	*	711	*	741	731	745	735	745	735		
Well No. 1	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	708	*	713	623	713	631	785	683	
Well No. 2 (Shaft No. 3)	1456	*	1456	*	1454	*	1456	*	1456	*	1456	*	1458	*	1458	*	1468	*	1468	*	1458	*	1459	*	1459	*		
Well No. 3	1057	1037	1063	1037	1057	1039	1057	1039	1057	1039	1056	1038	1073	1031	1041	1021	1051	1037	1041	1035	1049	1023	1051	1021	1051	1035		
Well No. 4	1521	*	1521	*	1505	*	1505	*	1505	*	1503	*	1503	*	*	1472	*	*	1495	*	1495	*	*	1476	1503	*		
Well No. 5	1498	*	1498	*	1499	*	1499	*	1498	*	1499	*	1499	*	1499	*	*	*	1499	*	1499	*	1499	*	1499	*		
Well No. 6	965	954	972	944	970	950	970	950	968	960	948	932	956	908	892	890	922	880	880	880	880	880	880	880	906	880		
Well No. 9	710	690	724	678	686	666	686	666	*	*	*	*	760	701	752	692	758	700	724	666	664	664	654	724	658	726	678	
Well No. 7	980	*	980	*	980	*	980	*	980	*	979	*	979	*	977	*	977	*	979	*	979	*	982	*	978	*		
Well No. 8	876	844	879	847	877	845	877	847	877	844	876	843	876	*	870	836	946	884	873	840	860	840	865	841	871	839		
Shaft 3 Bulkhead	1519.2	1519.2	1519.8	1519.8	1519.5	1519.5	1519.7	1519.7	1520	1520	1520	1520	1520	1520	1520	1520	1520	1520	1520	1520	1520	1520	1520	1520	1520.8	1520.8	1521	1521

- GENERAL NOTES:
- All water levels are in feet above mean sea levels.
  - \* denotes that a well is not in service or the water level data is not available.
  - Starting in the third reporting period of 1994, the water level for well 9 is based on a surveyed well head elevation of 1412.87 feet (msl). All previously reported levels since the well's start-up in Reporting Period 7 in 1993 should be adjusted downward by 28 feet.
  - Bulkhead water level obtained by using benchmark elevation for pump chamber floor of 1510 feet from SUPPLEMENT GROUND - WATER DEVELOPMENT ON LANAI by Dr. H.T. Stearns December 22, 1953
  - Water levels on wells not in service and without water level recorders are manually measured. These measurements are put in high level column.
- WELL NOTES:



# THE ISLAND OF LANA'I

## 1999 PERIODIC WATER REPORT

PERIOD 13, 1999

	WATER PUMPED - GALLONS													THIS YEAR TO DATE	CURRENT PD. LAST YEAR	TO DATE LAST YEAR	TOTAL LAST YEAR
	PERIOD 1 1/3 - 1/30	PERIOD 2 1/31 - 2/27	PERIOD 3 2/28 - 3/27	PERIOD 4 3/28 - 4/24	PERIOD 5 4/25 - 5/22	PERIOD 6 5/23 - 6/19	PERIOD 7 6/20 - 7/17	PERIOD 8 7/18 - 8/14	PERIOD 9 8/15 - 9/11	PERIOD 10 9/12 - 10/09	PERIOD 11 10/10-11/06	PERIOD 12 11/07-12/04	PERIOD 13 12/05-1/1				
Maunalei Tunnel (Lwr)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Maunalei Tunnel (Up)	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	0	NOT IN SERVICE	NOT IN SERVICE	0
Maunalei-Shaft No. 2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Well No. 1	2,244,000	2,274,000	4,300,000	8,937,000	10,839,000	6,059,000	8,770,000	14,995,000	18,522,000	22,696,000	12,867,000	17,547,000	10,272,000	140,322,000	5,650,000	125,256,000	125,256,000
Well No. 9	8,081,000	11,681,000	9,218,000	5,362,000	9,624,000	10,590,000	12,067,000	8,928,000	1,652,000	0	0	0	0	77,203,000	11,296,000	107,125,000	107,125,000
Well No. 12	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Well No. 3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Well No. 2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Well No. 3 (City)	0	0	0	0	0	0	12,000	11,000	4,103,000	5,717,000	10,857,000	3,694,000	3,616,000	28,010,000	0	0	0
Well No. 3 (Hii Reservoir)	0	0	0	0	31,000	117,000	0	0	0	35,000	2,495,000	0	6,324,000	9,002,000	0	150,000	150,000
Well No. 4	18,790,000	18,130,000	17,400,000	23,560,000	16,390,000	15,037,000	19,129,000	18,754,000	20,376,000	26,044,000	10,987,000	16,987,000	12,424,000	234,008,000	16,927,000	214,287,000	214,287,000
Well No. 5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Well No. 6	16,609,000	13,921,000	10,011,000	19,504,000	12,963,000	15,011,000	18,694,000	16,627,000	18,867,000	23,192,000	10,462,000	16,011,000	11,630,000	203,502,000	15,613,000	188,223,000	188,223,000
Well No. 7	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	0
Well No. 8 (City)	2,737,000	2,843,000	2,495,000	4,860,000	2,800,000	3,678,000	5,114,000	105,000	0	261,000	0	0	0	24,893,000	3,621,000	55,026,000	55,026,000
Well No. 8 (Hii Reservoir)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<b>TOTAL</b>	<b>48,461,000</b>	<b>48,849,000</b>	<b>43,424,000</b>	<b>62,223,000</b>	<b>52,647,000</b>	<b>50,492,000</b>	<b>63,786,000</b>	<b>59,420,000</b>	<b>63,520,000</b>	<b>77,945,000</b>	<b>47,668,000</b>	<b>54,239,000</b>	<b>44,266,000</b>	<b>716,940,000</b>	<b>53,107,000</b>	<b>690,067,000</b>	<b>690,067,000</b>

15M Gal. Reservoir:	10,844,000	9,693,000	13,327,000	9,693,000	12,892,000	10,454,000	12,055,000	13,764,000	12,055,000	12,055,000	13,327,000	13,327,000	10,454,000	153,940,000	12,982,000	125,136,000	125,136,000
End of Period Storage	CI=482 ppm	CI=450 ppm	CI=447 ppm	CI=451 ppm	CI=419 ppm	CI=438 ppm	CI=415 ppm	CI=375 ppm	CI=340 ppm	CI=329 ppm	CI=310 ppm	CI=309 ppm	CI=316 ppm				
Chloride Reading	7,673,000	15,914,000	9,256,000	21,541,000	17,645,000	15,083,000	20,019,200	18,705,200	20,651,900	18,335,900	14,024,600	15,178,000	9,894,500	203,921,300	16,429,000	225,927,000	225,927,000
Outflow for Irrigation	2,792,000	3,268,000	1,645,000	3,114,000	1,156,000	1,762,000	3,232,000	2,352,000	1,416,000	2,109,000	2,032,000	2,177,000	2,432,000	29,485,000	2,541,000	32,822,500	32,822,500
Effluent use @ Koele Golf Course Irrig	4,280,000	4,478,000	2,143,000	6,887,000	4,125,000	5,440,000	9,187,000	7,364,000	6,116,000	5,483,000	4,536,000	4,349,000	4,845,000	69,293,000	5,814,000	70,816,000	70,816,000
WWTP																	
Koele Golf Course Irrig																	

	DISTRIBUTION GALLONS													THIS YEAR TO DATE	CURRENT PD. LAST YEAR	TO DATE LAST YEAR	TOTAL LAST YEAR
	PERIOD 1 1/3 - 1/30	PERIOD 2 1/31 - 2/27	PERIOD 3 2/28 - 3/27	PERIOD 4 3/28 - 4/24	PERIOD 5 4/25 - 5/22	PERIOD 6 5/23 - 6/19	PERIOD 7 6/20 - 7/17	PERIOD 8 7/18 - 8/14	PERIOD 9 8/15 - 9/11	PERIOD 10 9/12 - 10/09	PERIOD 11 10/10-11/06	PERIOD 12 11/07-12/04	PERIOD 13 12/05-01/01				
To City Grid	19,174,700	16,588,200	12,291,500	24,031,000	15,514,000	18,384,700	23,422,500	16,469,700	22,801,000	28,842,900	20,988,100	19,485,200	14,971,800	252,745,900	18,982,400	241,011,740	241,011,740
To Irrigation	29,115,000	32,085,000	30,918,000	37,659,000	36,884,000	31,803,000	39,986,000	42,677,000	40,550,000	48,775,000	26,349,000	34,534,000	29,020,000	466,511,000	33,873,000	446,818,000	446,818,000
To Kaunapapa	171,300	175,800	214,500	333,000	249,000	304,300	397,500	273,300	369,000	327,100	330,900	219,800	274,200	2,659,700	251,600	2,237,260	2,237,260
<b>TOTAL</b>	<b>48,461,000</b>	<b>48,849,000</b>	<b>43,424,000</b>	<b>62,223,000</b>	<b>52,647,000</b>	<b>50,492,000</b>	<b>63,786,000</b>	<b>59,420,000</b>	<b>63,520,000</b>	<b>77,945,000</b>	<b>47,668,000</b>	<b>54,239,000</b>	<b>44,266,000</b>	<b>716,940,000</b>	<b>53,107,000</b>	<b>690,067,000</b>	<b>690,067,000</b>

Notes:

# THE ISLAND OF LANAI' 1999 PERIODIC WATER REPORT High and Low Water Levels

PERIOD 13, 1999

	PERIOD 1 1/8 - 1/30		PERIOD 2 1/31 - 2/27		PERIOD 3 2/28 - 3/27		PERIOD 4 3/28 - 4/24		PERIOD 5 4/25 - 5/22		PERIOD 6 5/23 - 6/19		PERIOD 7 6/20 - 7/17		PERIOD 8 7/18 - 8/14		PERIOD 9 8/15 - 9/11		PERIOD 10 9/12 - 10/09		PERIOD 11 10/10 - 11/06		PERIOD 12 11/07 - 12/04		PERIOD 13 12/05 - 1/1		
	HIGH	LOW	HIGH	LOW	HIGH	LOW	HIGH	LOW	HIGH	LOW	HIGH	LOW	HIGH	LOW	HIGH	LOW	HIGH	LOW	HIGH	LOW	HIGH	LOW	HIGH	LOW	HIGH	LOW	
Maunalei (Shaft No. 2)	**	**	**	**	**	**	**	**	**	**	**	**	**	**	**	**	**	**	**	**	**	**	**	**	**	**	
Well No. 1	679	676	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	
Well No. 2 (Shaft No. 3)	1327	1326	*	*	*	*	*	*	1452	1442	1442	1435	1436	1422	1434	1428	1432	1428	1428	1350	*	*	*	*	*	*	
Well No. 3	1018	1018	1020	1019	1020	1019	*	*	1020	1006	1020	1004	1020	1002	1020	998	1083	1061	1077	1057	1073	1049	1067	1053	1053	937	
Well No. 4	*	*	*	*	*	*	*	*	1581	1580	*	*	*	*	*	*	1498	*	*	*	*	*	*	*	*	1521	*
Well No. 5	*	*	*	*	*	*	*	*	1496	1496	*	*	*	*	*	*	1497	*	*	*	*	*	*	*	*	1498	*
Well No. 6	980	954	983	977	982	977	976	964	972	968	971	969	969	964	969	964	966	964	964	952	964	960	964	962	*	*	
Well No. 9	770	722	760	697	758	711	766	708	772	710	760	707	752	700	760	698	772	716	780	690	*	*	*	*	*	*	
Well No. 7	*	*	*	*	*	*	*	*	980	980	*	*	*	*	*	*	980	*	*	*	*	*	*	*	*	980	*
Well No. 8	883	850	883	850	881	850	882	849	882	850	881	849	881	848	873	862	*	*	*	*	*	*	*	*	*	*	
Shaft 3 Bulkhead Pressure	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***

GENERAL NOTES: 1. All water levels are in feet above mean sea levels.

2. \* denotes that a well is not in service or the water level data is not available.

3. Starting in the third reporting period of 1994, the water level for well 9 is based on a surveyed well head elevation of 1412.87 feet (msl). All previously reported levels since the well's start-up in Reporting Period 7 in 1993 should be adjusted downward by 28 feet.

4. Bulkhead water level obtained by using benchmark elevation for pump chamber floor of 1510 feet from SUPPLEMENT GROUND - WATER DEVELOPMENT ON LANAI by Dr. H.T. Stearns December 22, 1953

5. The water level for period 9 at wells 4, 5, and 7 was based on a manual measurements on August 24, 1999

WELL NOTES: \*\* Maunalei power off to well sites.

\*\*\* Bulkhead pressure line blocked.

**THE ISLAND OF LANA'I**  
**1999 PERIODIC WATER REPORT**  
**Chloride Level & Temperature**

PERIOD 13, 1999

	PERIOD 1 1/3 - 1/30		PERIOD 2 1/31 - 2/27		PERIOD 3 2/28 - 3/27		PERIOD 4 3/28 - 4/24		PERIOD 5 4/25 - 5/22		PERIOD 6 5/23 - 6/19		PERIOD 7 6/20 - 7/17		PERIOD 8 7/18 - 8/14		PERIOD 9 8/15 - 9/11		PERIOD 10 9/12 - 10/09		PERIOD 11 10/10 - 11/06		PERIOD 12 11/07 - 12/04		PERIOD 13 12/05 - 1/1			
	Temp.	Chlrd.	Temp.	Chlrd.	Temp.	Chlrd.	Temp.	Chlrd.	Temp.	Chlrd.	Temp.	Chlrd.	Temp.	Chlrd.	Temp.	Chlrd.	Temp.	Chlrd.	Temp.	Chlrd.	Temp.	Chlrd.	Temp.	Chlrd.	Temp.	Chlrd.	Temp.	Chlrd.
Maunalei Tunnel (Lower)	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
Maunalei Tunnel (Upper)	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
Maunalei - Shaft No. 2	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
Well No. 1	80.6	314	80	321	80.3	309	81.6	319	80.3	313	80.9	306	80.5	305	80.4	311	80.0	300	80.3	309	80.1	310	80.3	307	81	350		
Well No. 9	82.6	486	82.6	483	82.4	477	82.7	467	82.5	484	82.9	469	82.3	473	83.1	476	*	*	*	*	*	*	*	*	*	82	466	
Well No. 12	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
Booster #1 Shaft No. 3 (Header)	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
Shaft No. 3 (Well No. 2)	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
Booster #2 Shaft No. 3 (Header)	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
Well No. 3 (City)	*	*	*	*	*	*	*	*	*	*	*	*	67.3	36	72.6	31	71.8	33	72.2	32	72	32	72	32	71	33		
Well No. 3 (Hii Reservoir)	*	*	*	*	*	*	*	*	*	*	*	*	67.3	36	72.6	31	71.8	33	72.2	32	72	32	72	32	71	33		
Well No. 4	65.6	22	65.3	23	65.6	23	66.2	22	64.2	21	66.2	21	66.3	22	65.6	22	65.6	22	66.1	23	66	22	65	23	65.7	23		
Well No. 5	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
Well No. 6	66.3	32	66.4	30	65.3	33	63.4	30	66.4	29	67.0	29	66.2	30	66.2	30	66.5	30	66.3	29	68.5	30	63	30	66	30		
Well No. 7	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
Well No. 8	72.2	47	72.8	45	66.3	48	72.2	45	72.6	46	73	44	72.1	44	*	*	*	*	*	*	*	*	*	*	*	*	*	

- NOTE:
1. Temperature reading is in Fahrenheit.
  2. Chloride content is in milligrams per liter (mg/L) or in equivalent parts per million (ppm).
  3. \*Well's or Tunnel not in service.

