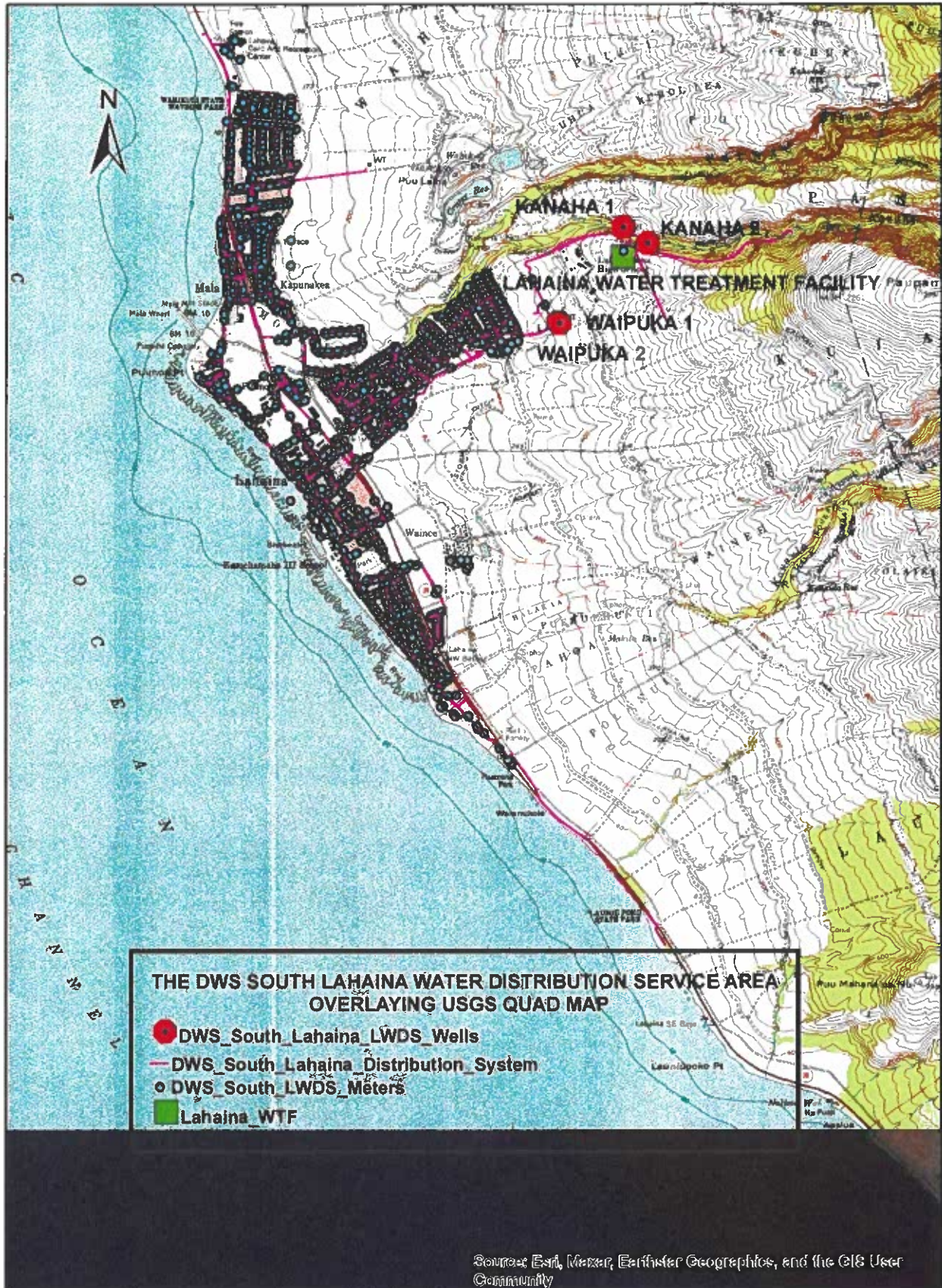


# APPENDIX A WATER USE AREA



APPENDIX B TABLE 11

Consump Avg GPM	Consump Avg GPD	Tmk_val	Wuz_val	Units_val	Install_dt	Prem_id	Prem_typ e	Lat_val	Long_val	Mtrsize _va	ZONE_CLASS	ZONE_AB BRE	LUDCODE	TaxAcres
29.45	965.49	2-0-0-000-000	511	1	11/1/1978	9553856493	CGOVT	20.8550132400	-156.66384490000	4	AG Agriculture	AG	A	1.41
151.20	4,957.21	2-4-6-012-005	511	1	5/14/1992	2337832489	CGOVT	20.86927181500	-156.67121020000	6	AG Agriculture	AG	A	22.22
0.25	8.17	2-4-6-012-005	511	1	2/12/2010	5161378550	CGOVT	20.86729719000	-156.66935950000	3	AG Agriculture	AG	A	22.22
5.95	195.41	2-4-6-012-005	511	1	5/6/1985	5970613251	CGOVT	20.86922989200	-156.67075640000	6	AG Agriculture	AG	A	22.22
6.96	228.01	2-4-6-012-005	511	1	2/12/2010	8249490353	CGOVT	20.86730347900	-156.66936170000	3	AG Agriculture	AG	A	22.22
19.30	632.87	2-4-6-013-011	511	1	10/25/1989	3978547486	CGOVT	20.86391783100	-156.66906040000	2	AG Agriculture	AG	A	0.26
0.00	0.00	2-0-0-000-000	511	1	11/1/1978	1418480403	CGOVT	20.86850131800	-156.67526320000	4	HD-1 Historic District 1	HD-1	U	0.08
0.00	0.00	2-0-0-000-000	511	1	11/1/1978	2819780312	CGOVT	20.86909305800	-156.67558300000	7	HD-1 Historic District 1	HD-1	U	7.50
145.28	4,763.28	2-0-0-000-000	511	1	11/1/1978	9065388589	CGOVT	20.86881223200	-156.67563930000	6	HD-1 Historic District 1	HD-1	U	1.80
134.57	4,411.97	2-4-6-001-009	511	1	7/18/1974	5315407623	CGOVT	20.87173094700	-156.67806890000	6	HD-1 Historic District 1	HD-1	U	1.94
0.00	0.00	2-0-0-000-000	511	1	4/30/1996	3872794493	CGOVT	20.87025225900	-156.67618220000	2	HD-2 Historic District 2	HD-2	U	0.43
35.80	1,173.85	2-0-0-000-000	511	1	1/3/1996	4061274249	CGOVT	20.87085362000	-156.67647930000	4	HD-2 Historic District 2	HD-2	U	0.77
0.00	0.00	2-4-6-007-003	511	1	5/3/1996	2771180099	CGOVT	20.87024987200	-156.67618370000	2	HD-2 Historic District 2	HD-2	U	0.43
0.00	0.00	2-4-6-007-010	511	1	8/2/1983	8382907746	CGOVT	20.87112087500	-156.67590110000	2	HD-2 Historic District 2	HD-2	U	0.34
0.00	0.00	2-4-5-011-001	511	1	6/27/2001	2473235663	CGOVT	20.88474282600	-156.68089970000	4	M-1 Light Industrial	M-1	U	2.96
498.55	16,345.77	2-0-0-000-000	511	1	6/1/1982	1407068909	CGOVT	20.88282035200	-156.66823970000	6	R-1 Residential	R-1	U	2.27
190.16	6,234.67	2-0-0-000-000	511	1	11/1/1978	1863689245	CGOVT	20.89581087200	-156.68303230000	6	R-3 Residential	R-3	U	0.00
62.60	2,052.32	2-0-0-000-000	511	1	11/1/1978	1878577651	CGOVT	20.87847483800	-156.67318650000	4	Road	ROAD	U	0.00
0.00	0.00	2-0-0-000-000	511	1	3/13/1967	2381032908	CGOVT	20.86436647900	-156.67224810000	6	Road	ROAD	U	0.00
111.18	3,645.14	2-0-0-000-000	511	1	11/1/1978	2945736807	CGOVT	20.89108266500	-156.68264180000	7	Road	ROAD	U	5.08
0.09	2.87	2-0-0-000-000	511	1	11/1/1978	9341656517	CGOVT	20.88317932000	-156.68577230000	4	Road	ROAD	U	0.00
104.80	3,436.09	2-4-5-030-015	511	1	11/1/1996	5305573958	CGOVT	20.89108213400	-156.68379200000	2	Road	ROAD	U	0.93
62.74	2,056.99	2-4-6-008-044	511	1	11/1/1978	3967844701	CGOVT	20.87237696400	-156.67484600000	2	Road	ROAD	U	0.00
87.91	2,882.16	2-4-6-026-057	511	2	12/12/1998	4785286895	COM	20.87862023800	-156.67426590000	7	Road	ROAD	U	1.86
359.21	11,777.40	2-4-5-008-001-0000	511	1	1/23/2018	2015598110	COM	20.88225255800	-156.68202439100	6	A-1 Apartment	A-1	U	20.86
656.52	21,525.27	2-4-5-008-001-0000	511	1	1/23/2018	5249381075	COM	20.88135050800	-156.68397925800	7	A-1 Apartment	A-1	U	20.86
147.89	4,848.85	2-0-0-000-000	511	1	8/18/1983	4991673287	COM	20.91102126300	-156.68957940000	6	AG Agriculture	AG	U	3.69
311.24	10,204.43	2-0-0-000-000	511	1	8/18/1983	5265428594	COM	20.91007962400	-156.68862110000	6	AG Agriculture	AG	U	0.00
101.07	3,313.74	2-4-5-037-032-0000	511	1	7/3/2017	469735368	COM	20.88265539600	-156.67879083800	3	AG Agriculture	AG	A	0.00
161.08	5,281.39	2-4-5-037-033-0000	511	1	7/3/2017	7683380957	COM	20.88267477200	-156.67599841100	3	AG Agriculture	AG	A	0.00
349.76	11,467.57	2-4-6-012-005-0000	511	1	7/14/1986	1808192973	COM	20.86897872500	-156.67153610000	4	AG Agriculture	AG	A	22.22
276.39	9,062.10	2-4-6-012-005-0000	511	1	7/14/1986	7321264976	COM	20.86897583900	-156.67155950000	4	AG Agriculture	AG	A	22.22
6.09	199.81	2-4-6-015-001	511	1	12/24/2003	4835194389	COM	20.86933215900	-156.66783160000	2	AG Agriculture	AG	A	5.00
13.09	429.26	2-4-6-016-005-0000	511	1	12/31/2018	6495527246	COM	20.87655727100	-156.67456842400	2	AG Agriculture	AG	A	0.94
12.17	398.88	2-4-6-016-039-0000	511	1	1/2/2019	2509949290	COM	20.87667268200	-156.67430393700	2	AG Agriculture	AG	A	0.20
153.25	5,024.59	2-0-0-000-000	511	1	10/3/1991	1371950958	COM	20.87692053900	-156.67845980000	6	B-2 Business - Community	B-2	U	6.54
153.71	5,039.51	2-0-0-000-000	511	1	11/13/1997	2165446469	COM	20.87737403500	-156.67888200000	4	B-2 Business - Community	B-2	U	6.54
41.65	1,365.68	2-0-0-000-000	511	1	3/28/1991	2175649725	COM	20.87424081600	-156.67698040000	6	B-2 Business - Community	B-2	U	1.21
0.00	0.00	2-0-0-000-000	511	1	3/5/1986	4697491330	COM	20.87337333500	-156.67619420000	2	B-2 Business - Community	B-2	U	0.14
3.11	101.91	2-0-0-000-000	511	1	11/1/1978	4968530147	COM	20.87738324100	-156.68060600000	9	B-2 Business - Community	B-2	U	0.57
22.70	744.26	2-0-0-000-000	511	1	1/2/1998	5274732211	COM	20.87587643600	-156.67875100000	2	B-2 Business - Community	B-2	U	0.24
43.12	1,413.63	2-0-0-000-000	511	1	11/1/1978	6002769432	COM	20.87757469700	-156.68023290000	6	B-2 Business - Community	B-2	U	0.16
5.83	191.23	2-0-0-000-000	511	1	1/31/1997	6403791294	COM	20.87489775800	-156.67706940000	2	B-2 Business - Community	B-2	U	0.18
5.63	184.64	2-0-0-000-000	511	1	4/29/1988	7016220291	COM	20.87628859400	-156.67828210000	2	B-2 Business - Community	B-2	U	0.24
0.00	0.00	2-4-5-001-030	511	1	3/1/1983	5333526108	COM	20.87612104700	-156.67911960000	2	B-2 Business - Community	B-2	U	0.12
14.50	475.30	2-4-5-001-041	511	1	6/7/1995	4954873893	COM	20.87616565900	-156.67969130000	2	B-2 Business - Community	B-2	U	0.29
298.07	9,772.90	2-4-5-005-009	511	1	5/4/1998	5296820979	COM	20.88612491600	-156.68493110000	4	B-2 Business - Community	B-2	U	0.00
130.68	4,284.54	2-4-5-005-009	511	1	5/4/1998	7236712313	COM	20.88613302400	-156.68493530000	4	B-2 Business - Community	B-2	U	0.00
226.24	7,417.60	2-4-5-005-011	511	1	2/3/1987	7808820278	COM	20.88676519600	-156.68490350000	6	B-2 Business - Community	B-2	U	0.81
20.00	655.82	2-4-5-005-006-0000	511	1	7/17/1995	5174714780	COM	20.88419822200	-156.68514270000	2	B-2 Business - Community	B-2	U	0.32
6.59	215.96	2-4-5-006-013	511	1	11/1/1978	6284782174	COM	20.87718656400	-156.67745120000	4	B-2 Business - Community	B-2	U	0.34
2.75	90.30	2-4-5-006-014	511	1	11/1/1978	9961381003	COM	20.87860755800	-156.67830620000	3	B-2 Business - Community	B-2	U	0.34
0.00	0.00	2-4-5-007-004-0000	511	1	1/9/2019	2094092972	COM	20.87951790400	-156.68009678100	4	B-2 Business - Community	B-2	U	0.43
0.00	0.00	2-4-5-013-009	511	1	11/1/1978	1233567773	COM	20.89296216500	-156.68513687300	2	B-2 Business - Community	B-2	U	0.40
1.67	54.59	2-4-6-009-021	511	1	4/19/1990	9077589530	COM	20.87526473000	-156.67723390000	3	B-2 Business - Community	B-2	U	0.23
2.86	93.63	2-4-6-009-039	511	1	4/29/1988	6748541854	COM	20.87628504200	-156.67827580000	2	B-2 Business - Community	B-2	U	0.24
40.62	1,331.89	2-4-6-010-008	511	1	12/19/1990	1595253930	COM	20.87617759900	-156.67506930000	2	B-2 Business - Community	B-2	U	0.49
10.04	329.21	2-4-6-010-010	511	1	12/1/1990	2715063932	COM	20.87713497300	-156.67682250000	2	B-2 Business - Community	B-2	U	0.00
0.00	0.00	2-4-6-010-011	511	0	11/2/1995	3720371076	COM	20.87707147900	-156.67737587300	-	B-2 Business - Community	B-2	U	0.21
19.72	646.64	2-4-6-010-011	511	1	10/5/2018	3720371076	COM	20.87707147900	-156.67737587300	2	B-2 Business - Community	B-2	U	0.21
0.00	0.00	2-4-6-010-025	511	0	8/26/1997	6190704758	COM	20.87718064600	-156.67622520800	-	B-2 Business - Community	B-2	U	0.55
70.53	2,312.57	2-4-6-010-025	511	2	10/6/2014	6190704758	COM	20.87718064600	-156.67622520800	2	B-2 Business - Community	B-2	U	0.55
0.00	0.00	2-4-6-010-025	511	0	8/26/1997	9271873185	COM	20.87719709000	-156.67622680000	-	B-2 Business - Community	B-2	U	0.00
73.78	2,418.88	2-4-6-010-025	511	1	10/6/2014	9271873185	COM	20.87719709000	-156.67622680000	2	B-2 Business - Community	B-2	U	0.00
2.14	70.25	2-0-0-000-000	511	1	7/8/1986	2343385267	COM	20.87654336400	-156.68078530000	2	HD-1 Historic District 1	HD-1	U	0.14
0.25	8.09	2-0-0-000-000	511	1	2/2/1987	4632681276	COM	20.87363466700	-156.67844790000	2	HD-1 Historic District 1	HD-1	U	0.20
0.00	0.00	2-0-0-000-000	511	1	6/26/1978	5253272295	COM	20.87345434900	-156.67738960000	2	HD-1 Historic District 1	HD-1	U	0.21
2.45	80.25	2-0-0-000-000	511	1	12/14/1977	6526536691	COM	20.87370310400	-156.67763950000	2	HD-1 Historic District 1	HD-1	U	0.77
1.09	35.68	2-0-0-000-000	511	1	7/8/1986	7061263619	COM	20.87652239600	-156.68076390000	2	HD-1 Historic District 1	HD-1	U	0.14
0.00	0.00	2-4-5-001-017	511	1	5/8/1990	4458495830	COM	20.87655534400	-156.68077270000	2	HD-1 Historic District 1	HD-1	U	0.03
0.00	0.00	2-4-5-001-051	511	1	9/6/1984	6726211060	COM	20.87623940900	-156.68053960000	2	HD-1 Historic District 1	HD-1	U	0.17
3.40	111.58	2-4-6-001-006	511	1	2/25/1959	3771586919	COM	20.8735629						

8.14	266.72	2-4-6-007-009	511	1	7/5/1991	6581895940	COM	20.87007034700	-156.67516850000	2	HD-2 Historic District 2	HD-2	U	0.28
0.00	0.00	2-4-6-008-012	511	1	10/13/1989	3217839379	COM	20.87224608400	-156.67637410000	2	HD-2 Historic District 2	HD-2	U	0.94
14.42	472.68	2-4-6-008-047	511	1	11/1/1978	7804856664	COM	20.87101235400	-156.67660460000	2	HD-2 Historic District 2	HD-2	U	0.15
1.27	41.78	2-4-6-008-049	511	1	1/19/1996	6259613153	COM	20.87103001400	-156.67660800000	2	HD-2 Historic District 2	HD-2	U	0.15
34.05	1,116.31	2-4-6-009-003	511	1	2/15/1996	9626639561	COM	20.87396504500	-156.67796170000	3	HD-2 Historic District 2	HD-2	U	0.09
0.67	21.86	2-4-6-009-009	511	1	11/1/1978	7760639216	COM	20.87459250600	-156.67917420000	2	HD-2 Historic District 2	HD-2	U	0.00
2.31	75.71	2-4-6-009-055	511	1	10/15/1985	1301551704	COM	20.87428116500	-156.67824650000	2	HD-2 Historic District 2	HD-2	U	0.15
3.93	128.72	2-4-6-009-057	511	1	3/30/1981	1779025529	COM	20.87438076900	-156.67828760000	4	HD-2 Historic District 2	HD-2	U	0.07
16.42	538.50	2-0-0-000-000	511	1	5/5/1970	4792413608	COM	20.88051269300	-156.67927520000	6	M-1 Light Industrial	M-1	U	0.52
3.82	125.30	2-0-0-000-000	511	1	1/9/1995	4886255718	COM	20.88110468700	-156.67991020000	2	M-1 Light Industrial	M-1	U	0.23
8.58	281.42	2-4-5-007-015	511	1	11/1/1978	4572624776	COM	20.88057544600	-156.67938920000	4	M-1 Light Industrial	M-1	U	0.24
2.51	82.27	2-4-5-007-018	511	1	3/18/1997	757864315	COM	20.88110753900	-156.67991010000	3	M-1 Light Industrial	M-1	U	0.23
41.36	1,356.04	2-4-5-007-030	511	1	10/22/1979	1740309033	COM	20.88143302200	-156.67924990000	2	M-1 Light Industrial	M-1	U	0.93
27.08	887.76	2-4-5-007-039	511	1	4/29/1993	9856042869	COM	20.88217224200	-156.68058070000	2	M-1 Light Industrial	M-1	U	0.95
36.67	1,202.43	2-4-5-007-033-0000	511	1	11/1/1978	1591406528	COM	20.88212646100	-156.68119540000	2	M-1 Light Industrial	M-1	U	0.95
20.76	680.60	2-4-5-010-007	511	1	10/31/2001	3745529329	COM	20.88379402400	-156.67761640000	4	M-1 Light Industrial	M-1	U	1.78
10.70	350.82	2-4-5-010-007	511	1	12/5/2003	5133557135	COM	20.88517095900	-156.67699460000	4	M-1 Light Industrial	M-1	U	0.45
51.95	1,703.14	2-4-5-010-007	511	1	10/31/2001	9912164403	COM	20.88377292200	-156.67708710000	4	M-1 Light Industrial	M-1	U	1.78
24.50	803.33	2-4-5-010-007	511	1	10/31/2001	9995691091	COM	20.88389930600	-156.67804650000	4	M-1 Light Industrial	M-1	U	1.64
78.59	2,576.69	2-4-5-010-013	511	0	8/22/2013	6459937716	COM	20.88507834100	-156.67906841600	4	M-1 Light Industrial	M-1	U	0.85
135.62	4,446.67	2-4-5-010-015	511	1	3/31/2009	8503093073	COM	20.88456971300	-156.67836950000	6	M-1 Light Industrial	M-1	U	0.78
0.00	0.00	2-4-5-010-017	511	0	5/2/2013	3843418230	COM	20.88413247900	-156.67825828800	4	M-1 Light Industrial	M-1	U	1.64
0.00	0.00	2-4-5-010-017	511	0	5/2/2013	3734964863	COM	20.88388833200	-156.67803859900	2	M-1 Light Industrial	M-1	U	1.64
41.30	1,353.99	2-4-5-010-017	511	0	5/2/2013	8681039094	COM	20.88411703400	-156.67825717000	4	M-1 Light Industrial	M-1	U	1.64
28.74	942.19	2-4-5-010-025	511	1	6/23/2004	5077805842	COM	20.88374753000	-156.67707580000	6	M-1 Light Industrial	M-1	U	1.78
86.38	2,832.27	2-4-5-010-025	511	1	6/23/2004	7292568198	COM	20.88378077800	-156.67653990000	4	M-1 Light Industrial	M-1	U	1.32
32.47	1,064.67	2-4-5-010-026	511	1	2/28/2005	2711693610	COM	20.88396465000	-156.67658970000	4	M-1 Light Industrial	M-1	U	0.97
0.00	0.00	2-4-5-010-048	511	1	4/23/2004	1813492489	COM	20.88526221300	-156.67533960000	2	M-1 Light Industrial	M-1	U	1.65
0.00	0.00	2-4-5-010-049	511	1	4/23/2004	7531472575	COM	20.88526609000	-156.67536610000	2	M-1 Light Industrial	M-1	U	1.65
0.00	0.00	2-4-5-010-050	511	1	4/23/2004	4083912489	COM	20.88523352200	-156.67590020000	2	M-1 Light Industrial	M-1	U	1.65
10.12	331.72	2-4-5-010-052	511	1	4/23/2004	8439897864	COM	20.88520981700	-156.67643200000	4	M-1 Light Industrial	M-1	U	0.43
0.00	0.00	2-4-5-010-064	511	1	4/23/2004	2096016720	COM	20.88420753600	-156.67502500000	2	M-1 Light Industrial	M-1	U	0.00
7.83	256.80	2-4-5-010-065	511	1	4/23/2004	1650248298	COM	20.88404404000	-156.67547660000	2	M-1 Light Industrial	M-1	U	0.42
4.04	132.35	2-4-5-010-066	511	1	4/23/2004	914910206	COM	20.88404011800	-156.67547900000	3	M-1 Light Industrial	M-1	U	0.42
12.09	396.48	2-4-5-010-067	511	1	4/23/2004	3902892888	COM	20.88388732400	-156.67601110000	2	M-1 Light Industrial	M-1	U	0.84
101.66	3,333.25	2-4-5-010-026-0000	511	1	2/28/2005	7004691476	COM	20.88396727300	-156.67658240000	4	M-1 Light Industrial	M-1	U	0.97
0.00	0.00	2-4-5-010-053-0000	511	0	4/23/2004	6155338750	COM	20.88519140200	-156.67644626700	-	M-1 Light Industrial	M-1	U	0.47
5.90	193.42	2-4-5-010-053-0000	511	1	8/2/2013	6155338750	COM	20.88519140200	-156.67644626700	4	M-1 Light Industrial	M-1	U	0.47
44.82	1,469.43	2-4-5-011-005	511	1	7/24/1981	3229801812	COM	20.88740146300	-156.68294360000	3	M-1 Light Industrial	M-1	U	0.44
948.76	31,106.78	2-4-5-011-008	511	1	4/23/2004	7875974711	COM	20.88510502100	-156.68037410000	9	M-1 Light Industrial	M-1	U	11.36
1.12	36.64	2-0-0-000-000	511	1	11/1/1978	7262389967	COM	20.87853076700	-156.67550490000	2	M-2 Heavy Industrial	M-2	U	2.51
24.48	802.49	2-4-5-009-001	511	1	11/1/1978	1599072380	COM	20.87789662500	-156.67665440000	4	M-2 Heavy Industrial	M-2	U	19.62
47.38	1,553.36	2-4-5-009-002	511	1	9/7/1982	4453652233	COM	20.87788677500	-156.67821370000	2	M-2 Heavy Industrial	M-2	U	0.54
0.26	8.63	2-0-0-000-000	511	1	9/2/1997	4826896773	COM	20.87415358700	-156.67801350000	2	R-1 Residential	R-1	U	0.84
0.00	0.00	2-0-0-000-000	511	1	11/1/1978	5148858911	COM	20.87925597500	-156.67433000000	6	R-1 Residential	R-1	U	1.86
16.78	550.19	2-4-5-025-005	511	1	11/1/1978	75117304	COM	20.87884741900	-156.67530300000	2	R-1 Residential	R-1	U	0.16
0.00	0.00	2-4-6-009-017	511	1	10/19/1992	4964707843	COM	20.87471285200	-156.67837830000	3	R-1 Residential	R-1	U	0.86
1.95	64.07	2-4-6-026-016	511	1	12/21/1992	3245899973	COM	20.88013294700	-156.67110410000	2	R-1 Residential	R-1	U	0.30
0.73	24.07	2-0-0-000-000	511	1	3/8/1983	4416787038	COM	20.87211612300	-156.67602910000	2	R-2 Residential	R-2	U	0.43
25.45	834.56	2-0-0-000-000	511	1	5/5/1981	8757036471	COM	20.86160463400	-156.66889210000	2	R-2 Residential	R-2	U	0.07
1.09	35.63	2-4-5-003-014	511	1	3/18/1992	5652469740	COM	20.88166792400	-156.68277190000	2	R-2 Residential	R-2	U	0.19
4.83	158.33	2-4-5-005-007	511	1	5/19/1998	1685785372	COM	20.88395927500	-156.68519440000	2	R-2 Residential	R-2	U	0.38
8.46	277.49	2-4-6-008-043	511	1	9/7/1989	2539241179	COM	20.87245245600	-156.67585450000	2	R-2 Residential	R-2	U	0.39
0.00	0.00	2-0-0-000-000	511	1	12/1/1995	5696504576	COM	20.85952073000	-156.66884990000	6	R-3 Residential	R-3	U	16.80
35.80	1,173.74	2-0-0-000-000	511	1	12/1/1995	9765390442	COM	20.85951700800	-156.66884270000	6	R-3 Residential	R-3	U	16.80
36.53	1,197.57	2-0-0-000-000	511	1	11/1/1978	263845129	COM	20.88137955800	-156.68001760000	3	Road	ROAD	U	0.00
0.83	27.35	2-0-0-000-000	511	1	11/1/1978	459968722	COM	20.87366515300	-156.67837450000	2	Road	ROAD	U	0.00
0.93	30.60	2-0-0-000-000	511	1	1/6/1987	699902861	COM	20.87556966000	-156.68005530000	2	Road	ROAD	U	0.00
0.00	0.00	2-0-0-000-000	511	1	9/2/1993	1049763162	COM	20.87554111400	-156.67725280000	2	Road	ROAD	U	0.00
16.73	548.52	2-0-0-000-000	511	1	5/5/1997	1069866901	COM	20.87626320400	-156.68066890000	2	Road	ROAD	U	0.00
111.60	3,659.10	2-0-0-000-000	511	1	11/1/1978	1165608533	COM	20.87869173900	-156.67950560000	3	Road	ROAD	U	0.00
26.20	859.15	2-0-0-000-000	511	1	3/7/1985	2119581115	COM	20.87572165400	-156.67904000000	2	Road	ROAD	U	0.00
49.67	1,628.42	2-0-0-000-000	511	1	11/1/1978	2218090531	COM	20.88173992800	-156.67936500000	2	Road	ROAD	U	0.00
2.23	72.98	2-0-0-000-000	511	1	11/1/1978	2788955710	COM	20.87414976200	-156.67725180000	2	Road	ROAD	U	0.00
4.10	134.56	2-0-0-000-000	511	1	11/1/1978	3011794883	COM	20.87623504000	-156.68055270000	2	Road	ROAD	U	0.17
1.64	53.66	2-0-0-000-000	511	1	11/1/1978	3168453349	COM	20.87469461800	-156.67926900000	2	Road	ROAD	U	0.00
116.55	3,821.34	2-0-0-000-000	511	1	5/9/1979	3391378946	COM	20.88354194800	-156.68550720000	3	Road	ROAD	U	0.00
2.71	88.85	2-0-0-000-000	511	1	10/1/1998	5196225466	COM	20.87616246000	-156.67983800000	2	Road	ROAD	U	0.00
13.98	458.20	2-0-0-000-000	511	1	11/1/1978	7082822161	COM	20.87356229900	-156.67832460000	2	Road	ROAD	U	0.00
5.37	176.15	2-0-0-000-000	511	1	11/1/1978	7172120271	COM	20.87468787500	-156.67929060000	2	Road	ROAD	U	0.00
16.24	532.32	2-0-0-000-000	511	1	9/1/1981	7860423565	COM	20.88354240400	-156.68550610000	2	Road	ROAD	U	0.00
0.00	0.00	2-0-0-000-000	511	1	5/12/1989	8083390152	COM	20.88059390700	-156.67899790000	2	Road	ROAD	U	0.00
2.09	68.47	2-0-0-000-000	511	1	5/1/1985	8538666209	COM	20.87472493700	-156.67932740000	7	Road	ROAD	U	0.00
4.90	160.74	2-4-5-001-010	511	1	3/6/1997	956329476	COM	20.87538616300						

33.65	1,103.36	2-4-5-010-007	511	1	5/6/2003	6365022075	COM	20.88467623200	-156.67829140000	2	Road	ROAD	U	0.00
0.00	0.00	2-4-5-010-007	511	1	4/23/2004	7694305128	COM	20.88403738400	-156.67605620000	2	Road	ROAD	U	0.00
5.22	171.23	2-4-5-010-007	511	1	3/28/2002	8157708637	COM	20.88468527100	-156.67822110000	2	Road	ROAD	U	0.00
161.87	5,307.08	2-4-5-010-009	511	1	7/6/2004	3385304851	COM	20.88534272200	-156.67903870000	6	Road	ROAD	U	0.00
35.71	1,170.74	2-4-5-010-011	511	1	11/18/2003	8300412365	COM	20.88524597500	-156.67756330000	4	Road	ROAD	U	1.53
26.53	869.75	2-4-5-010-012	511	1	4/28/2004	5577096960	COM	20.88527001200	-156.67843370000	4	Road	ROAD	U	0.00
643.04	21,083.42	2-4-5-010-027	511	1	6/1/2004	3853021475	COM	20.88391784200	-156.67730740000	4	Road	ROAD	U	0.00
555.77	18,222.08	2-4-5-010-027	511	1	6/1/2004	5275059587	COM	20.88393383800	-156.67766810000	4	Road	ROAD	U	0.00
133.09	4,363.66	2-4-5-010-027	511	1	6/1/2004	9984638001	COM	20.88391253900	-156.67709800000	4	Road	ROAD	U	0.00
20.69	678.25	2-4-5-010-030	511	1	11/5/2003	7236991495	COM	20.88435377900	-156.67816660000	4	Road	ROAD	U	0.00
0.76	24.84	2-4-5-010-033	511	1	2/6/2002	7666548309	COM	20.88512138000	-156.67749070000	2	Road	ROAD	U	0.00
12.01	393.72	2-4-5-010-033	511	1	2/6/2002	8834746730	COM	20.88512628300	-156.67746310000	2	Road	ROAD	U	0.00
0.00	0.00	2-4-5-010-039	511	1	4/23/2004	3078327211	COM	20.88536045300	-156.67637590000	2	Road	ROAD	U	0.00
0.00	0.00	2-4-5-010-040	511	1	4/23/2004	2627719755	COM	20.88536006100	-156.67634860000	2	Road	ROAD	U	0.00
212.66	6,972.30	2-4-5-010-042	511	1	4/23/2004	6821639097	COM	20.88540515400	-156.67568700000	4	Road	ROAD	U	0.00
0.00	0.00	2-4-5-010-043	511	1	4/23/2004	1168597366	COM	20.88546819500	-156.67500010000	2	Road	ROAD	U	0.00
4.12	135.05	2-4-5-010-044	511	1	4/23/2004	9323138224	COM	20.88547849200	-156.67503530000	2	Road	ROAD	U	0.00
165.95	5,440.85	2-4-5-010-046	511	1	4/23/2004	448573652	COM	20.88506953900	-156.67485540000	6	Road	ROAD	U	0.00
127.29	4,173.50	2-4-5-010-048	511	1	4/23/2004	3042521202	COM	20.88525329100	-156.67592630000	7	Road	ROAD	U	0.00
46.89	1,537.40	2-4-5-010-054	511	1	4/23/2004	4012082211	COM	20.88518516700	-156.67698470000	4	Road	ROAD	U	0.00
0.10	3.14	2-4-5-010-057	511	1	4/23/2004	9481187989	COM	20.88417359500	-156.67554690000	2	Road	ROAD	U	0.00
25.98	851.86	2-4-5-010-058	511	1	4/23/2004	7594543940	COM	20.88418034800	-156.67552480000	3	Road	ROAD	U	0.00
7.26	238.06	2-4-5-010-059	511	1	4/23/2004	9216941479	COM	20.88428339200	-156.67519960000	3	Road	ROAD	U	0.00
0.58	19.10	2-4-5-010-060	511	1	4/23/2004	413123775	COM	20.88503593900	-156.67482848300	7	Road	ROAD	U	2.13
0.00	0.00	2-4-5-010-060	511	1	4/23/2004	1303891821	COM	20.88454092300	-156.67477170000	7	Road	ROAD	U	0.00
11.02	361.17	2-4-5-010-062	511	1	4/23/2004	7652251476	COM	20.88421469700	-156.67502564700	3	Road	ROAD	U	0.00
0.00	0.00	2-4-5-010-062	511	0	4/23/2004	9011176211	COM	20.88442750000	-156.67481857600	-	Road	ROAD	U	0.00
1.12	36.58	2-4-5-010-062	511	1	8/2/2013	9011176211	COM	20.88442750000	-156.67481857600	3	Road	ROAD	U	0.00
30.36	995.49	2-4-5-028-087	511	1	5/9/1995	7141703104	COM	20.89938655800	-156.68089850000	2	Road	ROAD	U	0.00
145.93	4,784.54	2-4-6-001-001	511	1	10/31/2000	5162317429	COM	20.87121550100	-156.67785780000	6	Road	ROAD	U	0.00
14.74	483.22	2-4-6-004-009	511	1	4/15/1968	5461692124	COM	20.86144780500	-156.66962240000	4	Road	ROAD	U	0.00
30.37	995.77	2-4-6-007-011	511	1	11/1/1978	9154627442	COM	20.87121986500	-156.67579280000	6	Road	ROAD	U	0.00
4.81	157.65	2-4-6-008-002	511	1	11/4/1987	2956341671	COM	20.87157257700	-156.67696450000	2	Road	ROAD	U	0.00
58.10	1,905.03	2-4-6-008-004	511	14	3/1/1993	383623270	COM	20.87187650300	-156.67713550000	6	Road	ROAD	U	0.46
5.03	164.86	2-4-6-008-004	511	1	3/11/1997	8268940703	COM	20.87208369600	-156.67730860000	2	Road	ROAD	U	0.00
13.28	435.44	2-4-6-008-053	511	1	12/7/1987	8349937995	COM	20.87136452600	-156.67692790000	4	Road	ROAD	U	0.00
0.00	0.00	2-4-6-008-057	511	1	7/29/2014	6487540109	COM	20.87130374200	-156.67570412900	2	Road	ROAD	U	0.00
0.00	0.00	2-4-6-008-029-0000	511	1	7/7/1987	8727604178	COM	20.87408650600	-156.67719720000	2	Road	ROAD	U	0.00
5.71	187.10	2-4-6-008-056-0000	511	1	7/28/2014	1813580607	COM	20.87127418300	-156.67572583800	2	Road	ROAD	U	0.00
18.04	591.56	2-4-6-009-003	511	1	1/18/1996	5959250117	COM	20.87396222100	-156.67789560000	3	Road	ROAD	U	0.00
14.35	470.41	2-4-6-009-008	511	1	10/1/1991	1802803012	COM	20.87459055600	-156.67917750000	2	Road	ROAD	U	0.00
0.00	0.00	2-4-6-009-029	511	1	11/1/1978	7273960723	COM	20.87399078400	-156.67793440000	2	Road	ROAD	U	0.00
5.71	187.27	2-0-0-000-000	511	1	2/2/1990	6809230472	COM	20.87401055500	-156.67877180000	4			U	0.00
14.81	485.46	2-0-0-000-000	511	1	9/3/1993	7117577916	COM	20.87366001500	-156.68005530000	2				0.00
967.36	31,716.61	2-0-0-000-000	511	1	1/1/1992	4586958353	CPARK	20.8561068900	-156.66390350000	9	AG Agriculture	AG	A	6.40
10.75	352.57	2-4-6-015-001	511	1	11/21/2001	5492481598	CPARK	20.86754068000	-156.66923400000	6	AG Agriculture	AG	A	15.43
745.86	24,454.56	2-4-5-003-013	511	1	3/9/2001	9098691320	HI-RISE	20.88159485100	-156.68290510000	7	A-1 Apartment	A-1	U	8.54
370.38	12,143.55	2-4-5-003-013	511	1	3/9/2001	9206870465	HI-RISE	20.88161011500	-156.68290650000	7	A-1 Apartment	A-1	U	8.54
66.08	2,166.39	2-0-0-000-000	511	1	4/15/1997	257710382	HOTEL	20.87577349800	-156.67794860000	2	B-2 Business - Community	B-2	U	0.03
14.50	475.52	2-4-5-006-004	511	1	11/26/1968	207276530	HOTEL	20.87783527700	-156.67891960000	6	B-2 Business - Community	B-2	U	3.02
54.53	1,787.87	2-4-6-009-037	511	1	8/26/1987	7946853771	HOTEL	20.87603314600	-156.67854870000	4	H-M Hotel	H-M	U	0.00
74.87	2,454.89	2-0-0-000-000	511	1	4/15/1997	9323547729	HOTEL	20.87576333000	-156.67795540000	2	Road	ROAD	U	0.03
63.15	2,070.49	2-4-5-001-024	511	1	11/19/1996	6782240204	HOTEL	20.87541694300	-156.67958570000	4	Road	ROAD	U	0.00
12.25	401.56	2-4-6-011-012-0000	511	0	1/20/2022	2527839519	HYDRANT	20.86920400000	-156.67077900000	9	AG Agriculture	AG	A	22.22
42.03	1,377.95	2-0-0-000-000	511	1	5/11/1983	4199524793	IND	20.87789822900	-156.67966930000	6	B-2 Business - Community	B-2	U	0.51
561.81	18,420.00	2-4-5-001-018	511	1	12/23/1996	5893122836	IND	20.87741532700	-156.67883650000	9	B-2 Business - Community	B-2	U	6.54
2.83	92.84	2-4-5-001-038	511	1	1/6/1992	5588909187	IND	20.87645368000	-156.67830610900	2	B-2 Business - Community	B-2	U	0.23
35.46	1,162.65	2-4-5-001-046	511	1	11/22/2002	3424522068	IND	20.87783569600	-156.67977360000	6	B-2 Business - Community	B-2	U	0.37
127.23	4,171.56	2-4-5-002-009	511	1	8/30/1990	1869556474	IND	20.87855620700	-156.67964030000	7	B-2 Business - Community	B-2	U	11.17
569.67	18,677.73	2-4-5-002-009-0000	511	1	3/22/1990	1270084100	IND	20.87856597000	-156.67963310000	7	B-2 Business - Community	B-2	U	11.17
217.80	7,141.01	2-4-5-005-010	511	1	6/9/2011	9363507197	IND	20.88648627500	-156.68491780000	4	B-2 Business - Community	B-2	U	0.81
195.95	6,424.56	2-4-5-006-001	511	1	11/1/1978	726157038	IND	20.87758337400	-156.67869530000	7	B-2 Business - Community	B-2	U	3.02
23.93	784.45	2-4-5-013-009	511	1	11/1/1978	7067912908	IND	20.89294798600	-156.68512550000	4	B-2 Business - Community	B-2	U	0.40
51.99	1,704.43	2-4-6-008-030	511	1	3/28/1991	8486982114	IND	20.87423380400	-156.67697760000	6	B-2 Business - Community	B-2	U	1.21
299.77	9,828.50	2-4-6-001-008	511	1	4/26/1993	840264178	IND	20.87271518300	-156.67785460000	9	HD-1 Historic District 1	HD-1	U	0.79
388.91	12,751.26	2-4-6-002-007	511	1	1/27/1989	2298502682	IND	20.86784577000	-156.67513920000	7	HD-1 Historic District 1	HD-1	U	3.31
173.44	5,686.64	2-4-5-001-001	511	1	7/7/1989	8849449542	IND	20.87536519000	-156.67999730000	2	HD-2 Historic District 2	HD-2	U	0.05
10.54	345.55	2-4-5-001-002	511	1	11/1/1978	9741160408	IND	20.87549430700	-156.68007050000	2	HD-2 Historic District 2	HD-2	U	0.05
27.71	908.47	2-4-5-001-005	511	1	11/1/1978	3714405945	IND	20.87585119500	-156.68036320000	3	HD-2 Historic District 2	HD-2	U	0.04
6.53	213.93	2-4-5-001-006	511	1	6/4/1993	735810315	IND	20.87584631900	-156.68036530000	3	HD-2 Historic District 2	HD-2	U	0.04
143.38	4,700.85	2-4-5-001-007	511	1	11/1/1978	9667367050	IND	20.87594860800	-156.68047170000	7	HD-2 Historic District 2	HD-2	U	0.13
0.33	10.85	2-4-5-001-009	511	1	12/12/1989	1915123647	IND	20.87690714200	-156.68123280000	4	HD-2 Historic District 2	HD-2	U	0.00
4.15	136.09	2-4-5-001-050	511	1	4/27/1972	476112110	IND	20.87712845000	-156.68097800000	7	HD-2 Historic District 2	HD-2	U	0.23
45.83	1,502.57	2-4-6-008-003	511	1	1/22/1980	9392942162	IND	20.87179848800	-156.6770874					