# THE ISLAND OF LANAI' 1998 PERIODIC WATER REPORT

PERIOD 13, 1998

	WATER PUMPED - GALLONS													THIS YEAR TO DATE	CURRENT PD. LAST YEAR	TO DATE LAST YEAR	TOTAL LAST YEAR
	PERIOD 1 12/28 - 1/24	PERIOD 2 1/25 - 2/21	PERIOD 3 2/22 - 3/21	PERIOD 4 3/22 - 4/19	PERIOD 5 4/19 - 5/16	PERIOD 6 5/17 - 6/13	PERIOD 7 6/14 - 7/11	PERIOD 8 7/12 - 8/08	PERIOD 9 8/09 - 9/05	PERIOD 10 9/06 - 10/03	PERIOD 11 10/04-10/31	PERIOD 12 11/01-11/28	PERIOD 13 11/29-12/26				
Maunalei Tunnel (Lwr)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Maunalei Tunnel (Up)	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	0	0	0	0
Maunalei Shaft No. 2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Well No. 1	4,487,000	6,519,000	6,418,000	11,829,000	5,697,000	8,934,000	7,797,000	17,253,000	18,015,000	16,397,000	7,706,000	8,553,000	5,650,000	125,256,000	1,463,000	73,819,000	73,819,000
Well No. 9	7,712,000	7,462,000	9,155,000	9,031,000	10,995,000	13,607,000	7,723,000	0	0	11,213,000	11,980,000	6,991,000	11,296,000	107,125,000	5,298,000	93,678,000	93,678,000
Well No. 12	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Shaft No. 3 Well 2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	8,792,000	8,792,000
Well No. 3 (City)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Well No. 3 (Hi Reservoir)	88,000	0	0	0	0	0	0	0	62,000	0	0	0	0	150,000	0	1,682,000	1,682,000
Well No. 4	9,968,000	19,808,000	14,729,000	16,000,000	15,245,000	19,450,000	16,795,000	16,773,000	18,270,000	17,626,000	17,192,000	15,500,000	16,927,000	214,287,000	16,057,000	213,441,000	213,441,000
Well No. 5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Well No. 6	12,889,000	6,967,000	12,932,000	15,267,000	14,880,000	16,769,000	12,258,000	17,525,000	13,856,000	16,581,000	15,296,000	12,390,000	15,613,000	188,223,000	11,754,000	166,334,000	166,334,000
Well No. 7	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	0	0	0	0
Well No. 8 (City)	2,678,000	6,610,000	3,338,000	4,940,000	3,460,000	3,806,000	3,500,000	5,130,000	5,448,000	3,556,000	4,491,500	2,648,000	3,621,000	55,026,000	5,287,000	46,877,000	46,877,000
Well No. 8 (Hi Reservoir)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<b>TOTAL</b>	<b>37,822,000</b>	<b>49,365,000</b>	<b>46,572,000</b>	<b>56,921,000</b>	<b>50,477,000</b>	<b>62,566,000</b>	<b>48,073,000</b>	<b>56,681,000</b>	<b>60,651,000</b>	<b>65,173,000</b>	<b>56,667,000</b>	<b>45,992,000</b>	<b>53,107,000</b>	<b>690,067,000</b>	<b>39,859,000</b>	<b>604,623,000</b>	<b>604,623,000</b>
15/M Gal. Reservoir End of Period Storage	10,844,000	10,454,000	10,454,000	10,844,000	9,693,000	9,693,000	5,654,000	5,065,000	4,499,000	12,055,000	12,055,000	10,844,000	12,982,000	125,136,000	11,242,000	104,762,800	104,762,800
Chloride Reading	Cl=382 ppm	Cl=395 ppm	Cl=389 ppm	Cl=352 ppm	Cl=419 ppm	Cl=393 ppm	Cl=359 ppm	Cl=350 ppm	Cl=330 ppm	Cl=398 ppm	Cl=404 ppm	Cl=403 ppm	Cl=412 ppm				
Outflow for Irrigation	12,044,000	14,738,000	15,046,000	19,936,000	18,830,000	21,113,000	19,501,000	17,027,000	18,429,000	18,820,000	19,261,000	14,753,000	16,429,000	225,927,000	13,145,000	142,359,000	142,359,000
Effluent use @ Manele Golf Course Irrig	1,644,000	3,624,000	3,485,000	2,440,500	2,570,000	2,775,000	0	4,257,000	930,000	3,003,000	2,237,000	3,316,000	2,541,000	32,822,500	1,463,000	35,203,300	35,203,300
AWWTP Koele Golf Course Irrig	736,000	4,306,000	2,691,000	7,634,000	6,849,000	6,303,000	4,209,000	4,653,000	8,754,000	10,477,000	4,706,000	3,682,000	5,814,000	70,816,000	5,536,000	68,478,000	68,478,000

	DISTRIBUTION GALLONS													THIS YEAR TO DATE	CURRENT PD. LAST YEAR	TO DATE LAST YEAR	TOTAL LAST YEAR
	PERIOD 1 12/29 - 1/25	PERIOD 2 1/26 - 2/22	PERIOD 3 2/23 - 3/22	PERIOD 4 3/23 - 4/19	PERIOD 5 4/20 - 5/17	PERIOD 6 5/18 - 6/14	PERIOD 7 6/15 - 7/12	PERIOD 8 7/13 - 8/09	PERIOD 9 8/10 - 9/06	PERIOD 10 9/07 - 10/04	PERIOD 11 10/05-11/01	PERIOD 12 11/02-11/29	PERIOD 13 11/30-12/27				
To City Grid	15,424,000	15,358,200	16,069,100	20,045,840	18,209,000	20,431,700	10,643,400	22,512,400	24,096,100	19,776,700	19,561,200	14,899,700	18,952,400	241,011,740	16,902,600	210,533,200	210,533,200
To Irrigation	22,255,000	33,768,000	30,302,000	36,714,000	32,137,000	41,991,000	22,515,000	34,026,000	33,347,000	45,236,000	36,866,600	30,954,000	33,873,000	446,818,000	22,818,000	391,412,000	391,412,000
To Kaunapapa	143,000	218,800	200,900	161,160	131,000	143,300	114,600	142,600	205,900	160,300	225,800	138,300	251,600	2,237,260	138,400	2,677,800	2,677,800
<b>TOTAL</b>	<b>37,822,000</b>	<b>49,365,000</b>	<b>46,572,000</b>	<b>56,921,000</b>	<b>50,477,000</b>	<b>62,566,000</b>	<b>48,073,000</b>	<b>56,681,000</b>	<b>60,651,000</b>	<b>65,173,000</b>	<b>56,667,000</b>	<b>45,992,000</b>	<b>53,107,000</b>	<b>690,067,000</b>	<b>39,859,000</b>	<b>604,623,000</b>	<b>604,623,000</b>

Notes: \* No report due to Manele Golf Course irrigator meter malfunctioned during period 7  
The outflow for irrigation during period 8 and 9 was estimated due to meter malfunction.

**THE ISLAND OF LANA'I**  
**1998 PERIODIC WATER REPORT**  
**Chloride Level & Temperature**

PERIOD 13, 1998

	PERIOD 1 12/28 - 1/24		PERIOD 2 1/25 - 2/21		PERIOD 3 2/22 - 3/21		PERIOD 4 3/22 - 4/18		PERIOD 5 4/19 - 5/16		PERIOD 6 5/17 - 6/13		PERIOD 7 6/14 - 7/11		PERIOD 8 7/12 - 8/08		PERIOD 9 8/09 - 9/05		PERIOD 10 9/06 - 10/03		PERIOD 11 10/03 - 10/31		PERIOD 12 11/01 - 11/28		PERIOD 13 11/29 - 12/26		
	Temp.	Chlrd.	Temp.	Chlrd.	Temp.	Chlrd.	Temp.	Chlrd.	Temp.	Chlrd.	Temp.	Chlrd.	Temp.	Chlrd.	Temp.	Chlrd.	Temp.	Chlrd.	Temp.	Chlrd.	Temp.	Chlrd.	Temp.	Chlrd.	Temp.	Chlrd.	
Maunalei Tunnel (Lower)	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
Maunalei Tunnel (Upper)	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
Maunalei - Shaft No. 2	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
Well No. 1	80.3	448	80.4	299	80.2	357	81.4	319	80.2	303	80.4	309	80.1	342	80.3	300	80.1	311	80.2	308	80.4	323	86.2	320	86.2	322	
Well No. 9	82.7	450	82.4	454	82.9	458	82.9	449	85.5	454	82.6	458	*	*	*	*	*	*	82.6	449	82.6	470	82.9	463	82.9	460	
Well No. 12	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
Shaft No. 3 (Header) Booster #1	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
Shaft No. 3 (Well No. 2) Booster #2	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
Well No. 3 (City)	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
Well No. 3 (Hii Reservoir)	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
Well No. 4	65.7	23	65.2	21	66.2	22	65.6	23	65.8	24	66.8	22	65.8	23	65.8	22	65.7	23	68.6	23	65.9	23	68.3	23	66	22	
Well No. 5	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
Well No. 6	66.6	32	66.1	23	66.2	30	66.3	30	66.2	32	66.6	30	66.4	30	66.6	29	66.4	30	66.5	30	67.4	30	66.3	31	62.2	31	
Well No. 7	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
Well No. 8	72.1	46	72.1	44	72.6	46	72.0	47	72.2	46	72.2	45	72.0	47	72.4	44	72.4	46	72.4	45	72.2	46	72.3	47	72	45	

- NOTE:
1. Temperature reading is in Fahrenheit.
  2. Chloride content is in milligrams per liter (mg/L) or in equivalent parts per million (ppm).
  3. \* Well's or Tunnel not in service.

**THE ISLAND OF LANAI'  
1998 PERIODIC WATER REPORT  
High and Low Water Levels**

PERIOD 13, 1998

	PERIOD 1 12/28 - 1/24		PERIOD 2 1/25 - 2/21		PERIOD 3 2/22 - 3/21		PERIOD 4 3/22 - 4/18		PERIOD 5 4/19 - 5/16		PERIOD 6 5/17 - 6/13		PERIOD 7 6/14 - 7/11		PERIOD 8 7/12 - 8/08		PERIOD 9 8/09 - 9/05		PERIOD 10 9/06 - 10/03		PERIOD 11 10/04 - 10/31		PERIOD 12 11/01 - 11/28		PERIOD 13 11/29 - 12/26			
	HIGH	LOW	HIGH	LOW	HIGH	LOW	HIGH	LOW	HIGH	LOW	HIGH	LOW	HIGH	LOW	HIGH	LOW	HIGH	LOW	HIGH	LOW	HIGH	LOW	HIGH	LOW	HIGH	LOW		
Maunalei (Shaft No 2)	**	**	**	**	**	**	**	**	**	**	**	**	**	**	**	**	**	**	**	**	**	**	**	**	**	**	**	
Well No. 1	753	675	704	675	681	675	677	675	676	675	685	674	683	674	679	677	685	679	*	*	*	*	*	*	*	*	*	*
Well No. 2 (Shaft No. 3)	*	*	*	*	1515	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	1374	1370	1378	1322	*	*	
Well No. 3	*	*	1008	1007	1012	990	*	*	1013	1012	1016	1012	1016	1014	1016	1012	1016	1014	1079	1016	1018	1016	1018	1016	1016	1016	1004	
Well No. 4	*	*	*	*	1509	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	
Well No. 5	*	*	*	*	1491	*	*	*	*	*	*	*	*	*	*	*	*	1492	*	*	*	*	*	*	*	*	*	
Well No. 6	*	*	*	*	*	*	*	*	*	*	*	*	996	979	982	977	981	977	982	979	982	974	982	974	982	974	960	576
Well No. 7	812	757	750	664	676	657	800	652	794	742	784	738	732	734	750	734	*	*	788	731	732	722	732	722	772	722		
Well No. 8	*	*	*	*	664	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	
Well No. 8	885	854	886	852	885	853	884	852	884	852	883	852	966	904	883	851	882	850	882	850	881	849	881	849	881	849	881	849
Shaft 3	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	
Bulkhead Pressure	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	

- GENERAL NOTES:**
- All water levels are in feet above mean sea levels.
  - \* denotes that a well is not in service or the water level data is not available.
  - Starting in the third reporting period of 1994, the water level for well 9 is based on a surveyed well head elevation of 1412.87 feet (msl). All previously reported levels since the well's start-up in Reporting Period 7 in 1993 should be adjusted downward by 28 feet.
  - Bulkhead water level obtained by using benchmark elevation for pump chamber floor of 1510 feet from SUPPLEMENT GROUND - WATER DEVELOPMENT ON LANAI by Dr. H.T. Stearns December 22, 1953
  - Water levels for Period 3 at Wells 4, 5, and 7 measured with an electric sounder on April 1, 1998.
  - Water for period 10 at wells 3 and 5 was measured with an electric sounder on October 2nd, 1998.

- WELL NOTES:**
- \*\* Maunalei power off to well sites.
  - \*\*\* Bulkhead pressure line blocked.

# THE ISLAND OF LANA'I 1997 PERIODIC WATER REPORT

PERIOD 13, 1997

	WATER PUMPED (GALLONS)													THIS YEAR TO DATE	CURRENT PD. LAST YEAR	TO DATE LAST YEAR	TOTAL LAST YEAR
	PERIOD 1 12/29 - 1/25	PERIOD 2 1/26 - 2/22	PERIOD 3 2/23 - 3/22	PERIOD 4 3/23 - 4/19	PERIOD 5 4/20 - 5/17	PERIOD 6 5/18 - 6/14	PERIOD 7 6/15 - 7/12	PERIOD 8 7/13 - 8/09	PERIOD 9 8/10 - 9/06	PERIOD 10 9/07 - 10/04	PERIOD 11 10/05-11/01	PERIOD 12 11/02-11/29	PERIOD 13 11/30-12/27				
Maunalei Tunnel (Lwr)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Maunalei Tunnel (Upr)	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	0
Maunalei-Shaft No. 2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Well No. 1	58,000	1,682,000	6,308,000	4,763,000	4,694,000	10,746,000	18,107,000	10,315,000	5,302,000	2,901,000	6,088,000	1,392,000	1,463,000	73,818,000	2,155,000	102,243,000	102,243,000
Well No. 9	4,006,000	6,661,000	12,398,000	10,509,000	12,220,000	3,988,000	4,125,000	9,295,000	12,116,000	7,953,000	0	5,109,000	5,298,000	93,678,000	4,229,000	96,965,000	96,965,000
Well No. 12	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3,313,000	3,313,000
Shaft No. 3 Well 2	4,645,000	2,736,000	3,000	1,404,000	0	2,000	0	0	2,000	0	0	0	0	8,782,000	0	30,701,000	30,701,000
Well No. 3 (City)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Well No. 3 (Hill Reservoir)	0	0	0	0	0	1,680,000	0	0	0	0	0	2,000	0	1,682,000	0	110,851,000	110,851,000
Well No. 4	5,129,000	11,264,000	14,379,000	12,506,000	19,653,000	23,001,000	23,043,000	23,740,000	13,155,000	21,410,000	15,386,000	14,716,000	16,057,000	213,441,000	16,489,000	88,029,000	88,029,000
Well No. 5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Well No. 6	9,320,000	11,837,000	12,257,000	12,678,000	12,504,000	13,326,000	9,237,000	19,878,000	14,870,000	13,055,000	9,878,000	15,659,000	11,754,000	166,334,000	11,228,000	167,853,000	167,853,000
Well No. 7	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	0
Well No. 8 (City)	1,077,000	1,890,000	2,601,000	2,435,000	3,077,000	3,040,000	4,196,000	4,055,000	8,135,000	4,065,000	3,647,000	3,282,000	5,287,000	46,877,000	3,091,000	43,600,000	43,600,000
Well No. 8 (Hill Reservoir)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL	24,235,000	36,270,000	47,946,000	44,297,000	62,148,000	55,783,000	58,708,000	67,283,000	63,680,000	49,355,000	34,999,000	40,180,000	39,859,000	604,623,000	37,190,000	643,655,000	643,655,000

5.5M Gal. Reservoir : End of Period Storage	11,241,000	8,248,000	8,958,000	8,958,000	8,958,000	5,065,000	8,248,000	9,693,000	10,453,800	4,497,000	2,933,000	6,266,000	11,242,000	104,762,800	13,414,000	115,575,000	115,575,000
Chloride Reading	Cl=424 ppm	Cl=451 ppm	Cl=418 ppm	Cl=497 ppm	Cl=430 ppm	Cl=329 ppm	Cl=326 ppm	Cl=363 ppm	Cl=416 ppm	Cl=418 ppm	Cl=318 ppm	Cl=343 ppm	Cl=352 ppm				
Outflow for Irrigation Effluent use @	4,420,000	10,185,000	15,570,000	13,713,000	14,271,000	18,967,000	14,371,000	15,973,000	10,886,000	7,895,000	(METER BROKEN) N/A	3,090,000	13,145,000	142,359,000	5,528,000	177,390,000	177,390,000
Manalei Golf Course Irrig	1,855,100	1,458,400	7,593,000	1,663,700	1,532,000	100	0	0	829 - 99 11,239,000	2,585,000	3,317,000	2,197,000	1,463,000	35,203,300	1,553,700	28,861,100	28,861,100
AWWTP												11/2-12/1					
Koolee Golf Course Irrig	0	2,102,000	5,020,000	3,534,000	5,301,000	6,747,000	10,408,000	7,611,000	4,454,000	6,446,000	5,974,000	5,343,000	5,538,000	68,478,000	4,068,000	57,630,000	57,630,000

	DISTRIBUTION (GALLONS)													THIS YEAR TO DATE	CURRENT PD. LAST YEAR	TO DATE LAST YEAR	TOTAL LAST YEAR
	PERIOD 1 12/29 - 1/25	PERIOD 2 1/26 - 2/22	PERIOD 3 2/23 - 3/22	PERIOD 4 3/23 - 4/19	PERIOD 5 4/20 - 5/17	PERIOD 6 5/18 - 6/14	PERIOD 7 6/15 - 7/12	PERIOD 8 7/13 - 8/09	PERIOD 9 8/10 - 9/06	PERIOD 10 9/07 - 10/04	PERIOD 11 10/05-11/01	PERIOD 12 11/02-11/29	PERIOD 13 11/30-12/27				
To City Grid	10,268,100	13,732,700	14,696,000	14,964,800	15,339,500	16,028,000	13,226,500	23,656,700	22,653,200	16,893,600	13,393,300	18,778,200	16,902,800	210,533,200	14,152,300	207,856,100	207,856,100
To Irrigation	13,838,000	22,343,000	33,088,000	29,184,000	36,567,000	39,417,000	45,275,000	43,350,000	30,575,000	32,265,000	21,474,000	21,219,000	22,818,000	391,412,000	22,873,000	432,102,000	432,102,000
To Kaunapuu	128,900	194,300	162,000	148,200	241,500	338,000	206,500	276,300	351,800	197,400	131,700	162,800	138,400	2,877,800	164,700	3,596,800	3,596,800
TOTAL	24,235,000	36,270,000	47,946,000	44,297,000	62,148,000	55,783,000	58,708,000	67,283,000	63,680,000	49,355,000	34,999,000	40,180,000	39,859,000	604,623,000	37,190,000	643,655,000	643,655,000

Notes:

**THE ISLAND OF LANA'I**  
**1997 PERIODIC WATER REPORT**  
**Chloride Level & Temperature**

PERIOD 13, 1997

	PERIOD 1 12/29 - 1/25		PERIOD 2 1/26 - 2/22		PERIOD 3 2/23 - 3/22		PERIOD 4 3/23 - 4/19		PERIOD 5 4/20 - 5/17		PERIOD 6 5/18 - 6/14		PERIOD 7 6/15 - 7/12		PERIOD 8 7/13 - 8/09		PERIOD 9 8/10 - 8/06		PERIOD 10 9/07 - 10/04		PERIOD 11 10/05 - 11/01		PERIOD 12 11/02 - 11/29		PERIOD 13 12/30 - 12/27		
	Temp.	Chld.	Temp.	Chld.	Temp.	Chld.	Temp.	Chld.	Temp.	Chld.	Temp.	Chld.	Temp.	Chld.	Temp.	Chld.	Temp.	Chld.	Temp.	Chld.	Temp.	Chld.	Temp.	Chld.	Temp.	Chld.	
Maunalei Tunnel (Lower)	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
Maunalei Tunnel (Upper)	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
Maunalei - Shaft No. 2	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
Well No. 1	*	*	80.3	311	81.7	306	81.2	313	81.0	309	81.5	301	80.4	308	80.3	302	80.2	299	80.9	311	80.1	307	80.1	309	80.1	318	
Well No. 9	82.9	484	82.1	399	82.4	490	82.7	503	83.0	532	*	*	82.6	449	82.8	450	82.7	439	77.5	459	*	*	82.9	461	82.4	446	
Well No. 12	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
Booster #1 Shaft No. 3 (Header)	66.2	15	62.5	23	67.1	24	62.7	24	66.0	25	*	*	67.8	23	*	*	*	*	67.5	22	67.5	22	67.9	22.6	*	*	
Shaft No. 3 (Well No. 2)	66.2	15	62.5	23	67.1	24	62.7	24	66.0	25	*	*	67.8	23	*	*	*	*	67.5	22	67.5	22	67.9	22.6	*	*	
Booster #2 Shaft No. 3 (Header)	66.2	15	62.5	23	67.1	24	62.7	24	66.0	25	*	*	67.8	23	*	*	*	*	67.5	22	67.5	22	67.9	22.6	*	*	
Well No. 3 (City)	*	*	*	*	*	*	*	*	*	*	66.0	30	65.0	30	*	*	*	*	*	*	*	*	*	*	*	*	
Well No. 3 (Hii Reservoir)	*	*	*	*	*	*	*	*	*	*	66.0	30	65.0	30	*	*	*	*	*	*	*	*	*	*	*	*	
Well No. 4	65.7	15	66.1	23	66.3	22	66.3	27	68.0	22	66.5	23	66.5	23	66.1	23	65.9	28	65.7	23	66	22	65.6	23	66	23	
Well No. 5	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
Well No. 6	66.1	21	66.3	32	62.3	29	63.1	33	66.0	31	66.0	34	63.6	31	66.5	30	67.4	31	66.6	29	66.2	28	66.5	30.9	66.8	34	
Well No. 7	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
Well No. 8	71.6	32	72.3	45	72.1	43	72.6	45	73.0	44	72.5	46	72.0	45	72.6	45	72.1	44	72.2	45	72.3	48	72.5	44.7	72.3	45	

- NOTE:
1. Temperature reading is in Fahrenheit.
  2. Chloride content is in milligrams per liter (mg/L) or in equivalent parts per million (ppm).
  3. \* Well's or Tunnel not in service.
  4. ## Well's not operating during sampling periods.
  5. Temperature reading not available due to temperature probe broken.



# THE ISLAND OF LANA'I

## 1997 PERIODIC WATER REPORT

### High and Low Water Levels

PERIOD 13, 1997

	PERIOD 1 12/29 - 1/25		PERIOD 2 1/26 - 2/22		PERIOD 3 2/23 - 3/22		PERIOD 4 3/23 - 4/19		PERIOD 5 4/20 - 5/17		PERIOD 6 5/18 - 6/14		PERIOD 7 6/15 - 7/12		PERIOD 8 7/13 - 8/09		PERIOD 9 8/11 - 9/07		PERIOD 10 9/10 - 10/04		PERIOD 11 10/05 - 11/01		PERIOD 12 11/02 - 11/29		PERIOD 13 11/30 - 12/27	
	HIGH	LOW	HIGH	LOW	HIGH	LOW	HIGH	LOW	HIGH	LOW	HIGH	LOW	HIGH	LOW	HIGH	LOW	HIGH	LOW	HIGH	LOW	HIGH	LOW	HIGH	LOW	HIGH	LOW
Maunalei (Shaft No. 2)	**	**	**	**	**	**	**	**	**	**	**	**	**	**	**	**	**	**	**	**	**	**	**	**	**	**
Well No. 1	767	743	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	677	676
Well No. 2 (Shaft No. 3)	1382	1370	1386	1372	1382	1372	1385	1369	1390	1374	1386	1382	1380	1374	1364	1356	1414	1350	1418	1410	1420	1410	1418	1412	*	*
Well No. 3	*	*	*	*	*	*	*	*	*	*	888	966	992	988	995	992	997	994	1000	996	1002	1000	1004	1002	1451	1450
Well No. 4	1504	1474	1482	1474	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
Well No. 5	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
Well No. 6	1000	992	1000	992	1092	981	893	990	997	980	997	989	992	987	995	987	991	985	1007	985	989	983	*	*	*	*
Well No. 8	759	704	756	733	698	693	738	692	730	678	744	687	692	684	733	677	736	670	728	669	740	730	804	762	814	782
Well No. 7	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
Well No. 9	891	861	890	860	980	920	890	859	889	859	889	859	882	857	888	857	887	866	885	856	887	855	886	855	886	853
Bulkhead Pressure	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***

- GENERAL NOTES:**
- All water levels are in feet above mean sea levels.
  - \* denotes that a well is not in service or the water level data is not available.
  - Starting in the third reporting period of 1994, the water level for well 9 is based on a surveyed well head elevation of 1412.87 feet (msl). All previously reported levels since the well's start-up in Reporting Period 7 in 1993 should be adjusted downward by 28 feet.
  - Bulkhead water level obtained by using benchmark elevation for pump chamber floor of 1510 feet from SUPPLEMENT GROUND - WATER DEVELOPMENT ON LANA'I by Dr. H.T. Stearns December 22, 1953
  - With electrification of the well 1 pump, the pumping rate was increased from 500 to 700 GPM. This has resulted in a larger drawdown in the well which is reflected in the low water level starting in Period 6.

- WELL NOTES:**
- \*\* Maunalei power off to well sites.
  - \*\*\* Bulkhead pressure line blocked.

# THE ISLAND OF LANAI' 1996 PERIODIC WATER REPORT

PERIOD 13, 1996

	WATER PUMPED - GALLONS													THIS YEAR TO DATE	CURRENT PD. LAST YEAR	TO DATE LAST YEAR	TOTAL LAST YEAR
	PERIOD 1 1/1 - 1/27	PERIOD 2 1/28 - 2/24	PERIOD 3 2/25 - 3/23	PERIOD 4 3/24 - 4/20	PERIOD 5 4/21 - 5/18	PERIOD 6 5/19 - 6/15	PERIOD 7 6/16 - 7/13	PERIOD 8 7/14 - 8/10	PERIOD 9 8/11 - 9/07	PERIOD 10 9/08 - 10/05	PERIOD 11 10/06 - 11/02	PERIOD 12 11/03 - 11/30	PERIOD 13 12/01 - 12/28				
Maunalei Tunnel (Lw)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2,418,000	2,418,000
Maunalei Tunnel (Up)	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	0	0	0	0
Maunalei-Shaft No. 2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	27,149,100	27,149,100
Well No. 1	4,861,000	7,406,000	5,614,000	1,279,000	6,071,000	10,438,000	16,047,000	7,810,000	9,965,000	8,770,000	15,837,000	6,190,000	2,155,000	102,243,000	7,833,000	118,686,000	118,686,000
Well No. 9	7,566,000	4,162,000	2,754,000	11,581,000	12,138,000	5,954,000	8,281,000	12,716,000	7,013,000	8,468,000	8,195,000	2,908,000	4,229,000	96,965,000	5,661,000	95,859,000	95,858,000
Well No. 12	158,600	200	0	0	1,018,600	72,800	878,100	392,700	781,000	0	0	0	0	3,313,000	273,400	5,172,600	5,172,600
Shaft No. 3 Well 2	REVISED 5,140,000	4,796,000	3,145,000	5,367,000	4,420,000	2,319,000	2,876,000	2,630,000	8,000	0	0	0	0	30,701,000	4,570,000	56,860,000	56,860,000
Well No. 3 (City)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	14,845,000	14,845,000
Well No. 3 (Hill Reservoir)	8,043,000	11,317,000	17,321,000	15,714,000	18,440,000	11,524,000	9,126,000	8,584,000	10,646,000	136,000	0	0	0	110,851,000	17,236,000	113,051,800	113,051,800
Well No. 4	0	0	0	0	0	59,000	28,000	1,307,000	11,934,000	21,233,000	23,291,000	13,688,000	16,489,000	88,029,000	0	9,502,000	9,502,000
Well No. 5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	22,000	22,000
Well No. 6	7,289,000	11,930,000	13,082,000	12,839,000	14,289,000	14,386,000	13,854,000	14,251,000	11,325,000	16,596,000	10,961,000	15,806,000	11,226,000	167,853,000	6,713,000	175,970,000	175,970,000
Well No. 7	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	0	0	0	0
Well No. 8 (City)	6,455,000	1,763,000	1,841,000	3,785,000	3,123,000	2,175,000	2,863,000	3,962,000	4,316,000	2,580,000	4,257,000	3,365,000	3,091,000	43,600,000	meter broken	0	0
Well No. 8 (Hill Reservoir)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	meter broken	8,838,000	8,838,000
<b>TOTAL</b>	<b>39,511,600</b>	<b>41,374,200</b>	<b>43,757,000</b>	<b>50,599,000</b>	<b>59,500,600</b>	<b>46,927,800</b>	<b>53,953,100</b>	<b>51,652,700</b>	<b>55,998,000</b>	<b>58,783,000</b>	<b>62,341,000</b>	<b>41,977,000</b>	<b>37,190,000</b>	<b>643,555,000</b>	<b>42,286,400</b>	<b>619,534,500</b>	<b>619,534,500</b>