25.50	836.20	2-0-0-000-000	511	1	11/1/1978	8773434833	IND	20.87571052200	-156.67905760000	2	Road	ROAD	U	0.00
137.32	4,502.16	2-0-0-000-000	511	1	5/17/1990	9685917335	IND	20.87575540500	-156.68017660000	4	Road	ROAD	U	0.00
11.27	369.40	2-4-5-001-011	511	1	1/6/1987	346983890	IND	20.87552163200	-156.68001880000	3	Road	Road	U	0.00
68.18	2,235.49	2-4-5-001-016	511	1	1/13/1978	9955731108	IND	20.87593161400	-156.68035890000	6	Road	ROAD	U	0.00
4.88	159.89	2-4-5-007-022	511	1	2/26/1993	2406932256	IND	20.88165788900	-156.68037320000	2	Road	ROAD	U	0.00
31.30	1,026.37	2-4-5-007-034	511	1	11/1/1978	3174606110	IND	20.88165600500	-156.68077090000	4	Road	ROAD	U	0.00
54.42	1,784.32	2-4-6-008-028	511	1	9/5/1995	3124590903	IND	20.87376965700	-156.67759710000	3	Road	ROAD	U	0.00
44.88	1,471.58	2-4-6-009-011	511	1	11/1/1978	704970729	IND	20.87536092700	-156.67884310000	6	Road	ROAD	U	0.00
296.16	9,710.14	2-0-0-000-000	511	10	7/5/1991	500239282	LO-RISE	20.86560807100	-156.66976140000	6	A-1 Apartment	A-1	U	1.86
178.46	5,850.98	2-0-0-000-000	511	37	11/1/1978	1915192191	LO-RISE	20.88084901300	-156.68112010000	7	A-1 Apartment	A-1	U	4.35
50.45	1,654.10	2-0-0-000-000	511	10	7/5/1991	4409928664	LO-RISE	20.86562208700	-156.66974880000	3	A-1 Apartment	A-1	U	0.00
180.48	5,917.21	2-0-0-000-000	511	43	11/1/1978	5538336255	LO-RISE	20.88130297100	-156.68118140000	7	A-1 Apartment	A-1	U	0.88
337.77	11,074.34	2-0-0-000-000	511	58	10/11/1979	7111299074	LO-RISE	20.87596439000	-156.67752470000	7	A-1 Apartment	A-1	U	1.97
271.86	8,913.33	2-0-0-000-000	511	15	11/1/1978	7508095447	LO-RISE	20.87977716400	-156.68171000000	7	A-1 Apartment	A-1	U	4.35
175.90	5,767.30	2-0-0-000-000	511	28	11/1/1978	8692029404	LO-RISE	20.88009533900	-156.68114970000	7	A-1 Apartment	A-1	U	4.35
365.65	11,988.47	2-0-0-000-000	511	10	4/26/1984	9803050869	LO-RISE	20.88132636000	-156.68582200000	6	A-1 Apartment	A-1	U	1.13
289.61	9,495.33	2-0-0-000-000	511	39	2/21/1979	9816761971	LO-RISE	20.87920777900	-156.68264610000	6	A-1 Apartment	A-1	U	0.09
172.74	5,663.66	2-4-5-008-004	511	40	1/28/1986	7814097187	LO-RISE	20.88140232300	-156.68117060000	6	A-1 Apartment	A-1	U	0.88
0.00	0.00	2-4-5-008-001-0000	511	0	1/23/1981	2582445009	LO-RISE	20.88238341400	-156.68488624000	-	A-1 Apartment	A-1	U	20.86
631.61	20,708.63	2-4-5-008-001-0000	511	1	4/3/2019	2582445009	LO-RISE	20.88238341400	-156.68488624000	9	A-1 Apartment	A-1	U	20.86
470.23	15,417.21	2-4-5-008-001-0000	511	1	1/22/2018	5585536336	LO-RISE	20.88241221500	-156.68488550200	9	A-1 Apartment	A-1	U	20.86
0.00	0.00	2-4-5-013-002	511	0	11/1/1978	7176646491	LO-RISE	20.89119563800	-156.68507350000	-	A-2 Apartment	A-2	U	0.24
72.26	2,369.21	2-4-5-013-002	511	19	9/3/2020	7176646491	LO-RISE	20.89119563800	-156.68507350000	2	A-2 Apartment	A-2	U	0.24
177.46	5,818.42	2-4-5-013-027	511	42	5/8/1968	5187685829	LO-RISE	20.89070388100	-156.68502380000	9	A-2 Apartment	A-2	U	0.69
938.53	30,771.37	2-0-0-000-000	511	22	12/23/1969	68363158	LO-RISE	20.85793657700	-156.66628161800	12	AG Agriculture	AG	U	6.40
117.47	3,831.53	2-0-0-000-000	511	22	4/14/1970	798322847	LO-RISE	20.85658345900	-156.66470360000	7	AG Agriculture	AG	A	6.40
80.45	2,637.76	2-0-0-000-000	511	16	12/1/1995	915001069	LO-RISE	20.85880883900	-156.66793090000	7	AG Agriculture	AG	U	16.80
31.53	1,033.80	2-0-0-000-000	511	6	8/2/1995	922330079	LO-RISE	20.85580345400	-156.66408850000	7	AG Agriculture	AG	A	6.40
269.84	8,847.08	2-0-0-000-000	511	44	7/17/1969	9873388086	LO-RISE	20.85883990700	-156.66698860000	12	AG Agriculture	AG	U	0.32
61.64	2,021.09	2-0-0-000-000	511	16	12/1/1995	5661233494	LO-RISE	20.85895851000	-156.66805570000	7	AG Agriculture	AG	U	16.80
133.54	4,378.20	2-0-0-000-000	511	22	1/26/1970	6542255151	LO-RISE	20.85766741700	-156.66587590000	12	AG Agriculture	AG	U	6.40
91.06	2,985.71	2-4-6-015-001	511	1	12/24/2003	804157423	LO-RISE	20.86950347900	-156.66828570000	4	AG Agriculture	AG	A	5.00
70.67	2,317.13	2-4-6-015-001	511	1	12/24/2003	4128070833	LO-RISE	20.86919834300	-156.66692650000	4	AG Agriculture	AG	A	5.00
41.78	1,369.81	2-4-6-015-001	511	1	12/24/2003	5818831086	LO-RISE	20.86893971300	-156.66710570000	4	AG Agriculture	AG	A	5.00
95.50	3,131.20	2-4-6-015-001	511	1	12/24/2003	5837388086	LO-RISE	20.86957482800	-156.66706170000	4	AG Agriculture	AG	A	5.00
0.00	0.00	2-4-6-015-001	511	0	12/24/2003	5852970949	LO-RISE	20.86958514600	-156.66750070000	-	AG Agriculture	AG	A	5.00
6.07	198.88	2-4-6-015-001	511	1	3/6/2019	5852970949	LO-RISE	20.86958514600	-156.66750070000	3	AG Agriculture	AG	A	5.00
0.00	0.00	2-4-6-015-001	511	0	12/24/2003	6473115598	LO-RISE	20.86950814300	-156.66754190000	-	AG Agriculture	AG	A	5.00
23.39	766.89	2-4-6-015-001	511	1	3/6/2019	6473115598	LO-RISE	20.86950814300	-156.66754190000	3	AG Agriculture	AG	A	5.00
48.36	1,585.52	2-4-6-015-001	511	1	12/24/2003	7040976601	LO-RISE	20.86960009800	-156.66824540000	4	AG Agriculture	AG	A	5.00
0.00	0.00	2-4-6-015-001	511	0	12/24/2003	812328169	LO-RISE	20.86959218100	-156.66750690000	-	AG Agriculture	AG	A	5.00
6.19	202.98	2-4-6-015-001	511	1	3/6/2019	812328169	LO-RISE	20.86959218100	-156.66750690000	3	AG Agriculture	AG	A	5.00
0.00	0.00	2-4-6-015-001	511	0	12/24/2003	8677999889	LO-RISE	20.86951303000	-156.66752820000	-	AG Agriculture	AG	A	5.00
18.77	615.27	2-4-6-015-001	511	1	3/6/2019	8677999889	LO-RISE	20.86951303000	-156.66752820000	3	AG Agriculture	AG	A	5.00
36.24	1,188.11	2-4-6-015-001	511	1	12/24/2003	9002980866	LO-RISE	20.86962185100	-156.66823890000	4	AG Agriculture	AG	A	5.00
13.89	455.27	2-4-6-032-044	511	4	12/1/1995	2133995014	LO-RISE	20.85814566400	-156.66636520000	4	AG Agriculture	AG	U	6.40
74.97	2,457.95	2-4-5-001-014	511	30	5/2/1989	7925461467	LO-RISE	20.87627180000	-156.67955750000	9	B-2 Business - Community	B-2	U	0.00
424.80	13,927.90	2-4-6-002-007-0000	511	99	11/1/1978	1150061119	LO-RISE	20.86761381700	-156.67493400000	7	H Hotel	H	U	3.31
439.43	14,407.60	2-4-6-002-007-0000	511	100	11/1/1978	3386442424	LO-RISE	20.86761671900	-156.67492880000	7	H Hotel	H	U	3.31
2,694.38	88,340.36	2-4-6-011-008	511	1	11/8/2005	2639967676	LO-RISE	20.87392138200	-156.67570600000	12	H-1 Hotel	H-1	U	8.63
48.21	1,580.52	2-4-5-001-017	511	5	11/1/1978	7453763298	LO-RISE	20.87652496700	-156.68076070000	6	HD-1 Historic District 1	HD-1	U	0.14
187.87	6,159.70	2-4-5-011-001	511	1	4/22/2008	707125223	LO-RISE	20.88265943600	-156.68090160000	7	M-1 Light Industrial	M-1	U	6.51
209.05	6,854.15	2-4-5-011-001	511	1	4/22/2008	4763050397	LO-RISE	20.88266769700	-156.68091390000	7	M-1 Light Industrial	M-1	U	6.51
856.56	28,084.02	2-4-5-011-010	511	1	6/27/2001	8370861075	LO-RISE	20.88465105400	-156.68033500000	12	M-1 Light Industrial	M-1	U	5.17
87.77	2,877.60	2-4-6-010-000	511	5	1/12/1972	997122263	LO-RISE	20.88164550300	-156.67056000000	6	R-1 Residential	R-1	U	0.66
177.40	5,816.45	2-4-5-026-001	511	1	8/30/2002	6668938215	LO-RISE	20.88125401600	-156.67182700000	4	R-1 Residential	R-1	U	1.77
129.66	4,251.01	2-0-0-000-000	511	22	4/22/1969	4166499724	LO-RISE	20.86023991900	-156.66847650000	12	R-2 Residential	R-2	U	16.80
17.28	566.45	2-0-0-000-000	511	6	12/1/1995	5301314341	LO-RISE	20.86096725800	-156.66897650000	6	R-2 Residential	R-2	U	16.80
202.61	6,642.87	2-0-0-000-000	511	8	6/19/1969	7125457905	LO-RISE	20.86028107200	-156.66787460000	6	R-2 Residential	R-2	U	16.80
337.81	11,075.79	2-4-5-003-011	511	60	9/7/1990	229373235	LO-RISE	20.87962461800	-156.68348760000	6	R-2 Residential	R-2	U	0.00
26.34	863.74	2-4-6-004-010	511	3	11/1/1978	5247329912	LO-RISE	20.88317045000	-156.68534192000	2	R-2 Residential	R-2	U	0.55
158.03	5,181.39	2-4-6-010-028	511	18	12/2/1965	9588450839	LO-RISE	20.87734107500	-156.67582010000	9	R-2 Residential	R-2	U	1.56
297.00	9,737.60	2-4-6-011-007	511	31	3/17/1994	3420533569	LO-RISE	20.87365478500	-156.67387780000	6	R-2 Residential	R-2	A	1.55
252.69	8,285.05	2-0-0-000-000	511	23	3/22/1995	2140291530	LO-RISE	20.86068809600	-156.66960260000	7	R-3 Residential	R-3	U	16.80
99.00	3,245.87	2-0-0-000-000	511	16	12/1/1995	9933887726	LO-RISE	20.86014339900	-156.66921830000	7	R-3 Residential	R-3	U	16.80
18.52	607.10	2-4-5-014-042	511	3	11/1/1978	6568368482	LO-RISE	20.89363072000	-156.68399830000	2	R-3 Residential	R-3	U	0.58
13.51	442.95	2-4-6-002-022	511	3	11/1/1978	2320321858	LO-RISE	20.86566864700	-156.67349490000	4	R-3 Residential	R-3	U	0.24
206.55	6,772.21	2-4-6-028-001	511	4	9/11/1979	6338114917	LO-RISE	20.85945606400	-156.66899570000	7	R-3 Residential	R-3	U	16.80
163.02	5,344.97	2-0-0-000-000	511	8	11/1/1978	3724042077	LO-RISE	20.88222103900	-156.68674060000	6	Road	ROAD	U	0.00
148.16	4,857.57	2-0-0-000-000	511	33	11/1/1978	6287334382	LO-RISE	20.88114395800	-156.68120560000	7	Road	ROAD	U	0.00
128.87	4,225.33	2-4-5-026-001	511	1	8/30/2002	3538588430	LO-RISE	20.88123615200	-156.67181490000	6	Road	ROAD	U	1.77
75.29	2,468.55	2-4-6-008-008	511	25	11/1/1978	690754161	LO-RISE	20.87257658500	-156.67658930000	7	Road	ROAD		

10.15	332.81	2-4-6-034-013	511	1	3/14/1991	8203466351	SFD	20.86533845400	-156.66915600000	2	A-1 Apartment	A-1	U	0.10
14.86	487.30	2-4-6-034-014	511	1	10/22/1996	967744545	SFD	20.86551207500	-156.66915540000	2	A-1 Apartment	A-1	U	0.10
11.86	388.93	2-4-6-034-018	511	1	3/18/1991	1737325760	SFD	20.86416904400	-156.66929810000	2	A-1 Apartment	A-1	U	0.14
16.83	551.75	2-4-6-034-019	511	1	7/23/1991	4333820250	SFD	20.86441749900	-156.66928230000	2	A-1 Apartment	A-1	U	0.09
71.71	2,351.23	2-4-6-034-020	511	1	5/8/1991	293509062	SFD	20.86443049600	-156.66928290000	2	A-1 Apartment	A-1	U	0.09
30.28	992.92	2-4-6-034-021	511	1	7/17/1991	4561039543	SFD	20.86461474300	-156.66928910000	2	A-1 Apartment	A-1	U	0.09
8.63	283.06	2-4-6-034-022	511	1	5/31/1991	6526755412	SFD	20.86462039300	-156.66931280000	2	A-1 Apartment	A-1	U	0.09
29.54	968.52	2-4-6-034-023	511	1	10/23/1996	6668246725	SFD	20.86478867500	-156.66930460000	2	A-1 Apartment	A-1	U	0.09
6.86	225.03	2-4-6-034-024	511	1	10/23/1996	6783421645	SFD	20.86479333800	-156.66931110000	2	A-1 Apartment	A-1	U	0.09
7.47	245.03	2-4-6-034-025	511	1	6/19/1991	1956004343	SFD	20.86498219400	-156.66930300000	2	A-1 Apartment	A-1	U	0.09
22.33	732.13	2-4-6-034-026	511	1	5/31/1991	5652720295	SFD	20.86499034100	-156.66930490000	2	A-1 Apartment	A-1	U	0.09
19.95	654.23	2-4-6-034-027	511	1	5/31/1991	2866718991	SFD	20.86516676000	-156.66931040000	2	A-1 Apartment	A-1	U	0.09
3.93	128.69	2-4-6-034-028	511	1	6/7/1991	1663529508	SFD	20.86518621600	-156.66930630000	2	A-1 Apartment	A-1	U	0.09
13.73	450.30	2-4-6-034-029	511	1	7/29/1991	8754857003	SFD	20.86535715500	-156.66930740000	2	A-1 Apartment	A-1	U	0.09
13.75	450.96	2-4-6-034-030	511	1	6/26/1991	3760235097	SFD	20.86537761700	-156.66931420000	2	A-1 Apartment	A-1	U	0.09
5.64	184.75	2-4-6-034-031	511	1	5/24/1991	7932718066	SFD	20.86554608800	-156.66931470000	2	A-1 Apartment	A-1	U	0.09
19.55	641.01	2-4-6-034-032	511	1	4/19/1991	4691458386	SFD	20.86556347500	-156.66930600000	3	A-1 Apartment	A-1	U	0.14
7.56	247.95	2-4-6-034-033	511	1	4/2/1991	1146687320	SFD	20.86576032700	-156.66970500000	2	A-1 Apartment	A-1	U	0.09
12.31	403.44	2-4-6-034-034	511	1	7/17/1991	4534023758	SFD	20.86575655800	-156.66970690000	2	A-1 Apartment	A-1	U	0.09
12.41	406.99	2-4-6-034-035	511	1	7/31/1991	9950387328	SFD	20.86581797800	-156.66953690000	2	A-1 Apartment	A-1	U	0.09
12.61	413.50	2-4-6-034-039	511	1	10/23/1996	9869891375	SFD	20.86595980700	-156.66914080000	2	A-1 Apartment	A-1	U	0.09
12.87	422.05	2-4-6-034-040	511	1	10/23/1996	7064343755	SFD	20.86596680300	-156.66912820000	2	A-1 Apartment	A-1	U	0.09
51.83	1,699.21	2-4-6-034-042	511	1	5/3/1991	4135614225	SFD	20.86603681900	-156.66939900000	3	A-1 Apartment	A-1	U	0.22
15.61	511.78	2-0-0-000-000	511	1	11/6/1979	1075286674	SFD	20.87882210100	-156.67175900000	2	AG Agriculture	AG	A	1,137.91
13.14	430.77	2-4-5-030-008	511	1	11/1/1978	9277805848	SFD	20.88984771900	-156.68005530000	2	AG Agriculture	AG	U	28.52
4.85	159.04	2-4-5-030-108	511	1	11/1/1978	3721005440	SFD	20.89159617900	-156.68005530000	2	AG Agriculture	AG	U	365.45
30.64	1,004.59	2-4-5-031-002	511	1	11/1/1978	8294729726	SFD	20.88416445500	-156.66859170000	2	AG Agriculture	AG	U	0.14
8.24	270.30	2-4-5-031-003	511	1	11/1/1978	89227293140	SFD	20.88417459300	-156.66857020000	2	AG Agriculture	AG	U	0.16
2.19	71.75	2-4-5-031-004	511	1	11/1/1978	718956895	SFD	20.88387477600	-156.66793320000	2	AG Agriculture	AG	U	0.14
22.79	747.19	2-4-5-031-005	511	1	11/1/1978	7011673567	SFD	20.88390017000	-156.66791530000	2	AG Agriculture	AG	U	0.15
26.52	869.59	2-4-5-031-008	511	1	11/1/1978	3556028313	SFD	20.88419167100	-156.66817360000	2	AG Agriculture	AG	U	0.16
16.59	544.07	2-4-5-031-021	511	2	11/1/1978	3599440009	SFD	20.88559155100	-156.67010290000	2	AG Agriculture	AG	U	0.15
7.35	240.82	2-4-5-031-030	511	1	11/1/1978	8360051288	SFD	20.88451620300	-156.66869360000	2	AG Agriculture	AG	U	0.16
0.00	0.00	2-4-5-031-031	511	1	11/1/1978	5016135800	SFD	20.88451613700	-156.66866150000	2	AG Agriculture	AG	U	0.16
12.30	403.42	2-4-5-031-042	511	1	11/1/1978	8712193753	SFD	20.88575854400	-156.66973030000	2	AG Agriculture	AG	U	0.14
18.13	594.54	2-4-5-036-001	511	1	2/22/2005	5449955015	SFD	20.90001148900	-156.67973000000	2	AG Agriculture	AG	U	4.35
25.89	848.77	2-4-5-036-002	511	1	2/22/2005	4882429635	SFD	20.90008599800	-156.68006780000	2	AG Agriculture	AG	U	0.15
14.66	480.66	2-4-5-036-003	511	1	2/22/2005	9999872546	SFD	20.90008393500	-156.68006850000	2	AG Agriculture	AG	U	0.15
5.63	184.56	2-4-5-036-004	511	1	2/22/2005	4823716683	SFD	20.90011141800	-156.68039770000	2	AG Agriculture	AG	U	0.15
12.89	422.46	2-4-5-036-005	511	1	2/22/2005	6804774622	SFD	20.90011845500	-156.68038470000	2	AG Agriculture	AG	U	0.15
15.50	508.03	2-4-5-036-006	511	1	2/22/2005	583027489	SFD	20.90012885500	-156.68069990000	2	AG Agriculture	AG	U	0.15
18.77	615.41	2-4-5-036-007	511	1	2/22/2005	4725397441	SFD	20.90015142300	-156.68071030000	2	AG Agriculture	AG	U	4.35
20.08	658.36	2-4-5-036-008	511	1	2/22/2005	632124228	SFD	20.90016235700	-156.68099190000	2	AG Agriculture	AG	U	0.16
22.04	722.65	2-4-5-036-009	511	1	2/22/2005	164561178	SFD	20.90019678600	-156.68136620000	2	AG Agriculture	AG	U	0.16
14.38	471.39	2-4-5-036-010	511	1	2/22/2005	5027356640	SFD	20.90019704400	-156.68137240000	2	AG Agriculture	AG	U	0.16
14.10	462.35	2-4-5-036-011	511	1	2/22/2005	9950864524	SFD	20.90020861500	-156.68165750000	2	AG Agriculture	AG	U	0.14
8.29	271.64	2-4-5-036-012	511	1	2/22/2005	5019923354	SFD	20.90021307500	-156.68165850000	2	AG Agriculture	AG	U	0.14
17.40	570.46	2-4-5-036-013	511	1	2/22/2005	4029563313	SFD	20.90023879500	-156.68195160000	2	AG Agriculture	AG	U	0.14
16.25	532.79	2-4-5-036-014	511	1	2/22/2005	8313341954	SFD	20.90024543100	-156.68195940000	2	AG Agriculture	AG	U	0.14
12.58	412.54	2-4-5-036-015	511	1	2/22/2005	3428489000	SFD	20.90026038700	-156.68224390000	2	AG Agriculture	AG	U	0.14
19.17	628.63	2-4-5-036-016	511	1	2/22/2005	721093504	SFD	20.90026917900	-156.68224860000	2	AG Agriculture	AG	U	0.14
9.05	296.72	2-4-5-036-017	511	1	2/22/2005	9527259238	SFD	20.90028555400	-156.68253750000	2	AG Agriculture	AG	U	0.14
4.82	157.87	2-4-5-036-018	511	1	2/22/2005	3654357504	SFD	20.90028487300	-156.68253500000	2	AG Agriculture	AG	U	0.14
11.68	383.09	2-4-5-036-019	511	1	2/22/2005	9632001404	SFD	20.90033505000	-156.68280280000	2	AG Agriculture	AG	U	0.15
13.38	438.58	2-4-5-036-020	511	1	2/22/2005	7340277820	SFD	20.90034658600	-156.68280490000	2	AG Agriculture	AG	U	4.35
4.30	141.07	2-4-5-036-023	511	1	2/22/2005	4838238053	SFD	20.90053695500	-156.68335690000	2	AG Agriculture	AG	U	0.15
18.45	604.92	2-4-5-036-024	511	1	2/22/2005	4909381328	SFD	20.90057830000	-156.68355730000	2	AG Agriculture	AG	U	0.19
25.45	834.26	2-4-5-036-025	511	1	2/22/2005	9188575445	SFD	20.90036177300	-156.68378820000	2	AG Agriculture	AG	U	0.18
22.06	723.33	2-4-5-036-026	511	1	2/22/2005	249747453	SFD	20.90036919300	-156.68379940000	2	AG Agriculture	AG	U	4.35
30.51	1,000.33	2-4-5-036-030	511	1	2/22/2005	9693136695	SFD	20.90084469100	-156.68362750000	2	AG Agriculture	AG	U	4.35
7.67	251.42	2-4-5-036-036	511	1	2/22/2005	2362270088	SFD	20.90148245400	-156.68345920000	2	AG Agriculture	AG	U	0.13
12.08	396.09	2-4-5-036-048	511	1	2/22/2005	3881097846	SFD	20.90136216400	-156.68255140000	2	AG Agriculture	AG	U	0.12
14.25	467.32	2-4-5-036-051	511	1	2/22/2005	400833408	SFD	20.90086088400	-156.68277060000	2	AG Agriculture	AG	U	0.14
11.11	364.40	2-4-5-036-052	511	1	2/22/2005	49564612	SFD	20.90085909500	-156.68277270000	2	AG Agriculture	AG	U	0.14
5.01	164.29	2-4-5-036-053	511	1	2/22/2005	3033311229	SFD	20.90064223400	-156.68287340000	2	AG Agriculture	AG	U	0.17
7.38	241.99	2-4-5-036-054	511	1	2/22/2005	7978151416	SFD	20.90064050500	-156.68287560000	2	AG Agriculture	AG	U	0.17
6.79	222.54	2-4-5-036-067	511	1	2/22/2005	6127144739	SFD	20.90062181300	-156.68189010000	2	AG Agriculture	AG	U	0.13
11.16	365.96	2-4-5-036-068	511	1	2/22/2005	1102187985	SFD	20.90061679800	-156.68190200000	2	AG Agriculture	AG	U	0.13
9.48	310.66	2-4-5-036-069	511	1	2/22/2005	5732270917	SFD	20.90049361300	-156.68192940000	2	AG Agriculture	AG	U	0.16
6.65	218.01	2-4-5-036-104	511	1	2/22/2005	7865663812	SFD	20.90000804300	-156.67972730000	2	AG Agriculture	AG	U	0.17
19.91	652.92	2-4-5-037-011	511	1	5/4/2017	3808140698	SFD	20.88246093400	-156.67525733400	2	AG Agriculture	AG	A	0.00
11.23	368.33	2-4-5-037-012	511	1	5/4/2017	2853942259	SFD	20.88244569100	-156.67527178300	2	AG Agriculture	AG	A	0.00
19.21	629.75	2-4-5-037-013	511	1	5/17/2017	7060506246	SFD	20.88244677900	-156.67556176700	2	AG Agriculture	AG	A	0.00
16.52	541.61	2-4-5-037-014	511	1	5/17/2017	4276235454	SFD	20.88245068800	-156.67557946500	2	AG Agriculture	AG	A	0.00
12.57	412.24	2-4-5-037-015	511	1										

16.28	533.66	2-4-5-037-024-0000	511	1	9/6/2017	9319714591	SFD	20.88234240500	-156.67761239000	2	AG Agriculture	AG	A	0.00
9.77	320.16	2-4-5-037-025-0000	511	1	9/6/2017	3729954427	SFD	20.88233680900	-156.67762642700	2	AG Agriculture	AG	A	0.00
8.65	283.52	2-4-5-037-026-0000	511	1	7/25/2018	8266541008	SFD	20.88241766100	-156.67793629900	2	AG Agriculture	AG	A	0.00
18.24	598.17	2-4-5-037-027-0000	511	1	7/25/2018	4162314278	SFD	20.88241971600	-156.67794265100	2	AG Agriculture	AG	A	0.00
4.55	149.23	2-4-5-037-028-0000	511	1	7/25/2018	3611402785	SFD	20.88249973200	-156.67821394500	2	AG Agriculture	AG	A	0.00
14.43	472.98	2-4-5-037-029-0000	511	1	7/25/2018	2724779842	SFD	20.88250015500	-156.67823037400	2	AG Agriculture	AG	A	0.00
10.19	334.18	2-4-5-037-030-0000	511	1	7/25/2018	2530352361	SFD	20.88256856500	-156.67852157600	2	AG Agriculture	AG	A	0.00
7.71	252.84	2-4-5-037-031-0000	511	1	7/25/2018	967229293	SFD	20.88255863100	-156.67854182500	2	AG Agriculture	AG	A	0.00
21.57	707.08	2-4-5-038-007	511	1	5/17/2017	9041285175	SFD	20.88324888500	-156.67404626200	2	AG Agriculture	AG	A	0.00
21.20	695.00	2-4-5-038-008	511	1	5/17/2017	5870932903	SFD	20.88326314700	-156.67403450200	2	AG Agriculture	AG	A	0.00
14.68	481.28	2-4-5-038-009	511	1	5/17/2017	9781286786	SFD	20.88341617300	-156.67372622500	2	AG Agriculture	AG	A	0.00
16.31	534.73	2-4-5-038-010	511	1	5/17/2017	397953618	SFD	20.88343879900	-156.67370133800	2	AG Agriculture	AG	A	0.00
18.96	621.69	2-4-5-038-011	511	1	5/17/2017	1337732030	SFD	20.88359873900	-156.67340864000	2	AG Agriculture	AG	A	0.00
24.43	800.90	2-4-5-038-012	511	1	5/3/2017	227631128	SFD	20.88360199400	-156.67340184000	2	AG Agriculture	AG	A	0.00
17.10	560.74	2-4-5-038-013	511	1	5/3/2017	6879728238	SFD	20.88376012400	-156.67309097700	2	AG Agriculture	AG	A	0.00
23.00	754.21	2-4-5-038-014	511	1	5/18/2017	2343665171	SFD	20.88376732900	-156.67307847100	2	AG Agriculture	AG	A	0.00
19.00	622.79	2-4-5-038-015	511	1	5/18/2017	7888256952	SFD	20.88393355700	-156.67277311300	2	AG Agriculture	AG	A	0.00
16.36	536.31	2-4-5-038-016	511	1	5/18/2017	7254117185	SFD	20.88393007300	-156.67276633100	2	AG Agriculture	AG	A	0.00
26.98	884.73	2-4-5-038-017	511	1	5/18/2017	4825713634	SFD	20.88407434300	-156.67252255600	2	AG Agriculture	AG	A	0.00
16.37	536.78	2-4-5-038-018	511	1	5/18/2017	5799402000	SFD	20.88426949500	-156.67240795000	2	AG Agriculture	AG	A	0.00
17.82	584.37	2-4-5-038-019	511	1	5/18/2017	5527987224	SFD	20.88428325600	-156.67229552800	2	AG Agriculture	AG	A	0.00
7.36	241.37	2-4-5-038-020	511	1	5/18/2017	3998886621	SFD	20.88427453900	-156.67228586600	2	AG Agriculture	AG	A	0.00
0.00	0.00	2-4-5-038-021	511	1	5/18/2017	1145373673	SFD	20.88410832100	-156.67223864900	2	AG Agriculture	AG	A	0.00
18.01	590.33	2-4-5-038-022	511	1	5/3/2017	6955337179	SFD	20.88382060800	-156.67271611500	2	AG Agriculture	AG	A	0.00
21.20	695.16	2-4-5-038-023	511	1	5/4/2017	4659133736	SFD	20.88382099400	-156.67272516100	2	AG Agriculture	AG	A	0.00
30.11	987.19	2-4-5-038-024	511	1	5/4/2017	4513157953	SFD	20.88365890000	-156.67302419300	2	AG Agriculture	AG	A	0.00
20.90	685.16	2-4-5-038-025	511	1	5/4/2017	5282170489	SFD	20.88366029800	-156.67302815700	2	AG Agriculture	AG	A	0.00
15.14	496.23	2-4-5-038-026	511	1	5/3/2017	5667021286	SFD	20.88350166600	-156.67333395200	2	AG Agriculture	AG	A	0.00
18.37	602.24	2-4-5-038-027	511	1	5/4/2017	7432600624	SFD	20.88255273400	-156.67493654400	2	AG Agriculture	AG	A	0.00
26.60	872.13	2-4-5-038-001-0000	511	1	8/28/2017	9845714208	SFD	20.88265950000	-156.67497431200	2	AG Agriculture	AG	A	0.00
31.49	1,032.57	2-4-5-038-002-0000	511	1	8/28/2017	9139719175	SFD	20.88266132700	-156.67495701500	2	AG Agriculture	AG	A	0.00
29.59	907.22	2-4-5-038-003-0000	511	1	8/30/2017	5129004707	SFD	20.88285180300	-156.67465789200	2	AG Agriculture	AG	A	0.00
21.21	695.38	2-4-5-038-004-0000	511	1	8/30/2017	1862659402	SFD	20.88286279200	-156.67464664200	2	AG Agriculture	AG	A	0.00
14.65	480.25	2-4-5-038-005-0000	511	1	8/29/2017	7483770029	SFD	20.88306292900	-156.67437083800	2	AG Agriculture	AG	A	0.00
20.29	665.19	2-4-5-038-006-0000	511	1	8/29/2017	3165409352	SFD	20.88307135200	-156.67435388600	2	AG Agriculture	AG	A	0.00
17.02	558.14	2-4-5-038-027-0000	511	1	8/29/2017	5235764769	SFD	20.88348715500	-156.67335209800	2	AG Agriculture	AG	A	0.00
11.84	388.11	2-4-5-038-028-0000	511	1	8/30/2017	2218195697	SFD	20.88332728800	-156.67364908100	2	AG Agriculture	AG	A	0.00
14.53	476.28	2-4-5-038-029-0000	511	1	8/31/2017	8472597542	SFD	20.88331721600	-156.67365777000	2	AG Agriculture	AG	A	0.00
30.42	997.40	2-4-5-038-030-0000	511	1	8/31/2017	4720117850	SFD	20.88314650300	-156.67397349100	2	AG Agriculture	AG	A	0.00
15.34	503.09	2-4-5-038-031-0000	511	1	8/31/2017	8827878778	SFD	20.88313579900	-156.67398825200	2	AG Agriculture	AG	A	0.00
25.25	827.70	2-4-5-038-032-0000	511	1	8/31/2017	5129064922	SFD	20.88295324600	-156.67431418700	2	AG Agriculture	AG	A	0.00
18.61	610.27	2-4-5-038-033-0000	511	1	8/31/2017	8260897002	SFD	20.88294128700	-156.67432964500	2	AG Agriculture	AG	A	0.00
17.57	576.04	2-4-5-038-034-0000	511	1	8/31/2017	844886942	SFD	20.88274029800	-156.67460989800	2	AG Agriculture	AG	A	0.00
21.15	693.50	2-4-5-038-035-0000	511	1	8/31/2017	2532653640	SFD	20.88273160100	-156.67462189700	2	AG Agriculture	AG	A	0.00
25.81	846.09	2-4-5-038-036-0000	511	1	8/29/2017	2790030440	SFD	20.88255169200	-156.67492393200	2	AG Agriculture	AG	A	0.00
11.24	368.61	2-4-6-011-023	511	1	11/21/1998	1830938260	SFD	20.87255730600	-156.67292760000	2	AG Agriculture	AG	A	0.25
2.33	76.45	2-4-6-013-004	511	1	11/26/1991	5239946036	SFD	20.86390092200	-156.66909070000	2	AG Agriculture	AG	A	0.26
6.55	214.89	2-4-6-016-001	511	1	11/1/1978	1945547463	SFD	20.87324701000	-156.67290850000	2	AG Agriculture	AG	A	0.00
7.97	261.22	2-4-6-016-038-0000	511	0	12/31/2018	6798487440	SFD	20.87621244500	-156.67484109100	-	AG Agriculture	AG	U	0.54
14.93	489.34	2-4-6-016-038-0000	511	2	2/25/2022	6798487440	SFD	20.87621244500	-156.67484109100	2	AG Agriculture	AG	U	0.54
9.04	296.28	2-4-6-026-029	511	1	11/1/1978	8471216516	SFD	20.87881234000	-156.67179500000	2	AG Agriculture	AG	A	1,137.91
0.00	0.00	2-0-0-000-000	511	1	10/29/1997	2588447562	SFD	20.87424840400	-156.67624880000	2	B-2 Business - Community	B-2	U	0.10
22.73	745.30	2-4-5-005-004	511	1	3/28/1983	1636362166	SFD	20.88446126100	-156.68511750000	3	B-2 Business - Community	B-2	U	0.56
12.05	395.22	2-4-5-005-007	511	1	11/1/1978	7899503500	SFD	20.88399545900	-156.68521130000	2	B-2 Business - Community	B-2	U	0.32
5.97	195.57	2-4-5-006-002	511	1	11/1/1978	9073617895	SFD	20.87680841700	-156.67822360000	2	B-2 Business - Community	B-2	U	0.22
15.09	494.86	2-4-6-008-026	511	1	7/7/1978	7730398384	SFD	20.87396621500	-156.67601680000	2	B-2 Business - Community	B-2	U	0.94
14.87	487.49	2-4-6-008-063	511	2	11/1/1978	6600860016	SFD	20.87323668300	-156.67707650000	2	B-2 Business - Community	B-2	U	0.94
7.98	261.58	2-4-6-008-066	511	1	12/31/1997	5079908944	SFD	20.87425528300	-156.67626090000	2	B-2 Business - Community	B-2	U	0.08
57.92	1,898.85	2-4-6-009-024	511	1	3/1/1996	1077170262	SFD	20.87532239100	-156.67718630000	2	B-2 Business - Community	B-2	U	0.28
0.00	0.00	2-4-6-009-038	511	1	4/1/1984	410428037	SFD	20.87627994500	-156.67829290000	2	B-2 Business - Community	B-2	U	0.15
31.07	1,018.66	2-4-6-010-012	511	1	2/5/1996	6932422240	SFD	20.87709157800	-156.67732640000	2	B-2 Business - Community	B-2	U	0.19
22.90	750.85	2-4-6-011-010	511	1	11/1/1978	1266065100	SFD	20.87512823300	-156.67600730000	3	D-1 Duplex	D-1	U	0.17
0.00	0.00	2-4-6-011-011	511	1	11/1/1978	4154662626	SFD	20.87541302700	-156.67571600000	2	D-1 Duplex	D-1	U	0.18
19.09	626.04	2-4-6-011-033	511	4	11/1/1978	149275789	SFD	20.87536758300	-156.67562900000	4	D-1 Duplex	D-1	U	0.18
47.19	1,547.10	2-0-0-000-000	511	1	11/1/1978	3325897142	SFD	20.87343793800	-156.67799150000	6	HD-1 Historic District 1	HD-1	U	0.77
0.00	0.00	2-0-0-000-000	511	1	11/1/1978	4301375863	SFD	20.86824396600	-156.67428740000	2	HD-1 Historic District 1	HD-1	U	0.41
29.95	981.97	2-0-0-000-000	511	1	11/1/1978	6760769681	SFD	20.87324836600	-156.67723620000	2	HD-1 Historic District 1	HD-1	U	0.87
61.28	2,009.32	2-0-0-000-000	511	1	11/18/1987	7844903041	SFD	20.87275494100	-156.67771080000	2	HD-1 Historic District 1	HD-1	U	0.87
18.54	607.81	2-0-0-000-000	511	1	8/29/1997	8592857090	SFD	20.86930128300	-156.67587140000	2	HD-1 Historic District 1	HD-1	U	1.62
42.49	1,393.17	2-4-5-003-010	511	1	12/30/1998	8101501235	SFD	20.87955114000	-156.68326070000	2	HD-1 Historic District 1	HD-1	U	0.36
100.93	3,309.15	2-4-6-002-011	511	1	8/29/1997	1059213354	SFD	20.86906658500	-156.67579340000	2	HD-1 Historic District 1	HD-1	U	1.62
38.16	1,251.09	2-4-6-002-011	511	1	1/31/1997	6225253290	SFD	20.86906848300	-156.67578400000	2	HD-1 Historic District 1	HD-1	U	1.62
28.05	919.67	2-4-6-002-011	511	1	1/31/1997	6754240009	SFD	20.86927209200	-156.67587390000	2	HD-1 Historic District 1	HD-1	U	1.62
21.99	720.96	2-4-6-002-011	511	1	2/1/1997									