15M Gal. Reservoir : End of Period Storage	14,479,000	12,641,000	11,081,000	N/A	N/A	(6/18/96) 8,243,000	11,808,000	11,002,000	8,958,000	*8248000	11,890,000	12,054,000	13,414,000	115,575,000	12,137,000	98,420,000	98,420,000
Chloride Reading	Cl- = 471 ppm	Cl- = 418 ppm	Cl- = 564 ppm	Cl- = 564 ppm	Cl- = 408 ppm	Cl- = 404 ppm	Cl- = 440 ppm	Cl- = 435 ppm	Cl- = 319 ppm	Cl- = 411 ppm	Cl- = 444 ppm	Cl- = 364 ppm	Cl- = 435 ppm				
Outflow for Irrigation	13,948,000	9,865,000	5,374,000	14,023,000	14,256,000	17,593,000	16,548,000	19,712,000	17,255,000	16,641,000	17,406,000	7,241,000	5,526,000	177,390,000	11,701,000	189,228,000	189,228,000
Effluent use @ Manele Golf Course Irrig	2,264,500	1,930,100	1,795,900	2,161,500	1,857,600	2,097,000	2,365,900	2,011,100	2,660,000	2,032,600	2,330,300	1,780,900	1,553,700	26,861,100	189,120	18,154,020	18,154,020
AWWTP Koele Golf Course Irrig	2,291,000	4,318,000	2,121,000	4,353,000	5,685,000	4,439,000	5,203,000	6,431,000	6,268,000	4,854,000	5,189,000	2,411,000	4,068,000	57,630,000	2,256,000	61,461,500	61,461,500

	DISTRIBUTION GALLONS													THIS YEAR TO DATE	CURRENT PD. LAST YEAR	TO DATE LAST YEAR	TOTAL LAST YEAR
	PERIOD 1 1/1 - 1/27	PERIOD 2 1/28 - 2/24	PERIOD 3 2/25 - 3/23	PERIOD 4 3/24 - 4/20	PERIOD 5 4/21 - 5/18	PERIOD 6 5/19 - 6/15	PERIOD 7 6/16 - 7/13	PERIOD 8 7/14 - 8/10	PERIOD 9 8/11 - 9/07	PERIOD 10 9/08 - 10/05	PERIOD 11 10/06 - 11/02	PERIOD 12 11/03 - 11/30	PERIOD 13 12/01 - 12/28				
To City/Grd	13,561,400	13,551,200	14,822,700	16,389,800	17,025,800	16,252,000	16,402,700	17,846,900	15,266,000	19,917,700	14,880,400	18,787,000	14,152,300	207,856,100	6,533,000	217,377,900	217,377,900
To Irrigation	25,768,600	27,681,200	26,834,000	33,941,000	42,086,600	30,366,800	37,236,100	33,439,700	40,357,000	39,607,000	47,123,000	22,786,000	22,873,000	432,102,000	35,573,400	407,780,400	399,152,400
To Kaunaloa	181,600	141,700	100,300	256,100	386,200	309,000	314,300	366,100	375,000	258,300	337,600	404,000	164,700	3,596,900	180,000	3,004,200	3,004,200
<b>TOTAL</b>	<b>39,511,600</b>	<b>41,374,200</b>	<b>43,757,000</b>	<b>50,599,000</b>	<b>59,500,600</b>	<b>46,927,800</b>	<b>53,953,100</b>	<b>51,652,700</b>	<b>55,998,000</b>	<b>58,783,000</b>	<b>62,341,000</b>	<b>41,977,000</b>	<b>37,190,000</b>	<b>643,555,000</b>	<b>42,286,400</b>	<b>628,172,500</b>	<b>619,534,500</b>

Notes: Period 2 - Wells 1, 8, 9, 12, Manele WWTP, L.C. AWWTP, outflow for irrig. meter was read 2/27/96.  
 - Backlash loss attributed to Well # 1 broken check valve. Operational changes to reduce further loss in effect until new valve received.  
 Period 4 - 15 MG reservoir--end of the period storage N/A due to the Level transducer inoperable.  
 Period 9 - 15M Gal. reservoir end of period storage, sample was collected shortly after an extreme rainfall event and probably is low due to incomplete Reservoir mixing.  
 Period 10 - \* 15M gal. reservoir end of the period storage was changed from 9,893,000 .. the figure shown represents 15 ft storage rather than the previously used 17.

# THE ISLAND OF LANA'I

## 1996 PERIODIC WATER REPORT

### Chloride Level & Temperature

PERIOD 13, 1996

	PERIOD 1 1/01 - 1/27		PERIOD 2 1/28 - 2/24		PERIOD 3 2/25 - 3/23		PERIOD 4 3/24 - 4/20		PERIOD 5 4/21 - 5/18		PERIOD 6 5/19 - 6/15		PERIOD 7 6/16 - 7/13		PERIOD 8 7/14 - 8/10		PERIOD 9 8/11 - 9/07		PERIOD 10 9/08 - 10/05		PERIOD 11 10/06 - 11/02		PERIOD 12 11/03 - 11/30		PERIOD 13 12/01 - 12/28									
	Temp.	Chlrd.	Temp.	Chlrd.	Temp.	Chlrd.	Temp.	Chlrd.	Temp.	Chlrd.	Temp.	Chlrd.	Temp.	Chlrd.	Temp.	Chlrd.	Temp.	Chlrd.	Temp.	Chlrd.	Temp.	Chlrd.	Temp.	Chlrd.	Temp.	Chlrd.								
Maunalei Tunnel (Lower)	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*							
Maunalei Tunnel (Upper)	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*							
Maunalei - Shaft No. 2	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*							
Well No. 1	80.7	327	80.4	338	81.7	326	##	##	80.7	321	86.7	356	81.3	333	81.2	345	72.2	395	81.2	328	81.1	317	*	*	*	*	*	*						
Well No. 9	82.4	524	82.4	499	82.3	523	82.4	489	82.6	490	83.1	513	83.2	491	82.7	491	82.9	509	82.8	396	82.8	515	82.8	474	82.1	481								
Well No. 12	96.3	882	##	##	##	##	##	##	##	##	95.8	958	97.6	1090	98.7	931	##	##	##	##	##	##	##	##	##	##	##	##						
Shaft No. 3 Booster #1 (Header)	67.8	21	67.4	21	67.8	22	67.5	22	67.6	22	67.8	21	67.2	22	66.1	22	##	##	##	##	##	##	##	##	*	*	*	*						
Shaft No. 3 (Well No. 2)	67.8	21	67.4	21	67.8	22	67.5	22	67.6	22	67.8	21	67.2	22	66.1	22	##	##	##	##	##	##	##	##	*	*	*	*						
Shaft No. 3 Booster #2 (Header)	67.8	21	67.4	21	67.8	22	67.5	22	67.6	22	67.8	21	67.2	22	66.1	22	##	##	##	##	##	##	##	##	*	*	*	*						
Well No. 3 (City)	73.1	32	72.9	27	73.4	35	73.0	32	73.7	35	74.1	32	73.2	42	73.7	35	##	##	##	##	##	##	##	##	*	*	*	*						
Well No. 3 (Hii Reservoir)	73.1	32	72.9	27	73.4	35	73.0	32	73.7	35	74.1	32	73.2	42	73.7	35	##	##	##	##	##	##	##	##	*	*	*	*						
Well No. 4	##	##	##	##	##	##	##	##	##	##	##	##	##	##	##	##	##	##	##	##	##	##	##	##	66.0	13.6	67.4	28	66.2	23	66	23.4	66.2	13.9
Well No. 5	##	##	##	##	##	##	##	##	##	##	##	##	##	##	##	##	##	##	*	*	*	*	*	*	*	*	*	*	*	*	*	*		
Well No. 6	66.8	27	66.4	26	66.7	30	67.0	30	66.5	29	66.7	28	66.8	29	66.6	26	66.8	28	66.9	31	66.6	35	66.6	28.3	66.6	20.5								
Well No. 7	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*				
Well No. 8	72.0	44	71.8	41	71.6	39	72.0	39.0	72.9	43.0	72.3	37.5	72.0	44	72.1	42.7	72.2	42.8	72.3	46	72.2	43	72.4	38.2	72.1	35.9								

- NOTE:
1. Temperature reading is in Fahrenheit.
  2. Chloride content is in milligrams per liter (mg/L) or in equivalent parts per million (ppm).
  3. \* Well's or Tunnel not in service.
  4. ## Well's not operating during sampling periods.

# THE ISLAND OF LANAI 1996 PERIODIC WATER REPORT High and Low Water Levels

PERIOD 13, 1996

	PERIOD 1		PERIOD 2		PERIOD 3		PERIOD 4		PERIOD 5		PERIOD 6		PERIOD 7		PERIOD 8		PERIOD 9		PERIOD 10		PERIOD 11		PERIOD 12		PERIOD 13	
	1/01 - 1/27	HIGH   LOW	1/28 - 2/24	HIGH   LOW	2/25 - 3/23	HIGH   LOW	3/24 - 4/20	HIGH   LOW	4/21 - 5/18	HIGH   LOW	5/19 - 6/15	HIGH   LOW	6/16 - 7/13	HIGH   LOW	7/14 - 8/10	HIGH   LOW	8/11 - 9/07	HIGH   LOW	9/08 - 10/05	HIGH   LOW	10/06 - 11/02	HIGH   LOW	11/03 - 11/30	HIGH   LOW	12/01 - 12/28	HIGH   LOW
Maunalei (Shaft No. 2)	**	**	**	**	**	**	**	**	**	**	**	**	**	**	**	**	**	**	**	**	**	**	**	**	**	**
Well No. 1	775	715	776	712	775	705	775	685	723	691	719	687	724	683	742	681	731	673	734	682	750	717	753	685	767	883
Well No. 2 (Shaft No. 3)	1398	1362	1405	1361	1406	1338	1405	1362	1382	1364	1382	1370	1382	1370	1384	1368	1384	1374	1384	1378	1382	1378	1384	1378	1382	1374
Well No. 3	1000	973	1000	967	1060	956	978	934	978	917	973	914	980	924	984	934	965	928	977	974	*	*	*	*	*	*
Well No. 4	**	**	**	**	**	**	**	**	**	**	1576	1543	1579	1571	*	*	*	*	1547	1542	1583	1541	1580	1562	1583	1569
Well No. 5	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
Well No. 6	1010	1002	1009	1002	1007	999	991	977	992	990	992	990	992	990	994	981	994	980	996	998	998	980	995	980	998	990
Well No. 9	762	717	784	714	786	718	784	698	746	698	764	705	758	706	738	694	750	694	747	692	748	702	754	639	754	706
Well No. 8	*	*	*	*	894	855	894	865	893	864	892	864	892	864	893	864	890	863	890	861	892	862	892	860	891	860
Shaft 9 Bulkhead Pressure	1511.4	1511.4	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***

GENERAL NOTES: 1. All water levels are in feet above mean sea levels.

2. \* denotes that a well is not in service or the water level data is not available.

3. Starting in the third reporting period of 1994, the water level for well 9 is based on a surveyed well head elevation of 1412.87 feet (msl). All previously reported levels since the well's start-up in Reporting Period 7 in 1993 should be adjusted downward by 28 feet.

4. Bulkhead water level obtained by using benchmark elevation for pump chamber floor of 1510 feet from SUPPLEMENT GROUND - WATER DEVELOPMENT ON LANAI by Dr. H.T. Stearns December 22, 1953

5. With electrification of the well 1 pump, the pumping rate was increased from 500 to 700 GPM. This has resulted in a larger drawdown in the well which is reflected in the low water level starting in Period 5.

WELL NOTES: \*\* Maunalei and Well #4 power off to well sites.

\*\*\* Bulkhead pressure line blocked.

# THE ISLAND OF LANAI

## 1995 PERIODIC WATER REPORT

### PERIOD 13, 1995

WATER PUMP	PERIOD												THIS YEAR TO DATE	CURRENT PD. LAST YEAR	TO DATE LAST YEAR	TOTAL LAST YEAR			
	1	2	3	4	5	6	7	8	9	10	11	12					13		
Maukaiki Tunnel (LWI)	478,000	1,375,000	514,000	0	53,000	0	0	0	0	0	0	0	0	0	0	2,419,000	194,000	17,156,000	183,599,000
Maukaiki Tunnel (UJ)	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	0	0	0	0
Maukaiki-Shaft No. 2	15,787,200	8,416,500	1,944,500	0	1,100	0	0	0	0	0	0	0	0	0	0	27,149,100	16,478,300	56,642,950	56,642,950
Well No. 1	300,000	6,990,000	14,393,000	7,726,000	4,920,000	12,596,000	8,442,000	9,135,000	8,884,000	12,414,000	7,858,000	18,423,000	7,633,000	0	0	118,896,000	518,000	137,055,000	137,055,000
Well No. 9	13,014,000	3,579,000	1,000	5,011,000	6,699,000	9,113,000	8,897,000	8,896,000	7,822,000	11,473,000	9,694,000	2,819,000	5,861,000	273,400	0	5,172,800	1,199,100	2,013,800	2,013,800
Well No. 12	589,800	406,200	718,300	485,900	487,000	653,000	730,700	119,700	303,200	303,200	7,022,000	4,412,000	5,021,000	4,570,000	0	58,680,000	4,076,000	28,371,000	28,371,000
Well No. 2	2,319,000	2,801,000	4,197,000	4,419,000	4,591,000	4,082,000	4,588,000	3,577,000	5,481,000	4,412,000	7,022,000	4,412,000	5,021,000	4,570,000	0	14,645,000	2,461,000	34,182,000	34,182,000
Well No. 3 (CBV)	0	0	0	0	0	0	0	0	0	0	5,488,000	9,379,000	0	0	0	14,865,000	0	22,000	22,000
Well No. 3 (Hill Reservoir)	12,206,000	11,114,000	4,927,000	9,551,000	6,888,000	11,089,000	8,196,000	8,801,000	6,219,000	8,844,800	2,868,000	7,139,000	17,238,000	0	0	113,051,800	9,502,000	10,866,000	183,781,899
Well No. 4	5,827,000	1,000	55,000	32,000	171,000	77,000	426,000	2,814,000	0	0	0	0	0	0	0	22,000	96,000	5,519,000	5,519,000
Well No. 5	1,000	0	0	21,000	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Well No. 6	1,073,000	2,016,000	10,684,000	17,628,000	16,218,000	20,098,000	12,267,000	18,843,000	15,891,000	27,050,000	18,247,000	6,139,000	6,713,000	17,238,000	0	175,870,000	466,000	86,337,000	86,337,000
Well No. 7	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	0	0	0	0
Well No. 8 (CBV)	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	0	0	0	0
Well No. 8 (Hill Reservoir)	51,674,800	37,489,500	37,435,600	44,871,800	41,611,100	57,482,000	40,515,700	52,444,200	45,516,700	64,557,000	52,248,800	51,353,600	42,298,400	619,534,500	50,183,400	787,789,959	0	0	0
15M Gal Reservoir - End of Period Storage	8,893,000	8,887,000	8,892,000	10,073,000	9,893,000	9,893,000	9,173,000	8,957,000	10,644,000	10,644,000	12,055,000	12,137,000	12,137,000	0	0	0	0	0	0
Churches Reservoir	Ch=438 ppm	Ch=500 ppm	Ch=383 ppm	411 ppm	372 ppm	442 ppm	457 ppm	408 ppm	406 ppm	489 ppm	497 ppm	405 ppm	482 ppm	0	0	0	0	0	0
Outflow for Irrigation	10,161,000	8,551,000	8,065,000	13,305,000	9,155,000	22,461,000	17,540,000	15,372,000	17,160,000	18,346,000	19,937,000	14,417,000	11,701,000	183,228,000	0	65,699,000	0	0	65,699,000
Effluent Line @ Hamale Golf Course Inlet	1,720,000	1,562,700	1,409,000	1,256,500	1,239,500	1,864,500	2,038,400	1,694,200	1,843,500	1,843,500	1,740,900	181,000	189,120	18,154,000	0	6,890,700	0	0	6,890,700
AWMP	5,740,800	1,132,000	2,814,000	10,599,000	5,528,000	5,722,000	5,096,000	4,648,000	2,106,000	3,774,000	6,862,000	5,343,000	2,255,000	61,481,500	0	1,872,000	0	0	1,872,000
Koala Golf Course Inlet	5,740,800	1,132,000	2,814,000	10,599,000	5,528,000	5,722,000	5,096,000	4,648,000	2,106,000	3,774,000	6,862,000	5,343,000	2,255,000	61,481,500	0	1,872,000	0	0	1,872,000

- Notes:
- Period 5
  - Meter Read 5/15/95
  - Meter Read 5/11/95
  - Meter read 6/1/95

- Period 10
- Meter read three days before Well meters resulting in an approximate 3 million gallon difference between outflow and inflow

- Well 12 off line due to throttling valve installed during Period 5.
- Revised total on distribution to City Grid and Irrigation due to Well 6 pumpage to 2 MGT.
- No Data for 15M/G reservoir during Period 11. Telemetry in the process of reinstallation.
- Well #3 Period 12 - 8/7000 gals. was pumped to test the chlorine and flush water line.

Well Notes:

# THE ISLAND OF LANA'I

## 1995 PERIODIC WATER REPORT

### Chloride Level & Temperature

PERIOD 13, 1995

	PERIOD 1 1/01 - 1/28		PERIOD 2 1/29 - 2/25		PERIOD 3 2/26 - 3/25		PERIOD 4 3/26 - 4/22		PERIOD 5 4/23 - 5/20		PERIOD 6 5/21 - 6/17		PERIOD 7 6/18 - 7/15		PERIOD 8 7/16 - 8/12		PERIOD 9 8/13 - 9/09		PERIOD 10 9/10 - 10/07		PERIOD 11 10/08 - 11/04		PERIOD 12 11/05 - 12/02		PERIOD 13 12/03 - 12/30				
	Temp.	Chlrd.	Temp.	Chlrd.	Temp.	Chlrd.	Temp.	Chlrd.	Temp.	Chlrd.	Temp.	Chlrd.	Temp.	Chlrd.	Temp.	Chlrd.	Temp.	Chlrd.	Temp.	Chlrd.	Temp.	Chlrd.	Temp.	Chlrd.	Temp.	Chlrd.	Temp.	Chlrd.	
Maunalei Tunnel (Lower)	70.1	43	67.1	36	##	##	67.2	21	##	##	##	##	##	##	##	##	##	##	##	##	##	##	##	##	##	##	##	##	
Maunalei Tunnel (Upper)	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	
Maunalei - Shaft No. 2	69.8	39	67.6	42	##	##	##	##	##	##	##	##	65.8	23	##	##	##	##	##	##	##	##	##	##	##	##	##	##	
Well No. 1	81.3	379	80.2	360	80.5	338	80.1	328	81.1	309	80.9	319	81.1	325	80.9	325	85.2	375	80.8	353	81.1	309	81.1	404	81.1	318	81.1	318	
Well No. 8	84.4	414	82.3	512	82.8	479	81.9	477	82.5	491	82.3	445	82.8	511	82.8	518	82.7	516	82.7	519	##	##	82.3	486	82.5	477	82.5	477	
Well No. 12	93.1	1296	94.4	1036	95.7	1130	96.7	1261	97.4	1095	95.5	826	95.9	1157	95.0	758	96.0	891	96.3	897	96.5	952	92.8	1080	97.4	878	97.4	878	
Booster #1																													
Shaft No. 3 (Header)	66.3	23	67.9	26	67.4	32	67.8	24	67.3	25	67.1	23	65.9	23	67.9	24	67.8	27	67.8	23	67.3	22	67.2	23	67.4	23	67.4	23	
Shaft No. 3 (Well No. 2)	66.3	23	67.9	26	67.4	32	67.8	24	67.3	25	67.1	23	65.9	23	67.9	24	67.8	27	67.8	23	67.3	22	67.2	23	67.4	23	67.4	23	
Booster #2																													
Shaft No. 3 (Header)	66.3	23	67.9	26	67.4	32	67.8	24	67.3	25	67.1	23	65.9	23	67.9	24	67.8	27	67.8	23	67.3	22	67.2	23	67.4	23	67.4	23	
Well No. 3 (City)	70.2	38	73.1	39	70.1	37	67.2	33	73.0	39	72.6	35	73.2	32	73.0	37	72.8	35	##	##	79.0	41	73.2	39	78.7	40	78.7	40	
Well No. 3 (Hill Reservoir)	70.2	38	73.1	39	70.1	37	67.2	33	73.0	39	72.6	35	73.2	32	73.0	37	72.8	35	##	##	79.0	41	73.2	39	78.7	40	78.7	40	
Well No. 4	##	##	65.9	25	65.7	23	66.1	29	67.4	24	63.0	23	66.5	21	##	##	##	##	##	##	##	##	##	##	##	##	##	##	##
Well No. 5	##	##	##	##	67.9	25.0	##	##	##	##	##	##	##	##	##	##	##	##	##	##	##	##	##	##	##	##	##	##	
Well No. 6	65	29	66.6	29	65.9	29	66.8	28	67.0	36	67.6	31	66.9	37	66.8	32	66.9	28	67.1	31	67.1	36	66.7	26	67.3	30	67.3	30	
Well No. 7	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	
Well No. 8	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	

- NOTE:
1. Temperature readings in Fahrenheit.
  2. Chloride content is in milligrams per liter (mg/L) or in equivalent parts per million (ppm).
  3. \* Well's or Tunnel not in service.
  4. ## Well's not operating during sampling periods.

# THE ISLAND OF LANA'I

## 1995 PERIODIC WATER REPORT

### High and Low Water Levels

PERIOD 13, 1995

	PERIOD 1 1/01 - 1/28		PERIOD 2 1/29 - 2/25		PERIOD 3 2/26 - 3/25		PERIOD 4 3/26 - 4/22		PERIOD 5 4/23 - 5/20		PERIOD 6 5/21 - 6/17		PERIOD 7 6/18 - 7/15		PERIOD 8 7/16 - 8/12		PERIOD 9 8/13 - 9/09		PERIOD 10 9/10 - 10/07		PERIOD 11 10/08 - 11/04		PERIOD 12 11/05 - 12/02		PERIOD 13 12/03 - 12/31	
	HIGH	LOW	HIGH	LOW	HIGH	LOW	HIGH	LOW	HIGH	LOW	HIGH	LOW	HIGH	LOW	HIGH	LOW	HIGH	LOW	HIGH	LOW	HIGH	LOW	HIGH	LOW	HIGH	LOW
Maunalei (Shaft No. 2)	677	687	681	668	689	672	695	691	697	693	*	*	*	*	*	*	**	**	**	**	**	**	**	**	**	**
Well No. 1	*	*	*	*	785	737	787	721	792	707	782	691	783	691	779	691	781	683	778	687	785	681	749	701	776	712
Well No. 2 (Shaft No. 3)	1430	1371	1425	1370	1419	1370	1420	1369	1414	1364	1418	1382	1410	1360	1410	1358	1406	1354	***	***	1392	1361	1388	1359	1409	1364
Well No. 3	*	*	1027	858	1028	876	*	*	*	*	*	*	1028	1022	1028	1006	1028	998	1024	998	1025	1002	1017	884	1000	871
Well No. 4	1507	1477	*	*	1523	*	1524	1523	1525	1498	1527	1519	1527	1523	1527	1504	*	*	**	**	**	**	**	**	**	**
Well No. 5	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
Well No. 6	1027	1018	1028	1018	1024	1015	1022	1009	1020	1008	1015	1006	1008	1001	1002	995	1000	996	998	994	997	988	1000	994	***	***
Well No. 9	738	701	761	708	788	730	758	744	753	738	750	714	728	710	735	718	729	722	****	****	****	****	***	***	***	***
Well No. 7	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
Well No. 8	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	1023	945	*	*	*	*	*	*
Shaft 3 Bulkhead Pressure	1512.3	1511.7	1512.3	1511.7	1511.7	1511.4	1511.7	1511.4	1511.8	1511.8	1511.4	1511.4	1511.7	1511.7	1511.4	1511.4	1511.4	1511.4	1511.7	1511.7	1511.7	1511.7	1511.4	1511.4	1511.4	1511.4

**GENERAL NOTES:**

1. All water levels are in feet above mean sea levels.
2. \* denotes that a well is not in service or the water level data is not available.
3. Starting in the third reporting period of 1994, the water level for well 9 is based on a surveyed well head elevation of 1412.87 feet (msl). All previously reported levels since the well's start-up in Reporting Period 7 in 1993 should be adjusted downward by 28 feet.
4. Bulkhead water level obtained by using benchmark elevation for pump chamber floor of 1510 feet from SUPPLEMENT GROUND - WATER DEVELOPMENT ON LANAI by Dr. H.T. Stearns December 22, 1953
5. During period 1 and 2 no water level data due to electrification at Well # 1.
6. With electrification of the well 1 pump, the pumping rate was increased from 500 to 700 GPM. This has resulted in a larger drawdown in the well which is reflected in the low water level starting in Period 6.

**PERIOD 10 NOTES:**

- \*\* Maunalei and Well #4 power off to well sites.
- \*\*\* Well #6 and Well #2 ( Shaft No. 3 ) compressor under repair.
- \*\*\*\* Well #9 airline blockage.





**LANAI WATER COMPANY**  
**1994 PERIODIC WATER REPORT**  
**Chloride Level & Temperature**

PERIOD 13, 1994

	PERIOD 1 1/2 - 1/29		PERIOD 2 1/30 - 2/26		PERIOD 3 2/27 - 3/26		PERIOD 4 3/27 - 4/23		PERIOD 5 4/24 - 5/21		PERIOD 6 5/22 - 6/18		PERIOD 7 6/19 - 7/16		PERIOD 8 7/17 - 8/13		PERIOD 9 8/14 - 9/10		PERIOD 10 9/11 - 10/08		PERIOD 11 10/09 - 11/05		PERIOD 12 11/06 - 12/03		PERIOD 13 12/04 - 12/31			
	Temp.	Chldr.	Temp.	Chldr.	Temp.	Chldr.	Temp.	Chldr.	Temp.	Chldr.	Temp.	Chldr.	Temp.	Chldr.	Temp.	Chldr.	Temp.	Chldr.	Temp.	Chldr.	Temp.	Chldr.	Temp.	Chldr.	Temp.	Chldr.	Temp.	Chldr.
Maunalei Tunnel (Lower)	67.1	38.0	68.4	36	64.4	36	70.2	33	70.4	35	70.1	37	72.4	35	69.9	36	70.4	42	##	##	69.5	39	71.1	36	69.7	45		
Maunalei Tunnel (Upper)	67.1	38.0	68.4	36	64.4	36	70.2	33	70.4	35	70.1	37	72.4	35	69.9	36	70.4	42	##	##	*	*	*	*	*	*		
Maunalei - Shaft No. 2	69.5	37.7	68	38	67.8	23	68.9	34	70.4	32	70.8	34	71.3	37	70.1	40	67.8	40	##	##	68.2	38	70.2	36	73.7	31		
Well No. 1	81.9	318.0	77.5	323	81.5	302	82.0	310	81.6	305	81.2	348	80.7	331	80.8	326	82.6	364	81.7	348	81.8	375	80.9	311	*	*		
Well No. 9	83.7	374.0	83.2	399	83.1	387	83.2	403	83.2	417	83.4	398	83.3	412	82.5	471	83.1	481	82.7	476	82.2	392	81.9	462	81.9	530		
Well No. 12										*	*	*	*	*	*	*	*	*	*	*	94.9	760	94.7	1079	98.5	1197		
Booster #1 Shaft No. 3 (Header)	68.4	23.2	68.2	22	68.5	23	##	##	67.7	20	##	##	##	##	##	##	##	##	##	##	69.2	31	69.7	25	67.6	27	69.9	31
Shaft No. 3 (Well No. 2)	68.4	23.2	68.2	22	68.5	23	##	##	67.7	20	##	##	##	##	##	##	##	##	##	##	69.2	31	69.7	25	67.6	27	69.9	31
Booster #2 Shaft No. 3 (Header)	68.4	23.2	68.2	22	68.5	23	##	##	67.7	20	##	##	##	##	##	##	##	##	##	##	69.2	31	69.7	25	67.6	27	69.9	31
Well No. 3 (City)	73.8	34.1	74	33	71.5	33	73.4	30	73.3	30	68.1	33	72.8	38	72.6	36	72.6	34	73.7	37	67.8	27	72.7	35	70	39		
Well No. 3 (Irrigation)	73.8	34.1	74	33	71.5	33	73.4	30	73.3	30	68.1	33	72.8	38	72.6	36	72.6	34	73.7	37	67.8	27	72.7	35	70	39		
Well No. 4	67.5	20.1	67.5	29	66.8	25	66.5	16	68.3	21	67.0	26	65.7	31	66.9	22	65.9	23	69.6	23	65.1	25	66.3	22	68.2	23		
Well No. 5	57.8	22.3	##	##	##	##	##	##	70.5	21	##	##	##	##	##	##	##	##	##	##	66.9	25	67.3	25	67.1	24	*	*
Well No. 6	57.5	28.6	67.2	33	67.4	19	67.4	32	71.1	27	76.0	28	73.6	30	66.7	30	66.4	30	72.6	33	68.6	31	66.9	36	N/A	29		
Well No. 7	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*

- NOTE:
1. Temperature reading is in Fahrenheit.
  2. Chloride content is in milligrams per liter (mg/L) or in equivalent parts per million (ppm).
  3. \* Well's or Tunnel not in service.
  4. ## well's not operating during sampling periods.