13.35	437.60	2-4-5-034-064	511	1	9/3/1998	6386712599	SFD	20.88381521900	-156.66525100000	3	Interim	INT	A	0.24
27.32	895.60	2-4-5-034-065	511	1	5/4/2006	7681129458	SFD	20.88390461900	-156.66528140000	2	Interim	INT	A	0.24
21.49	704.70	2-4-5-034-069	511	1	2/11/1999	9003995714	SFD	20.88433156800	-156.66454170000	2	Interim	INT	A	0.21
19.00	623.06	2-4-5-034-070	511	1	1/29/1999	9150011624	SFD	20.88449400700	-156.66466670000	2	Interim	INT	A	0.20
11.95	391.75	2-4-5-034-071	511	1	3/31/1999	6319301029	SFD	20.88450604900	-156.66468130000	2	Interim	INT	A	0.20
0.00	0.00	2-4-5-034-050-0000	511	1	5/8/2020	3384193952	SFD	20.88451047600	-156.66402443800	2	Interim	INT	A	0.21
13.22	433.42	2-4-6-018-023	511	1	2/2/1999	1435378152	SFD	20.88392973200	-156.66423190000	2	Interim	INT	A	0.24
6.17	202.27	2-4-6-018-023	511	1	8/7/1998	2208745972	SFD	20.88444626500	-156.66382780000	2	Interim	INT	A	0.31
0.33	10.79	2-0-0-000-000	511	1	11/1/1978	5840692311	SFD	20.88138423000	-156.68018880000	4	M-1 Light Industrial	M-1	U	0.46
0.00	0.00	2-4-5-011-001	511	1	6/27/2001	1223288069	SFD	20.88532129800	-156.67969930000	2	M-1 Light Industrial	M-1	U	5.77
1.93	63.14	2-0-0-000-000	511	1	5/12/1980	518454583	SFD	20.87447468300	-156.67778770000	2	R-1 Residential	R-1	U	0.84
0.00	0.00	2-0-0-000-000	511	1	11/1/1985	1615121174	SFD	20.87444701900	-156.67779920000	2	R-1 Residential	R-1	U	0.84
7.75	253.93	2-0-0-000-000	511	1	9/2/1997	3080039638	SFD	20.87415893400	-156.67799280000	2	R-1 Residential	R-1	U	0.84
0.00	0.00	2-0-0-000-000	511	1	8/4/1986	3087834873	SFD	20.89120043400	-156.68492600000	2	R-1 Residential	R-1	U	0.18
1.00	32.81	2-0-0-000-000	511	1	9/2/1997	4137060419	SFD	20.87439837200	-156.67786870000	2	R-1 Residential	R-1	U	0.84
1.02	33.36	2-0-0-000-000	511	1	10/30/1996	6158311600	SFD	20.87438811600	-156.67791010000	2	R-1 Residential	R-1	U	0.84
5.55	181.89	2-0-0-000-000	511	1	1/6/1997	6365215944	SFD	20.88768020100	-156.68372790000	2	R-1 Residential	R-1	U	0.15
18.85	618.14	2-0-0-000-000	511	1	12/12/1991	6553367291	SFD	20.88162416400	-156.67211700000	2	R-1 Residential	R-1	U	0.22
1.74	56.99	2-0-0-000-000	511	1	9/2/1997	6824888237	SFD	20.87429982900	-156.67780080000	2	R-1 Residential	R-1	U	0.84
5.24	171.72	2-0-0-000-000	511	1	9/2/1997	6894537001	SFD	20.87423302200	-156.67787320000	2	R-1 Residential	R-1	U	0.84
3.73	122.32	2-0-0-000-000	511	1	11/1/1978	7881578565	SFD	20.87511901200	-156.67709260000	2	R-1 Residential	R-1	U	0.19
0.00	0.00	2-0-0-000-000	511	1	10/8/1997	8829531143	SFD	20.87548142000	-156.67737300000	2	R-1 Residential	R-1	U	0.04
0.58	19.13	2-0-0-000-000	511	1	9/2/1997	9227016229	SFD	20.87449231800	-156.67776580000	2	R-1 Residential	R-1	U	0.84
2.87	94.15	2-0-0-000-000	511	1	9/2/1997	9963843638	SFD	20.87430293100	-156.67780030000	2	R-1 Residential	R-1	U	0.84
5.31	174.13	2-0-0-000-0000	511	1	9/2/1997	5333990523	SFD	20.87446491100	-156.67780930000	2	R-1 Residential	R-1	U	0.84
2.63	86.12	2-4-2-023-000	511	1	3/1/2004	1574202722	SFD	20.88065571400	-156.67572260000	2	R-1 Residential	R-1	U	0.12
16.18	530.41	2-4-2-023-000	511	1	2/26/2004	509653139	SFD	20.88086157800	-156.67520800000	2	R-1 Residential	R-1	U	0.13
5.92	194.21	2-4-2-023-000	511	1	3/1/2004	9660149593	SFD	20.88094937200	-156.67534880000	2	R-1 Residential	R-1	U	0.13
19.79	648.69	2-4-3-020-112	511	1	7/26/2002	8486114005	SFD	20.97543301200	-156.67482060000	2	R-1 Residential	R-1	U	0.15
6.63	217.24	2-4-3-021-010	511	1	6/17/1999	2682782958	SFD	20.97095902100	-156.67389460000	2	R-1 Residential	R-1	U	0.20
26.97	884.32	2-4-5-012-001	511	1	5/11/1978	2798189317	SFD	20.88986337100	-156.68496450000	2	R-1 Residential	R-1	U	0.16
16.66	546.37	2-4-5-012-001	511	1	11/1/1978	3600342033	SFD	20.89005130400	-156.68496350000	2	R-1 Residential	R-1	U	0.14
33.06	1,083.83	2-4-5-012-009	511	1	11/1/1978	5929157140	SFD	20.88898257900	-156.68473290000	2	R-1 Residential	R-1	U	0.12
86.47	2,835.03	2-4-5-012-018	511	1	10/3/2002	6948492117	SFD	20.88948039900	-156.68490390000	3	R-1 Residential	R-1	U	0.49
23.50	770.36	2-4-5-012-021	511	1	8/28/1995	9100156410	SFD	20.88847481000	-156.68369810000	3	R-1 Residential	R-1	U	0.12
39.78	1,304.40	2-4-5-012-024	511	1	5/22/1969	2588064535	SFD	20.88771563700	-156.68370630000	3	R-1 Residential	R-1	U	0.14
3.49	114.51	2-4-5-012-029	511	1	2/7/1996	8471538608	SFD	20.88826177700	-156.68410810000	2	R-1 Residential	R-1	U	0.11
12.96	424.85	2-4-5-012-032	511	1	11/7/1994	5462442951	SFD	20.88870752400	-156.68372060000	2	R-1 Residential	R-1	U	0.15
20.14	660.41	2-4-5-012-033	511	1	1/14/1998	7221483235	SFD	20.88848078500	-156.68370760000	2	R-1 Residential	R-1	U	0.14
56.09	1,839.15	2-4-5-012-035	511	1	9/20/1996	6510174954	SFD	20.88791991100	-156.68355360000	2	R-1 Residential	R-1	U	0.16
12.39	406.34	2-4-5-012-036	511	2	4/25/1996	3010927894	SFD	20.88794592800	-156.68355310000	2	R-1 Residential	R-1	U	0.23
9.14	299.51	2-4-5-012-047	511	1	11/1/1978	5722821146	SFD	20.88884912000	-156.68426740000	2	R-1 Residential	R-1	U	0.12
5.53	181.17	2-4-5-012-048	511	1	9/18/1978	1072094189	SFD	20.88863993100	-156.68425300000	2	R-1 Residential	R-1	U	0.18
16.18	530.36	2-4-5-012-050	511	1	7/11/1979	1758819893	SFD	20.88813256800	-156.68425950000	2	R-1 Residential	R-1	U	0.23
25.91	849.34	2-4-5-012-051	511	1	7/14/1978	1826739675	SFD	20.88810628500	-156.68426770000	3	R-1 Residential	R-1	U	0.23
27.12	889.15	2-4-5-012-053	511	1	11/6/1987	7375196427	SFD	20.88769863300	-156.68426510000	2	R-1 Residential	R-1	U	0.23
12.62	413.85	2-4-5-012-055	511	1	11/1/1978	1097514308	SFD	20.88915574500	-156.68427100000	2	R-1 Residential	R-1	U	0.13
13.08	428.69	2-4-5-012-067	511	2	11/1/1978	1826739675	SFD	20.88795744600	-156.68240700000	3	R-1 Residential	R-1	U	0.22
19.53	640.27	2-4-5-012-070	511	1	6/2/1981	1264892462	SFD	20.88844908200	-156.68254550000	2	R-1 Residential	R-1	U	0.07
20.60	675.38	2-4-5-012-073	511	1	9/3/1981	8485471850	SFD	20.88915597700	-156.68258420000	2	R-1 Residential	R-1	U	0.08
18.01	590.44	2-4-5-012-079	511	1	10/24/1997	2932332191	SFD	20.88910107000	-156.68239060000	2	R-1 Residential	R-1	U	0.14
28.24	925.93	2-4-5-012-082	511	1	11/1/1978	9699269972	SFD	20.88837626800	-156.68236060000	2	R-1 Residential	R-1	U	0.14
13.44	440.71	2-4-5-012-083	511	1	11/1/1978	7969173882	SFD	20.88837029100	-156.68235830000	3	R-1 Residential	R-1	U	0.14
8.01	262.62	2-4-5-012-085	511	1	11/1/1978	7942852501	SFD	20.88799664300	-156.68224770000	2	R-1 Residential	R-1	U	0.14
21.43	702.54	2-4-5-012-095	511	1	11/16/1993	7996802328	SFD	20.88895944500	-156.68161580000	2	R-1 Residential	R-1	U	0.16
20.84	683.39	2-4-5-013-006	511	1	12/11/2006	5158592107	SFD	20.89208285100	-156.68515120000	2	R-1 Residential	R-1	U	0.17
17.25	565.44	2-4-5-013-007	511	1	4/11/1958	3728755765	SFD	20.89243259700	-156.68520680000	2	R-1 Residential	R-1	U	0.06
15.95	522.79	2-4-5-013-015	511	1	1/19/1984	7636181791	SFD	20.89230745800	-156.68505620000	2	R-1 Residential	R-1	U	0.20
21.88	717.38	2-4-5-013-016	511	1	7/23/1991	8348060705	SFD	20.89195587700	-156.68500870000	4	R-1 Residential	R-1	U	0.26
20.27	664.43	2-4-5-013-017	511	1	9/4/1997	8675172175	SFD	20.89195073100	-156.68501190000	3	R-1 Residential	R-1	U	0.26
9.53	312.43	2-4-5-013-019	511	1	3/28/1990	685120278	SFD	20.89158004500	-156.68496290000	3	R-1 Residential	R-1	U	0.17
26.62	872.87	2-4-5-013-039	511	1	11/1/1978	8379228912	SFD	20.89118868600	-156.68487100000	2	R-1 Residential	R-1	U	0.18
18.30	599.92	2-4-5-023-000	511	2	11/1/1978	10341745	SFD	20.88071496000	-156.67561800000	2	R-1 Residential	R-1	U	0.12
6.65	217.90	2-4-5-023-000	511	1	3/1/2004	9221030603	SFD	20.88079206100	-156.67525700000	2	R-1 Residential	R-1	U	0.13
21.20	695.03	2-4-5-023-000	511	1	2/26/2004	9447248859	SFD	20.88085543200	-156.67520300000	2	R-1 Residential	R-1	U	0.13
35.39	1,160.19	2-4-5-023-001	511	1	11/1/1978	9222076174	SFD	20.88088530500	-156.67195300000	2	R-1 Residential	R-1	U	0.23
35.20	1,153.96	2-4-5-023-003	511	1	11/1/1978	1143537157	SFD	20.88074904600	-156.67221040000	2	R-1 Residential	R-1	U	0.18
15.11	495.33	2-4-5-023-005	511	2	11/1/1978	4486410454	SFD	20.88059369500	-156.67244760000	2	R-1 Residential	R-1	U	0.18
10.31	338.06	2-4-5-023-006	511	1	11/1/1978	1954332643	SFD	20.88060778600	-156.67247280000	2	R-1 Residential	R-1	U	0.21
13.71	449.62	2-4-5-023-007	511	1	7/3/1995	4865882763	SFD	20.88038846100	-156.67278980000	2	R-1 Residential	R-1	U	0.26
3.43	112.30	2-4-5-023-008	511	1	11/1/1978	1157396084	SFD	20.88034553200	-156.67282140000	2	R-1 Residential	R-1	U	0.34
11.61	380.79	2-4-5-023-009	511	1	11/1/1978	8776066741	SFD	20.88006616500	-156.67327780000	2	R-1 Residential	R-1	U	0.22
15.58	510.90	2-4-5-023-012	511	1	7/8/1998	7919466781	SFD	20.87942569300	-156.67431360000	3	R-1 Residential	R-1	U	0.38
71.87	2,356.53	2-4-5-023-013	511	2	9/6/1989	4566974207	SFD	20.87928123000	-156.67453650000	2	R-1 Residential	R-1	U	0.90

5.33	174.78	2-4-5-023-043	511	1	1/7/1991	1232193750	SFD	20.88074094200	-156.67481910000	2	R-1 Residential	R-1	U	0.13
22.05	722.92	2-4-5-023-044	511	1	11/1/1978	3851663192	SFD	20.88083230800	-156.67420830000	2	R-1 Residential	R-1	U	0.17
8.30	271.97	2-4-5-023-045	511	1	9/1/1998	8652268775	SFD	20.88097951100	-156.67437530000	2	R-1 Residential	R-1	U	0.18
20.79	681.53	2-4-5-023-047	511	1	10/15/1993	2015556547	SFD	20.88107296600	-156.67419560000	2	R-1 Residential	R-1	U	0.08
15.42	505.46	2-4-5-023-048	511	1	11/1/1978	5363928635	SFD	20.88131835900	-156.67413760000	2	R-1 Residential	R-1	U	0.14
0.00	0.00	2-4-5-023-049	511	1	5/13/1993	9921184554	SFD	20.88081865300	-156.67353910000	2	R-1 Residential	R-1	U	0.20
14.34	470.22	2-4-5-023-053	511	2	11/1/1978	8059520815	SFD	20.88149904700	-156.67393770000	2	R-1 Residential	R-1	U	0.21
20.86	683.93	2-4-5-023-057	511	1	6/15/1992	1908493354	SFD	20.88216085900	-156.67416890000	2	R-1 Residential	R-1	U	0.25
13.53	443.63	2-4-5-023-060	511	1	6/15/1984	5778833044	SFD	20.88229842800	-156.67403200000	2	R-1 Residential	R-1	U	0.21
1.74	56.94	2-4-5-023-062	511	1	6/12/1985	9490381635	SFD	20.88203975000	-156.67441808900	2	R-1 Residential	R-1	U	0.59
21.54	706.31	2-4-5-023-063	511	1	4/30/1998	2021657666	SFD	20.88176240500	-156.67425400000	3	R-1 Residential	R-1	U	0.22
17.51	573.99	2-4-5-023-064	511	2	11/1/1978	2287918468	SFD	20.88127162000	-156.67429560000	3	R-1 Residential	R-1	U	0.30
7.02	230.00	2-4-5-023-067	511	1	11/1/1978	1026390667	SFD	20.88089612900	-156.67476390000	2	R-1 Residential	R-1	U	0.18
4.51	147.70	2-4-5-023-069	511	1	6/10/2015	5039696436	SFD	20.88125408800	-156.67467500000	2	R-1 Residential	R-1	U	0.65
5.97	195.87	2-4-5-023-074	511	1	11/1/1978	3303613334	SFD	20.88021056800	-156.67375080000	2	R-1 Residential	R-1	U	0.21
18.02	590.71	2-4-5-023-076	511	1	11/1/1978	7855570341	SFD	20.88153527400	-156.67222380000	2	R-1 Residential	R-1	U	0.17
31.96	1,047.79	2-4-5-023-077	511	1	11/1/1978	2534495513	SFD	20.88177850800	-156.67243600000	3	R-1 Residential	R-1	U	0.44
20.12	659.64	2-4-5-023-081	511	1	3/1/2004	5850726719	SFD	20.88097260300	-156.67532200000	2	R-1 Residential	R-1	U	0.13
11.77	385.93	2-4-5-023-083	511	1	3/1/2004	6289626069	SFD	20.88073351700	-156.67561570000	2	R-1 Residential	R-1	U	0.12
8.87	290.85	2-4-5-023-084	511	1	3/1/2004	2948872755	SFD	20.88068471600	-156.67570200000	2	R-1 Residential	R-1	U	0.12
10.67	349.86	2-4-5-023-091	511	2	7/1/1985	954856948	SFD	20.88049766500	-156.67580070000	2	R-1 Residential	R-1	U	0.12
9.50	311.31	2-4-5-023-026-0000	511	1	11/1/1978	1229017976	SFD	20.88183594800	-156.67244772400	2	R-1 Residential	R-1	U	0.00
7.19	235.77	2-4-5-023-026-0000	511	1	11/1/1978	5043058779	SFD	20.88183647500	-156.67246135000	2	R-1 Residential	R-1	U	0.18
15.05	493.31	2-4-5-023-051-0000	511	1	10/3/1994	7712774016	SFD	20.88132949500	-156.67411400000	2	R-1 Residential	R-1	U	0.14
18.81	616.72	2-4-5-024-001	511	1	11/1/1978	964171857	SFD	20.88184826800	-156.67494990000	2	R-1 Residential	R-1	U	0.16
22.24	729.32	2-4-5-024-002	511	1	11/1/1978	932238531	SFD	20.88183510100	-156.67497350000	2	R-1 Residential	R-1	U	0.16
44.51	1,459.29	2-4-5-024-003	511	1	11/1/1978	391966015	SFD	20.88164849300	-156.67520430000	3	R-1 Residential	R-1	U	0.15
9.30	304.78	2-4-5-024-004	511	1	11/1/1978	8666702886	SFD	20.88163869500	-156.67522640000	2	R-1 Residential	R-1	U	0.13
16.63	545.11	2-4-5-024-005	511	1	3/31/1988	568832842	SFD	20.88143300300	-156.67547740000	2	R-1 Residential	R-1	U	0.14
18.53	607.49	2-4-5-024-006	511	1	11/1/1978	6116529160	SFD	20.88143088300	-156.67548450000	2	R-1 Residential	R-1	U	0.14
2.52	82.70	2-4-5-024-007	511	1	11/1/1978	71579516	SFD	20.88120301900	-156.67575610000	2	R-1 Residential	R-1	U	0.13
6.38	209.13	2-4-5-024-008	511	1	11/1/1978	5608174268	SFD	20.88120002500	-156.67577890000	2	R-1 Residential	R-1	U	0.13
7.45	244.18	2-4-5-024-009	511	1	11/1/1978	2047480618	SFD	20.88100851300	-156.67602380000	2	R-1 Residential	R-1	U	0.23
14.45	473.69	2-4-5-024-010	511	2	11/1/1978	8124294565	SFD	20.88098264600	-156.67606370000	2	R-1 Residential	R-1	U	0.23
33.62	1,102.38	2-4-5-024-012	511	1	3/4/1987	9468873124	SFD	20.88064889100	-156.67616420000	2	R-1 Residential	R-1	U	0.14
38.42	1,259.64	2-4-5-024-013	511	1	7/10/1997	5745733437	SFD	20.88063717500	-156.67614250000	2	R-1 Residential	R-1	U	0.11
16.96	556.12	2-4-5-024-014	511	1	11/1/1978	3829663611	SFD	20.88035577100	-156.67647550000	2	R-1 Residential	R-1	U	0.11
35.56	1,165.96	2-4-5-024-018	511	1	9/2/1993	4923208281	SFD	20.88092543500	-156.67698950000	2	R-1 Residential	R-1	U	0.11
12.32	403.99	2-4-5-024-019	511	1	11/1/1978	1231836396	SFD	20.88095169200	-156.67701820000	2	R-1 Residential	R-1	U	0.12
3.41	111.91	2-4-5-024-020	511	1	11/1/1978	1733692265	SFD	20.88125835400	-156.67687030000	2	R-1 Residential	R-1	U	0.11
5.50	180.38	2-4-5-024-021	511	1	11/1/1978	256998466	SFD	20.88109449500	-156.67655960000	2	R-1 Residential	R-1	U	0.11
4.72	154.75	2-4-5-024-022	511	1	11/1/1978	969149155	SFD	20.88108078400	-156.67655090000	2	R-1 Residential	R-1	U	0.11
12.63	413.96	2-4-5-024-023	511	1	3/6/1997	3876323311	SFD	20.88096856700	-156.67645000000	2	R-1 Residential	R-1	U	0.11
9.32	305.46	2-4-5-024-027	511	1	3/10/1995	46452212	SFD	20.88152734800	-156.67652660000	2	R-1 Residential	R-1	U	0.11
10.56	346.09	2-4-5-024-029	511	1	11/1/1978	80513482	SFD	20.88143526700	-156.67615970000	2	R-1 Residential	R-1	U	0.11
6.79	222.46	2-4-5-024-030	511	1	10/9/1998	9434789084	SFD	20.88140750600	-156.67613850000	2	R-1 Residential	R-1	U	0.10
3.89	127.49	2-4-5-024-032	511	1	11/1/1978	2477553734	SFD	20.88135183800	-156.67571780000	2	R-1 Residential	R-1	U	0.10
7.17	234.95	2-4-5-024-034	511	1	11/19/1987	1626022693	SFD	20.88148421400	-156.67610340000	2	R-1 Residential	R-1	U	0.11
4.98	163.17	2-4-5-024-035	511	1	11/1/1978	4149159827	SFD	20.88181855200	-156.67614960000	2	R-1 Residential	R-1	U	0.10
12.83	420.79	2-4-5-024-036	511	1	10/5/1998	3692934204	SFD	20.88183310400	-156.67612590000	2	R-1 Residential	R-1	U	0.10
9.20	301.78	2-4-5-024-037	511	1	11/1/1978	3341313411	SFD	20.88184918500	-156.67583830000	2	R-1 Residential	R-1	U	0.11
10.89	357.16	2-4-5-024-038	511	1	11/1/1978	9042667316	SFD	20.88171605300	-156.67573330000	2	R-1 Residential	R-1	U	0.11
12.90	423.01	2-4-5-024-044	511	1	9/3/1991	5659227871	SFD	20.88194744600	-156.67524560000	2	R-1 Residential	R-1	U	0.18
8.22	269.54	2-4-5-024-045	511	1	11/1/1978	8757508509	SFD	20.88190359600	-156.67521550000	2	R-1 Residential	R-1	U	0.10
10.44	342.24	2-4-5-024-047	511	1	12/20/1997	5384975356	SFD	20.88194563100	-156.67498020000	2	R-1 Residential	R-1	U	0.15
11.00	360.74	2-4-5-024-049	511	1	2/15/1996	4625536394	SFD	20.88217146500	-156.67613910000	2	R-1 Residential	R-1	U	0.22
5.30	173.88	2-4-5-024-049	511	1	5/29/1998	7667570490	SFD	20.88216945700	-156.67613000000	2	R-1 Residential	R-1	U	0.22
11.51	377.51	2-4-5-024-050	511	1	11/1/1978	4500176311	SFD	20.88205896800	-156.67604570000	2	R-1 Residential	R-1	U	0.12
11.77	386.01	2-4-5-024-055	511	1	11/1/1978	8863542628	SFD	20.88184152800	-156.67654600000	2	R-1 Residential	R-1	U	0.11
13.51	442.84	2-4-5-024-056	511	1	11/1/1978	235375265	SFD	20.88183053000	-156.67652400000	2	R-1 Residential	R-1	U	0.12
9.21	301.99	2-4-5-024-057	511	1	1/2/1998	1598598530	SFD	20.88150488100	-156.67679670000	2	R-1 Residential	R-1	U	0.12
9.22	302.27	2-4-5-024-060	511	1	7/6/1992	749677343	SFD	20.88162960300	-156.67730260000	2	R-1 Residential	R-1	U	0.10
1.75	57.38	2-4-5-024-061	511	1	9/16/1996	9271526142	SFD	20.88152307500	-156.67693680000	2	R-1 Residential	R-1	U	0.11
9.90	324.73	2-4-5-024-062	511	1	10/7/1993	3153148498	SFD	20.88150796900	-156.67693280000	2	R-1 Residential	R-1	U	0.12
29.09	953.66	2-4-5-024-063	511	1	10/1/1990	1873231378	SFD	20.88124064500	-156.67728230000	2	R-1 Residential	R-1	U	0.12
10.00	327.84	2-4-5-024-065	511	1	11/1/1978	8464114944	SFD	20.88161834000	-156.67732010000	2	R-1 Residential	R-1	U	0.11
33.82	1,108.91	2-4-5-024-067	511	1	11/1/1978	6141127351	SFD	20.88167915000	-156.67736560000	2	R-1 Residential	R-1	U	0.16
6.92	226.91	2-4-5-025-001	511	1	11/24/1997	8016031386	SFD	20.87917454400	-156.67471900000	2	R-1 Residential	R-1	U	0.09
12.68	415.85	2-4-5-025-002	511	1	12/17/1996	908810087	SFD	20.87916720300	-156.67472840000	2	R-1 Residential	R-1	U	0.09
18.61	610.11	2-4-5-025-003	511	2	6/13/1980	9291772282	SFD	20.87904293300	-156.67492260000	2	R-1 Residential	R-1	U	0.10
6.21	203.74	2-4-5-025-004	511	1	11/1/1978	3767079846	SFD	20.87902509800	-156.67494830000	2	R-1 Residential	R-1	U	0.18
32.16	1,054.40	2-4-5-025-006	511	1	11/1/1978	9263381166	SFD	20.87897411400	-156.67542860000	3	R-1 Residential	R-1	U	0.12
13.79	452.19	2-4-5-025-009	511	1	9/6/1994	2427457409	SFD	20.87959885000	-156.67585580000	2	R-1 Residential	R-1	U	0.15
11.49	376.56	2-4-5-025-010	511	1	11/1/1978	3118219207	SFD	20.87963554400	-156.67587520					

23.33	764.86	2-4-5-026-019	511	1	11/7/1994	5017834166	SFD	20.88278422800	-156.67233620000	2	R-1 Residential	R-1	U	0.00
11.81	387.16	2-4-5-026-021	511	1	11/1/1978	8682675780	SFD	20.88244580500	-156.67210990000	2	R-1 Residential	R-1	U	0.15
14.40	471.97	2-4-5-026-022	511	1	11/1/1978	6190886871	SFD	20.88199504400	-156.67281780000	3	R-1 Residential	R-1	U	0.18
0.00	0.00	2-4-5-026-024	511	1	7/25/2003	8375323159	SFD	20.88178542100	-156.67314040000	2	R-1 Residential	R-1	U	0.18
9.14	299.81	2-4-5-026-028	511	1	11/1/1978	1892617714	SFD	20.88189411400	-156.67324830000	2	R-1 Residential	R-1	U	0.18
14.83	486.37	2-4-5-026-032	511	1	6/1/1991	146326271	SFD	20.88248312100	-156.67341570000	2	R-1 Residential	R-1	U	0.17
8.31	272.30	2-4-5-026-033	511	1	11/1/1978	7758380319	SFD	20.88247074100	-156.67345170000	2	R-1 Residential	R-1	U	0.17
4.47	146.64	2-4-5-026-034	511	1	11/1/1978	5739782217	SFD	20.88239365300	-156.67359920000	2	R-1 Residential	R-1	U	0.19
6.24	204.73	2-4-5-026-036	511	1	11/1/1978	3896349446	SFD	20.88251919500	-156.67365010000	3	R-1 Residential	R-1	U	0.19
17.80	583.55	2-4-5-026-045	511	1	11/1/1978	9032450140	SFD	20.88377058900	-156.67206140000	2	R-1 Residential	R-1	U	0.20
0.50	16.42	2-4-5-026-047	511	1	1/31/1989	4390981821	SFD	20.88351684300	-156.67179120000	2	R-1 Residential	R-1	U	0.15
26.46	867.49	2-4-5-026-049	511	1	11/20/2006	3243030546	SFD	20.88350990200	-156.67179070000	2	R-1 Residential	R-1	U	0.15
8.29	271.67	2-4-5-026-056	511	1	10/14/1980	5774892691	SFD	20.88311327300	-156.67144080000	3	R-1 Residential	R-1	U	0.39
12.91	423.42	2-4-5-026-057	511	1	11/1/1978	5825565536	SFD	20.88310664600	-156.67142530000	2	R-1 Residential	R-1	U	0.12
17.71	580.55	2-4-5-026-058	511	1	11/1/1978	1962239075	SFD	20.88289114100	-156.67120350000	2	R-1 Residential	R-1	U	0.15
23.10	757.43	2-4-5-026-059	511	1	7/8/1992	6221210983	SFD	20.88288567100	-156.67119140000	2	R-1 Residential	R-1	U	0.15
26.17	857.95	2-4-5-026-060	511	1	7/9/1986	2570171978	SFD	20.88236268700	-156.67153390000	2	R-1 Residential	R-1	U	0.15
11.52	377.79	2-4-5-029-001	511	1	11/1/1978	6889029286	SFD	20.88398115600	-156.66887370000	2	R-1 Residential	R-1	U	0.14
6.82	223.69	2-4-5-029-002	511	1	11/1/1978	6520010272	SFD	20.88398213100	-156.66886990000	2	R-1 Residential	R-1	U	0.14
23.08	756.67	2-4-5-029-003	511	1	4/20/1995	6027445725	SFD	20.88376288800	-156.66915280000	2	R-1 Residential	R-1	U	0.14
22.57	740.08	2-4-5-029-004	511	1	11/1/1978	7630197720	SFD	20.88375258600	-156.66915860000	2	R-1 Residential	R-1	U	0.14
25.98	851.91	2-4-5-029-006	511	1	11/1/1978	4728552402	SFD	20.88338018700	-156.66890850000	2	R-1 Residential	R-1	U	0.14
22.73	745.30	2-4-5-029-008	511	1	11/1/1978	7477761295	SFD	20.88346559100	-156.66870460000	2	R-1 Residential	R-1	U	0.17
21.38	701.01	2-4-5-029-009	511	1	7/18/1996	6550196000	SFD	20.88329269900	-156.66874550000	2	R-1 Residential	R-1	U	0.15
24.92	817.16	2-4-5-029-010	511	1	7/7/1997	5182169997	SFD	20.88327767200	-156.66877260000	2	R-1 Residential	R-1	U	0.15
26.90	881.86	2-4-5-029-011	511	1	2/2/1988	9259737121	SFD	20.88305645600	-156.66912140000	2	R-1 Residential	R-1	U	0.15
14.76	483.77	2-4-5-029-012	511	1	11/1/1978	4329841505	SFD	20.88304375600	-156.66912990000	2	R-1 Residential	R-1	U	0.15
8.08	264.78	2-4-5-029-013	511	1	7/1/1994	6043571072	SFD	20.88312384600	-156.66949470000	2	R-1 Residential	R-1	U	0.14
16.02	525.16	2-4-5-029-014	511	1	11/1/1978	625888529	SFD	20.88311092400	-156.66949360000	2	R-1 Residential	R-1	U	0.14
15.32	502.35	2-4-5-029-015	511	1	11/1/1978	7249702231	SFD	20.88294207700	-156.66926750000	2	R-1 Residential	R-1	U	0.17
8.75	286.99	2-4-5-029-016	511	1	11/1/1978	9224168546	SFD	20.88275585600	-156.66965610000	2	R-1 Residential	R-1	U	0.15
18.43	604.21	2-4-5-029-017	511	1	11/1/1978	4391474563	SFD	20.88273416300	-156.66967000000	2	R-1 Residential	R-1	U	0.15
21.47	703.77	2-4-5-029-018	511	1	11/1/1978	2467416025	SFD	20.88255748000	-156.66992560000	2	R-1 Residential	R-1	U	0.14
16.66	546.12	2-4-5-029-019	511	1	11/1/1978	1386921028	SFD	20.88254283700	-156.66995460000	2	R-1 Residential	R-1	U	0.14
7.23	236.89	2-4-5-029-020	511	1	11/1/1978	2744458708	SFD	20.88228328900	-156.67019090000	2	R-1 Residential	R-1	U	0.14
11.66	382.24	2-4-5-029-021	511	1	11/1/1978	9310482224	SFD	20.88225871400	-156.67022230000	2	R-1 Residential	R-1	U	0.14
12.34	404.56	2-4-5-029-022	511	1	11/1/1978	4825385114	SFD	20.88216175200	-156.67049270000	2	R-1 Residential	R-1	U	0.18
19.26	631.34	2-4-5-029-031	511	1	10/30/1992	6874977671	SFD	20.88307499000	-156.67119540000	2	R-1 Residential	R-1	U	0.15
32.11	1,052.79	2-4-5-029-032	511	1	9/1/1988	7437075017	SFD	20.88334655900	-156.67068060000	2	R-1 Residential	R-1	U	0.15
10.69	350.38	2-4-5-029-033	511	1	11/1/1978	7270161261	SFD	20.88337163600	-156.67066210000	2	R-1 Residential	R-1	U	0.00
18.44	604.59	2-4-5-029-034	511	1	11/1/1978	5308414187	SFD	20.88314822500	-156.67038490000	2	R-1 Residential	R-1	U	0.15
10.87	356.34	2-4-5-029-035	511	1	11/1/1978	2672766261	SFD	20.88312727500	-156.67037500000	2	R-1 Residential	R-1	U	0.15
23.27	762.90	2-4-5-029-036	511	1	2/7/1998	3834787104	SFD	20.88293058300	-156.67010580000	2	R-1 Residential	R-1	U	0.14
24.70	809.95	2-4-5-029-040	511	1	11/1/1978	7702390239	SFD	20.88297002500	-156.66992960000	2	R-1 Residential	R-1	U	0.17
11.22	367.84	2-4-5-029-045	511	1	11/1/1978	8680568003	SFD	20.88382260700	-156.67007790000	2	R-1 Residential	R-1	U	0.16
7.27	238.22	2-4-5-029-046	511	1	12/1/1992	5930935040	SFD	20.88381788000	-156.67007570000	2	R-1 Residential	R-1	U	0.16
9.10	298.31	2-4-5-029-047	511	1	11/1/1978	3440900729	SFD	20.88359236300	-156.66981070000	2	R-1 Residential	R-1	U	0.16
19.75	647.62	2-4-5-029-048	511	1	11/1/1978	3413156176	SFD	20.88357449900	-156.66979200000	2	R-1 Residential	R-1	U	0.16
10.59	347.08	2-4-5-029-049	511	1	11/1/1978	2464163045	SFD	20.88348055700	-156.66966720000	2	R-1 Residential	R-1	U	0.17
5.02	164.54	2-4-5-029-055	511	1	11/1/1978	9869034630	SFD	20.88437193800	-156.66950380000	2	R-1 Residential	R-1	U	0.16
2.60	85.25	2-4-5-029-056	511	1	11/1/1978	3336590176	SFD	20.88435266300	-156.66949900000	2	R-1 Residential	R-1	U	0.16
38.13	1,250.03	2-4-5-029-057	511	1	11/1/1978	2172386085	SFD	20.88413567900	-156.66926290000	2	R-1 Residential	R-1	U	0.15
15.72	515.49	2-4-5-029-058	511	1	11/1/1978	6760978150	SFD	20.88412502600	-156.66925190000	2	R-1 Residential	R-1	U	0.15
12.83	420.55	2-4-5-029-079	511	1	11/1/1978	4799825192	SFD	20.88373627300	-156.67156170000	2	R-1 Residential	R-1	U	0.15
11.29	370.27	2-4-5-029-080	511	1	2/25/1983	9289360555	SFD	20.88374380100	-156.67154550000	2	R-1 Residential	R-1	U	0.14
9.39	307.79	2-4-5-029-081	511	1	11/1/1978	3712603937	SFD	20.88394737900	-156.67121720000	2	R-1 Residential	R-1	U	0.14
17.48	573.22	2-4-5-029-083	511	1	11/1/1978	1315723467	SFD	20.88421245200	-156.67093150000	2	R-1 Residential	R-1	U	0.14
6.40	209.84	2-4-5-029-085	511	1	11/1/1978	6671966897	SFD	20.88443758700	-156.67065440000	2	R-1 Residential	R-1	U	0.14
24.32	797.32	2-4-5-029-086	511	1	11/1/1978	8425903350	SFD	20.88445599400	-156.67063510000	2	R-1 Residential	R-1	U	0.14
6.59	216.15	2-4-5-029-087	511	1	1/24/1998	3941170804	SFD	20.88470086500	-156.67036560000	2	R-1 Residential	R-1	U	0.14
6.77	222.08	2-4-5-029-088	511	1	11/1/1978	6090169801	SFD	20.88471803400	-156.67036020000	2	R-1 Residential	R-1	U	0.14
10.87	356.34	2-4-5-029-089	511	1	11/1/1978	7971163815	SFD	20.88484644700	-156.67023590000	2	R-1 Residential	R-1	U	0.14
10.88	356.75	2-4-5-029-102	511	1	11/1/1978	7533762463	SFD	20.88203579600	-156.67095510000	2	R-1 Residential	R-1	U	0.17
12.73	417.27	2-4-5-031-022	511	1	11/1/1978	3258084715	SFD	20.88545890400	-156.66965520000	2	R-1 Residential	R-1	U	0.14
5.70	186.94	2-4-5-031-023	511	1	11/1/1978	4397406085	SFD	20.88546591200	-156.66963960000	2	R-1 Residential	R-1	U	0.14
8.54	280.00	2-4-5-031-024	511	1	11/1/1978	5587561193	SFD	20.88523281800	-156.66941850000	2	R-1 Residential	R-1	U	0.14
3.87	126.91	2-4-5-031-025	511	1	11/1/1978	7300241352	SFD	20.88522058100	-156.66938810000	2	R-1 Residential	R-1	U	0.14
14.44	473.55	2-4-5-031-026	511	2	11/1/1978	6482924149	SFD	20.88501159700	-156.66915790000	2	R-1 Residential	R-1	U	0.14
0.42	13.61	2-4-5-031-027	511	2	11/1/1978	1357210422	SFD	20.88498133700	-156.66915540000	2	R-1 Residential	R-1	U	0.14
16.69	547.16	2-4-5-031-028	511	1	11/1/1978	8748236697	SFD	20.88474806800	-156.66892420000	2	R-1 Residential	R-1	U	0.14
13.78	451.64	2-4-5-031-029	511	2	1/26/1981	5941286502	SFD	20.88474861900	-156.66891380000	2	R-1 Residential	R-1	U	0.14
19.24	630.82	2-4-5-031-035	511	2	11/1/1978	5096603094	SFD	20.88482618800	-156.66877780000	2	R-1 Residential	R-1	U	0.14
6.65	218.03	2-4-5-031-039	511	2	11/1/1978	6356566461	SFD	20.88529002600	-156.66924500000	2	R-1 Residential	R-1	U	0.14
13.98	458.47	2-4-5-031-050	511	1	11/1/1978	5607892887	SFD	20.88527505100	-156.670408400					