# LANAI WATER COMPANY

## 1994 PERIODIC WATER REPORT

### High and Low Water Levels

PERIOD 13, 1994

	PERIOD 1		PERIOD 2		PERIOD 3		PERIOD 4		PERIOD 5		PERIOD 6		PERIOD 7		PERIOD 8		PERIOD 9		PERIOD 10		PERIOD 11		PERIOD 12		PERIOD 13	
	1/2 - 1/29	HIGH   LOW	1/30 - 2/26	HIGH   LOW	2/27 - 3/26	HIGH   LOW	3/27 - 4/23	HIGH   LOW	4/24 - 5/21	HIGH   LOW	5/22 - 6/18	HIGH   LOW	6/19 - 7/16	HIGH   LOW	7/17 - 8/13	HIGH   LOW	8/14 - 9/10	HIGH   LOW	9/11 - 10/8	HIGH   LOW	10/09 - 11/05	HIGH   LOW	11/06 - 12/03	HIGH   LOW	12/04 - 12/31	HIGH   LOW
Maunalei - Shaft No. 2	687.1	669.9	681.8	659.2	678	671	681	672	677	671	679	670	674	668	677	671	678	669	681	670	684	672	675	671	681	669
Well No. 1	779.4	707.6	779.6	715.2	783	727	783	729	782	708	782	705	781	705	779	703	771	717	779	723	*	*	*	*	*	*
Well No. 2 (Shaft No. 3)	1422.1	1366.2	1402.0	1362.4	1403	1369	1416	1373	*	*	*	*	*	*	*	*	*	*	*	*	1427	1376	1430	1373	1428	1366
Well No. 3	1028.4	1006.8	1034.1	1014.4	1403	1016	1038	1018	1038	1023	*	*	*	*	*	*	1036	976	1035	988	*	*	*	*	1036	1024
Well No. 4	1509.8	1469.9	1505.0	1477.7	1517	1486	1510	1475	1506	1467	1508	1469	1514	1471	1501	1447	1503	1458	1505	1460	1504	1459	1505	1463	1503	1474
Well No. 5	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
Well No. 6	1026	1016.3	1028.5	1018.6	1028	1013	1018	1016	1025	1013	1022	1012	1022	1011	1030	1014	1025	1014	1026	1014	1028	1017	1032	1004	1026	1014
Well No. 9	820	762.3	820.5	772.0	793	740	784	735	748	731	780	730	740	720	780	728	760	722	768	722	764	718	767	718	721	714
Well No. 7	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
Shaft 3 Bulkhead Pressure																					1513.2	1512.3	1512.3	1512.3	1512.3	1511.7

- GENERAL NOTES:
1. All water levels are in feet above mean sea levels.
  2. \* denotes that a well is not in service or the water level data is not available.
  3. Starting in the third reporting period of 1994, the water level for well 9 is based on a surveyed well head elevation of 1412.87 feet (msl). All previously reported levels since the well's start-up in Reporting Period 7 in 1993 should be adjusted downward by 28 feet.
  4. Bulkhead water level obtained by using benchmark elevation for pump chamber floor of 1510 feet from SUPPLEMENT GROUND - WATER DEVELOPMENT ON LANAI by Dr. H.T. Stearns December 22, 1953

# LANAI WATER COMPANY

## 1993 PERIODIC WATER REPORT

PERIOD 13, 1993

	WATER PUMPED - GALLONS													THIS YEAR TO DATE	CURRENT PD. LAST YEAR	TO DATE LAST YEAR	TOTAL LAST YEAR
	PERIOD 1 12/27 - 1/30	PERIOD 2 1/31 - 2/27	PERIOD 3 2/28 - 3/27	PERIOD 4 3/28 - 4/24	PERIOD 5 4/25 - 5/22	PERIOD 6 5/23 - 6/19	PERIOD 7 6/20 - 7/17	PERIOD 8 7/18 - 8/14	PERIOD 9 8/15 - 9/11	PERIOD 10 9/12 - 10/09	PERIOD 11 10/10 - 11/08	PERIOD 12 11/07 - 12/04	PERIOD 13 12/05 - 1/01				
Maunalei Tunnel (Lwr)	6,869,000	2,540,000	2,300,000	2,283,000	2,201,000	1,820,000	1,801,000	1,629,000	1,136,000	1,496,000	911,000	119,000	224,000	25,129,000	3,480,000	22,466,000	22,466,000
Maunalei Tunnel (Upr)														0	0	0	0
Maunalei-Shaft No. 2	9,605,800	22,949,300	11,588,700	17,369,600	13,644,000	16,451,000	16,382,300	17,486,000	16,279,800	14,620,000	16,335,000	17,168,200	15,795,400	205,675,100	11,759,500	157,976,499	157,976,499
Well No. 1	NOT IN SERVICE	833,000	582,000	1,000	2,435,000	5,721,000	12,627,000	9,077,000	11,880,000	14,622,000	16,680,000	10,379,000	1,772,000	66,818,000	NOT IN SERVICE	NOT IN SERVICE	0
Well No. 2	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	8,833,000	10,623,000	8,683,000	10,101,000	10,610,000	12,942,000	12,898,000	74,490,000	0	0	0
Well No. 3														0	0	0	0
Well No. 3 (City)	5,751,000	2,165,000	6,382,000	5,746,000	4,956,000	5,136,000	1,266,000	6,953,000	5,626,000	4,841,000	5,305,000	3,286,000	4,711,000	61,906,000	1,238,000	64,733,000	64,733,000
Well No. 3 (Irrigation)	8,000	0	0	0	0	0	18,921,000	0	0	0	0	0	818,000	19,747,000	0	25,127,000	25,127,000
Well No. 4	4,213,000	9,245,000	13,266,000	9,809,000	9,683,000	7,271,000	4,837,000	16,961,000	9,880,000	9,207,000	10,139,000	10,524,000	11,049,000	126,083,000	1,983,000	265,085,000	265,085,000
Well No. 5	42,000	200,000	5,905,000	3,382,000	1,903,000	2,060,000	3,354,000	3,091,000	1,259,000	762,000	0	5,000	457,000	22,400,000	0	36,831,000	36,831,000
Well No. 6	5,177,000	4,474,000	4,736,000	9,519,000	9,105,000	11,136,000	14,553,000	5,970,000	8,668,000	3,294,000	6,928,000	5,553,000	7,718,000	96,831,000	1,862,000	114,227,033	114,227,033
Well No. 7	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	0	NOT IN SERVICE	1,501,500	1,501,500
<b>TOTAL</b>	<b>38,784,800</b>	<b>45,593,300</b>	<b>49,144,700</b>	<b>54,792,600</b>	<b>46,456,000</b>	<b>56,049,000</b>	<b>82,955,300</b>	<b>76,684,000</b>	<b>68,577,800</b>	<b>62,608,000</b>	<b>70,830,000</b>	<b>64,236,200</b>	<b>58,216,400</b>	<b>774,930,100</b>	<b>28,395,500</b>	<b>748,245,032</b>	<b>748,245,032</b>

1/4 Gal. Holding Tank																		
Losses for Irrigation																		

	DISTRIBUTION GALLONS													THIS YEAR TO DATE	CURRENT PD. LAST YEAR	TO DATE LAST YEAR	TOTAL LAST YEAR
	PERIOD 1 12/30 - 1/29	PERIOD 2 1/27 - 2/23	PERIOD 3 2/24 - 3/23	PERIOD 4 3/24 - 4/20	PERIOD 5 4/21 - 5/18	PERIOD 6 5/19 - 6/15	PERIOD 7 6/16 - 7/13	PERIOD 8 7/14 - 8/10	PERIOD 9 8/11 - 9/07	PERIOD 10 9/08 - 10/05	PERIOD 11 10/06 - 11/2	PERIOD 12 11/3 - 11/30	PERIOD 13 12/01 - 12/28				
City Grid	22,093,700	27,023,500	19,822,900	25,180,200	20,524,700	23,151,500	18,952,700	25,616,100	22,751,600	20,459,400	22,290,300	20,282,600	20,549,600	268,808,800	16,225,520	241,831,338	241,831,338
Irrigation	16,559,000	17,939,000	28,874,000	29,394,000	25,657,000	32,642,000	63,706,000	50,616,000	45,534,000	41,851,000	48,279,000	43,683,000	37,486,000	482,220,000	3,918,000	501,069,533	501,069,533
Kaunapuu	222,100	630,600	447,800	218,400	276,300	255,500	286,600	251,800	292,200	297,600	280,700	270,600	180,800	3,901,300	251,980	3,344,161	3,344,161
<b>TOTAL</b>	<b>38,784,800</b>	<b>45,593,300</b>	<b>49,144,700</b>	<b>54,792,600</b>	<b>46,456,000</b>	<b>56,049,000</b>	<b>82,955,300</b>	<b>76,684,000</b>	<b>68,577,800</b>	<b>62,608,000</b>	<b>70,830,000</b>	<b>64,236,200</b>	<b>58,216,400</b>	<b>774,930,100</b>	<b>28,395,500</b>	<b>748,245,032</b>	<b>748,245,032</b>

7,718,000 TO KOELE GOLF LAKE AND ZERO TO THE CITY (PERIOD 12).  
BRACKISH WELL EXTENDED PUMP TEST

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**LANAI WATER COMPANY**  
**1993 PERIODIC WATER REPORT**  
**High and Low Water Levels**

PERIOD 13, 1993

	PERIOD 1 12/27 - 1/30		PERIOD 2 1/31 - 2/27		PERIOD 3 2/28 - 3/27		PERIOD 4 3/28 - 4/24		PERIOD 5 4/25 - 5/22		PERIOD 6 5/23 - 6/19		PERIOD 7 6/20 - 7/17		PERIOD 8 7/18 - 8/14		PERIOD 9 8/15 - 9/11		PERIOD 10 9/12 - 10/9		PERIOD 11 10/10 - 11/06		PERIOD 12 11/07 - 12/04		PERIOD 13 12/05 - 1/01	
	HIGH	LOW	HIGH	LOW	HIGH	LOW	HIGH	LOW	HIGH	LOW	HIGH	LOW	HIGH	LOW	HIGH	LOW	HIGH	LOW	HIGH	LOW	HIGH	LOW	HIGH	LOW	HIGH	LOW
Maunalei - Shaft No. 2	687	681	691	683	695	685	690	681	692	682	687	680.5	695	685	682	678	681	676	685	676	681	674	677	673	679.2	671.5
Well No. 1	*	*	*	*	*	*	*	*	786	723	778	729	780.5	736	775	736	798	707	764	732	776	732	776	725	777.7	743.2
Well No. 2 (Shaft No. 3)	1342	1328	1334	1326	1414	1322	1408	1366	1417	1378	1408	1378	1420	1383	1416	1376	1416	1362	1407	1360	1411	1362	1410.3	1370.8	1416.5	1372.1
Well No. 3	984	968	1026	960	1024	1004	1026	1002	1030	1006	1028	1012	1025	978	1016	983	1019	994	1022	997	1024	996	1028	1000	1030	1010.8
Well No. 4	*	*	*	*	*	*	*	*	*	*	*	*	*	*	1510	1473	1517	1473	1518	1483	1518	1476	1514.9	1470.6	1511	1477
Well No. 5	*	*	*	*	1507	1392	1505	1387	1507	1397	1508	1399.5	1510	1397	1509	1409	1511	1404	1514	1397	1519	1505	*	*	*	*
Well No. 6	985	①	*	*	*	*	*	*	979.1	968	1006.8	1000.4	1003.2	963.4	968	953	972	959	970	958	970	960	1026.9	1010.9	1034.8	1016
Well No. 9	*	*	*	*	*	*	*	*	*	*	*	*	835	788	845	791	833	720	833	757	823	725	778.5	770.8	814.4	769
Well No. 7	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*

All Elevations are in Feet Above Mean Sea Level

\* WELL NOT IN SERVICE OR DATA NOT AVAILABLE

Well 6 and Well 9 airline installed with chart reading psi and converted into feet. (Prior to period 8)

\*\*\* Previous low shown at well #1 due to MEC's transformer out of service.

Current high level reading made using portable generator.

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LANAI WATER COMPANY

# LANAI WATER COMPANY

## 1993 PERIODIC WATER REPORT

### Chloride Level & Temperature

PERIOD 13, 1993

	PERIOD 1 12/27 - 1/30		PERIOD 2 1/31 - 2/27		PERIOD 3 2/28 - 3/27		PERIOD 4 3/28 - 4/24		PERIOD 5 4/25 - 5/22		PERIOD 6 5/23 - 6/19		PERIOD 7 6/20 - 7/17		PERIOD 8 7/18 - 8/14		PERIOD 9 8/15 - 9/11		PERIOD 10 9/12 - 10/09		PERIOD 11 10/10 - 10/06		PERIOD 12 11/07 - 12/04		PERIOD 13 12/05 - 1/01	
	Temp.	Chlrd.	Temp.	Chlrd.	Temp.	Chlrd.	Temp.	Chlrd.	Temp.	Chlrd.	Temp.	Chlrd.	Temp.	Chlrd.	Temp.	Chlrd.	Temp.	Chlrd.	Temp.	Chlrd.	Temp.	Chlrd.	Temp.	Chlrd.	Temp.	Chlrd.
Maunalei Tunnel (Lower)	68	11.5	61	32.2	68	23.2	66	34.4	65	28.9	68	31.3	70.3	37.3	71.5	38.2	71.8	37.6	70.4	37.5	69.9	37.6	69.5	25.3	70.3	37.2
Maunalei Tunnel (Upper)	68	11.5	61	32.2	68	23.2	66	34.4	65	28.9	68	31.3	70.3	37.3	71.5	38.2	70.8	37.6	70.4	37.5	69.9	37.6	69.5	25.3	70.3	37.2
Maunalei - Shaft No. 2	68	28.4	61	26.7	68	31.0	65	35.8	66	36.3	66	35.2	70.9	35.8	71.3	35.3	71.2	36.1	70.8	35.7	71.2	35.9	69.5	35.7	69.2	38.4
Well No. 1	*	*	61	353.6	71	323.0	80	319.9	68	319.0	68	310.1	80.0	328.0	81.3	320.0	81.3	323.0	81.7	322.0	81.4	326.0	81.5	324.0	81.4	324
Well No. 9	*	*	*	*	*	*	*	*	*	*	*	*	83.8	369.0	84.3	373	83.8	372	83.8	371	84.1	369	84.1	377	83.6	365
Shaft No. 3 (Header) Booster #1	68	21.7	60	18.7	68	22.0	68	18.9	72	21.8	66	20.4	67.0	22.6	67.2	23.1	67.5	24.3	67.7	24.8	66.8	24.1	69.2	21.6	67.3	24.9
Shaft No. 3 (Well No. 2) Booster #2	68	21.7	60	18.7	68	22.0	68	18.9	72	21.8	66	20.4	67.0	22.6	67.2	23.1	67.5	24.3	67.7	24.8	66.8	24.1	69.2	21.6	67.3	24.9
Well No. 3 (City)	71	19.5	65	31.5	70	32.9	*	*	65	21.7	65	22.0	73.0	29.8	74.2	30.1	73.8	30.9	73.1	31.1	72.9	32.1	73.7	30.2	74.1	36.2
Well No. 3 (Irrigation)	71	19.5	65	31.5	70	32.9	*	*	65	21.7	65	22.0	73.0	29.8	74.2	30.1	73.8	30.9	73.1	31.1	72.9	32.1	73.7	30.2	74.1	36.2
Well No. 4	68	19.4	61	20.0	64	19.2	64	18.2	65	20.4	*	*	66.2	13.9	66.6	14.3	66.9	15.1	## not no data	pumping available	66.9	14.8	66.6	19.6	66.5	21.7
Well No. 5	68	19.7	61	21.1	64	20.6	64	20.6	64	19.0	*	*	66.1	23.2	67.2	22.3	67.5	23.1	## not no data	pumping available	## not no data	pumping available	## not no data	pumping available	## not no data	pumping available
Well No. 6	68	17.4	61	16.8	64	26.3	64	24.7	64	25.0	68	25.8	67.3	22.1	67.6	23.1	67.8	23.5	67.4	24.7	67.6	26.1	67.4	27.5	66.8	28.9
Well No. 7	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*