21.71	711.69	2-4-5-032.005	511	1	9/21/1983	5148073285	SFD	20.88706186100	-156.66808940000	2	R-1 Residential	R-1	U	0.17
20.25	663.91	2-4-5-032.006	511	1	12/14/1983	3569523497	SFD	20.88707715000	-156.66810400000	2	R-1 Residential	R-1	U	0.16
22.93	751.75	2-4-5-032.015	511	2	9/2/1982	752417657	SFD	20.88702891900	-156.66706000000	2	R-1 Residential	R-1	U	0.15
14.97	490.87	2-4-5-032.016	511	1	12/6/1997	4270023446	SFD	20.88705829500	-156.66707690000	2	R-1 Residential	R-1	U	0.15
19.67	644.78	2-4-5-032.017	511	1	7/16/1993	3182734513	SFD	20.88739130600	-156.66727020000	2	R-1 Residential	R-1	U	0.15
10.26	336.45	2-4-5-032.018	511	2	5/17/1982	2982932001	SFD	20.88739796700	-156.66727090000	2	R-1 Residential	R-1	U	0.15
9.09	298.14	2-4-5-032.029	511	1	5/25/1982	3498130562	SFD	20.88733397700	-156.66639830000	2	R-1 Residential	R-1	U	0.15
33.50	1,098.22	2-4-5-032.030	511	1	1/18/1983	8046165460	SFD	20.88757848800	-156.66652680000	2	R-1 Residential	R-1	U	0.00
23.46	769.29	2-4-5-032.031	511	1	4/30/1993	6727971998	SFD	20.88758560800	-156.66653250000	2	R-1 Residential	R-1	U	0.15
21.66	710.08	2-4-5-032.032	511	1	1/7/1993	2156024607	SFD	20.88787399300	-156.66669630000	2	R-1 Residential	R-1	U	0.00
8.58	281.39	2-4-5-032.033	511	1	6/29/1987	6012328021	SFD	20.88788002800	-156.66670430000	2	R-1 Residential	R-1	U	0.15
35.97	1,179.40	2-4-5-032.034	511	2	5/12/1995	2000262279	SFD	20.88819717400	-156.66688590000	3	R-1 Residential	R-1	U	0.15
4.77	156.50	2-4-5-032.035	511	1	1/6/1983	5804284429	SFD	20.88820118300	-156.66688430000	2	R-1 Residential	R-1	U	0.00
35.71	1,170.74	2-4-5-032.037	511	1	3/22/1988	9400447540	SFD	20.88842195200	-156.66699690000	2	R-1 Residential	R-1	U	0.16
12.16	398.83	2-4-5-032.038	511	1	4/7/1983	2062364685	SFD	20.88846285300	-156.66688200000	2	R-1 Residential	R-1	U	0.18
6.08	199.34	2-4-5-032.047	511	1	6/9/1982	2687101005	SFD	20.88765026700	-156.66570420000	2	R-1 Residential	R-1	U	0.00
15.12	495.85	2-4-5-032.048	511	2	11/18/1982	1332252791	SFD	20.88788195100	-156.66586690000	2	R-1 Residential	R-1	U	0.15
17.51	574.13	2-4-5-032.049	511	1	10/18/1991	7580968250	SFD	20.88788625600	-156.66586570000	2	R-1 Residential	R-1	U	0.15
20.24	663.55	2-4-5-032.050	511	1	7/26/1983	4999697051	SFD	20.88818578700	-156.66603380000	2	R-1 Residential	R-1	U	0.15
3.71	121.78	2-4-5-032.051	511	1	7/15/1982	5633783026	SFD	20.88819438600	-156.66603980000	2	R-1 Residential	R-1	U	0.15
10.92	357.95	2-4-5-032.052	511	1	11/4/1997	1150651697	SFD	20.88847684300	-156.66620260000	2	R-1 Residential	R-1	U	0.15
12.85	421.45	2-4-5-032.053	511	1	9/18/1991	1429287838	SFD	20.88850414900	-156.66620770000	2	R-1 Residential	R-1	U	0.00
19.64	644.07	2-4-5-032.056	511	1	6/3/1982	2669107144	SFD	20.88897976900	-156.66644560000	2	R-1 Residential	R-1	U	0.17
17.20	563.96	2-4-5-032.057	511	1	1/11/1983	8188314383	SFD	20.88899629400	-156.66642140000	2	R-1 Residential	R-1	U	0.16
19.58	641.99	2-4-5-032.065	511	2	1/17/1983	704796942	SFD	20.88809439200	-156.66581310000	2	R-1 Residential	R-1	U	0.15
11.14	365.30	2-4-5-032.066	511	2	10/20/1983	918059218	SFD	20.88782681200	-156.66564510000	2	R-1 Residential	R-1	U	0.15
16.96	555.96	2-4-5-032.068	511	1	9/2/1982	1887929090	SFD	20.88805037200	-156.66511990000	2	R-1 Residential	R-1	U	0.16
18.57	608.99	2-4-5-032.069	511	1	9/16/1982	6392169369	SFD	20.88807494000	-156.66510220000	2	R-1 Residential	R-1	U	0.16
10.89	356.94	2-4-5-032.070	511	1	6/25/1982	884978487	SFD	20.88833851100	-156.66524870000	2	R-1 Residential	R-1	U	0.15
23.85	781.80	2-4-5-032.071	511	1	8/9/1982	4402124778	SFD	20.88849857900	-156.66534240000	2	R-1 Residential	R-1	U	0.15
9.09	298.06	2-4-5-032.072	511	1	11/2/1995	3298660896	SFD	20.88865527200	-156.66546250000	2	R-1 Residential	R-1	U	0.15
4.70	154.02	2-4-5-032.073	511	1	3/14/1983	349650243	SFD	20.88864403000	-156.66544030000	2	R-1 Residential	R-1	U	0.00
48.05	1,575.55	2-4-5-032.074	511	1	10/21/1982	7142979630	SFD	20.88895591100	-156.66562610000	3	R-1 Residential	R-1	U	0.15
10.57	346.56	2-4-5-032.075	511	1	3/23/1995	8787502308	SFD	20.88895547100	-156.66562670000	2	R-1 Residential	R-1	U	0.15
16.41	537.92	2-4-5-032.076	511	1	1/2/1990	5856076069	SFD	20.88918951500	-156.66581570000	2	R-1 Residential	R-1	U	0.15
23.80	780.16	2-4-5-032.077	511	1	11/5/1985	1557505251	SFD	20.88921703000	-156.66580460000	2	R-1 Residential	R-1	U	0.00
19.50	639.45	2-4-5-032.081	511	2	7/8/1994	4245729344	SFD	20.88918462300	-156.66556080000	2	R-1 Residential	R-1	U	0.16
11.04	361.99	2-4-5-033.014	511	1	6/29/1983	348616277	SFD	20.88616245500	-156.66408740000	2	R-1 Residential	R-1	U	0.16
14.21	465.79	2-4-5-033.015	511	1	11/3/1982	7109218514	SFD	20.88647071200	-156.66417950000	2	R-1 Residential	R-1	U	0.15
32.20	1,055.66	2-4-5-033.016	511	2	12/6/1996	9667562360	SFD	20.88648170500	-156.66420370000	2	R-1 Residential	R-1	U	0.15
23.98	786.17	2-4-5-033.017	511	2	8/27/1982	4113116448	SFD	20.88676494100	-156.66434480000	3	R-1 Residential	R-1	U	0.15
6.87	225.16	2-4-5-033.018	511	1	11/3/1982	2996683116	SFD	20.88678327600	-156.66436750000	2	R-1 Residential	R-1	U	0.15
16.58	543.72	2-4-5-033.019	511	1	11/20/1995	6683965950	SFD	20.88706031100	-156.66451270000	2	R-1 Residential	R-1	U	0.15
14.90	488.61	2-4-5-033.020	511	2	4/22/1983	7997371644	SFD	20.88707028600	-156.66430500000	2	R-1 Residential	R-1	U	0.15
15.99	524.21	2-4-5-033.021	511	1	10/12/1982	4457028139	SFD	20.88734329100	-156.66469620000	2	R-1 Residential	R-1	U	0.15
7.91	259.21	2-4-5-033.022	511	1	9/16/1982	9519063656	SFD	20.88735354300	-156.66470340000	2	R-1 Residential	R-1	U	0.15
15.38	504.29	2-4-5-033.023	511	2	4/25/1983	9830460706	SFD	20.88762294100	-156.66484040000	2	R-1 Residential	R-1	U	0.15
27.87	913.72	2-4-5-033.024	511	1	8/30/1982	7299736413	SFD	20.88765894600	-156.66486240000	3	R-1 Residential	R-1	U	0.16
17.93	587.84	2-4-5-033.036	511	1	8/4/1982	3562571757	SFD	20.88593278500	-156.66473940000	3	R-1 Residential	R-1	U	0.16
7.63	250.30	2-4-5-033.037	511	1	5/13/1982	3692734814	SFD	20.88594260600	-156.66473500000	2	R-1 Residential	R-1	U	0.15
13.39	438.96	2-4-5-033.038	511	1	1/11/1983	3192640188	SFD	20.88624342000	-156.66490730000	2	R-1 Residential	R-1	U	0.15
23.04	755.27	2-4-5-033.039	511	1	1/28/1983	2328137828	SFD	20.88625454700	-156.66491760000	2	R-1 Residential	R-1	U	0.15
20.88	684.45	2-4-5-033.040	511	1	7/8/1994	3551478018	SFD	20.88654914200	-156.66509240000	3	R-1 Residential	R-1	U	0.15
25.09	822.62	2-4-5-033.041	511	1	6/24/1982	9180750256	SFD	20.88655132000	-156.66509590000	2	R-1 Residential	R-1	U	0.15
6.90	226.37	2-4-5-033.042	511	2	11/30/1990	8469008806	SFD	20.88684575800	-156.66526650000	2	R-1 Residential	R-1	U	0.15
35.67	1,169.59	2-4-5-033.043	511	1	12/16/1982	3387643697	SFD	20.88686867700	-156.66528860000	2	R-1 Residential	R-1	U	0.15
8.39	275.00	2-4-5-033.044	511	1	12/16/1982	6767086049	SFD	20.88715514200	-156.66544020000	2	R-1 Residential	R-1	U	0.15
8.12	266.07	2-4-5-033.045	511	1	9/8/1983	7844652036	SFD	20.88717756400	-156.66545200000	2	R-1 Residential	R-1	U	0.15
11.39	373.50	2-4-5-033.046	511	1	9/29/1989	9937965405	SFD	20.88737882200	-156.66557760000	2	R-1 Residential	R-1	U	0.16
16.97	556.42	2-4-5-033.053	511	1	4/21/1983	2835968404	SFD	20.88612840300	-156.66551270000	3	R-1 Residential	R-1	U	0.15
20.62	676.07	2-4-5-033.054	511	1	8/17/1982	3876633132	SFD	20.88612184400	-156.66549840000	2	R-1 Residential	R-1	U	0.15
14.53	476.31	2-4-5-033.058	511	1	8/5/1982	4018506301	SFD	20.88547228200	-156.66534380000	2	R-1 Residential	R-1	U	0.16
17.44	571.91	2-4-5-033.059	511	1	10/27/1993	1555472406	SFD	20.88570281800	-156.66548500000	2	R-1 Residential	R-1	U	0.15
17.50	573.91	2-4-5-033.060	511	1	8/31/1993	8009726929	SFD	20.88571049400	-156.66548550000	3	R-1 Residential	R-1	U	0.15
28.02	918.52	2-4-5-033.061	511	2	5/6/1982	9530175042	SFD	20.88601504000	-156.66565290000	2	R-1 Residential	R-1	U	0.15
25.64	840.77	2-4-5-033.062	511	1	11/22/1997	686475085	SFD	20.88602766800	-156.66566230000	3	R-1 Residential	R-1	U	0.15
23.97	785.79	2-4-5-033.063	511	2	7/7/1982	3166517696	SFD	20.88632484400	-156.66582630000	2	R-1 Residential	R-1	U	0.15
23.86	782.13	2-4-5-033.065	511	1	9/28/1995	7520199078	SFD	20.88662987100	-156.66600240000	3	R-1 Residential	R-1	U	0.15
23.11	757.68	2-4-5-033.066	511	1	10/31/1996	2666799753	SFD	20.88660932200	-156.66601350000	2	R-1 Residential	R-1	U	0.15
13.59	445.46	2-4-5-033.067	511	2	5/6/1994	3358668964	SFD	20.88694372500	-156.66618720000	2	R-1 Residential	R-1	U	0.15
36.40	1,193.55	2-4-5-033.068	511	1	3/15/1982	519654257	SFD	20.88695066000	-156.66618890000	2	R-1 Residential	R-1	U	0.17
28.52	935.14	2-4-5-033.069	511	1	3/29/1982	1774214128	SFD	20.88685035500	-156.66672400000	2	R-1 Residential	R-1	U	0.17
13.55	444.37	2-4-5-033.070	511	2	4/27/1982	2020552104	SFD	20.88686141600	-156.66673820000	2	R-1 Residential	R-1	U	0.17
13.97	458.14	2-4-5-033.077	511	1	8/4/1982	1810113128	SFD	20.885152430						

20.98	687.84	2-4-5-034-018	511	1	5/4/1983	3971050812	SFD	20.83544521700	-156.66455640000	2	R-1 Residential	R-1	U	0.18
17.42	571.23	2-4-5-034-021	511	1	1/28/1994	9711108582	SFD	20.88501458300	-156.66507480000	2	R-1 Residential	R-1	U	0.15
6.79	222.51	2-4-5-034-022	511	1	4/7/1983	3872759588	SFD	20.88501577200	-156.66507720000	2	R-1 Residential	R-1	U	0.15
12.54	411.15	2-4-5-034-023	511	1	11/1/1983	2469111779	SFD	20.83516250800	-156.6652130000	2	R-1 Residential	R-1	U	0.15
9.04	296.31	2-4-5-034-024	511	1	9/7/1984	6835014916	SFD	20.88503959100	-156.66558190000	2	R-1 Residential	R-1	U	0.18
13.91	456.20	2-4-5-034-025	511	1	9/1/1995	9187252445	SFD	20.88496207100	-156.66575420000	2	R-1 Residential	R-1	U	0.15
20.21	662.73	2-4-5-034-029	511	1	3/14/1996	8277380345	SFD	20.88441459100	-156.66581680000	3	R-1 Residential	R-1	U	0.15
29.97	982.51	2-4-5-034-030	511	1	4/19/1994	3803402954	SFD	20.88441681500	-156.66585360000	2	R-1 Residential	R-1	U	0.18
3.60	117.95	2-4-5-034-034	511	1	1/15/1986	7963943023	SFD	20.88450542900	-156.66647180000	2	R-1 Residential	R-1	U	0.23
27.53	902.54	2-4-5-035-007	511	2	10/8/1985	4098276942	SFD	20.88800249100	-156.68113060000	2	R-1 Residential	R-1	A	0.13
7.68	251.69	2-4-6-009-034	511	1	11/1/1978	4014026799	SFD	20.87547799800	-156.67733470000	2	R-1 Residential	R-1	U	0.04
2.24	73.55	2-4-6-009-040	511	1	12/23/1992	6902913051	SFD	20.87592547000	-156.67773960000	2	R-1 Residential	R-1	U	0.13
0.00	0.00	2-4-6-009-046	511	1	1/6/1987	4629862253	SFD	20.87530786800	-156.67860120000	2	R-1 Residential	R-1	U	0.12
16.07	527.02	2-4-6-009-047	511	1	1/8/1986	3773474301	SFD	20.87519575700	-156.67860490000	2	R-1 Residential	R-1	U	0.13
25.23	827.32	2-4-6-009-048	511	1	4/16/1992	5869744030	SFD	20.87524559100	-156.67845160000	2	R-1 Residential	R-1	U	0.13
12.24	401.26	2-4-6-009-049	511	1	7/1/1988	6074026785	SFD	20.87533932200	-156.67838750000	2	R-1 Residential	R-1	U	0.00
4.11	134.70	2-4-6-009-052	511	1	11/1/1978	4539094487	SFD	20.87566475500	-156.67797010000	2	R-1 Residential	R-1	U	0.15
15.82	518.58	2-4-6-009-053	511	1	5/16/1995	1761574912	SFD	20.87517289900	-156.67787960000	2	R-1 Residential	R-1	U	0.15
17.25	565.41	2-4-6-009-054	511	1	7/24/1997	6244785572	SFD	20.87586251500	-156.67768920000	2	R-1 Residential	R-1	U	0.15
1.35	44.26	2-4-6-009-028-0000	511	1	9/2/1997	3783103762	SFD	20.87447710200	-156.67777330000	2	R-1 Residential	R-1	U	0.84
11.55	378.61	2-4-6-012-002	511	1	11/1/1978	4653243672	SFD	20.87026177000	-156.67323510000	2	R-1 Residential	R-1	U	4.73
10.27	336.78	2-4-6-012-016	511	1	12/21/1994	144447560	SFD	20.87084343600	-156.67356350000	2	R-1 Residential	R-1	U	0.20
11.85	388.61	2-4-6-026-001	511	3	1/9/1980	8621419734	SFD	20.88189334200	-156.67012910000	3	R-1 Residential	R-1	U	0.57
18.34	601.37	2-4-6-026-003	511	1	11/1/1978	8918717813	SFD	20.88133536700	-156.67103670000	2	R-1 Residential	R-1	U	0.29
19.11	626.64	2-4-6-026-004	511	1	11/1/1978	8926702988	SFD	20.88133995200	-156.67107050000	2	R-1 Residential	R-1	U	0.00
27.81	911.78	2-4-6-026-005	511	1	1/6/1982	6569073779	SFD	20.88110505600	-156.67143160000	2	R-1 Residential	R-1	U	0.26
50.63	1,660.14	2-4-6-026-009	511	1	1/17/1992	4641543782	SFD	20.88041120300	-156.67200640000	3	R-1 Residential	R-1	U	0.15
4.23	138.55	2-4-6-026-011	511	1	1/16/1979	7972247923	SFD	20.88030089700	-156.67198550000	2	R-1 Residential	R-1	U	0.14
7.47	244.84	2-4-6-026-012	511	1	11/1/1978	4322363729	SFD	20.88030447700	-156.67197850000	2	R-1 Residential	R-1	U	0.14
15.02	492.40	2-4-6-026-015	511	1	11/1/1978	23821503	SFD	20.88029663600	-156.67117020000	2	R-1 Residential	R-1	U	0.30
12.19	399.59	2-4-6-026-017	511	1	11/13/1995	8120017822	SFD	20.87954400700	-156.67160070000	2	R-1 Residential	R-1	U	0.15
7.06	231.37	2-4-6-026-019	511	1	11/1/1978	4997746508	SFD	20.87980565600	-156.67159980000	2	R-1 Residential	R-1	U	0.20
14.70	481.97	2-4-6-026-023	511	1	11/1/1978	7195640126	SFD	20.87951742600	-156.67175840000	2	R-1 Residential	R-1	U	0.17
5.77	189.32	2-4-6-026-024	511	1	11/1/1978	5495586973	SFD	20.87952421100	-156.67177100000	2	R-1 Residential	R-1	U	0.00
11.66	382.24	2-4-6-026-026	511	1	11/1/1978	6801804189	SFD	20.87946999100	-156.67213340000	2	R-1 Residential	R-1	U	0.17
3.53	115.77	2-4-6-026-028	511	1	11/1/1978	1567207925	SFD	20.87925449200	-156.67237740000	2	R-1 Residential	R-1	U	0.21
18.07	592.40	2-4-6-026-030	511	1	11/1/1978	3367585257	SFD	20.87858005900	-156.67248270000	2	R-1 Residential	R-1	U	0.14
5.37	176.04	2-4-6-026-032	511	1	11/1/1978	309028952	SFD	20.87905003000	-156.67264570000	2	R-1 Residential	R-1	U	0.14
9.30	304.92	2-4-6-026-034	511	1	11/1/1978	7968087774	SFD	20.87868400300	-156.67266310000	2	R-1 Residential	R-1	U	0.14
11.90	390.05	2-4-6-026-035	511	1	10/27/1998	866836482	SFD	20.87868115200	-156.67266070000	2	R-1 Residential	R-1	U	0.14
14.40	472.24	2-4-6-026-036	511	1	11/1/1978	8502228898	SFD	20.87858125100	-156.67248980000	2	R-1 Residential	R-1	U	0.14
13.34	437.40	2-4-6-026-041	511	1	11/1/1978	4747428211	SFD	20.88026289800	-156.67234470000	2	R-1 Residential	R-1	U	0.15
5.47	179.26	2-4-6-026-042	511	1	11/1/1978	2305466895	SFD	20.88013492900	-156.67223370000	2	R-1 Residential	R-1	U	0.15
6.35	208.09	2-4-6-026-043	511	1	11/1/1978	7895795333	SFD	20.88012037300	-156.67223220000	2	R-1 Residential	R-1	U	0.15
32.79	1,074.95	2-4-6-026-052	511	1	11/1/1978	1554990983	SFD	20.87881124300	-156.67335390000	2	R-1 Residential	R-1	U	0.15
26.37	864.51	2-4-6-026-053	511	1	11/1/1978	534426550	SFD	20.87880686900	-156.67335100000	2	R-1 Residential	R-1	U	0.15
20.49	671.94	2-4-6-026-058	511	1	11/1/1978	4135419803	SFD	20.87962613200	-156.67372640000	2	R-1 Residential	R-1	U	0.28
54.28	1,779.81	2-4-6-026-060	511	1	4/30/1998	1676108556	SFD	20.87965209400	-156.67366910000	2	R-1 Residential	R-1	U	0.04
7.23	236.99	2-4-6-026-061	511	1	11/1/1978	9160776377	SFD	20.87949433800	-156.67310890000	2	R-1 Residential	R-1	U	0.23
17.53	574.81	2-4-6-026-062	511	1	11/1/1978	2967713228	SFD	20.87962071400	-156.67293710000	3	R-1 Residential	R-1	U	0.26
12.45	408.09	2-4-6-026-063	511	2	11/1/1978	3727512074	SFD	20.87963241400	-156.67290950000	2	R-1 Residential	R-1	U	0.19
14.93	489.51	2-4-6-026-064	511	1	11/1/1978	5235116199	SFD	20.87984795400	-156.67268490000	2	R-1 Residential	R-1	U	0.19
18.73	614.10	2-4-6-026-065	511	1	11/1/1978	6834120969	SFD	20.87986364100	-156.67266160000	2	R-1 Residential	R-1	U	0.17
21.36	700.46	2-4-6-026-067	511	2	11/1/1978	4092288299	SFD	20.87969668600	-156.67275650000	3	R-1 Residential	R-1	U	0.24
18.96	621.69	2-4-6-026-068	511	2	11/1/1978	2027740152	SFD	20.87971752800	-156.67272340000	2	R-1 Residential	R-1	U	0.18
20.26	664.23	2-4-6-026-069-0000	511	1	5/18/1990	7805374783	SFD	20.87955612900	-156.67159860000	2	R-1 Residential	R-1	U	0.15
16.43	538.80	2-4-6-027-003	511	1	11/1/1978	5149180374	SFD	20.87779841100	-156.67348500000	2	R-1 Residential	R-1	U	0.14
23.35	765.71	2-4-6-027-004	511	1	11/1/1978	5427067754	SFD	20.87778227500	-156.67351670000	2	R-1 Residential	R-1	U	0.14
12.80	419.81	2-4-6-027-005	511	1	11/1/1978	7085517385	SFD	20.87765100400	-156.67366850000	2	R-1 Residential	R-1	U	0.00
10.23	335.38	2-4-6-027-006	511	1	11/1/1978	4875218829	SFD	20.87755933600	-156.67383620000	2	R-1 Residential	R-1	U	0.16
16.84	552.24	2-4-6-027-007	511	1	11/1/1978	6121248641	SFD	20.87757686900	-156.67385210000	2	R-1 Residential	R-1	U	0.16
10.97	359.67	2-4-6-027-008	511	1	11/1/1978	6084971495	SFD	20.87776573500	-156.67371420000	2	R-1 Residential	R-1	U	0.14
4.30	140.90	2-4-6-027-012	511	1	11/1/1978	2076785987	SFD	20.87836667800	-156.67360760000	2	R-1 Residential	R-1	U	0.14
1.60	52.46	2-4-6-027-013	511	1	11/1/1978	6086796909	SFD	20.87836747800	-156.67360460000	2	R-1 Residential	R-1	U	0.14
6.83	223.99	2-4-6-027-014	511	1	11/1/1978	8232208786	SFD	20.87816601300	-156.67396160000	2	R-1 Residential	R-1	U	0.14
5.19	170.27	2-4-6-027-015	511	1	11/1/1978	1540533874	SFD	20.87815771800	-156.67399210000	2	R-1 Residential	R-1	U	0.17
17.55	575.49	2-4-6-027-016	511	1	7/7/1998	2455843625	SFD	20.87819864800	-156.67413470000	2	R-1 Residential	R-1	U	0.14
7.04	230.82	2-4-6-027-017	511	1	11/1/1978	7385323881	SFD	20.87821409100	-156.67414230000	2	R-1 Residential	R-1	U	0.14
30.22	990.90	2-4-6-027-018	511	1	11/1/1978	540119625	SFD	20.87841764700	-156.67431360000	2	R-1 Residential	R-1	U	0.14
27.18	890.98	2-4-6-027-019	511	1	11/1/1978	4588306334	SFD	20.87845380600	-156.67432630000	2	R-1 Residential	R-1	U	0.14
10.80	354.23	2-4-6-027-020	511	1	9/4/1997	895255775	SFD	20.87872133400	-156.67452690000	2	R-1 Residential	R-1	U	0.16
13.60	445.74	2-0-0-000-000	511	1	10/9/1995	920405429	SFD	20.87244719200	-156.67586560000	2	R-2 Residential	R-2	U	0.39
2.69	88.17	2-0-0-000-000	511	1	11/1/1978	973643941	SFD	20.87259959000	-156.67618810000	2	R-2 Residential	R-2	U	0.53
14.58	478.14	2-0-0-000-000	511	1	5/8/1989	1805022064	SFD	20.87270042300	-156.67619560000</					

11.82	387.65	2-4-5-003:031	511	1	1/30/1999	3308233396	SFD	20.87991685200	-156.68372500000	2	R-2 Residential	R-2	U	0.11
43.90	1,439.48	2-4-5-003-028-0000	511	1	11/1/1978	2240372700	SFD	20.88012595800	-156.68424150000	3	R-2 Residential	R-2	U	0.28
67.01	2,197.13	2-4-5-004:004	511	2	11/1/1978	3948567048	SFD	20.88213370400	-156.68674760000	2	R-2 Residential	R-2	U	0.25
18.18	596.09	2-4-5-004:006	511	1	3/3/1982	1647309303	SFD	20.88190764000	-156.68605480000	3	R-2 Residential	R-2	U	0.46
24.11	790.52	2-4-5-004:009	511	1	6/26/2001	6978590074	SFD	20.88303523500	-156.68591040000	3	R-2 Residential	R-2	U	0.11
62.49	2,048.93	2-4-5-004:013	511	1	10/23/1996	9348288180	SFD	20.88378353500	-156.68588080000	6	R-2 Residential	R-2	U	24.53
13.95	457.30	2-4-5-004:026	511	1	11/30/1984	827002882	SFD	20.88190134800	-156.68656720000	2	R-2 Residential	R-2	U	0.27
43.00	1,409.84	2-4-5-004:027	511	1	11/1/1978	5671968366	SFD	20.88189775400	-156.68653210000	2	R-2 Residential	R-2	U	0.00
2.00	65.44	2-4-5-004:028	511	1	11/1/1978	7939165696	SFD	20.88191502100	-156.68558940000	2	R-2 Residential	R-2	U	0.17
6.79	222.73	2-4-5-004:030	511	1	11/1/1978	6839728558	SFD	20.88221922200	-156.68542760000	2	R-2 Residential	R-2	U	0.16
3.36	110.22	2-4-5-004:031	511	1	1/20/1995	8806961182	SFD	20.88230194700	-156.68528230000	2	R-2 Residential	R-2	U	0.14
7.47	244.78	2-4-5-004:032	511	1	11/1/1978	2680355171	SFD	20.88231056600	-156.68524750000	2	R-2 Residential	R-2	U	0.14
28.11	921.48	2-4-5-004:033	511	1	1/6/1958	757510481	SFD	20.88192165900	-156.68496380000	2	R-2 Residential	R-2	U	0.17
12.97	425.36	2-4-5-004:034	511	1	11/1/1978	5583795609	SFD	20.88189940100	-156.68495210000	3	R-2 Residential	R-2	U	0.17
4.00	130.98	2-4-5-004:035	511	1	4/4/1986	3293251340	SFD	20.88189319500	-156.68547890000	2	R-2 Residential	R-2	U	0.13
15.58	510.74	2-4-5-004:036	511	1	11/1/1978	1599713861	SFD	20.88170525000	-156.68540830000	2	R-2 Residential	R-2	U	0.13
13.59	445.63	2-4-5-004:037	511	1	11/2/1995	2601313937	SFD	20.88188913800	-156.68555110000	2	R-2 Residential	R-2	U	0.00
19.48	638.74	2-4-5-004:038	511	1	11/1/1978	3241557020	SFD	20.88170514300	-156.68541510000	2	R-2 Residential	R-2	U	0.13
15.67	513.63	2-4-5-004:040	511	1	5/11/1987	1868514214	SFD	20.88135241400	-156.68576780000	3	R-2 Residential	R-2	U	0.18
0.25	8.11	2-4-5-004:043	511	1	11/1/1978	9912990987	SFD	20.88206251400	-156.68589840000	2	R-2 Residential	R-2	U	0.46
44.83	1,469.84	2-4-5-004:047	511	1	8/22/1979	1090153059	SFD	20.88075262300	-156.68522650000	3	R-2 Residential	R-2	U	0.21
132.43	4,341.91	2-4-5-004:048	511	2	5/30/1973	9005998730	SFD	20.88218382200	-156.68680800000	6	R-2 Residential	R-2	U	0.25
68.68	2,251.64	2-4-5-004:049	511	1	1/25/1983	3202530751	SFD	20.88097195800	-156.68543630000	2	R-2 Residential	R-2	U	0.21
63.37	2,077.60	2-4-5-004:050	511	2	3/5/1996	5415860630	SFD	20.88103014900	-156.68543610000	2	R-2 Residential	R-2	U	0.23
22.48	736.99	2-4-5-004:056	511	1	4/23/1998	4581594700	SFD	20.88123063600	-156.68466080000	3	R-2 Residential	R-2	U	0.17
17.13	561.69	2-4-5-004:057	511	1	9/23/1997	4921751891	SFD	20.88152307300	-156.68482870000	2	R-2 Residential	R-2	U	0.17
9.43	309.15	2-4-5-004:058	511	1	5/3/1991	2554756927	SFD	20.88154149400	-156.68485150000	2	R-2 Residential	R-2	U	0.18
29.21	957.84	2-4-5-004:059	511	1	6/26/2001	7383103888	SFD	20.88303495400	-156.68584720000	3	R-2 Residential	R-2	U	0.11
32.08	1,051.86	2-4-5-004:060	511	1	6/26/2001	1855963706	SFD	20.88304698300	-156.68593070000	3	R-2 Residential	R-2	U	0.11
24.14	791.39	2-4-5-004:061	511	1	6/26/2001	8680819802	SFD	20.88302090700	-156.68598640000	3	R-2 Residential	R-2	U	0.19
18.59	609.54	2-4-5-030:001	511	1	3/29/1999	8775750912	SFD	20.88955746000	-156.68277660000	2	R-2 Residential	R-2	U	0.14
14.42	472.76	2-4-5-030:002	511	1	11/1/1978	2039495564	SFD	20.88946536700	-156.68295350000	2	R-2 Residential	R-2	U	0.15
13.20	432.79	2-4-5-030:003	511	1	11/1/1978	3701792309	SFD	20.88947224200	-156.68303190000	2	R-2 Residential	R-2	U	0.15
13.84	453.66	2-4-5-030:009	511	1	11/1/1978	3654440437	SFD	20.89019962300	-156.68290800000	2	R-2 Residential	R-2	U	0.15
12.24	401.23	2-4-5-030:010	511	1	1/10/1983	4856980342	SFD	20.89021200000	-156.68291776600	2	R-2 Residential	R-2	U	0.15
17.29	566.91	2-4-5-030:011	511	1	8/30/1996	373980167	SFD	20.89012745100	-156.68320580000	2	R-2 Residential	R-2	U	0.14
16.39	537.32	2-4-5-030:012	511	1	11/1/1978	9383939025	SFD	20.89013365500	-156.68320340000	2	R-2 Residential	R-2	U	0.14
24.94	817.68	2-4-5-030:019	511	1	11/1/1978	6033866377	SFD	20.89049110900	-156.68262970000	2	R-2 Residential	R-2	U	5.08
17.53	574.86	2-4-5-030:021	511	1	11/1/1978	6003891114	SFD	20.89087519800	-156.68264820000	2	R-2 Residential	R-2	U	5.08
7.58	248.42	2-4-5-030:025	511	1	11/1/1978	6536957021	SFD	20.89129187500	-156.68265120000	2	R-2 Residential	R-2	U	0.16
0.66	21.69	2-4-5-030:031	511	1	6/19/1995	9356168673	SFD	20.89242051400	-156.68267130000	2	R-2 Residential	R-2	U	5.08
7.57	248.14	2-4-5-030:032	511	1	11/1/1978	9984694928	SFD	20.89261791100	-156.68306260000	2	R-2 Residential	R-2	U	0.14
23.48	769.78	2-4-5-030:033	511	1	11/1/1978	3437377756	SFD	20.89261787000	-156.68307240000	2	R-2 Residential	R-2	U	0.14
19.46	638.17	2-4-5-030:034	511	1	5/14/1992	206686115	SFD	20.89233254100	-156.68322020000	2	R-2 Residential	R-2	U	0.14
15.97	523.52	2-4-5-030:035	511	1	6/21/1993	8250002807	SFD	20.89201280100	-156.68321970000	2	R-2 Residential	R-2	U	0.20
19.55	640.90	2-4-5-030:038	511	1	9/1/1993	2062508372	SFD	20.89177299000	-156.68346310000	2	R-2 Residential	R-2	U	0.15
25.91	849.48	2-4-5-030:039	511	1	9/18/1997	7579429785	SFD	20.89175980700	-156.68348530000	2	R-2 Residential	R-2	U	0.14
6.15	201.58	2-4-5-030:040	511	1	1/11/1996	7962052066	SFD	20.89173033900	-156.68373980000	2	R-2 Residential	R-2	U	0.14
15.23	499.48	2-4-5-030:047	511	1	3/15/1996	2344312449	SFD	20.89228160800	-156.68338410000	2	R-2 Residential	R-2	U	0.14
19.15	627.84	2-4-5-030:048	511	1	6/15/1993	9784940556	SFD	20.89232016400	-156.68334960000	2	R-2 Residential	R-2	U	5.08
19.36	634.64	2-4-5-030:049	511	1	7/28/1997	4602200869	SFD	20.89249395400	-156.68374860000	2	R-2 Residential	R-2	U	0.15
18.79	616.17	2-4-5-030:051	511	1	10/13/1981	8301429746	SFD	20.89252977300	-156.68401370000	2	R-2 Residential	R-2	U	0.16
27.67	907.21	2-4-5-030:062	511	1	6/14/1982	452618285	SFD	20.89288541600	-156.68235550000	3	R-2 Residential	R-2	U	0.15
10.09	330.74	2-4-5-030:067	511	2	11/1/1978	2853434351	SFD	20.89295178000	-156.68123990000	2	R-2 Residential	R-2	U	0.22
16.46	539.81	2-4-5-030:068	511	2	1/23/1995	4092936431	SFD	20.89296659200	-156.68122440000	2	R-2 Residential	R-2	U	0.21
5.54	181.53	2-4-5-030:069	511	1	11/1/1978	2901192209	SFD	20.89314450700	-156.68103810000	2	R-2 Residential	R-2	U	0.21
11.41	374.15	2-4-5-030:072	511	2	11/1/1978	6298414891	SFD	20.89276182400	-156.68125900000	2	R-2 Residential	R-2	U	0.16
12.44	407.98	2-4-5-030:073	511	1	11/1/1978	7585934109	SFD	20.89277658700	-156.68126070000	2	R-2 Residential	R-2	U	0.16
25.45	834.37	2-4-5-030:081	511	1	3/14/1995	4303004207	SFD	20.89133428500	-156.68176100000	2	R-2 Residential	R-2	U	0.18
13.36	438.09	2-4-5-030:082	511	2	2/10/1995	7077927712	SFD	20.89100723100	-156.68179500000	3	R-2 Residential	R-2	U	0.20
2.59	84.89	2-4-5-030:086	511	1	9/6/1979	9107990755	SFD	20.89055224500	-156.68178790000	2	R-2 Residential	R-2	U	0.17
18.44	604.48	2-4-5-030:087	511	1	11/1/1978	7406533610	SFD	20.89024867800	-156.68177080000	2	R-2 Residential	R-2	U	0.16
13.70	449.02	2-4-5-030:091	511	1	7/29/1998	2793245578	SFD	20.88960702100	-156.68170020000	2	R-2 Residential	R-2	U	0.14
3.28	107.46	2-4-5-030:093	511	1	11/1/1978	7706965681	SFD	20.88960084000	-156.68171440000	2	R-2 Residential	R-2	U	0.14
3.59	117.73	2-4-5-030:094	511	1	2/23/1972	6126591818	SFD	20.88958015000	-156.68207970000	2	R-2 Residential	R-2	U	0.17
10.29	337.38	2-4-5-030:096	511	1	11/1/1978	2462793712	SFD	20.88956708300	-156.68226050000	2	R-2 Residential	R-2	U	0.14
8.03	263.14	2-4-5-030:102	511	1	11/1/1978	8162882277	SFD	20.89079468000	-156.68247960000	2	R-2 Residential	R-2	U	0.14
17.06	559.40	2-4-5-030:112	511	1	11/1/1978	2971178596	SFD	20.89229107300	-156.68250440000	2	R-2 Residential	R-2	U	0.14
12.71	416.86	2-4-5-030:113	511	1	11/1/1978	7900683569	SFD	20.89273981500	-156.68238120000	2	R-2 Residential	R-2	U	5.08
2.20	72.13	2-4-5-030:114	511	1	11/2/1971	7975522479	SFD	20.89273787100	-156.68239360000	2	R-2 Residential	R-2	U	5.08
6.61	216.83	2-4-5-030:116	511	1	11/1/1978	5353965884	SFD	20.89277450200	-156.68198040000	2	R-2 Residential	R-2	U	0.16
27.70	908.14	2-4-5-030:118	511	1	11/1/1978	8473456582	SFD	20.89247566400	-156.68154420000	2	R-2 Residential	R-2	U	0.14
34.77	1,140.14	2-4-5-030:120	511	2	11/1/1978	8653219372	SFD	20.89216898500	-156.68194350000	2	R-2 Residential	R-2	U	0.34
67.40	2,209.78	2-4-5-030:121	511	1	3/18/1991	6947156184	SFD	20.8						

26.71	875.77	2-4-5-035:026	511	1	9/7/1994	5104995330	SFD	20.88700891800	-156.68049760000	2	R-2 Residential	R-2	U	0.19
20.45	670.36	2-4-5-035:027	511	1	6/5/1987	616798715	SFD	20.88702348600	-156.68050950000	2	R-2 Residential	R-2	U	0.19
9.49	311.12	2-4-5-035:032	511	2	2/14/1984	3794492615	SFD	20.88727255500	-156.68148510000	2	R-2 Residential	R-2	U	0.00
18.88	618.96	2-4-5-035:033	511	2	8/9/1990	2902957424	SFD	20.88729546800	-156.68150470000	3	R-2 Residential	R-2	U	0.01
34.95	1,145.82	2-4-5-035:035	511	1	3/4/1996	8176350950	SFD	20.88737353600	-156.68152150000	2	R-2 Residential	R-2	U	0.01
16.69	547.13	2-4-6-004:002	511	1	8/29/1996	5579844667	SFD	20.86120556900	-156.66892050000	2	R-2 Residential	R-2	U	0.17
18.31	600.46	2-4-6-004:004	511	1	5/5/1981	7035359970	SFD	20.86122218700	-156.6689170000	2	R-2 Residential	R-2	U	0.18
6.88	225.60	2-4-6-004:008	511	1	12/15/1997	3882739442	SFD	20.86197852000	-156.66911780000	2	R-2 Residential	R-2	U	0.18
19.04	624.10	2-4-6-004:018	511	1	7/7/1986	7655594637	SFD	20.86199703300	-156.66911710000	2	R-2 Residential	R-2	U	0.04
13.96	457.76	2-4-6-004:019	511	1	11/1/1993	2961884873	SFD	20.86204252000	-156.66915280000	2	R-2 Residential	R-2	U	0.04
6.77	221.86	2-4-6-004:020	511	1	3/1/1996	7668947400	SFD	20.86204362200	-156.66915210000	2	R-2 Residential	R-2	U	0.04
13.75	450.66	2-4-6-004:021	511	1	10/12/1994	3288759823	SFD	20.86243781700	-156.66959580000	2	R-2 Residential	R-2	U	0.18
10.86	356.07	2-4-6-004:022	511	1	8/13/1991	2166722751	SFD	20.86245614500	-156.66960520000	2	R-2 Residential	R-2	U	0.04
21.74	712.79	2-4-6-004:023	511	1	4/12/1989	8130684137	SFD	20.86251639500	-156.66965620000	2	R-2 Residential	R-2	U	0.17
12.70	416.42	2-4-6-004:024	511	1	1/6/1989	61422223	SFD	20.86252791000	-156.66967070000	2	R-2 Residential	R-2	U	0.17
3.36	110.16	2-4-6-004:026	511	1	6/13/1979	2426052748	SFD	20.86296142700	-156.67001880000	2	R-2 Residential	R-2	U	0.20
18.10	593.47	2-4-6-004:027	511	1	8/24/1984	3627565231	SFD	20.86296936600	-156.67006420000	2	R-2 Residential	R-2	U	0.24
28.87	946.67	2-4-6-004:028	511	1	7/30/1993	613689758	SFD	20.86319663000	-156.67002870000	2	R-2 Residential	R-2	U	0.18
18.04	591.56	2-4-6-004:036	511	1	5/2/1997	6908597540	SFD	20.86212916400	-156.66902650000	2	R-2 Residential	R-2	U	0.18
8.98	294.48	2-4-6-004:037	511	1	5/19/1994	3033067668	SFD	20.86171268500	-156.66877650000	2	R-2 Residential	R-2	U	0.03
11.80	386.75	2-4-6-004:039	511	1	8/5/1991	8368491387	SFD	20.86152567500	-156.66849950000	2	R-2 Residential	R-2	U	0.17
7.34	240.63	2-4-6-004:040	511	1	8/17/1988	2678373234	SFD	20.86152461600	-156.66844790000	2	R-2 Residential	R-2	U	0.17
15.12	495.66	2-4-6-005:002	511	2	8/11/1997	8914472011	SFD	20.86326119800	-156.67075140000	2	R-2 Residential	R-2	U	0.08
4.34	142.13	2-4-6-005:011	511	1	11/1/1978	1542006175	SFD	20.86340981500	-156.67082290000	2	R-2 Residential	R-2	U	0.08
6.59	215.93	2-4-6-005:012	511	1	11/1/1978	1175804633	SFD	20.86329761700	-156.67075120000	2	R-2 Residential	R-2	U	0.08
8.80	288.50	2-4-6-005:013	511	2	11/1/1978	1741727430	SFD	20.86368089300	-156.67100270000	2	R-2 Residential	R-2	U	0.20
9.28	304.29	2-4-6-005:019	511	2	4/15/1991	6912666115	SFD	20.86369129300	-156.67100310000	2	R-2 Residential	R-2	U	0.20
15.18	497.73	2-4-6-005:023	511	1	7/1/1996	2341615323	SFD	20.86325456300	-156.67076040000	2	R-2 Residential	R-2	U	0.08
11.56	379.02	2-4-6-005:024	511	1	3/7/1983	1057480758	SFD	20.86333975200	-156.67256340000	2	R-2 Residential	R-2	U	0.19
15.84	519.29	2-4-6-005:025	511	1	11/1/1978	6092266673	SFD	20.86550397300	-156.67222360000	2	R-2 Residential	R-2	U	0.17
16.27	533.31	2-4-6-005:026	511	1	8/15/1983	8400912833	SFD	20.86550761300	-156.67220800000	2	R-2 Residential	R-2	U	0.17
7.78	255.19	2-4-6-005:027	511	1	6/1/1992	7120134483	SFD	20.86538393000	-156.67171280000	2	R-2 Residential	R-2	U	0.19
4.57	149.75	2-4-6-005:028	511	1	11/1/1978	6394606883	SFD	20.86498118300	-156.67194520000	2	R-2 Residential	R-2	U	0.00
19.38	635.36	2-4-6-005:029	511	1	9/10/1984	4698800484	SFD	20.86501796300	-156.67194580000	2	R-2 Residential	R-2	U	0.18
9.17	300.57	2-4-6-005:030	511	1	11/1/1978	9669457404	SFD	20.86537097500	-156.67168550000	2	R-2 Residential	R-2	U	0.00
16.38	537.05	2-4-6-005:031	511	1	4/2/1984	1894879909	SFD	20.86483116000	-156.67185780000	2	R-2 Residential	R-2	U	0.17
14.42	472.68	2-4-6-005:032	511	1	11/1/1978	4888463370	SFD	20.86481155600	-156.67182140000	2	R-2 Residential	R-2	U	0.18
32.76	1,074.21	2-4-6-005:033	511	1	9/15/1993	7728793196	SFD	20.86477857600	-156.67146500000	2	R-2 Residential	R-2	U	0.17
16.93	555.11	2-4-6-005:034	511	2	3/8/1999	4518343151	SFD	20.86473144600	-156.67142360000	2	R-2 Residential	R-2	U	0.22
2.58	84.73	2-4-6-005:035	511	1	11/1/1978	910169509	SFD	20.86462528900	-156.67138210000	2	R-2 Residential	R-2	U	0.19
9.47	310.41	2-4-6-005:036	511	1	1/28/1991	7853109308	SFD	20.86423860800	-156.67122800000	2	R-2 Residential	R-2	U	0.17
4.03	132.02	2-4-6-005:038	511	1	11/1/1978	2468107110	SFD	20.86585796800	-156.67133720000	2	R-2 Residential	R-2	U	0.17
23.91	784.07	2-4-6-005:040	511	1	8/1/1988	9704167721	SFD	20.86604946900	-156.67095310000	2	R-2 Residential	R-2	U	0.20
14.17	464.54	2-4-6-005:041	511	1	1/6/1988	6351029691	SFD	20.86608567200	-156.67084850000	2	R-2 Residential	R-2	U	0.19
10.49	343.77	2-4-6-005:043	511	1	11/1/1995	40247167	SFD	20.86526414900	-156.67122440000	2	R-2 Residential	R-2	U	0.18
11.06	362.76	2-4-6-005:044	511	1	6/2/1992	4779599498	SFD	20.86544149000	-156.67088680000	2	R-2 Residential	R-2	U	0.21
10.48	343.47	2-4-6-005:045	511	1	11/1/1978	8573063753	SFD	20.86544916800	-156.67087340000	2	R-2 Residential	R-2	U	0.22
12.55	411.56	2-4-6-005:047	511	1	11/1/1978	7031394112	SFD	20.86539714700	-156.67075300000	2	R-2 Residential	R-2	U	0.17
15.74	516.04	2-4-6-005:052	511	1	11/1/1978	7858830805	SFD	20.86439070200	-156.67028420000	2	R-2 Residential	R-2	U	0.20
8.59	281.72	2-4-6-005:053	511	1	9/1/1990	75661858	SFD	20.86438428200	-156.67025020000	2	R-2 Residential	R-2	U	0.20
2.27	74.45	2-4-6-005:054	511	1	11/1/1978	1374505008	SFD	20.86403864700	-156.67011840000	2	R-2 Residential	R-2	U	0.18
15.89	520.90	2-4-6-005:055	511	2	11/1/1978	5734771667	SFD	20.86399417300	-156.67011040000	3	R-2 Residential	R-2	U	0.19
22.52	738.28	2-4-6-005:057	511	1	5/28/1986	6751107016	SFD	20.86364689200	-156.67011110000	2	R-2 Residential	R-2	U	0.00
10.36	339.56	2-4-6-005:061	511	1	11/10/1994	4745006345	SFD	20.86429702700	-156.67044710000	2	R-2 Residential	R-2	U	0.17
16.61	544.56	2-4-6-005:062	511	1	11/1/1978	1396777215	SFD	20.86461398400	-156.67059340000	2	R-2 Residential	R-2	U	0.00
15.24	499.75	2-4-6-005:063	511	1	11/1/1978	6033067085	SFD	20.86460388800	-156.67061110000	2	R-2 Residential	R-2	U	0.18
14.65	480.44	2-4-6-005:064	511	1	11/1/1978	2059990232	SFD	20.86501827000	-156.67075900000	2	R-2 Residential	R-2	U	0.18
24.27	795.74	2-4-6-005:065	511	2	11/18/1989	2681674518	SFD	20.86504361400	-156.67075700000	2	R-2 Residential	R-2	U	0.23
33.45	1,096.75	2-4-6-005:070	511	1	11/1/1978	8920493837	SFD	20.86426535000	-156.67106950000	2	R-2 Residential	R-2	U	0.24
12.37	405.57	2-4-6-006:001	511	1	6/1/1996	8969754211	SFD	20.86551981700	-156.67322050000	2	R-2 Residential	R-2	U	0.35
37.07	1,215.44	2-4-6-006:002	511	2	5/3/1993	7294058976	SFD	20.86576836400	-156.67341780000	2	R-2 Residential	R-2	U	0.31
83.09	2,724.13	2-4-6-006:004	511	1	1/31/2000	477677898	SFD	20.86668497400	-156.67299180000	3	R-2 Residential	R-2	U	0.05
14.07	461.28	2-4-6-006:008	511	1	5/15/1998	2764287968	SFD	20.86710259400	-156.67406580000	2	R-2 Residential	R-2	U	0.23
4.80	157.27	2-4-6-006:009	511	1	11/1/1978	3810305189	SFD	20.86720726400	-156.67377740000	2	R-2 Residential	R-2	U	0.23
4.43	145.08	2-4-6-006:010	511	1	11/1/1978	63023788	SFD	20.86709693300	-156.67408120000	2	R-2 Residential	R-2	U	0.23
30.01	984.02	2-4-6-006:015	511	2	8/23/1988	1799639537	SFD	20.86820176100	-156.67400670000	2	R-2 Residential	R-2	U	0.09
10.38	340.30	2-4-6-006:019	511	1	11/1/1978	2712191803	SFD	20.86727393500	-156.67382000000	2	R-2 Residential	R-2	U	0.19
6.70	219.54	2-4-6-006:020	511	1	3/4/1998	3012084919	SFD	20.86734147400	-156.67366880000	2	R-2 Residential	R-2	U	0.17
2.26	74.13	2-4-6-006:021	511	1	5/6/1993	2266706279	SFD	20.86728732600	-156.67361640000	2	R-2 Residential	R-2	U	0.10
11.56	379.07	2-4-6-006:023	511	1	11/1/1978	1680057154	SFD	20.86833656700	-156.67346460000	2	R-2 Residential	R-2	U	0.23
3.26	106.83	2-4-6-006:024	511	1	11/1/1978	9063783358	SFD	20.86837705500	-156.67330820000	2	R-2 Residential	R-2	U	0.14
14.18	464.97	2-4-6-006:025	511	1	11/1/1978	7999911127	SFD	20.86838695800	-156.67329470000	2	R-2 Residential	R-2	U	0.14
8.63	282.84	2-4-6-006:026	511	1	8/11/1997	455332205	SFD	20.86851323300	-156.67298320000	2	R-2 Residential	R-2	U	0.14
7.69	252.10	2-4-6-006:027	511	1	11/1/1978	8281326925	SFD	20.86851352500	-156.67296310000	2	R-2 Residential			

4.69	153.63	2-4-6-006-074	511	1	11/1/1978	1310374336	SFD	20.86676944100	-156.67140170000	2	R-2 Residential	R-2	U	0.18
4.14	135.66	2-4-6-006-075	511	1	11/1/1978	6060789824	SFD	20.86643120100	-156.67196020000	2	R-2 Residential	R-2	U	0.17
7.62	249.89	2-4-6-006-077	511	2	11/1/1978	9357399366	SFD	20.86629197300	-156.67227140000	2	R-2 Residential	R-2	U	0.17
26.75	877.08	2-4-6-006-078	511	1	11/1/1978	7824178943	SFD	20.86627676400	-156.67229060000	2	R-2 Residential	R-2	U	0.17
11.79	386.67	2-4-6-006-083	511	1	11/1/1978	7101269887	SFD	20.86589748000	-156.67165610000	2	R-2 Residential	R-2	U	0.17
23.67	775.90	2-4-6-006-087	511	2	11/1/1978	1030493568	SFD	20.86819827800	-156.67410510000	2	R-2 Residential	R-2	U	0.19
12.63	414.04	2-4-6-006-089	511	2	9/6/1994	987715944	SFD	20.86813759900	-156.67433460000	2	R-2 Residential	R-2	U	0.08
9.77	320.22	2-4-6-006-091	511	1	9/24/1996	9599578967	SFD	20.86809162600	-156.67440720000	3	R-2 Residential	R-2	U	0.24
54.80	1,796.61	2-4-6-006-092	511	2	8/23/1988	2801569298	SFD	20.86820782900	-156.67400390000	2	R-2 Residential	R-2	U	0.09
35.39	1,160.30	2-4-6-006-093	511	2	8/23/1988	6294764615	SFD	20.86826504100	-156.67376230000	2	R-2 Residential	R-2	U	0.18
0.00	0.00	2-4-6-006-017-0000	511	1	1/13/2021	2594834765	SFD	20.86742871700	-156.67177318300	2	R-2 Residential	R-2	U	0.05
4.54	148.93	2-4-6-007-021	511	1	11/1/1978	9247666626	SFD	20.87104568500	-156.67385040000	2	R-2 Residential	R-2	U	0.17
4.00	131.20	2-4-6-007-022	511	1	1/16/1997	6683245448	SFD	20.87080279100	-156.67438140000	2	R-2 Residential	R-2	U	0.24
5.90	193.50	2-4-6-007-025	511	1	8/20/1991	4626296068	SFD	20.87149845200	-156.67509600000	2	R-2 Residential	R-2	U	0.10
3.36	110.25	2-4-6-007-026	511	1	2/7/1995	3852741468	SFD	20.87158589800	-156.67485600000	2	R-2 Residential	R-2	U	0.16
2.88	94.56	2-4-6-007-029	511	1	9/4/1987	2383257214	SFD	20.87151141500	-156.67419670000	2	R-2 Residential	R-2	U	0.24
16.09	527.49	2-4-6-007-030	511	1	11/1/1978	6150606740	SFD	20.87136500800	-156.67409640000	3	R-2 Residential	R-2	U	0.24
8.89	291.45	2-4-6-007-031	511	1	11/1/1978	1184897332	SFD	20.87168465000	-156.67462790000	2	R-2 Residential	R-2	U	0.16
21.02	689.07	2-4-6-007-032	511	1	10/11/1979	8229099940	SFD	20.87165557700	-156.67434450000	2	R-2 Residential	R-2	U	0.13
5.53	181.15	2-4-6-007-033	511	1	11/1/1978	377779432	SFD	20.87152369500	-156.67421040000	2	R-2 Residential	R-2	U	0.14
8.69	285.00	2-4-6-007-042	511	1	11/1/1978	4363201316	SFD	20.87100092800	-156.67382300000	2	R-2 Residential	R-2	U	0.17
9.29	304.51	2-4-6-008-016	511	1	5/31/1994	8652233546	SFD	20.87199734700	-156.67600330000	2	R-2 Residential	R-2	U	0.10
13.71	449.56	2-4-6-008-017	511	1	3/1/1994	9704611962	SFD	20.87212331200	-156.67601680000	2	R-2 Residential	R-2	U	0.43
0.00	0.00	2-4-6-008-018	511	1	1/15/1985	9085692550	SFD	20.87267743100	-156.67619360000	2	R-2 Residential	R-2	U	0.53
8.42	276.12	2-4-6-008-022	511	1	7/6/1990	5310373014	SFD	20.87303191000	-156.67658300000	2	R-2 Residential	R-2	U	0.08
2.24	73.39	2-4-6-008-035	511	1	11/1/1978	755947024	SFD	20.87307404300	-156.67648870000	2	R-2 Residential	R-2	U	0.19
5.24	171.86	2-4-6-008-036	511	1	5/2/1991	6689552366	SFD	20.87319404900	-156.67637190000	2	R-2 Residential	R-2	U	0.19
14.99	491.42	2-4-6-008-037	511	1	3/31/2000	141342669	SFD	20.87333000900	-156.67611500000	2	R-2 Residential	R-2	U	0.16
4.06	133.25	2-4-6-008-039	511	1	11/1/1978	1147380531	SFD	20.87341553500	-156.67593000000	2	R-2 Residential	R-2	U	0.16
14.37	471.23	2-4-6-008-040	511	1	2/2/1998	4599888185	SFD	20.87352264500	-156.67572830000	2	R-2 Residential	R-2	U	0.14
0.00	0.00	2-4-6-008-046	511	1	12/7/2004	6429055159	SFD	20.87162884700	-156.67504740000	2	R-2 Residential	R-2	U	0.07
5.43	177.95	2-4-6-008-052	511	1	5/16/1989	2993955033	SFD	20.87161462700	-156.67506060000	2	R-2 Residential	R-2	U	0.07
18.82	617.05	2-4-6-008-076	511	1	11/1/1978	1807755475	SFD	20.87153261800	-156.67523170000	2	R-2 Residential	R-2	U	0.15
7.97	261.45	2-4-6-008-077	511	1	11/12/1996	9688638727	SFD	20.87212098200	-156.67521400000	2	R-2 Residential	R-2	U	0.17
2.87	93.99	2-4-6-008-078	511	1	11/1/1978	2741307036	SFD	20.87214843600	-156.67528280000	2	R-2 Residential	R-2	U	0.17
6.59	215.93	2-4-6-008-079	511	1	7/10/1997	3413397523	SFD	20.87224104800	-156.67535270000	2	R-2 Residential	R-2	U	0.16
9.51	311.86	2-4-6-008-080	511	1	11/1/1978	2730751293	SFD	20.87229551600	-156.67516120000	2	R-2 Residential	R-2	U	0.15
10.12	331.78	2-4-6-008-081	511	1	7/1/1997	5653063702	SFD	20.87269998400	-156.67504020000	2	R-2 Residential	R-2	U	0.14
32.31	1,059.40	2-4-6-008-090	511	1	9/1/1998	1356311943	SFD	20.87329423800	-156.67615590000	2	R-2 Residential	R-2	U	0.17
13.62	446.48	2-4-6-010-007	511	1	11/1/1978	8330394744	SFD	20.87653947400	-156.67526020000	2	R-2 Residential	R-2	U	0.25
14.19	465.11	2-4-6-010-014	511	1	11/1/1978	3080774364	SFD	20.87682194000	-156.67767080000	2	R-2 Residential	R-2	U	0.21
27.49	901.37	2-4-6-010-015	511	1	7/7/1993	4874717859	SFD	20.87680195700	-156.67679070000	2	R-2 Residential	R-2	U	0.20
29.97	982.46	2-4-6-010-016	511	1	11/1/1978	2015814657	SFD	20.87680806400	-156.67767660000	2	R-2 Residential	R-2	U	0.21
32.10	1,052.46	2-4-6-010-017	511	1	7/7/1987	5776192032	SFD	20.87651796200	-156.67712140000	2	R-2 Residential	R-2	U	0.16
7.69	252.10	2-4-6-010-018	511	1	11/1/1978	2106131781	SFD	20.87649711900	-156.67713660000	2	R-2 Residential	R-2	U	0.16
19.06	624.92	2-4-6-010-019	511	1	5/15/1984	4239633675	SFD	20.87620995000	-156.67748180000	2	R-2 Residential	R-2	U	0.17
14.07	461.23	2-4-6-010-019	511	1	12/12/1998	5809491165	SFD	20.87622440700	-156.67745750000	3	R-2 Residential	R-2	U	0.17
10.24	335.68	2-4-6-011-009	511	1	11/1/1978	5247903139	SFD	20.87492003200	-156.67624170000	2	R-2 Residential	R-2	U	0.34
5.42	177.81	2-4-6-011-013	511	1	11/2/1990	7508923055	SFD	20.87214909800	-156.67384680000	2	R-2 Residential	R-2	U	0.15
8.81	288.91	2-4-6-011-019	511	1	11/1/1978	8024716381	SFD	20.87202781900	-156.67412050000	2	R-2 Residential	R-2	U	0.14
7.67	251.31	2-4-6-011-020	511	1	11/21/1998	7859783960	SFD	20.87223036000	-156.67454730000	2	R-2 Residential	R-2	U	0.17
14.51	475.79	2-4-6-011-031	511	2	11/1/1978	4005885981	SFD	20.87291077600	-156.67442620000	2	R-2 Residential	R-2	U	0.31
8.80	288.61	2-4-6-012-009	511	1	11/21/1998	4610551447	SFD	20.87215175500	-156.67350820000	2	R-2 Residential	R-2	U	0.20
0.00	0.00	2-4-6-012-021	511	1	8/4/1994	1024636926	SFD	20.86878134400	-156.67210240000	2	R-2 Residential	R-2	U	0.18
20.25	664.02	2-0-0-000-000	511	1	11/1/1978	5529895801	SFD	20.89351347300	-156.68280020000	2	R-3 Residential	R-3	U	0.50
7.28	238.69	2-0-0-000-000	511	1	3/1/1997	7569713821	SFD	20.89632851800	-156.68458180000	2	R-3 Residential	R-3	U	0.23
0.00	0.00	2-0-0-000-000	511	1	3/20/1989	9030183809	SFD	20.89920002100	-156.67965700000	3	R-3 Residential	R-3	U	365.45
44.69	1,465.11	2-4-5-014-038	511	1	11/1/1978	8377222730	SFD	20.89433686800	-156.68292290000	2	R-3 Residential	R-3	U	0.00
3.16	103.72	2-4-5-014-039	511	1	8/20/1990	1843749244	SFD	20.89352571100	-156.68282190000	2	R-3 Residential	R-3	U	0.50
8.60	281.80	2-4-5-014-040	511	1	3/10/1999	4617051788	SFD	20.89372261900	-156.68321140000	2	R-3 Residential	R-3	U	0.75
8.26	270.74	2-4-5-014-040	511	1	3/6/1999	9366471154	SFD	20.89372037300	-156.68321400000	2	R-3 Residential	R-3	U	0.75
9.26	303.50	2-4-5-014-040	511	1	3/6/1999	9460567108	SFD	20.89371548100	-156.68322270000	2	R-3 Residential	R-3	U	0.75
43.14	1,414.40	2-4-5-014-041	511	1	11/1/1978	7994524232	SFD	20.89366541300	-156.68358320000	2	R-3 Residential	R-3	U	0.41
17.81	583.96	2-4-5-014-045	511	1	5/7/1998	6853088727	SFD	20.89401580300	-156.68205360000	2	R-3 Residential	R-3	U	0.50
67.67	2,218.58	2-4-5-014-056	511	1	11/1/1978	8503029079	SFD	20.89387065700	-156.68199440000	2	R-3 Residential	R-3	U	0.38
16.35	536.04	2-4-5-014-057	511	1	11/1/1978	5372216511	SFD	20.89383184200	-156.68233990000	2	R-3 Residential	R-3	U	0.75
23.36	765.93	2-4-5-014-064	511	1	11/1/1978	3563962673	SFD	20.89387156200	-156.68199310000	2	R-3 Residential	R-3	U	0.38
6.87	225.19	2-4-5-014-066	511	1	9/10/1992	6173754042	SFD	20.89327296400	-156.68385590000	2	R-3 Residential	R-3	U	0.34
12.00	393.50	2-4-5-014-069	511	1	7/11/1989	1771208375	SFD	20.89376273300	-156.68289430000	2	R-3 Residential	R-3	U	0.25
18.12	594.15	2-4-5-014-074	511	2	11/16/1995	2496645030	SFD	20.89464019400	-156.68280180000	3	R-3 Residential	R-3	U	0.23
25.41	833.14	2-4-5-014-086	511	1	12/4/1979	748227549	SFD	20.89628747100	-156.68457410000	2	R-3 Residential	R-3	U	0.26
17.40	570.49	2-4-5-014-087	511	1	12/4/1979	2028250238	SFD	20.89624052200	-156.68457840000	2	R-3 Residential	R-3	U	0.26
12.13	397.60	2-4-5-014-043-0000	511	1	11/1/1978	8180833269	SFD	20.89326423200	-156.68388590000	2	R-3 Residential	R-3	U	0.57
24.45	801.75	2-4-5-027-004	511	1	12/3/1968	574160010	SFD	20.89746200800	-156.68335100000	2</				

19.26	631.48	2-4-5-028-006	511	1	11/1/1978	45259504	SFD	20.89777623200	-156.68217980000	2	R-3 Residential	R-3	U	0.23
9.93	325.49	2-4-5-028-008	511	1	2/6/1967	7666688005	SFD	20.89803325600	-156.68216400000	2	R-3 Residential	R-3	U	0.24
24.71	810.03	2-4-5-028-013	511	1	6/2/1981	5594524827	SFD	20.89918071300	-156.68214180000	2	R-3 Residential	R-3	U	0.23
8.47	277.57	2-4-5-028-014	511	1	11/1/1978	404887020	SFD	20.89916566900	-156.68214370000	2	R-3 Residential	R-3	U	0.23
18.85	618.06	2-4-5-028-016	511	1	11/1/1978	1175470454	SFD	20.89916180200	-156.68129610000	2	R-3 Residential	R-3	U	0.00
13.03	427.30	2-4-5-028-017	511	1	4/2/1974	1815292144	SFD	20.89913342900	-156.68130250000	2	R-3 Residential	R-3	U	0.23
47.61	1,560.85	2-4-5-028-018	511	1	2/19/1980	7439097391	SFD	20.89893347700	-156.68131810000	2	R-3 Residential	R-3	U	0.23
14.89	488.06	2-4-5-028-019	511	1	11/1/1978	4714937322	SFD	20.89853457700	-156.68136490000	2	R-3 Residential	R-3	U	0.23
16.37	536.58	2-4-5-028-020	511	1	11/1/1978	6206521345	SFD	20.89855500800	-156.68133600000	2	R-3 Residential	R-3	U	0.23
14.90	488.44	2-4-5-028-021	511	1	11/1/1978	6991359203	SFD	20.89819505500	-156.68134600000	2	R-3 Residential	R-3	U	0.23
5.00	163.83	2-4-5-028-022	511	1	11/1/1978	4162259732	SFD	20.89818480800	-156.68134650000	2	R-3 Residential	R-3	U	0.23
29.71	973.93	2-4-5-028-023	511	1	3/31/1976	328616297	SFD	20.89779418700	-156.68135650000	2	R-3 Residential	R-3	U	0.23
16.65	545.87	2-4-5-028-024	511	1	3/10/1976	5384854932	SFD	20.89778973300	-156.68135810000	2	R-3 Residential	R-3	U	0.23
30.43	997.84	2-4-5-028-029	511	1	5/22/1987	6948706573	SFD	20.89655762100	-156.68130040000	2	R-3 Residential	R-3	U	0.25
5.42	177.54	2-4-5-028-030	511	1	11/1/1978	6995537714	SFD	20.89629233000	-156.68220500000	2	R-3 Residential	R-3	U	0.00
17.22	564.70	2-4-5-028-032	511	1	5/24/1967	6917736689	SFD	20.89631679400	-156.68176860000	2	R-3 Residential	R-3	U	0.24
10.44	342.43	2-4-5-028-033	511	1	4/20/1966	911503322	SFD	20.89640109200	-156.68128940000	4	R-3 Residential	R-3	U	0.24
21.30	698.33	2-4-5-028-034	511	1	11/1/1978	5110100263	SFD	20.89640301600	-156.68129080000	2	R-3 Residential	R-3	U	0.24
15.49	507.76	2-4-5-028-035	511	1	11/1/1978	9392869796	SFD	20.89642315000	-156.68083830000	2	R-3 Residential	R-3	U	0.24
7.34	240.79	2-4-5-028-036	511	1	11/1/1978	8844284991	SFD	20.89693030700	-156.68110830000	2	R-3 Residential	R-3	U	0.24
21.97	720.25	2-4-5-028-038	511	1	7/11/1974	9789208533	SFD	20.89650353800	-156.68060070000	2	R-3 Residential	R-3	U	0.00
15.96	523.20	2-4-5-028-044	511	1	8/12/1976	1773813312	SFD	20.89693646600	-156.68111110000	2	R-3 Residential	R-3	U	0.25
13.21	432.98	2-4-5-028-048	511	1	11/1/1978	7988625220	SFD	20.89787789300	-156.68119340000	2	R-3 Residential	R-3	U	0.27
16.28	533.63	2-4-5-028-049	511	1	6/1/1995	8572612121	SFD	20.89826418900	-156.68117520000	3	R-3 Residential	R-3	U	0.27
38.75	1,270.60	2-4-5-028-050	511	1	5/17/1977	3627266778	SFD	20.89847188200	-156.68117770000	2	R-3 Residential	R-3	U	0.23
14.25	467.21	2-4-5-028-051	511	1	8/18/1976	5927410288	SFD	20.89846175100	-156.68117960000	2	R-3 Residential	R-3	U	0.23
17.54	574.92	2-4-5-028-052	511	1	6/5/1974	480902658	SFD	20.89886500600	-156.68116580000	2	R-3 Residential	R-3	U	0.24
14.38	471.45	2-4-5-028-053	511	1	11/1/1978	2996253700	SFD	20.89906764900	-156.68114980000	2	R-3 Residential	R-3	U	0.27
26.46	867.49	2-4-5-028-054	511	1	9/20/1978	2482583397	SFD	20.89910351300	-156.68112270000	2	R-3 Residential	R-3	U	0.27
37.97	1,245.03	2-4-5-028-060	511	1	11/1/1978	6972418548	SFD	20.89842661300	-156.68033640000	2	R-3 Residential	R-3	U	0.23
19.43	637.13	2-4-5-028-075	511	1	11/1/1978	3930466657	SFD	20.89813241100	-156.68019270000	2	R-3 Residential	R-3	U	0.26
60.32	1,977.70	2-4-6-002-016	511	1	10/8/1991	7277546747	SFD	20.86697305000	-156.67446570000	3	R-3 Residential	R-3	U	0.40
48.21	1,580.60	2-4-6-002-017	511	1	3/4/1987	4680945551	SFD	20.86679171700	-156.67432580000	2	R-3 Residential	R-3	U	0.37
0.00	0.00	2-4-6-002-020	511	1	6/15/2015	2431181668	SFD	20.86629693700	-156.67396972900	2	R-3 Residential	R-3	U	0.11
12.82	420.46	2-4-6-003-004	511	1	9/10/2003	6161233808	SFD	20.86299249000	-156.67112560000	2	R-3 Residential	R-3	U	0.30
3.79	124.18	2-4-6-003-006	511	1	9/26/1986	4480300603	SFD	20.86324013300	-156.67131540000	3	R-3 Residential	R-3	U	0.00
33.55	1,100.00	2-4-6-003-007	511	1	11/1/1978	7835313850	SFD	20.86331922600	-156.67141040000	2	R-3 Residential	R-3	U	0.15
56.77	1,861.34	2-4-6-003-008	511	1	8/21/1985	8227809827	SFD	20.86344702200	-156.67151880000	2	R-3 Residential	R-3	U	0.00
37.82	1,240.08	2-4-6-003-009	511	1	11/1/1994	5363972169	SFD	20.86351173800	-156.67159550000	4	R-3 Residential	R-3	U	0.32
47.65	1,562.19	2-4-6-003-010	511	1	7/21/1998	9228451609	SFD	20.86389899300	-156.67194700000	2	R-3 Residential	R-3	U	0.72
40.23	1,318.85	2-4-6-003-013	511	1	2/21/1991	2370496646	SFD	20.86458084000	-156.67259740000	3	R-3 Residential	R-3	U	0.26
2.80	91.94	2-4-6-003-016	511	2	4/1/1993	1383940333	SFD	20.86400310900	-156.67209260000	2	R-3 Residential	R-3	U	0.34
18.45	604.92	2-4-6-003-017	511	1	11/1/1978	4121844814	SFD	20.86484136800	-156.67280780000	2	R-3 Residential	R-3	U	0.00
4.46	146.26	2-4-6-003-020	511	1	3/5/1997	5304040413	SFD	20.86266396900	-156.67079680000	2	R-3 Residential	R-3	U	0.23
17.84	584.97	2-4-6-003-021	511	1	9/20/1996	4554576780	SFD	20.86245013000	-156.67060000000	2	R-3 Residential	R-3	U	0.27
4.22	138.39	2-0-0-000-000	511	1	11/8/1989	87546989	SFD	20.86323743500	-156.67118900000	2	Road	ROAD	U	0.00
0.00	0.00	2-0-0-000-000	511	1	1/8/1987	1563922751	SFD	20.89265676800	-156.68518640000	2	Road	ROAD	U	0.00
0.00	0.00	2-0-0-000-000	511	1	8/1/1985	232441196	SFD	20.87415420900	-156.67725230000	2	Road	ROAD	U	0.00
0.00	0.00	2-0-0-000-000	511	1	7/28/1998	2518517753	SFD	20.87594700900	-156.67867250000	2	Road	ROAD	U	0.00
1.67	54.84	2-0-0-000-000	511	1	6/29/1981	4512556128	SFD	20.87244613300	-156.67648490000	2	Road	ROAD	U	0.00
43.87	1,438.39	2-0-0-000-000	511	1	11/20/1986	4998782947	SFD	20.88815000000	-156.68164130000	2	Road	ROAD	U	0.00
0.00	0.00	2-0-0-000-000	511	1	11/1/1978	5861193634	SFD	20.87973158400	-156.67378150000	2	Road	ROAD	U	0.00
2.28	74.86	2-0-0-000-000	511	1	11/1/1978	6092540584	SFD	20.87949481400	-156.67212090000	2	Road	ROAD	U	0.00
13.34	437.21	2-0-0-000-000	511	1	11/1/1978	6909054065	SFD	20.87874482900	-156.67256790000	2	Road	ROAD	U	0.00
21.86	716.56	2-0-0-000-000	511	1	11/1/1978	9081560232	SFD	20.86296952100	-156.66981430000	2	Road	ROAD	U	0.20
15.52	508.85	2-2-4-006-006	511	1	11/1/1978	6939391094	SFD	20.86742721100	-156.67469870000	3	Road	ROAD	U	0.00
11.86	388.91	2-2-4-023-000	511	1	3/1/2004	8809739269	SFD	20.88051883900	-156.67526090000	2	Road	ROAD	U	0.00
18.17	595.66	2-4-3-016-060	511	2	3/12/1985	2873356336	SFD	20.99026056000	-156.66543990000	2	Road	ROAD	U	0.11
18.56	608.39	2-4-3-020-084	511	1	5/17/2000	28735347	SFD	20.97325550700	-156.67421990000	2	Road	ROAD	U	0.17
14.37	471.17	2-4-3-021-067	511	1	10/9/1998	8971182118	SFD	20.97149782100	-156.67383380000	2	Road	ROAD	U	13.04
0.00	0.00	2-4-5-001-031	511	1	4/9/1998	7519248735	SFD	20.87596011100	-156.67881190000	2	Road	ROAD	U	0.00
3.68	120.79	2-4-5-001-056	511	1	9/9/1997	9093578107	SFD	20.87571337300	-156.67904090000	2	Road	ROAD	U	0.00
26.63	873.22	2-4-5-002-001	511	1	5/1/1998	4187739151	SFD	20.87886660700	-156.68282100000	2	Road	ROAD	U	0.00
63.14	2,070.22	2-4-5-002-004	511	1	11/1/1978	3290236681	SFD	20.87837116000	-156.68235790000	4	Road	ROAD	U	0.43
49.27	1,615.30	2-4-5-002-010	511	1	11/1/1978	7907635	SFD	20.87804200000	-156.68206900000	3	Road	ROAD	U	0.30
0.00	0.00	2-4-5-003-012	511	1	4/22/1993	8689362970	SFD	20.87991558600	-156.68359730000	2	Road	ROAD	U	0.00
7.93	259.95	2-4-5-003-016	511	1	11/1/1978	2943101504	SFD	20.88137785100	-156.68140880000	2	Road	ROAD	U	0.00
29.32	961.17	2-4-5-003-017	511	1	8/29/1990	1729332109	SFD	20.88069175700	-156.68464970000	2	Road	ROAD	U	0.26
16.82	551.53	2-4-5-003-020	511	1	2/1/1999	2932161602	SFD	20.88074438500	-156.68465870000	2	Road	ROAD	U	0.26
2.20	72.21	2-4-5-003-021	511	1	11/1/1978	2446943849	SFD	20.88059597200	-156.68454620000	2	Road	ROAD	U	0.11
8.38	274.64	2-4-5-003-022	511	1	5/1/1992	8932369657	SFD	20.88058547000	-156.68453940000	2	Road	ROAD	U	0.12
4.64	152.13	2-4-5-003-029	511	1	11/1/1978	1145437182	SFD	20.88019233300	-156.68389930000	2	Road	ROAD	U	0.00
5.78	189.43	2-4-5-003-033	511	1	11/1/1978	8209528302	SFD	20.88028073300	-156.68411710000	2	Road	ROAD	U	0.26
49.57	1,625.33	2-4-5-003-037	511	1	7/15/1980	2713890254	SFD	20.88079688700	-156.68514950000	2	Road	ROAD	U	0.49
13.41	439.51	2-4-5-004-003	511	1</										