\* WELLS NOT IN SERVICE  
## WELLS NOT OPERATING DURING SAMPLING PERIODS

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# LANAI WATER COMPANY

## 1992 PERIODIC WATER REPORT

PERIOD 13, 1992

	WATER PUMPED - GALLONS													THIS YEAR TO DATE	CURRENT PD. LAST YEAR	TO DATE LAST YEAR	TOTAL LAST YEAR
	PERIOD 1 12/30 - 1/26	PERIOD 2 1/27 - 2/23	PERIOD 3 2/24 - 3/23	PERIOD 4 3/24 - 4/20	PERIOD 5 4/21 - 5/18	PERIOD 6 5/19 - 6/15	PERIOD 7 6/16 - 7/13	PERIOD 8 7/14 - 8/10	PERIOD 9 8/11 - 9/07	PERIOD 10 9/08 - 10/05	PERIOD 11 10/06 - 11/2	PERIOD 12 11/3 - 11/30	PERIOD 13 12/01 - 12/28				
Maunalei Tunnel (Lwr)	183,000	790,000	776,000	504,000	981,000	1,428,000	1,508,000	1,880,000	1,378,000	3,651,000	3,886,000	2,223,000	3,480,000	22,466,000	3,220,000	72,025,100	72,025,100
Maunalei Tunnel (Upr)														0	0	0	0
Maunalei-Shaft No. 2	15,231,200	14,754,300	10,662,300	15,425,400	13,858,100	14,418,400	16,061,700	1,524,000	4,272,000	11,911,699	15,102,500	12,995,400	11,759,500	157,976,499	11,940,400	188,202,100	188,202,100
Well No. 1	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	0	NOT IN SERVICE	17,545,000	17,545,000
Well No. 2														0	0	0	0
Well No. 3 (City)	5,340,000	4,356,000	4,472,000	5,652,000	NOT IN SERVICE	288,000	4,010,000	6,571,000	7,256,000	3,816,000	5,578,000	4,708,000	5,983,000	58,318,000	812,000	141,585,100	141,585,100
Well No. 3 (Irrigation)	2,390,000	1,130,000	3,672,000	5,863,000	3,347,000	6,807,000	11,710,000	13,567,000	10,273,000	1,330,000	1,367,000	1,834,000	1,238,000	64,728,000 84,733,000	64,728,000 5,888,000	150,757,750	150,757,750
Well No. 4	2,281,000	4,790,000	86,000	1,206,000	15,539,000		921,000		108,000		198,000	0	0	25,127,000	327,000	38,003,810	38,003,810
Well No. 5	21,818,000	24,905,000	24,237,000	33,232,000	27,995,000	22,992,000	27,660,000	16,311,000	21,389,000	9,575,000	19,179,000	13,809,000	1,863,000	265,065,300	19,929,000	164,468,000	164,468,000
Well No. 6	2,582,000	697,000	951,000	4,823,000	11,243,000	4,493,000	2,351,000	2,889,000	1,633,000	1,464,000	2,390,000	1,295,000	0	38,631,000	7,100,000	88,005,000	88,005,000
Well No. 7	839,000	5,489,000	5,706,000	12,784,000	19,759,000	7,227,000	11,838,033	19,613,000	6,781,000	7,848,000	10,678,000	3,905,000	1,962,000	114,227,033	2,844,000	181,805,035	181,805,035
Well No. 8	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	1,501,500	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	1,501,500	NOT IN SERVICE	0	NOT IN SERVICE
<b>TOTAL</b>	<b>50,874,200</b>	<b>56,911,300</b>	<b>50,762,300</b>	<b>81,290,900</b>	<b>92,722,100</b>	<b>57,631,400</b>	<b>76,057,733</b>	<b>62,185,000</b>	<b>53,093,000</b>	<b>39,397,699</b>	<b>58,374,500</b>	<b>40,789,400</b>	<b>26,395,500</b>	<b>746,245,332</b>	<b>51,641,400</b>	<b>1,040,194,995</b>	<b>1,040,194,995</b>

M Gal. Holding Tank for Irrigation																	
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	DISTRIBUTION GALLONS													THIS YEAR TO DATE	CURRENT PD. LAST YEAR	TO DATE LAST YEAR	TOTAL LAST YEAR
	PERIOD 1 12/30 - 1/26	PERIOD 2 1/27 - 2/23	PERIOD 3 2/24 - 3/23	PERIOD 4 3/24 - 4/20	PERIOD 5 4/21 - 5/18	PERIOD 6 5/19 - 6/15	PERIOD 7 6/16 - 7/13	PERIOD 8 7/14 - 8/10	PERIOD 9 8/11 - 9/07	PERIOD 10 9/08 - 10/05	PERIOD 11 10/06 - 11/2	PERIOD 12 11/3 - 11/30	PERIOD 13 12/01 - 12/28				
City Grid	17,636,500	16,378,600	14,515,900	20,874,000	17,851,100	21,982,400	28,696,400	16,375,500	15,387,300	16,357,199	19,779,200	16,477,200	15,775,500	237,888,789	20,653,600	410,809,150	407,840,789
Irrigation	32,670,000	40,237,000	35,452,000	59,498,500	74,538,000	34,978,000	48,778,033	45,394,000	37,167,000	22,505,000	36,019,000	23,717,000	9,916,000	501,089,533	30,812,000	629,210,045	629,210,045
Kaunapapa	185,700	295,700	794,400	918,400	535,000	671,000	583,300	395,500	538,700	535,500	576,300	575,200	702,000	7,286,700	175,800	175,800	3,344,161
<b>TOTAL</b>	<b>50,874,200</b>	<b>56,911,300</b>	<b>50,762,300</b>	<b>81,290,900</b>	<b>92,722,100</b>	<b>57,631,400</b>	<b>76,057,733</b>	<b>62,185,000</b>	<b>53,093,000</b>	<b>39,397,699</b>	<b>58,374,500</b>	<b>40,789,400</b>	<b>26,395,500</b>	<b>746,245,332</b>	<b>51,641,400</b>	<b>1,040,194,995</b>	<b>1,040,194,995</b>

NOTE: MAUNALEI WAS OUT OF SERVICE FOR 3 WEEKS DURING PERIOD 8.

# LANAI WATER COMPANY

## 1992 PERIODIC WATER REPORT

### Chloride Level & Temperature

PERIOD 13, 1992

	PERIOD 1 12/29 - 1/25		PERIOD 2 1/26 - 2/22		PERIOD 3 2/23 - 3/21		PERIOD 4 3/22 - 4/18		PERIOD 5 4/19 - 5/16		PERIOD 6 5/17 - 6/13		PERIOD 7 6/14 - 7/11		PERIOD 8 7/12 - 8/08		PERIOD 9 8/09 - 9/05		PERIOD 10 9/06 - 10/03		PERIOD 11 10/04 - 10/31		PERIOD 12 11/01 - 11/28		PERIOD 13 11/29 - 12/26	
	Temp.	Chlrd.	Temp.	Chlrd.	Temp.	Chlrd.	Temp.	Chlrd.	Temp.	Chlrd.	Temp.	Chlrd.	Temp.	Chlrd.	Temp.	Chlrd.	Temp.	Chlrd.	Temp.	Chlrd.	Temp.	Chlrd.	Temp.	Chlrd.	Temp.	Chlrd.
Maunalei Tunnel (Lower)	66	21.6	66	26.6	64	22.0	65	21.7	68	35.6	65	34.3	*	*	65	31.2	71	35.0	71	33.9	71	34.5	70	34.2	70	34.4
Maunalei Tunnel (Upper)	66	21.6	66	26.6	64	22.0	65	21.7	68	35.6	65	34.3	*	*	65	31.2	71	35.0	71	33.9	71	34.5	70	34.2	70	34.0
Maunalei - Shaft No. 2	66	35.9	67	41.1	68	38.9	67	23.3	65	34.7	65	36.7	*	*	65	35.7	69	35.5	71	35.1	70	32.1	70	36.7	72	35.3
Well No. 1	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
Shaft No. 3 (Header) <small>Booster #1</small>	66	19.2	67	18.8	66	21.4	66	21.4	*	*	69	22.1	70	19.8	76	35.3	68	18.6	70	19.7	70	20.2	70	22.0	70	22.2
Shaft No. 3 (Well No. 2) <small>Booster #2</small>	66	19.2	67	18.8	66	21.4	66	21.4	*	*	69	22.1	70	19.8	76	35.3	68	18.6	70	19.7	70	20.2	70	22.0	70	22.2
Shaft No. 3 (Header)	66	19.2	67	18.8	66	21.4	66	21.4	*	*	69	22.1	70	19.8	76	35.3	68	18.6	70	19.7	70	20.2	70	22.0	70	22.2
Well No. 3 (City)	70	36.9	69	36.4	71	32.4	72	28.6	72	35.9	74	33.2	72	33.3	72	34.7	72	31.3	72	29.5	72	32.0	72	32.3	72	32.0
Well No. 3 (Irrigation)	70	36.9	69	36.4	71	32.4	72	28.6	72	35.9	74	33.2	72	33.3	72	34.7	72	31.3	72	29.5	72	32.0	72	32.3	72	32.0
Well No. 4	67	22.0	67	21.0	64	21.5	64	21.3	66	20.1	64	21.5	66	21.2	66	22.0	64	22.0	68	20.2	68	21.3	68	22.2	68	22.0
Well No. 5	67	23.8	66	24.0	66	22.0	65	22.2	68	24.0	66	22.0	65	22.0	66	21.8	65	22.4	68	21.4	68	19.0	68	22.2	*	*
Well No. 6 <small>Koala Golf Course</small>	66	29.4	67	29.4	67	29.4	66	27.7	68	20.7	66	30.3	69	28.7	66	26.2	67	28.0	68	32.1	68	30.1	68	32.0	68	32.1
Well No. 7	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*

\* WELLS NOT IN SERVICE

# LANAI WATER COMPANY

## 1992 PERIODIC WATER REPORT

### High and Low Water Levels

PERIOD 13, 1992

	PERIOD 1 12/29 - 1/25		PERIOD 2 1/26 - 2/22		PERIOD 3 2/23 - 3/21		PERIOD 4 3/22 - 4/18		PERIOD 5 4/19 - 5/16		PERIOD 6 5/17 - 6/13		PERIOD 7 6/14 - 7/11		PERIOD 8 7/12 - 8/08		PERIOD 9 8/09 - 9/05		PERIOD 10 9/06 - 10/03		PERIOD 11 10/04 - 10/31		PERIOD 12 11/01 - 11/28		PERIOD 13 11/29 - 12/26	
	HIGH	LOW	HIGH	LOW	HIGH	LOW	HIGH	LOW	HIGH	LOW	HIGH	LOW	HIGH	LOW	HIGH	LOW	HIGH	LOW	HIGH	LOW	HIGH	LOW	HIGH	LOW	HIGH	LOW
Maunalei - Shaft No. 2	683	681	683	679	685	679	687	679	685	681	681	679	683	676	693	689	695	689	693	687	691	685	687	679	687	679
Well No. 1	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
Well No. 2 (Shaft No. 3)	1404	1352	1402	1358	1404	1356	1386	1356	*	*	1325	1320	1419	1362	1418	1364	1414	1364	1416	1364	1418	1368	1370	1348	1350	1336
Well No. 3	984	942	976	950	998	970	1002	964	994	954	998	930	986	956	984	940	1026	928	994	942	1000	974	1010	993	994	984
Well No. 4	1358	1348	1344	1345	1358	1346	1347	1317	*	*	*	*	1384	1360	1354	1344	*	*	*	*	*	*	*	*	*	*
Well No. 5	1457	1334	1477	1338	1392	1347	1347	1317	1322	1307	*	*	1377	1347	1482	1347	1482	1357	1487	1367	*	*	*	*	*	*
Well No. 6	985	①	985	①	985	①	967	①	967	①	967	①	967	①	967	①	967	①	967	①	967	①	967	①	*	*
Well No. 7	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*

All Elevations are in Feet Above Mean Sea Level

\* WELL NOT IN SERVICE OR DATA NOT AVAILABLE

① Well level manually gauged at end of period. Water level at pump installation was 1005'.

\* Well 2 under repair no data for period 5.

\* Well 4 airline broken no data.

\* Well 6 data not available airline is being installed for period 13.



RECEIVED

# LANAI WATER COMPANY 1991 PERIODIC WATER REPORT

PERIOD 13, 1991

	WATER PUMPED - GALLONS													THIS YEAR TO DATE	CURRENT PD. LAST YEAR	TO DATE LAST YEAR	TOTAL LAST YEAR
	PERIOD 1 12/30 - 1/26	PERIOD 2 1/27 - 2/23	PERIOD 3 2/24 - 3/23	PERIOD 4 3/24 - 4/20	PERIOD 5 4/21 - 5/18	PERIOD 6 5/19 - 6/15	PERIOD 7 6/16 - 7/13	PERIOD 8 7/14 - 8/10	PERIOD 9 8/11 - 9/07	PERIOD 10 9/08 - 10/05	PERIOD 11 10/06 - 11/2	PERIOD 12 11/3 - 11/30	PERIOD 13 12/01 - 12/28				
Maunalei Tunnel (Lwr)	3,810,000	34,483,000	3,264,000	3,395,000	3,257,000	3,234,000	2,419,200	3,228,800	2,181,200	2,872,800	3,498,000	3,161,100	3,220,000	72,025,100	4,143,000	54,585,300	54,585,300
Maunalei Tunnel (Upr)														0	0	0	0
Maunalei - Shaft No. 2	13,775,800	12,653,600	14,339,800	14,471,300	14,746,000	14,727,000	12,731,700	13,920,700	14,422,700	16,811,500	13,999,800	19,682,000	11,840,400	188,202,100	14,010,900	178,918,300	178,918,300
Well No. 1	1,393,000	5,604,000	6,065,000	3,505,000	978,000	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	17,545,000	0	34,877,000	34,877,000
Booster #1																	
Shaft No. 3 (Header)														0	0	0	0
Shaft No. 3 (Well #2)														0	0	63,366,300	63,366,300
Booster #2																	
Shaft No. 3 (Header)			7,095,800	13,853,500	7,805,300	14,933,300	19,425,500	25,652,000	14,285,700	12,911,500	18,261,500	6,739,000	812,000	141,595,100	0	139,778,950	139,778,950
Well No. 3 (City)	11,135,000	24,533,000	10,214,000	11,770,000	8,024,000	7,287,000	8,509,640	12,545,780	15,948,330	19,590,000	7,571,000	7,961,000	5,669,000	150,757,750	16,100,000	157,230,000	157,230,000
Well No. 3 (Irrigation)	3,497,000	2,033,000	2,957,000	1,251,000	2,350,000	2,131,000	7,848,380	4,640,220	3,369,330	941,000	288,000	4,371,000	327,000	36,003,910	8,790,000	15,517,000	15,517,000
Well No. 4			98,000	3,410,000	28,923,000	15,071,000	19,269,000	20,748,000	6,814,000	17,355,000	13,656,000	17,091,000	19,926,000	164,486,000	0	283,819,900	283,819,900
Well No. 5	10,241,000	10,812,000	3,458,000	4,939,000	7,078,000	7,086,000	8,233,000	9,986,000	4,039,000	7,345,000	3,229,000	4,481,000	7,100,000	88,005,000	11,188,000	122,036,000	122,036,000
Koele																	
Well No. 6 Golf Course	10,839,960	6,300,780	19,656,000	21,848,000	18,161,105	17,472,000	19,444,430	15,742,000	14,402,080	16,733,000	6,954,000	9,408,000	2,644,000	181,805,035	8,778,000	47,493,910	47,493,910
Well No. 7	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE	NOT IN SERVICE
<b>TOTAL</b>	<b>54,691,460</b>	<b>98,419,380</b>	<b>67,147,400</b>	<b>78,442,800</b>	<b>91,120,405</b>	<b>81,841,300</b>	<b>97,880,830</b>	<b>106,444,500</b>	<b>77,572,340</b>	<b>94,559,800</b>	<b>87,459,300</b>	<b>72,874,100</b>	<b>51,641,400</b>	<b>1,040,194,895</b>	<b>63,010,800</b>	<b>1,097,622,660</b>	<b>1,097,622,660</b>
2/M Gal. Holding Tank Storage for Irrigation																5,359,200	6,329,586