7.51	246.17	2-4-5-012-011	511	1	3/10/1989	122036190	SFD	20.88866645700	-156.68472470000	2	Road	ROAD	U	0.00
7.74	253.74	2-4-5-012-012	511	1	11/1/1978	5432225253	SFD	20.88863383600	-156.68472720000	2	Road	ROAD	U	0.00
0.00	0.00	2-4-5-012-013	511	1	11/1/1978	7916213426	SFD	20.88829962000	-156.68472370000	2	Road	ROAD	U	0.00
35.10	1,150.96	2-4-5-012-014	511	1	11/1/1978	3169081224	SFD	20.88828052200	-156.68473060000	2	Road	ROAD	U	0.00
1.30	42.51	2-4-5-012-015	511	1	11/1/1978	1584746311	SFD	20.88794678900	-156.68472720000	3	Road	ROAD	U	0.00
12.46	408.61	2-4-5-012-020	511	1	11/1/1978	1908488093	SFD	20.88866204700	-156.68415870000	2	Road	ROAD	U	0.00
16.57	543.17	2-4-5-012-022	511	1	7/9/1987	7808949461	SFD	20.88811648800	-156.68368850000	2	Road	ROAD	U	0.11
20.60	675.44	2-4-5-012-023	511	1	11/1/1978	5863665353	SFD	20.88809695300	-156.68368460000	2	Road	ROAD	U	0.00
17.96	588.72	2-4-5-012-026	511	1	12/12/1996	4502348153	SFD	20.88748580400	-156.68397030000	2	Road	ROAD	U	0.15
6.27	205.52	2-4-5-012-027	511	1	7/8/1988	349456590	SFD	20.88792878400	-156.68422800000	2	Road	ROAD	U	0.00
22.09	724.40	2-4-5-012-028	511	1	11/1/1978	213671407	SFD	20.88793990400	-156.68422280000	2	Road	ROAD	U	0.00
11.20	367.21	2-4-5-012-030	511	1	5/6/1998	6246947063	SFD	20.88829557900	-156.68416450000	2	Road	ROAD	U	0.00
14.34	470.22	2-4-5-012-031	511	1	11/1/1978	9329611805	SFD	20.88871291000	-156.68418860000	2	Road	ROAD	U	0.00
26.14	857.10	2-4-5-012-034	511	1	2/20/1997	8790204892	SFD	20.88751317500	-156.68348290000	3	Road	ROAD	U	0.16
77.29	2,534.21	2-4-5-012-037	511	1	9/19/1986	3953953934	SFD	20.88904018500	-156.68390000000	2	Road	ROAD	U	0.00
15.99	524.21	2-4-5-012-038	511	1	8/11/1978	599085369	SFD	20.88904321900	-156.68393210000	2	Road	ROAD	U	0.00
16.67	546.48	2-4-5-012-039	511	1	11/27/1992	7863886891	SFD	20.88941824800	-156.68419490000	2	Road	ROAD	U	0.00
10.09	330.79	2-4-5-012-046	511	1	11/18/2003	8237626225	SFD	20.88920321400	-156.68424790000	2	Road	ROAD	U	0.00
17.78	582.79	2-4-5-012-049	511	1	9/30/1994	792552238	SFD	20.88860312200	-156.68417470000	2	Road	ROAD	U	0.00
19.08	625.41	2-4-5-012-058	511	1	10/23/1987	5144428811	SFD	20.89000042700	-156.68492070000	2	Road	ROAD	U	0.00
14.91	488.99	2-4-5-012-060	511	1	11/13/1984	7476703347	SFD	20.89064422500	-156.68488870000	2	Road	ROAD	U	0.00
10.82	354.84	2-4-5-012-061	511	1	11/1/1978	2101631435	SFD	20.89090581400	-156.68492630000	2	Road	ROAD	U	0.00
32.03	1,050.19	2-4-5-012-068	511	1	4/26/1984	1306991035	SFD	20.88812871500	-156.68244300000	2	Road	ROAD	U	0.00
61.54	2,017.60	2-4-5-012-069	511	1	7/9/1981	7256172720	SFD	20.88840212800	-156.68249330000	2	Road	ROAD	U	0.00
24.74	811.12	2-4-5-012-071	511	1	11/1/1978	2373501784	SFD	20.88902566300	-156.68255320000	2	Road	ROAD	U	0.00
16.89	553.61	2-4-5-012-072	511	1	7/24/1995	1400304229	SFD	20.88915080200	-156.68256540000	2	Road	ROAD	U	0.00
27.12	889.02	2-4-5-012-074	511	1	9/29/1983	1585684875	SFD	20.88899590100	-156.68255520000	2	Road	ROAD	U	0.00
21.56	707.02	2-4-5-012-075	511	1	4/3/1998	8241167031	SFD	20.88868866600	-156.68250440000	2	Road	ROAD	U	0.00
5.13	168.03	2-4-5-012-076	511	1	11/5/1982	6609085822	SFD	20.88868683600	-156.68249300000	2	Road	ROAD	U	0.00
27.78	910.74	2-4-5-012-077	511	1	2/3/1982	2351971864	SFD	20.88813246500	-156.68244780000	2	Road	ROAD	U	0.00
11.83	387.79	2-4-5-012-080	511	1	7/17/1995	364624764	SFD	20.88874750600	-156.68243170000	2	Road	ROAD	U	0.00
17.93	587.92	2-4-5-012-081	511	1	11/1/1978	4692788620	SFD	20.88874748300	-156.68243160000	2	Road	ROAD	U	0.00
19.55	640.96	2-4-5-012-084	511	1	3/28/1989	8353594698	SFD	20.88801582600	-156.68235280000	2	Road	ROAD	U	0.00
19.66	644.51	2-4-5-012-086	511	1	11/1/1978	6310661248	SFD	20.88808303100	-156.68172100000	2	Road	ROAD	U	0.00
13.93	456.61	2-4-5-012-087	511	1	7/31/1996	8369779889	SFD	20.88817447500	-156.68175100000	2	Road	ROAD	U	0.00
2.32	75.90	2-4-5-012-088	511	1	8/1/1994	159871323	SFD	20.88849756600	-156.68184610000	2	Road	ROAD	U	0.00
26.98	884.54	2-4-5-012-090	511	1	11/1/1978	6677841781	SFD	20.88869253400	-156.68185840000	3	Road	ROAD	U	0.00
18.35	601.72	2-4-5-012-091	511	1	11/1/1978	4250804721	SFD	20.88904367200	-156.68186070000	2	Road	ROAD	U	0.00
20.09	658.69	2-4-5-012-092	511	1	11/1/1978	8718488431	SFD	20.88904904700	-156.68185590000	3	Road	ROAD	U	0.00
16.78	550.14	2-4-5-012-093	511	1	11/1/1978	8101590598	SFD	20.88907765800	-156.68181760000	2	Road	ROAD	U	0.00
33.15	1,086.78	2-4-5-012-094	511	1	1/8/1986	9931434908	SFD	20.88898422900	-156.68168612400	2	Road	ROAD	U	0.00
11.19	367.02	2-4-5-012-096	511	1	5/6/1986	6800254144	SFD	20.88854932300	-156.68172750000	2	Road	ROAD	U	0.18
1.74	56.99	2-4-5-012-097	511	1	8/1/1986	9116669736	SFD	20.88852344000	-156.68173630000	2	Road	ROAD	U	0.00
17.08	559.86	2-4-5-012-098	511	1	11/20/1996	2687402213	SFD	20.88817148000	-156.68164470000	2	Road	ROAD	U	0.00
4.14	135.85	2-4-5-012-036-0002	511	1	1/11/2019	8515707038	SFD	20.88817912500	-156.68358401900	2	Road	ROAD	U	0.00
0.66	21.64	2-4-5-012-045-0000	511	1	4/8/2022	3180876305	SFD	20.88937245300	-156.68429726600	2	Road	ROAD	U	0.00
19.78	648.44	2-4-5-013-001	511	1	1/19/1999	8644298305	SFD	20.89020921600	-156.68494940000	2	Road	ROAD	U	0.00
34.06	1,116.67	2-4-5-013-003	511	1	11/1/1978	7415773644	SFD	20.89144617600	-156.68505410000	3	Road	ROAD	U	0.00
9.96	326.67	2-4-5-013-008	511	1	11/1/1978	9521415122	SFD	20.89274198800	-156.68520850000	2	Road	ROAD	U	0.00
24.87	815.36	2-4-5-013-014	511	1	3/27/1998	7729890153	SFD	20.89230845200	-156.68505820000	2	Road	ROAD	U	0.00
11.21	367.68	2-4-5-013-018	511	1	11/1/1978	4293366668	SFD	20.89158651500	-156.68500140000	2	Road	ROAD	U	0.00
22.79	747.10	2-4-5-013-020	511	1	5/1/1983	6362629715	SFD	20.89126547300	-156.68504440000	3	Road	ROAD	U	0.00
13.32	436.83	2-4-5-013-022	511	1	1/19/1978	6777704769	SFD	20.89092393400	-156.68491650000	2	Road	ROAD	U	0.00
0.00	0.00	2-4-5-013-023	511	1	1/2/1996	9844051694	SFD	20.89090495800	-156.68491510000	2	Road	ROAD	U	0.00
10.79	353.77	2-4-5-013-025	511	1	9/23/1986	4163101587	SFD	20.89228700400	-156.68516200000	2	Road	ROAD	U	0.00
25.58	838.55	2-4-5-013-038	511	1	5/4/1978	2332018114	SFD	20.89093185300	-156.68492670000	2	Road	ROAD	U	0.00
0.00	0.00	2-4-5-013-045-0000	511	1	1/11/2019	161244463	SFD	20.89159733500	-156.68498546600	3	Road	ROAD	U	0.00
107.41	3,521.67	2-4-5-014-001	511	1	11/1/1978	440671776	SFD	20.89376888800	-156.68394640000	2	Road	ROAD	U	0.00
9.01	295.49	2-4-5-014-035	511	1	11/1/1978	1625796137	SFD	20.89365395400	-156.68444320000	2	Road	ROAD	U	0.00
51.77	1,697.43	2-4-5-014-036	511	1	11/1/1978	5866944584	SFD	20.89378934800	-156.68359900000	2	Road	ROAD	U	0.00
8.05	263.88	2-4-5-014-037	511	1	11/1/1978	9067859202	SFD	20.89384481000	-156.68322400000	2	Road	ROAD	U	0.00
16.75	549.32	2-4-5-014-044	511	2	11/1/1978	6007061742	SFD	20.89450162600	-156.68286510000	2	Road	ROAD	U	0.00
7.08	231.99	2-4-5-014-062	511	1	10/2/1990	9594478349	SFD	20.89375080400	-156.68401540000	3	Road	ROAD	U	0.30
13.90	455.60	2-4-5-014-073	511	1	6/29/1988	2214855487	SFD	20.89668771400	-156.68459730000	2	Road	ROAD	U	0.27
26.97	884.15	2-4-5-014-081	511	1	5/12/1989	6448174108	SFD	20.89894342900	-156.68452050000	2	Road	ROAD	U	0.00
29.44	965.38	2-4-5-014-084	511	1	11/1/1978	9797640255	SFD	20.89883967900	-156.68451590000	2	Road	ROAD	U	0.02
14.50	475.41	2-4-5-014-089	511	2	8/9/1983	6046635722	SFD	20.89696219600	-156.68459370000	2	Road	ROAD	U	0.00
9.23	302.62	2-4-5-014-090	511	1	1/8/1996	5788774450	SFD	20.89385448200	-156.68288040000	3	Road	ROAD	U	0.00
23.38	766.45	2-4-5-014-036-0000	511	1	10/16/2017	1812827528	SFD	20.89374045500	-156.68392899100	2	Road	ROAD	U	0.00
29.73	974.64	2-4-5-014-036-0000	511	1	10/16/2017	7971257384	SFD	20.89374574200	-156.68394367900	2	Road	ROAD	U	0.00
10.07	330.25	2-4-5-014-057-0000	511	1	11/7/2018	1420826646	SFD	20.89330486200	-156.68263759000	2	Road	ROAD	U	0.00
5.85	191.94	2-4-5-014-057-0000	511	1	11/7/2018	2262675708	SFD	20.89329483200	-156.68264126600	2	Road	ROAD	U	0.00
23.69	776.56	2-4-5-015-002	511	1	10/14/1981	2251910136	SFD	20.88395305500	-156.67198490000	2	Road	ROAD	U	0.00
7.78	255.14	2-4-5-023-002	511	1	11/1/1978	4517073832	SFD	20.88086202300	-156.67196540000	2	Road	ROAD	U	0.00
4.86	159.45	2-4-5-023-018	511	1	11/1/1978	5542045735	SFD	20.88028073700	-156.67384560000	2	Road			

6.12	200.66	2-4-5-024-016	511	1	11/1/1978	4657521377	SFD	20.88067505800	-156.67677990000	2	Road	ROAD	U	0.10
22.78	746.99	2-4-5-024-017	511	1	11/1/1978	232442543	SFD	20.88068436500	-156.67679610000	2	Road	ROAD	U	0.00
12.66	414.92	2-4-5-024-024	511	1	11/1/1978	5266464159	SFD	20.88102552700	-156.67612460000	2	Road	ROAD	U	0.00
11.29	370.03	2-4-5-024-025	511	1	1/9/1995	3253932896	SFD	20.88112017200	-156.67648350000	2	Road	ROAD	U	0.00
12.90	422.81	2-4-5-024-026	511	1	11/1/1978	7875909687	SFD	20.88114238300	-156.67650590000	2	Road	ROAD	U	0.00
38.41	1,259.21	2-4-5-024-028	511	1	11/1/1978	1530533459	SFD	20.88152792000	-156.67653040000	2	Road	ROAD	U	0.00
11.28	369.95	2-4-5-024-031	511	1	11/1/1978	8138936450	SFD	20.88104320900	-156.67609530000	2	Road	ROAD	U	0.00
15.71	514.92	2-4-5-024-033	511	1	11/1/1978	7152660302	SFD	20.88146430700	-156.67609170000	2	Road	ROAD	U	0.11
15.73	515.79	2-4-5-024-039	511	1	11/1/1978	6321343001	SFD	20.88134129000	-156.67571050000	2	Road	ROAD	U	0.00
10.67	349.86	2-4-5-024-040	511	1	11/1/1978	3430247949	SFD	20.88163202200	-156.67557300000	3	Road	ROAD	U	0.00
17.55	575.30	2-4-5-024-041	511	1	5/1/1997	848897476	SFD	20.88166791000	-156.67558720000	3	Road	ROAD	U	0.10
10.99	360.16	2-4-5-024-042	511	1	11/1/1978	8586955847	SFD	20.88190026900	-156.67579070000	2	Road	ROAD	U	0.21
4.49	147.19	2-4-5-024-043	511	2	5/1/1988	4114791939	SFD	20.88189655500	-156.67580620000	2	Road	ROAD	U	0.00
10.12	331.83	2-4-5-024-048	511	1	1/4/1990	7631355197	SFD	20.88194277800	-156.67495390000	2	Road	ROAD	U	0.00
12.62	413.74	2-4-5-024-051	511	1	11/1/1978	6486097543	SFD	20.88187812300	-156.67647870000	2	Road	ROAD	U	0.00
6.62	217.19	2-4-5-024-052	511	1	11/1/1978	503646931	SFD	20.88189329100	-156.67648030000	2	Road	ROAD	U	0.00
26.40	865.68	2-4-5-024-054	511	1	11/2/1990	639701858	SFD	20.88200947500	-156.67665280000	2	Road	ROAD	U	0.00
23.95	785.38	2-4-5-024-058	511	1	11/1/1978	171126208	SFD	20.88161506900	-156.67692420000	2	Road	ROAD	U	0.00
20.42	669.64	2-4-5-024-059	511	1	5/15/1995	982352371	SFD	20.88180599400	-156.67708200000	2	Road	ROAD	U	0.12
0.58	19.04	2-4-5-024-064	511	1	11/1/1978	339435096	SFD	20.88122188600	-156.67729820000	2	Road	ROAD	U	0.00
12.44	407.92	2-4-5-024-066	511	1	1/13/1995	5725111408	SFD	20.88156299900	-156.67761190000	2	Road	ROAD	U	0.00
27.31	895.46	2-4-5-024-068	511	2	11/1/1978	354792642	SFD	20.88167091200	-156.67714700000	2	Road	ROAD	U	0.00
5.00	163.99	2-4-5-024-053-0000	511	1	11/4/1988	4219669329	SFD	20.88202753000	-156.67662310000	2	Road	ROAD	U	0.00
8.87	290.66	2-4-5-025-007	511	1	11/1/1978	6339892532	SFD	20.87907005500	-156.67552660000	2	Road	ROAD	U	0.00
23.87	782.70	2-4-5-025-011	511	1	7/6/1992	930797023	SFD	20.87989495200	-156.67607660000	2	Road	ROAD	U	0.00
11.25	368.99	2-4-5-025-012	511	1	11/1/1978	5784066627	SFD	20.87989596800	-156.67609320000	2	Road	ROAD	U	0.00
4.58	150.16	2-4-5-025-014	511	1	11/1/1978	4000290199	SFD	20.88013469000	-156.67632020000	2	Road	ROAD	U	0.00
8.06	264.34	2-4-5-025-023	511	1	9/29/1995	8809024560	SFD	20.88001346300	-156.67514830000	2	Road	ROAD	U	0.00
18.37	602.16	2-4-5-025-028	511	2	11/1/1978	217933312	SFD	20.87934007200	-156.67550240000	2	Road	ROAD	U	0.00
9.62	315.55	2-4-5-025-029	511	1	7/2/1998	9794984	SFD	20.87985660400	-156.67539130000	2	Road	ROAD	U	0.00
33.38	1,094.29	2-4-5-026-004	511	1	7/6/1993	921974463	SFD	20.88223641000	-156.67101620000	2	Road	ROAD	U	0.00
4.02	131.75	2-4-5-026-008	511	1	9/24/1979	1232286995	SFD	20.88231834700	-156.67145490000	2	Road	ROAD	U	0.00
5.54	181.64	2-4-5-026-010	511	1	11/1/1978	4035734114	SFD	20.88196934100	-156.67191040000	2	Road	ROAD	U	0.00
21.07	690.71	2-4-5-026-011	511	1	11/1/1978	6482724718	SFD	20.88206503000	-156.67189590000	2	Road	ROAD	U	0.00
2.08	68.28	2-4-5-026-014	511	1	1/24/1980	8505887284	SFD	20.88220953300	-156.67262430000	2	Road	ROAD	U	0.00
11.11	364.29	2-4-5-026-015	511	1	11/1/1978	6773966649	SFD	20.88223153000	-156.67262030000	2	Road	ROAD	U	0.00
14.49	475.08	2-4-5-026-016	511	1	11/1/1978	7248256953	SFD	20.88248624800	-156.67284620000	2	Road	ROAD	U	0.00
7.72	253.25	2-4-5-026-017	511	1	11/1/1978	7103648313	SFD	20.88248804400	-156.67284650000	2	Road	ROAD	U	0.00
9.93	325.46	2-4-5-026-020	511	1	9/23/1971	7523894819	SFD	20.88253803600	-156.67214100000	2	Road	ROAD	U	0.00
19.65	644.26	2-4-5-026-023	511	2	11/1/1978	4961067398	SFD	20.88197827100	-156.67285060000	2	Road	ROAD	U	0.18
20.06	657.76	2-4-5-026-025	511	1	11/1/1978	6806923946	SFD	20.88175754100	-156.67317850000	2	Road	ROAD	U	0.00
13.64	447.08	2-4-5-026-027	511	1	11/1/1978	7690195009	SFD	20.88187012000	-156.67325130000	2	Road	ROAD	U	0.00
5.64	185.00	2-4-5-026-029	511	1	11/1/1978	6375810833	SFD	20.88203941900	-156.67290410000	2	Road	ROAD	U	0.00
16.63	545.30	2-4-5-026-030	511	1	2/25/1991	2956487515	SFD	20.88241005000	-156.67288920000	2	Road	ROAD	U	0.00
22.95	752.54	2-4-5-026-031	511	1	9/5/1998	8787582131	SFD	20.88245498000	-156.67290510000	3	Road	ROAD	U	0.00
24.72	810.36	2-4-5-026-037	511	1	11/1/1978	6222163958	SFD	20.88256329700	-156.67351620000	2	Road	ROAD	U	0.00
18.97	621.86	2-4-5-026-038	511	1	11/1/1978	2959699943	SFD	20.88255708900	-156.67350210000	2	Road	ROAD	U	0.00
9.39	307.90	2-4-5-026-039	511	1	11/1/1978	9510950772	SFD	20.88270774000	-156.67318420000	2	Road	ROAD	U	0.00
21.59	707.98	2-4-5-026-040	511	1	11/1/1978	4166116146	SFD	20.88270598800	-156.67318560000	2	Road	ROAD	U	0.00
8.36	273.93	2-4-5-026-041	511	1	7/7/1983	9781067903	SFD	20.88285886500	-156.67286580000	2	Road	ROAD	U	0.00
10.20	334.56	2-4-5-026-042	511	1	11/1/1978	3312195515	SFD	20.88286825500	-156.67286500000	2	Road	ROAD	U	0.00
15.87	520.19	2-4-5-026-043	511	1	11/1/1978	2086814537	SFD	20.88302499700	-156.67254610000	2	Road	ROAD	U	0.00
12.17	399.02	2-4-5-026-044	511	1	11/1/1978	6101483013	SFD	20.88305270400	-156.67247570000	2	Road	ROAD	U	0.00
5.21	170.93	2-4-5-026-046	511	1	11/1/1978	1116442692	SFD	20.88337035200	-156.67233920000	2	Road	ROAD	U	0.16
18.16	595.55	2-4-5-026-048	511	1	11/1/1978	501223377	SFD	20.88319802400	-156.67236300000	2	Road	ROAD	U	0.00
12.09	396.45	2-4-5-026-051	511	1	11/1/1978	2982868192	SFD	20.88298246600	-156.67234830000	2	Road	ROAD	U	0.00
6.69	219.37	2-4-5-026-053	511	1	11/1/1978	4146259958	SFD	20.88252389100	-156.67202240000	3	Road	ROAD	U	0.00
27.25	893.52	2-4-5-026-054	511	1	3/16/1998	7477882895	SFD	20.88249814300	-156.67203280000	2	Road	ROAD	U	0.00
15.43	505.74	2-4-5-026-061	511	1	9/5/1998	6351469765	SFD	20.88230857300	-156.67159580000	2	Road	ROAD	U	0.00
26.01	852.90	2-4-5-027-002	511	1	6/13/1967	4191659946	SFD	20.89692307500	-156.68332170000	2	Road	ROAD	U	0.00
9.98	327.19	2-4-5-027-003	511	1	11/1/1978	6931593268	SFD	20.89727997000	-156.68333230000	2	Road	ROAD	U	0.00
10.82	354.64	2-4-5-027-005	511	1	4/1/1990	9319654812	SFD	20.89748269200	-156.68333800000	2	Road	ROAD	U	0.00
22.81	747.79	2-4-5-027-008	511	1	11/1/1978	3493690206	SFD	20.89823879900	-156.68331830000	2	Road	ROAD	U	0.00
8.97	294.23	2-4-5-027-009	511	1	2/14/1966	2899624634	SFD	20.89843789700	-156.68331920000	2	Road	ROAD	U	0.00
19.79	648.96	2-4-5-027-010	511	1	2/1/1989	5638833325	SFD	20.89845357700	-156.68331240000	2	Road	ROAD	U	0.00
12.26	401.83	2-4-5-027-012	511	1	8/31/1967	9762487622	SFD	20.89883620000	-156.68330320000	2	Road	ROAD	U	0.00
31.16	1,021.61	2-4-5-027-013	511	1	3/24/1988	9330768801	SFD	20.89925422700	-156.68325630000	2	Road	ROAD	U	0.00
34.21	1,121.50	2-4-5-027-014	511	1	11/1/1978	6136243456	SFD	20.89927612700	-156.68327700000	2	Road	ROAD	U	0.00
30.18	989.51	2-4-5-027-015	511	1	10/3/1967	8064662653	SFD	20.89926039100	-156.68317510000	3	Road	ROAD	U	0.00
18.79	616.12	2-4-5-027-017	511	1	11/1/1978	7785665828	SFD	20.89883865100	-156.68316910000	2	Road	ROAD	U	0.00
8.75	286.78	2-4-5-027-018	511	1	11/1/1978	5553075702	SFD	20.89882634500	-156.68317100000	2	Road	ROAD	U	0.00
32.48	1,064.81	2-4-5-027-023	511	1	2/8/1996	5232300219	SFD	20.89761708700	-156.68320040000	2	Road	ROAD	U	0.24
17.03	558.39	2-4-5-027-024	511	1	11/1/1978	6525088116	SFD	20.89761962500	-156.68320070000	2	Road	ROAD	U	0.24
18.53	607.62	2-4-5-027-029	511	1	9/14/1993	4369929510	SFD	20.89630740700	-156.68292980000	2	Road	ROAD	U	0.00
16.25	532.90	2-4-5-027-033	511	1	10/14/1982	8259571120	SFD	20.89656274900	-156.68220640000	3	Road	ROAD	U	0.00
10.39	340													

14.00	459.04	2-4-5-027-058	511	1	11/1/1978	8367101535	SFD	20.89952559600	-156.68228970000	2	Road	ROAD	U	0.00
22.61	741.26	2-4-5-027-059	511	1	11/16/1977	4537768965	SFD	20.89953100600	-156.68228470000	2	Road	ROAD	U	0.00
18.23	597.81	2-4-5-028-001	511	1	11/1/1978	8227531020	SFD	20.89640075600	-156.68195890000	4	Road	ROAD	U	0.00
9.13	299.26	2-4-5-028-003	511	1	11/1/1988	6827977437	SFD	20.89685136700	-156.68210980000	2	Road	ROAD	U	0.25
23.68	776.53	2-4-5-028-004	511	1	8/23/1968	1765460496	SFD	20.89724017600	-156.68219720000	2	Road	ROAD	U	0.00
20.63	676.48	2-4-5-028-005	511	1	4/26/1966	4338024244	SFD	20.89724472200	-156.68219490000	4	Road	ROAD	U	0.00
36.40	1,193.33	2-4-5-028-007	511	1	11/2/1965	1961205402	SFD	20.89797441400	-156.68222080000	4	Road	ROAD	U	0.00
2.11	69.26	2-4-5-028-009	511	1	8/7/1968	9456532677	SFD	20.89839851800	-156.68219810000	2	Road	ROAD	U	0.00
18.77	615.44	2-4-5-028-010	511	1	1/5/1990	8518090993	SFD	20.89840735000	-156.68218080000	3	Road	ROAD	U	0.24
16.20	531.28	2-4-5-028-011	511	1	11/1/1978	6796626037	SFD	20.89877893600	-156.68218550000	2	Road	ROAD	U	0.00
14.50	475.46	2-4-5-028-012	511	1	11/1/1978	175610613	SFD	20.89889408700	-156.68221170000	2	Road	ROAD	U	0.00
35.20	1,154.23	2-4-5-028-015	511	1	5/22/1997	7652286886	SFD	20.89946462100	-156.68189050000	2	Road	ROAD	U	0.00
16.58	543.50	2-4-5-028-026	511	1	11/1/1978	7097365031	SFD	20.89717507800	-156.68129350000	2	Road	ROAD	U	0.00
26.48	868.31	2-4-5-028-027	511	1	11/1/1978	754264375	SFD	20.89698615500	-156.68125410000	4	Road	ROAD	U	0.00
6.48	212.30	2-4-5-028-028	511	1	11/1/1978	8171526777	SFD	20.89696767000	-156.68125040000	4	Road	ROAD	U	0.00
24.83	814.07	2-4-5-028-037	511	1	3/7/1978	1205645450	SFD	20.89650646000	-156.68061370000	2	Road	ROAD	U	0.00
28.61	937.90	2-4-5-028-043	511	1	11/1/1978	5267160213	SFD	20.89662702600	-156.68053540000	2	Road	ROAD	U	0.00
31.82	1,043.17	2-4-5-028-045	511	1	6/15/1995	2502268156	SFD	20.89733136500	-156.68118530000	3	Road	ROAD	U	0.00
33.30	1,091.78	2-4-5-028-046	511	1	11/1/1978	4149027515	SFD	20.89733318300	-156.68118420000	2	Road	ROAD	U	0.00
19.64	643.96	2-4-5-028-047	511	1	6/10/1976	7055885893	SFD	20.89781198700	-156.68123750000	3	Road	ROAD	U	0.00
24.24	794.70	2-4-5-028-056	511	1	11/1/1978	3727619111	SFD	20.89884292800	-156.68031360000	2	Road	ROAD	U	0.00
16.77	549.75	2-4-5-028-057	511	1	11/5/1975	9047533232	SFD	20.89882909300	-156.68031740000	2	Road	ROAD	U	0.00
2.36	77.27	2-4-5-028-058	511	1	11/1/1978	9472018427	SFD	20.89844912400	-156.68032510000	2	Road	ROAD	U	0.00
26.63	873.11	2-4-5-028-059	511	1	11/1/1978	9674114632	SFD	20.89825438900	-156.68033230000	2	Road	ROAD	U	0.00
13.60	445.79	2-4-5-028-061	511	1	11/1/1978	5972508651	SFD	20.89781495800	-156.68034210000	2	Road	ROAD	U	0.00
36.28	1,189.56	2-4-5-028-066	511	1	7/1/1976	7624502268	SFD	20.89663349300	-156.68052800000	2	Road	ROAD	U	0.00
22.13	725.63	2-4-5-028-074	511	1	11/1/1978	6887248702	SFD	20.89774268800	-156.68022540000	2	Road	ROAD	U	0.00
10.85	355.77	2-4-5-028-076	511	1	11/1/1978	8128285499	SFD	20.89812790500	-156.68019840000	2	Road	ROAD	U	0.26
28.10	921.42	2-4-5-028-077	511	1	8/26/1980	586157333	SFD	20.89857166900	-156.68019860000	2	Road	ROAD	U	0.00
17.87	585.87	2-4-5-028-078	511	1	11/1/1978	6014638217	SFD	20.89857635400	-156.68021020000	2	Road	ROAD	U	0.00
22.70	744.26	2-4-5-028-079	511	1	3/29/1978	7825098408	SFD	20.89900256700	-156.68018410000	2	Road	ROAD	U	0.00
52.49	1,721.09	2-4-5-028-082	511	1	11/1/1978	2147416210	SFD	20.89931773000	-156.68002850000	2	Road	ROAD	U	0.00
12.44	407.95	2-4-5-028-083	511	1	11/1/1978	3674469137	SFD	20.89932242800	-156.68004360000	2	Road	ROAD	U	0.00
10.49	343.91	2-4-5-028-084	511	1	11/1/1978	592623391	SFD	20.89936188100	-156.68047220000	2	Road	ROAD	U	0.00
27.34	896.26	2-4-5-028-085	511	1	11/1/1978	3659460045	SFD	20.89936714900	-156.68046780000	2	Road	ROAD	U	0.00
32.52	1,066.20	2-4-5-028-086	511	1	10/19/1994	78789725	SFD	20.89938895900	-156.68007570000	2	Road	ROAD	U	0.00
25.38	832.19	2-4-5-028-088	511	1	11/1/1978	5329924255	SFD	20.89947993900	-156.68148430000	2	Road	ROAD	U	0.00
19.09	625.96	2-4-5-028-089	511	1	11/1/1978	7779122116	SFD	20.89947824300	-156.68149240000	2	Road	ROAD	U	0.00
30.22	990.85	2-4-5-028-090	511	1	5/1/1996	8764305395	SFD	20.89947859700	-156.68185460000	3	Road	ROAD	U	0.00
4.84	158.61	2-4-5-029-005	511	1	11/1/1978	2044412877	SFD	20.88329220600	-156.66918960000	2	Road	ROAD	U	0.00
11.20	367.32	2-4-5-029-007	511	1	11/1/1978	1350416967	SFD	20.88341890200	-156.66886910000	2	Road	ROAD	U	0.00
24.44	801.23	2-4-5-029-023	511	1	11/1/1978	5634161913	SFD	20.88171236200	-156.67064440000	3	Road	ROAD	U	0.00
27.49	901.28	2-4-5-029-024	511	1	11/1/1978	4903270363	SFD	20.88218633200	-156.67049030000	2	Road	ROAD	U	0.00
18.77	615.25	2-4-5-029-025	511	1	11/1/1978	1667330223	SFD	20.88239497900	-156.67031820000	3	Road	ROAD	U	0.00
7.54	247.16	2-4-5-029-026	511	1	11/1/1978	4485577683	SFD	20.88241088200	-156.67030890000	2	Road	ROAD	U	0.00
11.52	377.79	2-4-5-029-027	511	1	11/1/1978	3578728430	SFD	20.88265777400	-156.67074680000	2	Road	ROAD	U	0.00
19.26	631.39	2-4-5-029-028	511	1	11/1/1978	6987557186	SFD	20.88265485700	-156.67075620000	2	Road	ROAD	U	0.00
12.19	399.64	2-4-5-029-029	511	1	3/8/1984	4027122849	SFD	20.88289528900	-156.67100970000	2	Road	ROAD	U	0.00
49.21	1,613.50	2-4-5-029-030	511	1	11/1/1978	254534696	SFD	20.88289649800	-156.67101280000	3	Road	ROAD	U	0.00
5.94	194.75	2-4-5-029-037	511	1	11/1/1978	7120813961	SFD	20.88261989200	-156.67005140000	2	Road	ROAD	U	0.00
27.02	886.01	2-4-5-029-038	511	1	3/1/1994	5271468032	SFD	20.88262615400	-156.67002590000	3	Road	ROAD	U	0.00
6.96	228.28	2-4-5-029-039	511	1	11/1/1978	9522259865	SFD	20.88292587500	-156.66991840000	2	Road	ROAD	U	0.00
20.04	657.05	2-4-5-029-041	511	1	11/1/1978	1384971695	SFD	20.88318567600	-156.67025530000	2	Road	ROAD	U	0.00
23.48	769.95	2-4-5-029-042	511	1	3/5/1996	3047624571	SFD	20.88319873900	-156.67026450000	2	Road	ROAD	U	0.00
22.16	726.42	2-4-5-029-043	511	1	12/9/1989	6870954626	SFD	20.88339901100	-156.67054550000	2	Road	ROAD	U	0.00
26.70	875.49	2-4-5-029-044	511	1	11/1/1978	3391006995	SFD	20.88341549900	-156.67056360000	2	Road	ROAD	U	0.00
3.90	128.01	2-4-5-029-050	511	1	11/1/1978	7243629158	SFD	20.88367932000	-156.66973070000	2	Road	ROAD	U	0.00
21.90	718.17	2-4-5-029-051	511	1	11/1/1978	5139624868	SFD	20.88381597200	-156.66929220000	2	Road	ROAD	U	0.00
14.28	468.33	2-4-5-029-052	511	1	11/1/1978	8384495193	SFD	20.88368530900	-156.66973800000	2	Road	ROAD	U	0.00
46.49	1,524.23	2-4-5-029-053	511	1	11/1/1978	5833437752	SFD	20.88391085700	-156.66997550000	3	Road	ROAD	U	0.16
15.47	507.16	2-4-5-029-054	511	1	11/1/1978	6031378971	SFD	20.88392030100	-156.67000160000	2	Road	ROAD	U	0.00
16.59	543.85	2-4-5-029-067	511	1	11/1/1978	3629057114	SFD	20.88444695500	-156.66982640000	2	Road	ROAD	U	0.00
5.49	180.11	2-4-5-029-068	511	1	11/1/1978	4569296926	SFD	20.88443618400	-156.66984260000	2	Road	ROAD	U	0.00
9.98	327.27	2-4-5-029-069	511	1	11/1/1978	9702728799	SFD	20.88421813700	-156.67009190000	2	Road	ROAD	U	0.00
24.36	798.58	2-4-5-029-070	511	1	11/1/1978	5518274828	SFD	20.88420639400	-156.67009830000	2	Road	ROAD	U	0.00
18.43	604.13	2-4-5-029-071	511	1	11/1/1978	6247707409	SFD	20.88398991300	-156.67034880000	3	Road	ROAD	U	0.00
23.16	759.18	2-4-5-029-072	511	1	6/15/1987	9686350034	SFD	20.88397715300	-156.67035990000	2	Road	ROAD	U	0.00
6.68	219.10	2-4-5-029-073	511	1	1/7/1992	9589820373	SFD	20.88375426600	-156.67060600000	2	Road	ROAD	U	0.00
5.06	166.04	2-4-5-029-074	511	1	11/1/1978	9808576869	SFD	20.88374014900	-156.67062220000	2	Road	ROAD	U	0.00
18.24	598.09	2-4-5-029-075	511	1	11/1/1978	6749185100	SFD	20.88353192300	-156.67091800000	2	Road	ROAD	U	0.00
38.76	1,270.87	2-4-5-029-076	511	1	11/1/1978	1303653001	SFD	20.88352493300	-156.67094200000	2	Road	ROAD	U	0.00
17.55	575.49	2-4-5-029-077	511	1	11/1/1978	8921867353	SFD	20.88332544100	-156.67119130000	2	Road	ROAD	U	0.00
8.46	277.40	2-4-5-029-078	511	1	10/28/1996	5241942831	SFD	20.88328583000	-156.67119350000	2	Road	ROAD	U	0.00
21.69	711.04	2-4-5-029-082	511	1	11/1/1978	703810439	SFD	20.88398045300	-156.67123720000	2	Road	ROAD	U	0.00
19.04	624.34	2-4-5-029-084	511	1	11/1/1978	4844320394	SFD	20.88422393400	-156.67092570000	2	Road	ROAD	U	0

8.85	290.27	2-4-5-030-022	511	1	9/15/1995	1995417754	SFD	20.89088608800	-156.68264410000	2	Road	ROAD	U	5.08
18.91	619.92	2-4-5-030-024	511	1	10/2/1996	9124243388	SFD	20.89124973200	-156.68260340000	2	Road	ROAD	U	5.08
16.71	547.76	2-4-5-030-026	511	1	11/1/1978	7220645569	SFD	20.89165695700	-156.68256520000	2	Road	ROAD	U	5.08
28.93	948.52	2-4-5-030-027	511	1	11/28/1986	3786101081	SFD	20.89169728200	-156.68256080000	2	Road	ROAD	U	5.08
13.56	444.67	2-4-5-030-028	511	1	5/26/1978	6588637167	SFD	20.89202341300	-156.68262480000	2	Road	ROAD	U	5.08
13.28	435.41	2-4-5-030-029	511	1	2/3/1995	9894254635	SFD	20.89201726400	-156.68262390000	2	Road	ROAD	U	5.08
8.60	281.91	2-4-5-030-030	511	1	11/1/1978	4568160062	SFD	20.89240102600	-156.68266100000	2	Road	ROAD	U	5.08
2.53	82.87	2-4-5-030-037	511	1	11/1/1978	6022256308	SFD	20.89192900000	-156.68329800000	3	Road	ROAD	U	5.08
6.26	205.27	2-4-5-030-043	511	1	9/30/1992	2227235994	SFD	20.89197557800	-156.68378000000	2	Road	ROAD	U	5.08
61.66	2,021.72	2-4-5-030-044	511	1	11/1/1978	289208839	SFD	20.89197661900	-156.68378330000	2	Road	ROAD	U	5.08
0.75	24.48	2-4-5-030-045	511	1	11/1/1978	4559513385	SFD	20.89195132200	-156.68357610000	2	Road	ROAD	U	5.08
4.87	159.73	2-4-5-030-046	511	1	2/18/1999	1644412111	SFD	20.89195295200	-156.68358180000	2	Road	ROAD	U	5.08
11.11	364.32	2-4-5-030-050	511	1	11/1/1978	4134000837	SFD	20.89251226500	-156.68380930000	2	Road	ROAD	U	5.08
16.62	545.03	2-4-5-030-053	511	1	11/15/1977	2879684894	SFD	20.89263381200	-156.68401050000	2	Road	ROAD	U	5.08
13.96	457.76	2-4-5-030-054	511	1	11/1/1978	1052391970	SFD	20.89266823000	-156.68396990000	2	Road	ROAD	U	5.08
9.73	319.13	2-4-5-030-055	511	1	3/8/1990	5286532433	SFD	20.89266912200	-156.68367480000	2	Road	ROAD	U	5.08
11.13	364.86	2-4-5-030-056	511	1	11/1/1978	2005957731	SFD	20.89266573300	-156.68365870000	2	Road	ROAD	U	5.08
22.24	729.10	2-4-5-030-057	511	1	10/9/1996	4948189567	SFD	20.89272723600	-156.68328040000	2	Road	ROAD	U	5.08
42.14	1,381.75	2-4-5-030-058	511	1	12/29/1995	2036289064	SFD	20.89272713600	-156.68328290000	2	Road	ROAD	U	5.08
11.20	367.19	2-4-5-030-059	511	1	11/1/1978	562758517	SFD	20.89275993000	-156.68290480000	2	Road	ROAD	U	5.08
6.25	204.92	2-4-5-030-060	511	1	11/1/1978	6670362114	SFD	20.89276170600	-156.68289300000	2	Road	ROAD	U	5.08
15.36	503.47	2-4-5-030-061	511	1	10/21/1971	1660290274	SFD	20.89285253900	-156.68238210000	2	Road	ROAD	U	5.08
23.01	754.51	2-4-5-030-063	511	1	11/1/1978	209443072	SFD	20.89291271800	-156.68198460000	2	Road	ROAD	U	0.14
12.05	394.97	2-4-5-030-064	511	1	11/1/1978	9003704978	SFD	20.89290489900	-156.68197630000	2	Road	ROAD	U	5.08
17.78	583.01	2-4-5-030-065	511	2	9/6/1983	4024604355	SFD	20.89287383400	-156.68169820000	2	Road	ROAD	U	0.18
6.68	218.99	2-4-5-030-066	511	1	11/1/1978	3339025033	SFD	20.89286277700	-156.68167120000	2	Road	ROAD	U	0.15
0.00	0.00	2-4-5-030-070	511	1	11/1/1978	4390375147	SFD	20.89297234000	-156.68090620000	2	Road	ROAD	U	5.08
24.70	809.95	2-4-5-030-071	511	1	6/1/1982	4254061234	SFD	20.89295026600	-156.68091010000	2	Road	ROAD	U	5.08
27.81	911.75	2-4-5-030-074	511	1	7/22/1997	8951231336	SFD	20.89237936400	-156.68144910000	2	Road	ROAD	U	5.08
18.30	599.86	2-4-5-030-075	511	1	5/11/1987	6326211298	SFD	20.89236406300	-156.68146250000	2	Road	ROAD	U	5.08
9.75	319.54	2-4-5-030-076	511	1	11/18/1994	1217405647	SFD	20.89204735400	-156.68157490000	3	Road	ROAD	U	5.08
15.53	509.32	2-4-5-030-077	511	1	11/1/1978	4259640360	SFD	20.89204371200	-156.68157460000	2	Road	ROAD	U	5.08
18.90	619.59	2-4-5-030-078	511	1	6/30/1981	8219417478	SFD	20.89171509700	-156.68165730000	2	Road	ROAD	U	5.08
22.72	745.00	2-4-5-030-079	511	1	11/1/1978	8867666206	SFD	20.89172859300	-156.68167130000	2	Road	ROAD	U	5.08
19.56	641.17	2-4-5-030-080	511	1	6/24/1988	2452289545	SFD	20.89138048200	-156.68177860000	2	Road	ROAD	U	5.08
5.08	166.50	2-4-5-030-084	511	2	11/1/1978	1455281302	SFD	20.89092630600	-156.68181750000	2	Road	ROAD	U	0.19
13.03	427.32	2-4-5-030-085	511	1	11/1/1978	7189979388	SFD	20.89062741400	-156.68183080000	2	Road	ROAD	U	5.08
22.32	731.67	2-4-5-030-088	511	1	5/1/1994	4017578223	SFD	20.89020379400	-156.68182440000	2	Road	ROAD	U	5.08
15.38	504.18	2-4-5-030-089	511	1	11/1/1978	7396359280	SFD	20.88987265700	-156.68181090000	2	Road	ROAD	U	5.08
13.06	428.22	2-4-5-030-090	511	1	11/1/1978	1392061343	SFD	20.88985057300	-156.68184550000	2	Road	ROAD	U	5.08
18.95	621.20	2-4-5-030-095	511	1	11/1/1978	2089961765	SFD	20.88966222200	-156.68215370000	2	Road	ROAD	U	5.08
8.91	292.24	2-4-5-030-097	511	1	11/1/1978	8204910678	SFD	20.88966983700	-156.68225070000	2	Road	ROAD	U	5.08
17.39	570.03	2-4-5-030-098	511	1	11/1/1978	8341798366	SFD	20.89005711500	-156.68247550000	2	Road	ROAD	U	5.08
17.38	569.78	2-4-5-030-099	511	1	11/1/1978	8545420491	SFD	20.89006486000	-156.68247930000	2	Road	ROAD	U	5.08
11.04	361.89	2-4-5-030-100	511	1	11/1/1978	268348294	SFD	20.89042625700	-156.68251200000	2	Road	ROAD	U	5.08
9.88	323.77	2-4-5-030-101	511	1	11/1/1978	7999478501	SFD	20.89042461700	-156.68251020000	2	Road	ROAD	U	5.08
14.21	466.01	2-4-5-030-103	511	1	11/1/1978	9431974067	SFD	20.89080395400	-156.68251080000	2	Road	ROAD	U	5.08
8.21	269.02	2-4-5-030-105	511	1	11/6/1978	7333377552	SFD	20.89120447200	-156.68250350000	2	Road	ROAD	U	0.14
10.92	358.03	2-4-5-030-106	511	1	7/8/1986	4122686601	SFD	20.89119292200	-156.68251030000	2	Road	ROAD	U	5.08
12.67	415.33	2-4-5-030-107	511	1	11/1/1978	9408262836	SFD	20.89152667000	-156.68246830000	2	Road	ROAD	U	5.08
13.56	444.56	2-4-5-030-109	511	1	12/1/1987	1644400186	SFD	20.89185818400	-156.68250940000	2	Road	ROAD	U	5.08
17.08	560.08	2-4-5-030-110	511	1	12/16/1985	146537769	SFD	20.89193456700	-156.68248720000	2	Road	ROAD	U	5.08
8.86	290.60	2-4-5-030-111	511	1	11/1/1978	411918683	SFD	20.89225084200	-156.68253730000	2	Road	ROAD	U	5.08
11.11	364.37	2-4-5-030-115	511	1	10/26/1971	3306910387	SFD	20.89280315400	-156.68201490000	2	Road	ROAD	U	5.08
3.43	112.32	2-4-5-030-119	511	1	6/1/1978	4556289492	SFD	20.89223883200	-156.68157590000	2	Road	ROAD	U	5.08
5.51	180.57	2-4-5-030-126	511	1	5/20/1998	4630514546	SFD	20.89150221600	-156.68185550000	2	Road	ROAD	U	5.08
8.77	287.43	2-4-5-031-006	511	1	11/1/1978	6305511403	SFD	20.88399786400	-156.66790760000	2	Road	ROAD	U	0.00
7.88	258.31	2-4-5-031-007	511	1	11/1/1978	6786995824	SFD	20.88405452300	-156.66791120000	2	Road	ROAD	U	0.00
21.41	702.10	2-4-5-031-009	511	1	11/1/1978	8004103616	SFD	20.88421608100	-156.66820080000	2	Road	ROAD	U	0.16
20.71	679.15	2-4-5-031-010	511	1	11/1/1978	5206899455	SFD	20.88414706200	-156.66909310000	2	Road	ROAD	U	0.00
4.33	141.97	2-4-5-031-011	511	1	11/1/1978	2384003113	SFD	20.88416092700	-156.66910060000	2	Road	ROAD	U	0.00
8.48	278.01	2-4-5-031-012	511	1	7/2/1993	607197857	SFD	20.88440937900	-156.66935970000	2	Road	ROAD	U	0.00
22.81	748.01	2-4-5-031-013	511	1	10/24/1989	5314250567	SFD	20.88440770100	-156.66936980000	2	Road	ROAD	U	0.00
6.52	213.69	2-4-5-031-014	511	1	11/1/1978	5425799151	SFD	20.88462792500	-156.66958940000	2	Road	ROAD	U	0.00
7.54	247.27	2-4-5-031-015	511	1	11/1/1978	1328918842	SFD	20.88462937300	-156.66958950000	2	Road	ROAD	U	0.00
5.01	164.40	2-4-5-031-016	511	1	11/1/1978	6868994848	SFD	20.88486019300	-156.66983680000	2	Road	ROAD	U	0.00
3.28	107.38	2-4-5-031-017	511	1	11/1/1978	4633127368	SFD	20.88488429600	-156.66984200000	2	Road	ROAD	U	0.00
10.37	339.89	2-4-5-031-018	511	1	11/1/1978	6975863625	SFD	20.88510020800	-156.67008760000	2	Road	ROAD	U	0.00
20.20	662.21	2-4-5-031-019	511	2	11/1/1978	4577956872	SFD	20.88509907700	-156.67008780000	2	Road	ROAD	U	0.00
19.08	625.68	2-4-5-031-020	511	1	1/6/1997	3878070722	SFD	20.88559673800	-156.67013990000	2	Road	ROAD	U	0.00
13.80	452.49	2-4-5-031-032	511	1	11/1/1978	314668311	SFD	20.88455609600	-156.66853110000	2	Road	ROAD	U	0.00
18.07	592.43	2-4-5-031-033	511	2	11/1/1978	3621927281	SFD	20.88457783800	-156.66853100000	2	Road	ROAD	U	0.16
18.17	595.82	2-4-5-031-034	511	2	11/1/1978	5541494018	SFD	20.88478220900	-156.66877460000	2	Road	ROAD	U	0.00
12.52	410.44	2-4-5-031-036	511	1	11/1/1978	9891509946	SFD	20.88503799000	-156.66902590000	2	Road	ROAD	U	0.00
13.80	452.35	2-4-5-031-037	511	1	11/1/1978	7256535659	SFD	20.88505122400	-156.66901510000	2	Road	ROAD	U	0.14
5.91	193													

19.33	633.63	2-4-5-031.084	511	1	6/29/1982	3390101351	SFD	20.88630139600	-156.66895990000	2	Road	ROAD	U	0.00
14.26	467.54	2-4-5-031.085	511	1	1/11/1983	2280348962	SFD	20.88601454500	-156.66872280000	2	Road	ROAD	U	0.00
6.52	213.88	2-4-5-031.086	511	1	1/11/1983	1883776023	SFD	20.88600473000	-156.66871470000	2	Road	ROAD	U	0.00
31.82	1,043.39	2-4-5-031.087	511	1	2/18/1982	5402692139	SFD	20.88575539200	-156.66846310000	2	Road	ROAD	U	0.00
30.56	1,001.83	2-4-5-031.088	511	1	6/3/1982	4603765764	SFD	20.88573531100	-156.66844440000	2	Road	ROAD	U	0.00
9.63	315.60	2-4-5-031.094	511	1	10/13/1982	9836663911	SFD	20.88665516400	-156.66840090000	2	Road	ROAD	U	0.00
20.15	660.68	2-4-5-031.095	511	1	8/12/1982	9770811634	SFD	20.88665486100	-156.66837420000	2	Road	ROAD	U	0.00
11.17	366.26	2-4-5-031.096	511	2	8/13/1982	2640425129	SFD	20.88645039300	-156.66819400000	2	Road	ROAD	U	0.00
17.25	565.41	2-4-5-031.097	511	2	7/18/1983	1078187450	SFD	20.88644277400	-156.66818500000	2	Road	ROAD	U	0.00
12.99	425.74	2-4-5-031.099	511	2	2/25/1982	2534757338	SFD	20.88620584400	-156.66795060000	3	Road	ROAD	U	0.00
41.22	1,351.45	2-4-5-032.007	511	1	8/20/1986	3880040631	SFD	20.88720636400	-156.66810470000	2	Road	ROAD	U	0.00
12.94	424.37	2-4-5-032.008	511	1	6/28/1982	8203464851	SFD	20.88722715500	-156.66809470000	2	Road	ROAD	U	0.00
23.20	760.71	2-4-5-032.009	511	1	7/26/1982	2460470434	SFD	20.88725630700	-156.66800470000	2	Road	ROAD	U	0.00
15.51	508.63	2-4-5-032.010	511	2	5/28/1996	1811998742	SFD	20.88726221500	-156.66797420000	2	Road	ROAD	U	0.00
9.98	327.08	2-4-5-032.011	511	2	4/8/1983	4804489293	SFD	20.88705139500	-156.66776200000	2	Road	ROAD	U	0.00
10.97	359.70	2-4-5-032.012	511	1	2/12/1997	3937939918	SFD	20.88705656300	-156.66773180000	2	Road	ROAD	U	0.00
9.45	309.89	2-4-5-032.013	511	2	12/6/1997	579411718	SFD	20.88679578900	-156.66746060000	2	Road	ROAD	U	0.00
14.18	464.75	2-4-5-032.014	511	2	11/19/1982	7538007007	SFD	20.88678901300	-156.66744080000	2	Road	ROAD	U	0.16
8.31	272.51	2-4-5-032.019	511	1	8/16/1982	5720178387	SFD	20.88764925600	-156.66745300000	2	Road	ROAD	U	0.00
19.95	654.23	2-4-5-032.020	511	1	4/19/1982	9753177844	SFD	20.88766542500	-156.66745060000	2	Road	ROAD	U	0.00
37.74	1,237.24	2-4-5-032.021	511	1	5/5/1982	2511516159	SFD	20.88775382800	-156.66736680000	2	Road	ROAD	U	0.00
27.25	893.50	2-4-5-032.022	511	1	6/14/1982	7194896339	SFD	20.88776940900	-156.66734200000	3	Road	ROAD	U	0.00
14.22	466.07	2-4-5-032.023	511	1	10/22/1982	4900940342	SFD	20.88766844900	-156.66735260000	2	Road	ROAD	U	0.00
0.00	0.00	2-4-5-032.024	511	1	5/17/1982	2769731133	SFD	20.88771808400	-156.66728430000	2	Road	ROAD	U	0.00
19.69	645.46	2-4-5-032.025	511	1	7/21/1995	4128584984	SFD	20.88745402400	-156.66714980000	2	Road	ROAD	U	0.00
19.84	650.38	2-4-5-032.026	511	1	6/24/1982	3041033193	SFD	20.88742710900	-156.66712970000	2	Road	ROAD	U	0.15
19.60	642.54	2-4-5-032.027	511	1	5/17/1982	398551127	SFD	20.88713171600	-156.66701810000	2	Road	ROAD	U	0.00
15.69	514.51	2-4-5-032.028	511	1	8/13/1982	8878116808	SFD	20.88710026200	-156.66698590000	2	Road	ROAD	U	0.00
13.62	446.67	2-4-5-032.039	511	2	6/2/1982	4156810865	SFD	20.88839715000	-156.66681820000	2	Road	ROAD	U	0.00
3.80	124.51	2-4-5-032.040	511	1	1/4/1983	5269288143	SFD	20.88838713500	-156.66680420000	2	Road	ROAD	U	0.00
9.89	324.32	2-4-5-032.041	511	1	11/15/1997	1475126766	SFD	20.88806806700	-156.66685990000	2	Road	ROAD	U	0.00
17.98	589.51	2-4-5-032.042	511	1	7/22/1982	7081235940	SFD	20.88804751300	-156.66666650000	2	Road	ROAD	U	0.00
20.45	670.33	2-4-5-032.043	511	2	4/7/1983	8809247959	SFD	20.88777182900	-156.66652500000	2	Road	ROAD	U	0.00
30.52	1,000.63	2-4-5-032.044	511	2	1/18/1983	6844241661	SFD	20.88775099200	-156.66650790000	2	Road	ROAD	U	0.00
23.33	764.81	2-4-5-032.045	511	2	9/15/1982	2042982500	SFD	20.88745881800	-156.66630160000	2	Road	ROAD	U	0.15
32.44	1,063.55	2-4-5-032.046	511	1	6/10/1982	8586365386	SFD	20.88744879700	-156.66632300000	3	Road	ROAD	U	0.00
32.65	1,070.60	2-4-5-032.054	511	1	3/25/1993	8431602352	SFD	20.88878844200	-156.66639240000	3	Road	ROAD	U	0.00
17.40	570.41	2-4-5-032.055	511	2	9/20/1982	602878292	SFD	20.88880868800	-156.66640690000	2	Road	ROAD	U	0.00
38.00	1,245.74	2-4-5-032.058	511	2	1/9/1984	8773201720	SFD	20.88900364000	-156.66630630000	2	Road	ROAD	U	0.19
32.26	1,057.54	2-4-5-032.059	511	2	6/24/1982	6571463494	SFD	20.88897384100	-156.66630420000	3	Road	ROAD	U	0.00
66.70	2,186.83	2-4-5-032.060	511	2	6/4/1982	8606600344	SFD	20.88868988100	-156.66618570000	2	Road	ROAD	U	0.00
16.60	544.40	2-4-5-032.061	511	2	6/1/1984	5812903317	SFD	20.88867530800	-156.66617220000	2	Road	ROAD	U	0.00
23.20	760.79	2-4-5-032.062	511	2	8/25/1982	47652296	SFD	20.88839396200	-156.66600740000	2	Road	ROAD	U	0.00
13.83	453.42	2-4-5-032.063	511	1	7/19/1994	9035086769	SFD	20.88837471100	-156.66599580000	2	Road	ROAD	U	0.00
15.55	509.73	2-4-5-032.064	511	1	1/20/1983	9837402379	SFD	20.88809540700	-156.66584500000	2	Road	ROAD	U	0.00
13.24	433.99	2-4-5-032.067	511	1	10/13/1982	2433765169	SFD	20.88778882500	-156.66566620000	2	Road	ROAD	U	0.00
17.43	571.50	2-4-5-032.078	511	1	8/14/1997	7485351111	SFD	20.88932704000	-156.66571470000	2	Road	ROAD	U	0.00
25.92	849.81	2-4-5-032.079	511	1	8/27/1982	9920420200	SFD	20.88931775100	-156.66569330000	2	Road	ROAD	U	0.00
17.53	574.86	2-4-5-032.080	511	1	8/10/1982	915702120	SFD	20.88920060200	-156.66558800000	2	Road	ROAD	U	0.00
24.67	808.96	2-4-5-032.082	511	1	2/15/1983	3333455945	SFD	20.88888143600	-156.66544270000	3	Road	ROAD	U	0.00
15.82	518.66	2-4-5-032.083	511	1	6/15/1984	3312986136	SFD	20.88885376500	-156.66543640000	2	Road	ROAD	U	0.00
15.71	515.19	2-4-5-032.084	511	1	7/2/1982	1939596573	SFD	20.88859924300	-156.66529070000	2	Road	ROAD	U	0.00
5.80	190.05	2-4-5-032.085	511	1	10/28/1986	3031865481	SFD	20.88856116900	-156.66525770000	2	Road	ROAD	U	0.00
3.62	118.72	2-4-5-032.086	511	1	7/18/1983	7450721285	SFD	20.88829586400	-156.66511280000	2	Road	ROAD	U	0.00
7.88	258.31	2-4-5-032.087	511	1	12/14/1983	9365730843	SFD	20.88828938800	-156.66508180000	2	Road	ROAD	U	0.00
48.81	1,600.16	2-4-5-032.088	511	2	3/14/1983	1366290365	SFD	20.88802443100	-156.66492250000	2	Road	ROAD	U	0.00
20.39	668.50	2-4-5-033.001	511	1	10/12/1982	8882437372	SFD	20.88799896900	-156.66491370000	3	Road	ROAD	U	0.00
29.14	955.38	2-4-5-033.002	511	2	7/25/1983	1945208713	SFD	20.88767536600	-156.66477460000	2	Road	ROAD	U	0.00
13.99	458.80	2-4-5-033.003	511	1	10/1/1982	4606888414	SFD	20.88769370400	-156.66474890000	2	Road	ROAD	U	0.00
28.50	934.51	2-4-5-033.004	511	1	10/13/1982	6634302521	SFD	20.88739287100	-156.66458580000	2	Road	ROAD	U	0.00
17.60	576.94	2-4-5-033.006	511	1	8/29/1983	6227766003	SFD	20.88711322100	-156.66441880000	3	Road	ROAD	U	0.00
22.51	738.11	2-4-5-033.007	511	1	3/14/1983	4227019231	SFD	20.88710037000	-156.66441160000	2	Road	ROAD	U	0.00
19.88	651.78	2-4-5-033.008	511	1	4/22/1983	4281092458	SFD	20.88684837100	-156.66423650000	2	Road	ROAD	U	0.16
5.31	174.10	2-4-5-033.009	511	2	10/12/1982	846575238	SFD	20.88681267500	-156.66423880000	2	Road	ROAD	U	0.00
26.74	876.78	2-4-5-033.010	511	1	10/20/1997	9171020071	SFD	20.88656156600	-156.66407560000	2	Road	ROAD	U	0.00
31.96	1,047.81	2-4-5-033.011	511	1	10/18/1982	4321321445	SFD	20.88652206300	-156.66408710000	3	Road	ROAD	U	0.00
23.68	776.53	2-4-5-033.012	511	1	10/31/1983	2978035402	SFD	20.88624217000	-156.66391630000	3	Road	ROAD	U	0.00
17.01	557.70	2-4-5-033.025	511	2	10/18/1982	842954919	SFD	20.88743394600	-156.66546580000	2	Road	ROAD	U	0.00
18.70	613.06	2-4-5-033.026	511	2	11/10/1988	111474143	SFD	20.88723975800	-156.66533070000	2	Road	ROAD	U	0.15
19.12	627.02	2-4-5-033.027	511	2	8/11/1982	4927341088	SFD	20.88720171100	-156.66533190000	2	Road	ROAD	U	0.00
31.87	1,044.81	2-4-5-033.028	511	1	8/11/1982	3069194914	SFD	20.88695392200	-156.66517250000	2	Road	ROAD	U	0.00
9.83	322.40	2-4-5-033.029	511	1	4/8/1983	2069502392	SFD	20.88690614500	-156.66519340000	2	Road	ROAD	U	0.00
26.22	859.73	2-4-5-033.030	511	1	10/12/1982	7098069806	SFD	20.88664969200	-156.66499310000	2	Road	ROAD	U	0.00
20.38	668.14	2-4-5-033.031	511	2	7/23/1982	4541323817	SFD	20.88662121800	-156.66498680000	2	Road	ROAD	U	0.00
28.44	932.40	2-4-5-033.032	511	2	4/21/1983	8475269084	SFD	20.88634192800	-156.66481740000	3	Road</			

13.07	428.52	2-4-5-033-076	511	1	8/1/1994	9781089167	SFD	20.38553676600	-156.66640720000	2	Road	ROAD	U	0.00
22.09	724.34	2-4-5-033-079	511	2	1/6/1983	6831459705	SFD	20.38512435500	-156.66611080000	2	Road	ROAD	U	0.00
9.47	310.52	2-4-5-033-080	511	1	2/19/1982	9918442843	SFD	20.38514272800	-156.66613650000	2	Road	ROAD	U	0.00
5.20	170.55	2-4-5-033-081	511	1	5/5/1982	4437757314	SFD	20.38539031300	-156.66631480000	2	Road	ROAD	U	0.00
30.88	1,012.43	2-4-5-033-082	511	1	5/14/1982	2357818968	SFD	20.38539529300	-156.66631790000	2	Road	ROAD	U	0.00
16.84	552.21	2-4-5-033-084	511	1	11/4/1982	6988207932	SFD	20.38569996800	-156.66654090000	2	Road	ROAD	U	0.00
17.52	574.45	2-4-5-033-085	511	1	2/19/1982	6192914342	SFD	20.38573904200	-156.6665300000	2	Road	ROAD	U	0.00
13.75	450.68	2-4-5-033-087	511	2	6/28/1982	1811807465	SFD	20.38605414500	-156.66679100000	2	Road	ROAD	U	0.00
24.81	813.50	2-4-5-033-088	511	1	3/18/1983	8024537013	SFD	20.38609664100	-156.66678040000	2	Road	ROAD	U	0.00
10.64	348.91	2-4-5-033-090	511	1	5/31/1988	8372306625	SFD	20.38633624100	-156.66702920000	2	Road	ROAD	U	0.00
1.75	57.40	2-4-5-033-091	511	1	2/25/1982	3692061414	SFD	20.38635804600	-156.66703960000	2	Road	ROAD	U	0.00
0.00	0.00	2-4-5-033-102	511	0	7/26/2022	999154944	SFD	20.38469925900	-156.66673040000	-	Road	ROAD	U	0.00
24.37	798.93	2-4-5-033-102	511	1	5/18/1982	999154944	SFD	20.38469925900	-156.66673040000	2	Road	ROAD	U	0.00
7.98	261.75	2-4-5-033-103	511	1	1/6/1983	5677654303	SFD	20.38470741000	-156.66673350000	2	Road	ROAD	U	0.00
13.48	441.99	2-4-5-033-104	511	2	2/18/1982	6225678492	SFD	20.38498393300	-156.66694350000	2	Road	ROAD	U	0.00
9.76	319.92	2-4-5-033-105	511	1	3/5/1982	3028316853	SFD	20.38501264100	-156.66694140000	2	Road	ROAD	U	0.00
8.56	280.57	2-4-5-033-106	511	1	2/19/1982	8230968322	SFD	20.38530072900	-156.66715050000	2	Road	ROAD	U	0.00
6.63	217.38	2-4-5-033-107	511	1	3/5/1982	4056638815	SFD	20.38531561200	-156.66714670000	2	Road	ROAD	U	0.16
9.90	324.59	2-4-5-033-108	511	1	5/14/1982	5619374863	SFD	20.38560990900	-156.66734780000	2	Road	ROAD	U	0.16
22.73	745.08	2-4-5-033-109	511	1	7/7/1982	1603118653	SFD	20.38560212000	-156.66734510000	2	Road	ROAD	U	0.16
6.90	226.12	2-4-5-033-110	511	1	1/5/1996	5481468619	SFD	20.38582174000	-156.66755600000	2	Road	ROAD	U	0.00
8.07	264.70	2-4-5-033-111	511	1	3/30/1982	8887011098	SFD	20.38582258000	-156.66755380000	2	Road	ROAD	U	0.00
7.78	255.03	2-4-5-034-001	511	1	5/27/1983	1451048532	SFD	20.38602730400	-156.66775900000	2	Road	ROAD	U	0.00
15.89	521.04	2-4-5-034-002	511	1	12/5/1996	1836909773	SFD	20.38579383900	-156.66363540000	2	Road	ROAD	U	0.00
11.07	362.95	2-4-5-034-003	511	1	10/14/1997	3225506166	SFD	20.38576946200	-156.66364620000	2	Road	ROAD	U	0.00
8.12	266.20	2-4-5-034-004	511	2	6/3/1983	3683955000	SFD	20.38551686300	-156.66349040000	2	Road	ROAD	U	0.00
10.56	346.07	2-4-5-034-010	511	1	4/25/1983	9740996474	SFD	20.38556475800	-156.66371570000	2	Road	ROAD	U	0.00
11.23	368.25	2-4-5-034-013	511	2	11/20/1984	2214895345	SFD	20.38560747900	-156.66432100000	2	Road	ROAD	U	0.16
14.97	490.77	2-4-5-034-014	511	2	4/26/1984	9293975949	SFD	20.38560419800	-156.66432840000	2	Road	ROAD	U	0.00
33.13	1,086.26	2-4-5-034-019	511	1	10/10/1984	8450374067	SFD	20.38514772500	-156.66499550000	2	Road	ROAD	U	0.00
15.61	511.86	2-4-5-034-020	511	1	7/17/1985	5873384680	SFD	20.38515579000	-156.66495600000	3	Road	ROAD	U	0.17
4.70	153.99	2-4-5-034-026	511	1	6/8/1984	7043735968	SFD	20.38478669800	-156.66589890000	2	Road	ROAD	U	0.00
20.79	681.61	2-4-5-034-027	511	1	7/9/1986	7726390368	SFD	20.38460447000	-156.66574470000	2	Road	ROAD	U	0.00
10.08	330.52	2-4-5-034-028	511	1	5/22/1985	1432728936	SFD	20.38450950000	-156.66575410000	2	Road	ROAD	U	0.00
35.43	1,161.50	2-4-5-034-031	511	1	1/10/1998	1350015358	SFD	20.38458949600	-156.66597640000	2	Road	ROAD	U	0.00
33.49	1,098.01	2-4-5-034-032	511	1	4/25/1983	6203420007	SFD	20.38459226000	-156.66597330000	3	Road	ROAD	U	0.00
3.07	100.68	2-4-5-034-055	511	1	3/10/1998	2688591323	SFD	20.38460378200	-156.66334340000	2	Road	ROAD	A	2.10
29.90	980.41	2-4-5-034-057	511	1	4/7/1998	2978068623	SFD	20.38403731900	-156.66403490000	2	Road	ROAD	A	2.10
0.67	21.83	2-4-5-034-066	511	1	12/4/2001	1474060857	SFD	20.38396220700	-156.66533010000	2	Road	ROAD	A	2.10
0.00	0.00	2-4-5-034-048-0000	511	1	5/8/2020	9432421620	SFD	20.38462926700	-156.66457636700	2	Road	ROAD	A	2.10
0.00	0.00	2-4-5-034-052-0000	511	1	5/8/2020	4464077389	SFD	20.38461317200	-156.66371951100	2	Road	ROAD	A	2.10
0.00	0.00	2-4-5-034-053-0000	511	1	5/8/2020	4508347935	SFD	20.38461609800	-156.66371409100	2	Road	ROAD	A	0.26
0.00	0.00	2-4-5-034-054-0000	511	1	5/8/2020	7563562610	SFD	20.38463781000	-156.66334801400	2	Road	ROAD	A	0.22
37.65	1,234.34	2-4-5-035-002	511	1	9/25/1991	8502411317	SFD	20.38767039900	-156.68230140000	2	Road	ROAD	U	0.00
16.88	553.31	2-4-5-035-008	511	1	12/19/1989	2764182465	SFD	20.38751819200	-156.68144170000	2	Road	ROAD	U	0.00
39.48	1,294.26	2-4-5-035-009	511	2	8/7/1996	4988248016	SFD	20.38742147500	-156.68109010000	3	Road	ROAD	U	0.00
17.92	587.43	2-4-5-035-010	511	1	10/30/1985	5511583796	SFD	20.38732458500	-156.68074140000	2	Road	ROAD	U	0.00
10.73	351.64	2-4-5-035-011	511	1	11/4/1994	4175640684	SFD	20.38731214800	-156.68072910000	2	Road	ROAD	U	0.00
20.87	684.29	2-4-5-035-012	511	1	5/16/1983	7311611652	SFD	20.38716782100	-156.68043250000	2	Road	ROAD	A	0.00
13.94	457.02	2-4-5-035-015	511	1	7/11/1985	8847984003	SFD	20.38653577900	-156.68022000000	2	Road	ROAD	U	0.00
19.85	650.85	2-4-5-035-016	511	1	12/20/1996	4513506843	SFD	20.38644217100	-156.68020190000	2	Road	ROAD	U	0.00
41.93	1,374.84	2-4-5-035-017	511	1	2/10/1995	6571934826	SFD	20.38629322500	-156.68007510000	3	Road	ROAD	U	0.00
34.00	1,114.64	2-4-5-035-020	511	1	7/15/1997	6942288532	SFD	20.38641607500	-156.68021800000	2	Road	ROAD	U	0.00
22.89	750.38	2-4-5-035-024	511	1	5/31/1984	5099979216	SFD	20.38675154200	-156.68115910000	2	Road	ROAD	U	0.00
13.84	453.77	2-4-5-035-025	511	1	4/1/1996	5375685000	SFD	20.38685471600	-156.68115740000	2	Road	ROAD	U	0.00
14.73	482.81	2-4-5-035-028	511	1	7/22/1985	5811444383	SFD	20.38731658600	-156.68104040000	2	Road	ROAD	U	0.00
14.24	466.94	2-4-5-035-029	511	2	2/25/1985	1636750076	SFD	20.38732405300	-156.68110820000	2	Road	ROAD	U	0.00
17.44	571.83	2-4-5-035-030	511	1	7/27/1984	5073145373	SFD	20.38686992100	-156.68110870000	2	Road	ROAD	U	0.00
23.78	779.67	2-4-5-035-031	511	1	12/20/1984	2143427371	SFD	20.38709551100	-156.68139000000	2	Road	ROAD	U	0.00
11.43	374.64	2-4-5-035-034	511	2	6/29/1983	5384992475	SFD	20.38743771300	-156.68153330000	2	Road	ROAD	U	0.00
8.60	281.89	2-4-5-036-021	511	1	2/22/2005	9931486280	SFD	20.90014076900	-156.68319250000	2	Road	ROAD	U	4.35
13.57	445.05	2-4-5-036-022	511	1	2/22/2005	9955367313	SFD	20.90015382700	-156.68317410000	2	Road	ROAD	U	4.35
15.55	509.89	2-4-5-036-027	511	1	2/22/2005	9797100136	SFD	20.90042657900	-156.68392410000	2	Road	ROAD	U	4.35
34.54	1,132.60	2-4-5-036-028	511	1	2/22/2005	4479939980	SFD	20.90043162900	-156.68392300000	2	Road	ROAD	U	4.35
25.78	845.22	2-4-5-036-029	511	1	2/22/2005	2297588027	SFD	20.90053597100	-156.68388800000	2	Road	ROAD	U	4.35
26.70	875.44	2-4-5-036-031	511	1	2/22/2005	2501302149	SFD	20.90084989400	-156.68362650000	2	Road	ROAD	U	4.35
11.93	391.09	2-4-5-036-032	511	1	2/22/2005	5886320964	SFD	20.90106772900	-156.68369200000	2	Road	ROAD	U	4.35
20.28	664.86	2-4-5-036-033	511	1	2/22/2005	5914315060	SFD	20.90107123800	-156.68369580000	2	Road	ROAD	U	4.35
20.78	681.15	2-4-5-036-034	511	1	2/22/2005	7796894302	SFD	20.90132790900	-156.68365280000	2	Road	ROAD	U	4.35
14.73	483.09	2-4-5-036-035	511	1	2/22/2005	6845711567	SFD	20.90150005400	-156.68348470000	2	Road	ROAD	U	4.35
12.23	400.96	2-4-5-036-037	511	1	2/22/2005	1502274955	SFD	20.90121450300	-156.68359230000	2	Road	ROAD	U	4.35
10.35	339.29	2-4-5-036-038	511	1	2/22/2005	5948559755	SFD	20.90121742200	-156.68359190000	2	Road	ROAD	U	4.35
11.47	376.04	2-4-5-036-039	511	1	2/22/2005	1836804607	SFD	20.90102153700	-156.68358510000	2	Road	ROAD	U	4.35
19.88	651.89	2-4-5-036-040	511	1	2/22/2005	8797645003	SFD	20.90065215200	-156.68297470000	2	Road	ROAD	U	4.35
9.29	304.73	2-4-5-036-041	511	1	2/22/2005	4349298901	SFD	20.90081151900	-156.68290480000	2	Road	ROAD	U	4.35