	DISTRIBUTION GALLONS													THIS YEAR TO DATE	CURRENT PD. LAST YEAR	TO DATE LAST YEAR	TOTAL LAST YEAR
	PERIOD 1 12/30 - 1/26	PERIOD 2 1/27 - 2/23	PERIOD 3 2/24 - 3/23	PERIOD 4 3/24 - 4/20	PERIOD 5 4/21 - 5/18	PERIOD 6 5/19 - 6/15	PERIOD 7 6/16 - 7/13	PERIOD 8 7/14 - 8/10	PERIOD 9 8/11 - 9/07	PERIOD 10 9/08 - 10/05	PERIOD 11 10/06 - 11/2	PERIOD 12 11/3 - 11/30	PERIOD 13 12/01 - 12/28				
To City Grid	28,545,000	71,452,000	27,570,000	29,396,900	25,781,500	25,003,400	23,413,040	29,456,580	32,256,530	38,985,600	24,676,400	30,526,419	20,577,420	407,640,789	33,907,900	383,295,700	379,302,412
To Irrigation	25,970,660	26,749,780	39,329,800	48,606,500	65,083,405	56,683,300	74,220,290	76,748,220	45,020,110	55,285,500	42,390,500	42,090,000	30,812,000	629,210,045	28,757,000	712,248,260	713,218,648
To Kaunapalapau	175,800	217,600	247,600	239,400	245,500	244,600	247,500	239,700	295,700	288,700	392,400	257,681	251,880	3,344,181	346,000	2,088,700	5,101,600
<b>TOTAL</b>	<b>54,691,460</b>	<b>98,419,380</b>	<b>67,147,400</b>	<b>78,442,800</b>	<b>91,120,405</b>	<b>81,841,300</b>	<b>97,880,830</b>	<b>106,444,500</b>	<b>77,572,340</b>	<b>94,559,800</b>	<b>87,459,300</b>	<b>72,874,100</b>	<b>51,641,400</b>	<b>1,040,194,895</b>	<b>63,010,800</b>	<b>1,097,622,660</b>	<b>1,097,622,660</b>

# LANAI WATER COMPANY

## 1991 PERIODIC WATER REPORT

### High and Low Water Levels

PERIOD 13, 1991

	PERIOD 1 12/30 - 1/26		PERIOD 2 1/27 - 2/23		PERIOD 3 2/24 - 3/23		PERIOD 4 3/24 - 4/20		PERIOD 5 4/21 - 5/18		PERIOD 6 5/19 - 6/15		PERIOD 7 6/16 - 7/13		PERIOD 8 7/14 - 8/10		PERIOD 9 8/11 - 9/07		PERIOD 10 9/08 - 10/05		PERIOD 11 10/06 - 11/2		PERIOD 12 11/3 - 11/30		PERIOD 13 12/01 - 12/28	
	HIGH	LOW	HIGH	LOW	HIGH	LOW	HIGH	LOW	HIGH	LOW	HIGH	LOW	HIGH	LOW	HIGH	LOW	HIGH	LOW	HIGH	LOW	HIGH	LOW	HIGH	LOW	HIGH	LOW
Maunalei - Shaft No. 2	681	651	683	651	680	660	681	648	689	655	681	655	681	676	679	676	685	683	683	681	709	656	687	685	685	681
Well No. 1	787	733	737	721	740	725	785	718	737	729	737	737	737	737	737	737	737	737	737	737	737	737	737	737	737	737
Well No. 2 (Shaft No. 3)	1320	1320	1420	1419	1420	1420	986	953	1382	1370	1396	1358	1372	1358	1400	1360	1402	1356	1398	1356	1596	1466	1430	1372	1402	1366
Well No. 3	986	954	982	917	985	920	984	938	968	950	992	934	989	890	968	894	964	898	*	*	974	884	978	922	982	932
Well No. 4	1332	1332	1332	1332	1527	1527	1527	1484	1500	1452	1524	1452	1526	1464	1502	1464	*	*	*	*	1362	1350	*	*	*	*
Well No. 5	1387	1307	1433	1307	1437	1310	1445	1310	1450	1309	1452	1307	1442	1307	1444	1307	1447	1307	1447	1307	1452	1307	1455	1323	1462	1377
Well No. 6 Koele Golf Course	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
Well No. 7	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*

All Elevations are in Feet Above Mean Sea Level

\* WELL NOT IN SERVICE OR DATA NOT AVAILABLE

# LANAI WATER COMPANY

## 1991 PERIODIC WATER REPORT

### Chloride Level & Temperature

PERIOD 13, 1991

	PERIOD 1 12/30 - 1/26		PERIOD 2 1/27 - 2/23		PERIOD 3 2/24 - 3/23		PERIOD 4 3/24 - 4/20		PERIOD 5 4/21 - 5/18		PERIOD 6 5/19 - 6/15		PERIOD 7 6/16 - 7/13		PERIOD 8 7/14 - 8/10		PERIOD 9 8/11 - 9/07		PERIOD 10 9/08 - 10/05		PERIOD 11 10/06 - 11/2		PERIOD 12 11/3 - 11/30		PERIOD 13 12/01 - 12/28	
	Temp.	Chlrd.	Temp.	Chlrd.	Temp.	Chlrd.	Temp.	Chlrd.	Temp.	Chlrd.	Temp.	Chlrd.	Temp.	Chlrd.	Temp.	Chlrd.	Temp.	Chlrd.	Temp.	Chlrd.	Temp.	Chlrd.	Temp.	Chlrd.	Temp.	Chlrd.
Maunalei Tunnel (Lower)	67	21.5	69	21.9	69	22.1	68	21.0	69	21.5	69	22.0	69	21.7	68	21.6	68	21.5	68	21.5	67	22.0	67	21.5	67	21.8
Maunalei Tunnel (Upper)	67	21.5	69	21.9	69	22.1	68	21.0	69	21.6	69	21.9	69	22.0	68	21.6	68	21.5	68	21.5	67	22.0	67	21.5	67	21.8
Maunalei - Shaft No. 2	68	41.0	68	40.4	68	39.0	68	41.0	69	40.7	69	40.3	69	40.4	69	41.0	68	41.0	68	40.5	67	39.7	67	40.3	67	39.8
Well No. 1	87	335.0	83	322.0	81.5	330.0	83	330.0	82	331.6	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	
Booster #1																										
Shaft No. 3 (Header)	*	*	*	*	67	19.2	66	19.7	65	19.7	66	19.5	67	19.7	67	19.6	65	19.4	66	19.4	65	19.1	65	19.2	66	19.4
Shaft No. 3 (Well No. 2)	*	*	*	*	67	19.2	66	19.7	65	19.7	66	19.5	67	19.7	67	19.6	65	19.4	66	19.4	65	19.1	65	19.2	66	19.4
Booster #2																										
Shaft No. 3 (Header)	*	*	*	*	67	19.2	66	19.7	65	19.7	66	19.5	67	19.7	67	19.6	65	19.4	66	19.4	65	19.1	65	19.2	66	19.4
Well No. 3 (City)	73	37.3	74.5	36.9	71	38.0	73	37.4	71	37.3	71	37.4	72	38.0	72	37.8	71	37.5	71	37.5	72	38.0	71	37.6	71	37.6
Well No. 3 (Irrigation)	73	37.3	74.5	36.9	71	38.0	73	37.4	71	37.3	71	37.4	72	38.0	72	37.8	71	37.5	71	37.5	72	38.0	71	37.6	71	37.6
Well No. 4	*	*	*	*	67	22.8	66	22.7	67	22.4	67	22.6	67	22.6	66	22.7	67	22.4	66	22.1	66	21.7	67	22.0	66	21.5
Well No. 5	66	23.0	68	23.0	68	23.0	67	23.1	66	22.8	67	23.1	67	23.5	66	23.1	66	23.2	66	23.5	65	23.4	66	23.4	66	23.7
Koala																										
Well No. 6 Golf Course	67	30.0	66	27.6	67	30.7	66	27.0	66	29.1	66	29.0	66	28.0	67	29.0	66	28.9	64	30.9	66.5	29.7	66	29.4	65	30.0
Well No. 7	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*

\* WELLS NOT IN SERVICE

**LANAI WATER COMPANY  
1990 PERIODIC WATER REPORT**

*PERIOD 13, 1990*

**WATER PUMPED - GALLONS**

	PERIOD 1 12/31 - 1/27	PERIOD 2 1/28 - 2/24	PERIOD 3 2/25 - 3/24	PERIOD 4 3/25 - 4/21	PERIOD 5 4/22 - 5/19	PERIOD 6 5/20 - 6/18	PERIOD 7 6/17 - 7/14	PERIOD 8 7/15 - 8/10	PERIOD 9 8/12 - 9/08	PERIOD 10 9/09 - 10/06	PERIOD 11 10/07 - 11/03	PERIOD 12 11/04 - 12/01	PERIOD 13 12/02 - 12/29	THIS YEAR TO DATE	CURRENT PD. LAST YEAR	TO DATE LAST YEAR	TOTAL LAST YEAR
Maunalei Tunnel (Lwr)	4,604,000	2,324,000	6,356,300	5,804,000	4,183,000	4,509,000	4,544,000	3,506,000	4,569,000	3,496,000	3,040,000	3,510,000	4,143,000	54,585,300	1,449,000	77,324,000	77,324,000
Maunalei Tunnel (Upr)															106,700	780,400	780,400
Maunalei - Shaft No. 2	14,380,800	7,994,000	6,540,800	16,889,300	12,932,900	14,855,300	15,969,600	11,281,200	16,589,600	16,378,900	16,674,600	14,460,400	14,010,900	178,918,300	14,638,707	193,405,784	193,405,784
Well No. 1 Booster #1 Shaft No. 3 (Header)						5,489,000	11,401,000	14,505,000	3,207,000	275,000				34,877,000		89,715,430	89,715,430
Well No. 3 (Well #2) Booster #2		3,398,000	573,300	5,144,000	6,539,000	18,157,000	9,677,000	1,578,000	973,000	5,729,000	7,090,000	4,508,000		63,366,300			
Shaft No. 3 (Header)	13,524,900	2,648,200	5,630,700	8,628,700	9,887,000	12,444,650	19,992,300	17,587,500	6,975,800	17,352,500	15,721,700	9,384,900		199,778,850	1,141,854	199,795,532	199,795,532
Well No. 3 (City)		47,547,000	10,057,000	5,812,000	5,364,000	3,388,000	8,233,000	9,718,000	6,659,000	13,366,000	12,757,000	18,229,000	16,100,000	157,230,000		20,044,189	20,044,189
Well No. 3 (Irrigation)										1,815,000	1,899,000	3,013,000	8,780,000	15,517,000		80,689,579	80,689,579
Well No. 4	271,900	2,997,000	12,668,000	14,004,000	32,303,000	34,206,000	35,059,000	34,651,000	25,004,000	42,607,000	32,566,000	17,482,000		283,819,800	6,257,041	301,006,294	301,006,294
Well No. 5 Koele	5,201,000	260,000	1,787,000	5,833,000	6,781,000	7,306,000	12,930,000	12,766,000	9,443,000	16,227,000	13,293,000	19,011,000	11,168,000	122,036,000	459,529	81,268,479	81,268,479
Well No. 6 Golf Course										11,597,820	11,535,810	15,561,280	8,779,000	47,493,910		NOT IN SERVICE	NOT IN SERVICE
Well No 7																NOT IN SERVICE	NOT IN SERVICE
<b>TOTAL</b>	<b>37,982,600</b>	<b>67,168,200</b>	<b>43,614,100</b>	<b>62,085,000</b>	<b>77,999,900</b>	<b>100,351,950</b>	<b>117,805,900</b>	<b>105,592,700</b>	<b>73,420,500</b>	<b>128,844,220</b>	<b>114,577,110</b>	<b>105,179,580</b>	<b>83,010,900</b>	<b>1,097,622,660</b>	<b>24,052,831</b>	<b>1,054,029,887</b>	<b>1,054,029,887</b>

2/M Gal. Holding Tank Storage for Irrigation				948,400	584,000	413,000	23,800	261,900	852,200	109,100	1,790,000	378,800	970,388	6,329,568		6,329,568	6,329,568
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**DISTRIBUTION GALLONS**

	PERIOD 1 12/31 - 1/27	PERIOD 2 1/28 - 2/24	PERIOD 3 2/25 - 3/24	PERIOD 4 3/25 - 4/21	PERIOD 5 4/22 - 5/19	PERIOD 6 5/20 - 6/18	PERIOD 7 6/17 - 7/14	PERIOD 8 7/15 - 8/10	PERIOD 9 8/12 - 9/08	PERIOD 10 9/09 - 10/06	PERIOD 11 10/07 - 11/03	PERIOD 12 11/04 - 12/01	PERIOD 13 12/02 - 12/29	THIS YEAR TO DATE	CURRENT PD. LAST YEAR	TO DATE LAST YEAR	TOTAL LAST YEAR
To City Grid	18,708,500	57,665,900	21,884,500	26,975,200	21,190,900	21,642,700	26,645,400	24,094,900	26,772,300	32,785,800	30,229,200	35,607,200	33,099,912	379,302,412	15,902,207	281,462,665	281,462,665
To Irrigation	18,997,800	9,303,200	20,660,000	34,556,100	56,104,000	78,015,650	88,083,100	81,348,400	46,455,100	95,712,420	83,895,510	68,358,980	29,727,388	713,218,648	7,858,424	788,804,802	788,804,802
To Kaunalepau	256,300	199,100	1,069,600	563,700	705,000	693,600	77,400	148,400	193,100	348,000	452,400	213,400	183,600	5,101,600	292,200	3,782,100	3,782,100
<b>TOTAL</b>	<b>37,962,600</b>	<b>67,168,200</b>	<b>43,614,100</b>	<b>62,085,000</b>	<b>77,999,900</b>	<b>100,351,950</b>	<b>117,805,900</b>	<b>105,592,700</b>	<b>73,420,500</b>	<b>128,844,220</b>	<b>114,577,110</b>	<b>105,179,580</b>	<b>83,010,900</b>	<b>1,097,622,660</b>	<b>24,052,831</b>	<b>1,054,029,887</b>	<b>1,054,029,887</b>