4.52	148.20	2-4-5-036.065	511	1	2/22/2005	5867049797	SFD	20.90089232700	-156.68183000000	2	Road	ROAD	U	0.13
11.60	380.27	2-4-5-036.066	511	1	2/22/2005	3934900598	SFD	20.90086956500	-156.68184430000	2	Road	ROAD	U	4.35
10.05	329.45	2-4-5-036.070	511	1	2/22/2005	665576582	SFD	20.90043007000	-156.68113540000	2	Road	ROAD	U	4.35
5.56	182.13	2-4-5-036.071	511	1	2/22/2005	9257887665	SFD	20.90042905100	-156.68113910000	2	Road	ROAD	U	4.35
12.49	409.40	2-4-5-036.072	511	1	2/22/2005	7005829143	SFD	20.90070190300	-156.68108070000	2	Road	ROAD	U	4.35
15.51	508.47	2-4-5-036.073	511	1	2/22/2005	2582512272	SFD	20.90070449600	-156.68108360000	2	Road	ROAD	U	4.35
22.00	721.34	2-4-5-036.074	511	1	2/22/2005	6616543511	SFD	20.90097871200	-156.68105110000	2	Road	ROAD	U	4.35
18.19	596.45	2-4-5-036.075	511	1	2/22/2005	3597591100	SFD	20.90098113000	-156.68104650000	2	Road	ROAD	U	4.35
5.37	175.93	2-4-5-036.076	511	1	2/22/2005	8066669778	SFD	20.90125993300	-156.68109590000	2	Road	ROAD	U	4.35
14.25	467.19	2-4-5-036.077	511	1	2/22/2005	916212345	SFD	20.90127789100	-156.68111270000	2	Road	ROAD	U	4.35
15.83	519.15	2-4-5-036.078	511	1	2/22/2005	2849922034	SFD	20.90129637600	-156.68088510000	2	Road	ROAD	U	4.35
18.22	597.32	2-4-5-036.079	511	1	2/22/2005	3536561374	SFD	20.90127252700	-156.68088580000	2	Road	ROAD	U	4.35
13.99	458.52	2-4-5-036.080	511	1	2/22/2005	166180470	SFD	20.90103825200	-156.68095160000	2	Road	ROAD	U	4.35
14.77	484.15	2-4-5-036.081	511	1	2/22/2005	7586539101	SFD	20.90105314200	-156.68096310000	2	Road	ROAD	U	4.35
14.67	481.01	2-4-5-036.082	511	1	2/22/2005	3602490247	SFD	20.90103559200	-156.68095100000	2	Road	ROAD	U	4.35
9.55	313.20	2-4-5-036.083	511	1	2/22/2005	9257469575	SFD	20.90067838600	-156.68098760000	2	Road	ROAD	U	4.35
6.51	213.58	2-4-5-036.084	511	1	2/22/2005	2217399203	SFD	20.90067405100	-156.68098740000	2	Road	ROAD	U	4.35
10.83	354.95	2-4-5-036.085	511	1	2/22/2005	3613996269	SFD	20.90043484500	-156.68104160000	2	Road	ROAD	U	4.35
22.98	753.55	2-4-5-036.086	511	1	2/22/2005	2824966871	SFD	20.90043130700	-156.68104080000	2	Road	ROAD	U	4.35
12.74	417.54	2-4-5-036.087	511	1	2/22/2005	863464283	SFD	20.90037282100	-156.68017710000	2	Road	ROAD	U	4.35
9.45	309.67	2-4-5-036.088	511	1	2/22/2005	4226427313	SFD	20.90036995700	-156.68018060000	2	Road	ROAD	U	4.35
18.38	602.49	2-4-5-036.089	511	1	2/22/2005	4147340612	SFD	20.90066762200	-156.68014170000	2	Road	ROAD	U	4.35
26.05	853.93	2-4-5-036.090	511	1	2/22/2005	3916152140	SFD	20.90067219800	-156.68014520000	2	Road	ROAD	U	4.35
12.83	420.71	2-4-5-036.091	511	1	2/22/2005	3292662236	SFD	20.90099163400	-156.68013030000	2	Road	ROAD	U	4.35
17.03	558.36	2-4-5-036.092	511	1	2/22/2005	5355956822	SFD	20.90099433600	-156.68013030000	2	Road	ROAD	U	4.35
12.64	414.54	2-4-5-036.093	511	1	2/22/2005	6584880605	SFD	20.90131816500	-156.68014950000	2	Road	ROAD	U	4.35
10.69	350.38	2-4-5-036.094	511	1	2/22/2005	3324227048	SFD	20.90131941000	-156.68015350000	2	Road	ROAD	U	4.35
20.85	683.55	2-4-5-036.095	511	1	2/22/2005	3082815121	SFD	20.90131898200	-156.68005660000	2	Road	ROAD	U	4.35
5.64	184.78	2-4-5-036.096	511	1	2/22/2005	8845889057	SFD	20.90131642100	-156.68005420000	2	Road	ROAD	U	4.35
8.02	262.95	2-4-5-036.097	511	1	2/22/2005	5498459501	SFD	20.90105201200	-156.68003300000	2	Road	ROAD	U	0.15
13.94	456.97	2-4-5-036.098	511	1	2/22/2005	3343803641	SFD	20.90103847800	-156.68003050000	2	Road	ROAD	U	0.15
2.43	79.81	2-4-5-036.099	511	1	2/22/2005	9585679943	SFD	20.90078482500	-156.68004450000	2	Road	ROAD	U	4.35
9.61	315.14	2-4-5-036.100	511	1	2/22/2005	6572054131	SFD	20.90077677600	-156.68004460000	2	Road	ROAD	U	4.35
11.88	389.56	2-4-5-036.101	511	1	2/22/2005	3142925891	SFD	20.90063856600	-156.68004790000	2	Road	ROAD	U	0.16
14.30	468.88	2-4-5-036.102	511	1	2/22/2005	4860701039	SFD	20.90036799400	-156.68007870000	2	Road	ROAD	U	4.35
16.80	550.96	2-4-5-036.103	511	1	2/22/2005	2552451665	SFD	20.90036494600	-156.68008320000	2	Road	ROAD	U	4.35
21.48	704.32	2-4-6-002.001	511	1	11/1/1978	7503406038	SFD	20.86526032000	-156.67315900000	2	Road	ROAD	U	0.35
7.72	253.22	2-4-6-002.002	511	1	3/14/2007	2958066391	SFD	20.86552532200	-156.67335640000	2	Road	ROAD	U	0.27
28.31	928.06	2-4-6-002.002	511	1	11/1/1978	8631064206	SFD	20.86552626500	-156.67335340000	2	Road	ROAD	U	0.00
25.42	833.47	2-4-6-002.003	511	1	8/21/2007	4208888499	SFD	20.86574231400	-156.67352803200	3	Road	ROAD	U	0.24
17.78	582.98	2-4-6-002.004	511	1	11/1/1978	1969524544	SFD	20.86605953500	-156.67377770000	2	Road	ROAD	U	0.31
18.96	621.75	2-4-6-002.005	511	1	11/1/1978	9957709509	SFD	20.86629580100	-156.67395340000	3	Road	ROAD	U	0.36
1.89	61.83	2-4-6-002.006	511	1	7/14/1981	8915973886	SFD	20.86656258100	-156.67413790000	2	Road	ROAD	U	0.00
23.31	764.18	2-4-6-003.002	511	1	3/1/1996	6142172099	SFD	20.86181940500	-156.67004060000	2	Road	ROAD	U	0.00
14.85	486.72	2-4-6-003.003	511	1	11/1/1978	1903354016	SFD	20.86209993500	-156.67022690000	2	Road	ROAD	U	0.00
19.88	651.86	2-4-6-003.004	511	1	5/31/1995	9814660856	SFD	20.86272951900	-156.67082040000	2	Road	ROAD	U	0.00
5.49	179.92	2-4-6-003.005	511	1	7/24/1998	3475414329	SFD	20.86314084900	-156.67120600000	2	Road	ROAD	U	0.00
41.80	1,370.55	2-4-6-003.011	511	1	5/16/1996	1745507956	SFD	20.86422614200	-156.67226180000	2	Road	ROAD	U	0.00
2.85	93.31	2-4-6-003.011	511	1	2/1/1983	3390792552	SFD	20.86422524700	-156.67225870000	2	Road	ROAD	U	0.00
43.01	1,410.22	2-4-6-003.012	511	1	7/21/1994	9845025406	SFD	20.86438262100	-156.67237700000	4	Road	ROAD	U	0.00
16.47	540.05	2-4-6-003.014	511	2	11/1/1978	274948050	SFD	20.86505293400	-156.67297010000	2	Road	ROAD	U	0.00
42.34	1,388.20	2-4-6-003.019	511	1	12/14/1988	9873416254	SFD	20.86461738300	-156.67261520000	2	Road	ROAD	U	0.00
11.00	360.66	2-4-6-004.001	511	1	5/6/1987	2945437575	SFD	20.86112841900	-156.66909160000	3	Road	ROAD	U	0.41
25.47	835.00	2-4-6-004.005	511	1	1/1/1989	5019312735	SFD	20.86195418100	-156.67008370000	3	Road	ROAD	U	0.00
14.72	482.76	2-4-6-004.005	511	2	11/1/1978	6607948818	SFD	20.86163886400	-156.66981110000	3	Road	ROAD	U	0.00
26.91	882.43	2-4-6-004.006	511	1	11/1/1978	9274508171	SFD	20.86298432800	-156.67100120000	2	Road	ROAD	U	0.00
2.26	74.07	2-4-6-004.007	511	1	1/16/1997	2277118685	SFD	20.86250878800	-156.66947630000	2	Road	ROAD	U	0.72
19.01	623.33	2-4-6-004.010	511	1	5/6/1991	8631024270	SFD	20.86291881100	-156.67090700000	3	Road	ROAD	U	0.00
23.01	754.40	2-4-6-004.011	511	2	7/6/1988	2822275896	SFD	20.86208788300	-156.67021470000	2	Road	ROAD	U	0.00
10.66	349.34	2-4-6-004.012	511	1	11/3/1986	8331907813	SFD	20.86246650600	-156.67052090000	2	Road	ROAD	U	0.00
17.00	557.49	2-4-6-004.013	511	1	8/26/1986	7829019510	SFD	20.86261671100	-156.67052100000	2	Road	ROAD	U	0.00
12.80	419.67	2-4-6-004.014	511	1	11/3/1978	1146560456	SFD	20.86262930600	-156.67066100000	2	Road	ROAD	U	0.00
30.36	995.36	2-4-6-004.015	511	1	6/17/1997	5429692260	SFD	20.86322565300	-156.67058250000	3	Road	ROAD	U	0.00
26.67	874.45	2-4-6-004.025	511	1	3/10/1999	3302657728	SFD	20.86295315900	-156.66969990000	2	Road	ROAD	U	0.00
14.21	466.04	2-4-6-004.029	511	1	1/6/1994	53371010	SFD	20.86357050800	-156.66981940000	2	Road	ROAD	U	0.00
19.53	640.16	2-4-6-004.030	511	1	4/4/1979	5286876311	SFD	20.86360507100	-156.66982330000	2	Road	ROAD	U	0.00
11.04	362.05	2-4-6-004.031	511	1	2/25/1991	7540313420	SFD	20.86298307300	-156.66982840000	2	Road	ROAD	U	0.20
26.96	884.04	2-4-6-004.032	511	1	4/24/1992	8023686939	SFD	20.86301606400	-156.66986620000	2	Road	ROAD	U	0.17
30.80	1,009.95	2-4-6-004.033	511	1	1/17/1997	8634227956	SFD	20.86229430800	-156.66920880000	2	Road	ROAD	U	0.00
16.22	531.80	2-4-6-004.034	511	1	2/16/1996	4907725335	SFD	20.86227329300	-156.66919370000	2	Road	ROAD	U	0.00
22.76	746.23	2-4-6-004.035	511	1	1/10/1994	997069736	SFD	20.86213807100	-156.66905320000	2	Road	ROAD	U	0.00
24.14	791.48	2-4-6-004.038	511	1	8/29/1996	6117171379	SFD	20.86174028800	-156.66883460000	2	Road	ROAD	U	0.00
1.97	64.48	2-4-6-005.001	511	1	11/8/1989	5700979068	SFD	20.86323421800	-156.67118750000	2	Road	ROAD	U	0.00
21.61	708.63	2-4-6-005.003	511	1	11/17/1992	9865960584	SFD	20.86409955800	-156.67204100000	2	Road	ROAD	U	0.00
15.45	506.69	2-4-6-005.006	511	1	6/1/1987	2360788808	SFD	20.86465373500	-156.67253040000	2	Road	ROAD	U	0.00
14.64														

11.85	388.58	2-4-6-005.056	511	1	11/1/1978	4881760468	SFD	20.86372000600	-156.67001820000	2	Road	ROAD	U	0.00
36.75	1,204.92	2-4-6-005.058	511	1	7/13/1998	1800440762	SFD	20.86393784500	-156.67023050000	2	Road	ROAD	U	0.00
18.68	612.40	2-4-6-005.059	511	1	3/18/1993	3928533656	SFD	20.86395414100	-156.67022570000	2	Road	ROAD	U	0.00
8.35	273.61	2-4-6-005.060	511	1	11/1/1978	4976016022	SFD	20.86429295300	-156.67044040000	2	Road	ROAD	U	0.17
2.69	88.17	2-4-6-005.066	511	1	7/16/1993	9013366270	SFD	20.86484144300	-156.67131400000	2	Road	ROAD	U	0.17
19.93	653.28	2-4-6-005.067	511	1	10/15/1993	2006029275	SFD	20.86478667100	-156.67135500000	2	Road	ROAD	U	0.00
7.62	249.95	2-4-6-005.068	511	1	11/1/1978	1490689271	SFD	20.86444913000	-156.67106850000	2	Road	ROAD	U	0.18
12.92	423.66	2-4-6-005.069	511	1	11/1/1978	9410821303	SFD	20.86443929400	-156.67106660000	2	Road	ROAD	U	0.00
9.21	301.94	2-4-6-006.001	511	1	11/30/1990	9223597222	SFD	20.86551726600	-156.67323340000	2	Road	ROAD	U	0.35
63.07	2,067.84	2-4-6-006.003	511	2	9/23/1995	1621336435	SFD	20.86625714600	-156.67383290000	2	Road	ROAD	U	0.00
35.25	1,155.77	2-4-6-006.005	511	1	11/1/1978	1197293955	SFD	20.86665371200	-156.67411380000	3	Road	ROAD	U	0.00
12.76	418.31	2-4-6-006.006	511	1	3/1/2007	3170369679	SFD	20.86630566100	-156.67385670000	2	Road	ROAD	U	0.00
16.79	550.46	2-4-6-006.007	511	1	11/1/1978	9876004903	SFD	20.86671244100	-156.67415000000	2	Road	ROAD	U	0.00
15.73	515.87	2-4-6-006.011	511	1	11/1/1978	9820278032	SFD	20.86715348700	-156.67448340000	2	Road	ROAD	U	0.00
30.84	1,011.26	2-4-6-006.013	511	1	8/1/1988	1729220877	SFD	20.86762978300	-156.67474420000	3	Road	ROAD	U	0.37
15.31	502.02	2-4-6-006.030	511	2	11/1/1978	4835513872	SFD	20.86605123700	-156.67367000000	2	Road	ROAD	U	0.00
34.05	1,116.39	2-4-6-006.031	511	1	3/28/2003	9436641006	SFD	20.86750082300	-156.67236470000	2	Road	ROAD	U	0.00
4.84	158.69	2-4-6-006.037	511	2	11/1/1978	1912078261	SFD	20.86641670000	-156.67287860000	2	Road	ROAD	U	0.00
27.10	888.61	2-4-6-006.043	511	1	7/5/1978	7049001685	SFD	20.86766425300	-156.67324320000	2	Road	ROAD	U	0.00
11.14	365.19	2-4-6-006.045	511	2	11/1/1978	9326910718	SFD	20.86781990800	-156.67317470000	2	Road	ROAD	U	0.00
12.07	395.85	2-4-6-006.046	511	1	11/1/1978	1140617976	SFD	20.86795957700	-156.67287160000	2	Road	ROAD	U	0.00
18.57	608.93	2-4-6-006.047	511	1	11/1/1978	3668147349	SFD	20.86795912500	-156.67286220000	2	Road	ROAD	U	0.00
6.47	212.08	2-4-6-006.048	511	1	11/1/1978	6572413920	SFD	20.86811811700	-156.67247170000	2	Road	ROAD	U	0.00
17.98	589.37	2-4-6-006.050	511	2	7/7/1987	5948770488	SFD	20.86748200200	-156.67310100000	3	Road	ROAD	U	0.00
23.99	786.61	2-4-6-006.051	511	1	6/13/1985	7869815379	SFD	20.86747897000	-156.67310260000	2	Road	ROAD	U	0.00
5.69	186.39	2-4-6-006.053	511	2	11/1/1978	6600135976	SFD	20.86706013600	-156.67297960000	2	Road	ROAD	U	0.00
17.83	584.51	2-4-6-006.054	511	1	11/1/1995	9282421013	SFD	20.86670036100	-156.67286520000	4	Road	ROAD	U	0.00
42.60	1,396.75	2-4-6-006.055	511	1	11/1/1978	1683960595	SFD	20.86669341000	-156.67285420000	2	Road	ROAD	U	0.00
15.82	518.52	2-4-6-006.056	511	1	3/16/1998	9442202244	SFD	20.86633884000	-156.67249990000	3	Road	ROAD	U	0.00
15.07	493.96	2-4-6-006.057	511	1	11/1/1978	9665569342	SFD	20.86634739900	-156.67246630000	2	Road	ROAD	U	0.00
15.96	523.11	2-4-6-006.058	511	1	11/1/1978	7314122861	SFD	20.86640720100	-156.67224710000	2	Road	ROAD	U	0.00
20.61	675.68	2-4-6-006.062	511	1	11/1/1978	4275387491	SFD	20.86731549800	-156.67239030000	2	Road	ROAD	U	0.00
11.54	378.33	2-4-6-006.065	511	2	1/15/1999	6137482297	SFD	20.86770968800	-156.67243590000	3	Road	ROAD	U	0.17
9.06	296.99	2-4-6-006.066	511	2	4/19/1994	755999745	SFD	20.86808269600	-156.67230360000	3	Road	ROAD	U	0.00
4.80	157.40	2-4-6-006.067	511	2	11/1/1978	3527003817	SFD	20.86767659600	-156.67243240000	2	Road	ROAD	U	0.00
20.62	676.15	2-4-6-006.068	511	1	11/1/1978	9945603288	SFD	20.86727118600	-156.67224680000	2	Road	ROAD	U	0.20
15.49	508.01	2-4-6-006.069	511	1	11/1/1978	5551327037	SFD	20.86704488400	-156.67215390000	2	Road	ROAD	U	0.00
9.37	307.32	2-4-6-006.072	511	1	11/1/1978	6158931914	SFD	20.86658628400	-156.67196710000	2	Road	ROAD	U	0.00
8.28	271.42	2-4-6-006.073	511	1	2/8/1985	1789326718	SFD	20.86657677400	-156.67194970000	3	Road	ROAD	U	0.00
17.51	574.02	2-4-6-006.076	511	1	9/1/1994	1523654929	SFD	20.86643433900	-156.67196840000	2	Road	ROAD	U	0.00
11.41	373.96	2-4-6-006.079	511	1	12/1/1993	6149652045	SFD	20.86583081700	-156.67250580000	2	Road	ROAD	U	0.18
28.67	940.11	2-4-6-006.080	511	2	3/4/1983	8577625327	SFD	20.86583045500	-156.67254430000	2	Road	ROAD	U	0.00
10.23	335.46	2-4-6-006.081	511	1	11/1/1978	997687039	SFD	20.86573525500	-156.67202500000	2	Road	ROAD	U	0.17
17.07	559.70	2-4-6-006.082	511	1	11/1/1978	6027160273	SFD	20.86573302400	-156.67200190000	2	Road	ROAD	U	0.00
13.02	426.91	2-4-6-006.084	511	1	11/16/1994	3903686888	SFD	20.86588579000	-156.67162830000	3	Road	ROAD	U	0.00
20.91	685.41	2-4-6-006.085	511	1	11/1/1978	2692185525	SFD	20.86603017700	-156.67128490000	2	Road	ROAD	U	0.17
15.15	496.58	2-4-6-006.086	511	1	11/1/1978	6944121879	SFD	20.86603569500	-156.67125340000	2	Road	ROAD	U	0.00
7.51	246.07	2-4-6-006.090	511	1	7/6/1984	6445937717	SFD	20.86715595000	-156.67409520000	2	Road	ROAD	U	0.00
0.00	0.00	2-4-6-007.020	511	1	11/1/1978	8944818599	SFD	20.87079091100	-156.67435520000	2	Road	ROAD	U	0.00
16.40	537.79	2-4-6-007.023	511	1	8/17/1995	6279780845	SFD	20.87152474600	-156.67512300000	2	Road	ROAD	U	0.00
0.00	0.00	2-4-6-007.028	511	1	5/6/1970	3345200843	SFD	20.87091080800	-156.67479720000	3	Road	ROAD	U	0.00
9.28	304.23	2-4-6-008.001	511	2	11/1/1978	6197599228	SFD	20.87115850200	-156.67598430000	2	Road	ROAD	U	0.00
4.92	161.39	2-4-6-008.014	511	1	11/1/1978	7145533796	SFD	20.87160505200	-156.67568940000	2	Road	ROAD	U	0.00
6.49	212.81	2-4-6-008.015	511	1	4/20/1995	9914795139	SFD	20.87182358000	-156.67589110000	2	Road	ROAD	U	0.00
2.64	86.67	2-4-6-008.018	511	1	1/1/1989	5747473690	SFD	20.87233433800	-156.67636910000	2	Road	ROAD	U	0.00
0.85	27.87	2-4-6-008.019	511	1	4/8/1995	9123801218	SFD	20.87251765600	-156.67653720000	2	Road	ROAD	U	0.00
1.96	64.37	2-4-6-008.020	511	1	11/5/1992	6964067706	SFD	20.87263937600	-156.67658590000	2	Road	ROAD	U	0.12
9.26	303.44	2-4-6-008.021	511	1	3/5/1987	7551446145	SFD	20.87271290000	-156.67666770000	2	Road	ROAD	U	0.00
14.91	488.77	2-4-6-008.024	511	1	11/1/1978	6775927922	SFD	20.87307758400	-156.67696200000	2	Road	ROAD	U	0.25
5.55	182.08	2-4-6-008.025	511	1	6/1/1988	305984636	SFD	20.87310138700	-156.67700230000	2	Road	ROAD	U	0.00
11.65	381.97	2-4-6-008.032	511	1	11/1/1978	4533069241	SFD	20.87337582200	-156.67617200000	2	Road	ROAD	U	0.14
8.93	292.87	2-4-6-008.033	511	1	11/1/1978	4607027074	SFD	20.87345588100	-156.67601870000	2	Road	ROAD	U	0.14
2.85	93.58	2-4-6-008.034	511	1	8/2/1982	1899498316	SFD	20.87369806700	-156.67565680000	2	Road	ROAD	U	0.00
4.68	153.44	2-4-6-008.038	511	1	12/3/1998	1825371149	SFD	20.87355693400	-156.67581290000	2	Road	ROAD	U	0.00
6.01	197.16	2-4-6-008.075	511	1	11/20/1997	121848453	SFD	20.87151274000	-156.67562530000	2	Road	ROAD	U	0.00
3.61	118.33	2-4-6-008.082	511	1	11/1/1978	9103073932	SFD	20.87235035000	-156.67493950000	2	Road	ROAD	U	0.00
1.01	33.20	2-4-6-009.005	511	1	11/1/1978	4503928123	SFD	20.87370221200	-156.67776400000	2	Road	ROAD	U	0.00
12.72	416.99	2-4-6-009.012	511	1	3/9/1993	9644097258	SFD	20.87392431800	-156.67777390000	2	Road	ROAD	U	0.00
10.54	345.44	2-4-6-009.035	511	1	3/8/1990	1235907587	SFD	20.87508091000	-156.67870730000	2	Road	ROAD	U	0.00
6.46	211.69	2-4-6-009.041	511	1	11/1/1978	9907297851	SFD	20.87575383700	-156.67789630000	2	Road	ROAD	U	0.00
0.00	0.00	2-4-6-009.044	511	2	11/1/1978	4304207836	SFD	20.87536570300	-156.67843460000	2	Road	ROAD	U	0.00
7.63	250.14	2-4-6-009.045	511	1	11/1/1978	6279173567	SFD	20.87532436400	-156.67848800000	2	Road	ROAD	U	0.00
15.02	492.51	2-4-6-009.050	511	1	11/1/1978	5705352958	SFD	20.87548081500	-156.67819950000	2	Road	ROAD	U	0.00
10.66	349.64	2-4-6-009.051	511	1	1/9/1999	179357576	SFD	20.87556438600	-156.67811390000	2	Road	ROAD	U	0.00
11.83	387.84	2-4-6-010.013	511	1	11/1/1978	5189667304	SFD	20.87678377000	-156.67680210000	2	Road	ROAD	U	0.00
2.18	71.48	2-4-6-0												

12.49	409.64	2-4-6-012-022	511	1	8/3/1987	7742461629	SFD	20.86847876200	-156.67224660000	2	Road	ROAD	U	0.00
20.54	673.33	2-4-6-012-023	511	1	5/7/1979	334807567	SFD	20.86828016000	-156.67211910000	2	Road	ROAD	U	0.00
20.16	660.82	2-4-6-012-024	511	1	10/3/1988	7635038886	SFD	20.86847049800	-156.67223690000	2	Road	ROAD	U	0.00
18.25	598.20	2-4-6-012-025	511	1	1/17/1995	1661081702	SFD	20.86818430600	-156.67206800000	3	Road	ROAD	U	0.00
39.84	1,306.09	2-4-6-012-026	511	1	7/26/1996	1224494320	SFD	20.86797119300	-156.67194820000	3	Road	ROAD	U	0.00
14.29	468.52	2-4-6-012-027	511	1	8/14/1980	6498100708	SFD	20.86796421400	-156.67194440000	2	Road	ROAD	U	0.00
9.87	323.47	2-4-6-012-028	511	1	12/12/1996	4433802355	SFD	20.86766533200	-156.67176920000	2	Road	ROAD	U	0.00
27.27	894.23	2-4-6-012-029	511	1	11/28/1994	9807172410	SFD	20.86764155300	-156.67176900000	3	Road	ROAD	U	0.00
31.56	1,034.70	2-4-6-012-030	511	1	5/4/1984	2067176930	SFD	20.86732980400	-156.67158640000	2	Road	ROAD	U	0.00
18.64	611.15	2-4-6-012-031	511	1	10/1/1981	8062950138	SFD	20.86731758900	-156.67158380000	2	Road	ROAD	U	0.00
16.54	542.38	2-4-6-012-032	511	1	3/25/1991	3925066579	SFD	20.87120874000	-156.67388290000	2	Road	ROAD	U	0.00
20.76	680.71	2-4-6-012-033	511	1	11/1/1978	4915997362	SFD	20.87143153100	-156.67401670000	2	Road	ROAD	U	0.00
14.20	465.66	2-4-6-012-035	511	1	8/27/1985	6160466635	SFD	20.86646863400	-156.67109150000	2	Road	ROAD	U	0.00
33.86	1,110.05	2-4-6-012-015-0000	511	1	11/1/1978	7573879666	SFD	20.87082094300	-156.67360550000	2	Road	ROAD	U	0.00
24.56	805.38	2-4-6-018-023	511	1	10/30/1998	3986158359	SFD	20.88404537000	-156.66407960000	2	Road	ROAD	A	2.10
30.99	1,016.01	2-4-6-026-006	511	1	11/1/1978	1492754378	SFD	20.88097761600	-156.67162270000	2	Road	ROAD	U	0.19
26.35	863.77	2-4-6-026-007	511	2	12/1/1986	9876135556	SFD	20.88055855000	-156.67167830000	2	Road	ROAD	U	0.00
12.78	419.13	2-4-6-026-008	511	1	11/1/1978	5156359100	SFD	20.88048883300	-156.67185890000	2	Road	ROAD	U	0.00
15.02	492.60	2-4-6-026-010	511	1	11/1/1978	6205948653	SFD	20.88037444700	-156.67201210000	2	Road	ROAD	U	0.00
11.61	380.71	2-4-6-026-013	511	1	11/1/1978	3357469983	SFD	20.88042355000	-156.67182450000	2	Road	ROAD	U	0.00
46.10	1,511.48	2-4-6-026-014	511	1	10/31/1998	52731977	SFD	20.88055249300	-156.67167150000	3	Road	ROAD	U	0.00
7.96	261.07	2-4-6-026-018	511	1	6/4/1991	9776338976	SFD	20.87965143000	-156.67151700000	2	Road	ROAD	U	0.15
24.33	797.79	2-4-6-026-020	511	1	7/16/1993	7584026706	SFD	20.87977370900	-156.67163530000	2	Road	ROAD	U	0.00
17.60	577.16	2-4-6-026-021	511	1	9/10/1998	8270511096	SFD	20.87978404800	-156.67201070000	3	Road	ROAD	U	0.00
15.14	496.31	2-4-6-026-022	511	1	11/1/1978	5423021066	SFD	20.87975987600	-156.67200540000	2	Road	ROAD	U	0.00
10.84	355.49	2-4-6-026-027	511	1	11/1/1978	6895655262	SFD	20.87927174000	-156.67236640000	2	Road	ROAD	U	0.00
22.37	733.58	2-4-6-026-031	511	1	11/1/1978	5057577772	SFD	20.87874666600	-156.67256730000	2	Road	ROAD	U	0.00
7.93	260.11	2-4-6-026-037	511	1	11/1/1978	2118171519	SFD	20.87820729100	-156.67290040000	2	Road	ROAD	U	0.14
25.30	829.43	2-4-6-026-038	511	1	11/1/1978	767706074	SFD	20.87821926300	-156.67292760000	2	Road	ROAD	U	0.00
17.54	575.22	2-4-6-026-039	511	1	12/2/1996	3518103376	SFD	20.87848339800	-156.67316600000	2	Road	ROAD	U	0.14
23.42	767.76	2-4-6-026-044	511	1	11/1/1978	4625053075	SFD	20.87953022100	-156.67206200000	2	Road	ROAD	U	0.00
12.60	413.17	2-4-6-026-045	511	1	11/1/1978	9238771846	SFD	20.87955487400	-156.67222970000	2	Road	ROAD	U	0.00
16.71	547.90	2-4-6-026-046	511	1	11/1/1978	3316325293	SFD	20.87934448700	-156.67244400000	2	Road	ROAD	U	0.00
7.72	252.98	2-4-6-026-047	511	1	11/1/1978	4280934710	SFD	20.87933959800	-156.67246520000	2	Road	ROAD	U	0.00
14.16	464.18	2-4-6-026-048	511	1	11/1/1978	9482894875	SFD	20.87912252600	-156.67280930000	2	Road	ROAD	U	0.00
11.40	373.69	2-4-6-026-049	511	1	11/1/1978	8684986847	SFD	20.87912006800	-156.67281120000	2	Road	ROAD	U	0.00
17.59	576.67	2-4-6-026-050	511	1	11/1/1978	7847723656	SFD	20.87900565000	-156.67313150000	2	Road	ROAD	U	0.00
19.54	640.57	2-4-6-026-051	511	1	11/1/1978	2154483906	SFD	20.87900463600	-156.67314600000	2	Road	ROAD	U	0.00
19.70	645.98	2-4-6-026-054	511	1	12/31/1997	2565737935	SFD	20.87847896500	-156.67367110000	2	Road	ROAD	U	0.00
6.31	207.02	2-4-6-026-055	511	1	11/1/1978	6251615191	SFD	20.87836645800	-156.67384250000	2	Road	ROAD	U	0.00
4.60	150.66	2-4-6-026-056	511	1	11/1/1978	7657224134	SFD	20.87835748100	-156.67385010000	2	Road	ROAD	U	0.00
9.76	320.03	2-4-6-026-070	511	1	7/16/1998	6255695167	SFD	20.88034004100	-156.67111740000	2	Road	ROAD	U	0.31
26.56	870.93	2-4-6-027-001	511	1	11/1/1978	8940788443	SFD	20.87805131400	-156.67321370000	2	Road	ROAD	U	0.00
30.59	1,002.81	2-4-6-027-002	511	1	11/1/1978	579473683	SFD	20.87804355400	-156.67323020000	2	Road	ROAD	U	0.00
22.63	741.86	2-4-6-027-009	511	1	11/1/1978	4517180519	SFD	20.87778903700	-156.67368000000	2	Road	ROAD	U	0.00
5.95	195.19	2-4-6-027-010	511	1	11/1/1978	2951431281	SFD	20.87806960200	-156.67335590000	2	Road	ROAD	U	0.00
3.23	105.74	2-4-6-027-011	511	1	11/1/1978	8255080242	SFD	20.87806620400	-156.67334990000	2	Road	ROAD	U	0.00
19.21	629.84	2-4-6-034-001	511	1	3/21/1991	839756623	SFD	20.86424836300	-156.66916260000	2	Road	ROAD	U	0.00
11.85	388.44	2-4-6-034-002	511	1	3/15/1991	9412634969	SFD	20.86438756000	-156.66916750000	2	Road	ROAD	U	0.00
14.32	469.62	2-4-6-034-003	511	1	3/19/1991	2776847786	SFD	20.86440913900	-156.66915420000	2	Road	ROAD	U	0.00
5.44	178.22	2-4-6-034-004	511	1	6/7/1991	2102828604	SFD	20.86458545600	-156.66916700000	2	Road	ROAD	U	0.00
17.84	584.86	2-4-6-034-005	511	1	6/28/1991	7752485900	SFD	20.86459649400	-156.66916120000	2	Road	ROAD	U	0.00
7.72	253.11	2-4-6-034-006	511	1	10/22/1996	8281192152	SFD	20.86478227800	-156.66916480000	3	Road	ROAD	U	0.00
16.51	541.45	2-4-6-034-007	511	1	10/22/1996	1508559746	SFD	20.86478296700	-156.66915820000	2	Road	ROAD	U	0.00
10.00	327.95	2-4-6-034-008	511	1	5/31/1991	2831269135	SFD	20.86493720800	-156.66915240000	2	Road	ROAD	U	0.10
4.72	154.73	2-4-6-034-009	511	1	4/3/1991	7068188476	SFD	20.86495770700	-156.66915860000	2	Road	ROAD	U	0.00
16.12	528.44	2-4-6-034-010	511	1	7/16/1991	8011773318	SFD	20.86514273000	-156.66916720000	2	Road	ROAD	U	0.00
7.29	239.02	2-4-6-034-011	511	1	3/20/1991	2374439440	SFD	20.86514468600	-156.66916970000	2	Road	ROAD	U	0.00
12.58	412.49	2-4-6-034-012	511	1	3/19/1991	1039065062	SFD	20.86532754900	-156.66916230000	2	Road	ROAD	U	0.10
8.46	277.51	2-4-6-034-015	511	1	3/28/1991	6396097143	SFD	20.86554357900	-156.66916810000	2	Road	ROAD	U	0.00
20.69	678.39	2-4-6-034-016	511	1	10/23/1996	5259824150	SFD	20.86570206700	-156.66916470000	2	Road	ROAD	U	0.10
5.13	168.22	2-4-6-034-017	511	1	4/3/1991	9056607385	SFD	20.86572339900	-156.66916580000	2	Road	ROAD	U	0.16
7.20	236.20	2-4-6-034-036	511	1	6/28/1991	3200898790	SFD	20.86582019900	-156.66950480000	2	Road	ROAD	U	0.00
11.63	381.28	2-4-6-034-037	511	1	8/28/1991	3589267729	SFD	20.86588061600	-156.66933020000	2	Road	ROAD	U	0.00
12.44	407.81	2-4-6-034-038	511	1	4/12/1991	8806732070	SFD	20.86588996400	-156.66931070000	2	Road	ROAD	U	0.00
77.28	2,533.66	2-0-0-000-000	511	1	9/17/1987	4119588879	SGOVT	20.90538615000	-156.68431850000	6	AG Agriculture	AG	A	16.78
75.16	2,464.40	2-4-5-021-016-0000	511	1	1/2/1986	3532126033	SGOVT	20.90432327200	-156.68453950000	6	AG Agriculture	AG	U	16.78
97.86	3,208.52	2-0-0-000-000	511	1	11/1/1978	1323339962	SGOVT	20.87289064900	-156.67797170000	6	HD-1 Historic District 1	HD-1	U	0.23
0.00	0.00	2-0-0-000-000	511	1	1/29/1986	7356035009	SGOVT	20.86842016800	-156.67544760000	2	HD-1 Historic District 1	HD-1	U	1.80
47.52	1,557.98	2-4-6-001-001	511	1	11/1/1978	4458612515	SGOVT	20.87175094800	-156.67826280000	6	HD-1 Historic District 1	HD-1	U	0.28
82.51	2,705.38	2-4-6-001-007	511	1	9/2/1983	4726791748	SGOVT	20.87262157600	-156.67856160000	2	HD-1 Historic District 1	HD-1	U	0.44
836.53	27,427.32	2-4-6-002-013	511	1	11/1/1978	2613080929	SGOVT	20.87060104500	-156.67655210000	7	HD-1 Historic District 1	HD-1	U	4.76
428.96	14,064.37	2-0-0-000-000	511	1	8/28/1978	6014095826	SGOVT	20.88710938100	-156.66133660000	7	Interim	INT	U	37.83
399.23	13,089.48	2-0-0-000-000	511	1	8/28/1978	9761226787	SGOVT	20.88714347000	-156.66135930000	7	Interim	INT	U	37.83
633.10	20,757.27	2-4-6-018-005	511	1	6/1									

# Ka Pa‘akai Analysis for Existing Maui County Wells in the Launiupoko Aquifer System, Lahaina Aquifer Sector

Pana‘ewa and Ku‘ia Ahupua‘a, Lahaina Moku, Island of  
Maui

AUGUST 2023

PREPARED FOR

**County of Maui, Department of Water  
Supply**

PREPARED BY

**SWCA Environmental Consultants**

# **KA PA‘AKAI ANALYSIS FOR EXISTING MAUI COUNTY WELLS IN THE LAUNIUPOKO AQUIFER SYSTEM, LAHAINA AQUIFER SECTOR**

**PANA‘EWA AND KU‘IA AHUPUA‘A, LAHAINA MOKU, ISLAND OF MAUI**

Prepared for

**County of Maui, Department of Water Supply**  
200 South High Street  
Wailuku, Hawai‘i 96793-2155  
Attn: Eva Blumenstein

Prepared by

**Tamara Luthy, Ph.D. and Wainani Traub, M.S.**

Principal Investigator

**Rowland Reeve, M.A.**

**SWCA Environmental Consultants**  
1200 Ala Moana Boulevard, Suite 380  
Honolulu, Hawai‘i 96814  
(808) 548-7922  
[www.swca.com](http://www.swca.com)

SWCA Project No. 00078517

SWCA Cultural Resources Report No. 23-496

August 2023

## EXECUTIVE SUMMARY

On behalf of the County of Maui Department of Water Supply (MDWS), SWCA Environmental Consultants (SWCA) conducted a Ka Pa‘akai Analysis in support of the water use permit application for the existing Kanahā 1 and 2 and Waipuka 1 and 2 wells located within the Launiupoko Aquifer System in the larger Lahaina Aquifer Sector.

In 2022, the State of Hawai‘i, Department of Land and Natural Resources, Commission on Water Resources Management (CWRM), designated the Lahaina Aquifer Sector as both a Surface and Ground Water Management Area. As a result, the MDWS is required to submit water use permit applications to the CWRM for all existing and proposed water sources within the Lahaina Aquifer Sector.

As water use within the Lahaina Aquifer Sector has the potential to affect traditional and customary Native Hawaiian rights and practices, a required part of the CWRM water use permit application for each water use is the preparation of a Ka Pa‘akai Analysis. These analyses follow the guidelines established by the 2000 Hawai‘i Supreme Court decision in *Ka Pa‘akai O Ka ‘Aina v. Land Use Commission*.

Using a combination of ethnohistoric research, existing oral history interviews, public testimony from the CWRM’s Instream Flow Standard Assessment Report meetings, and ethnographic interviews undertaken as part of the present analysis, the following Ka Pa‘akai Analysis report identifies and discusses the traditional and customary practices undertaken within the Lahaina Aquifer Sector, and more specifically within the Launiupoko Aquifer System that are related to water use and could potentially be impacted by water use related to the existing Maui County wells. These traditional and customary practices include the cultivation of wetland *kalo* (taro, *Colocasia esculenta*), nearshore fishing, the gathering of *limu* (algae), and the gathering of medicinal and other plants. In addition, the community is attempting to restore the historic *loko i‘a* (fishpond) of Mokuhinia, associated with many notable *ali‘i* (chiefs or nobles) and members of the Hawaiian royal family. This restoration is currently endangered by a lack of sufficient, high-quality fresh water. Current efforts by cultural practitioners to restore this fishpond, replenish populations of *limu*, increase the number of *lo‘i kalo* (flooded taro terraces) under active cultivation, and teach *keiki* (children) and community members about *mauka* to *makai* (inland to coastal) stewardship require a sufficient availability of fresh water.

The existing Maui County wells addressed in this analysis were observed to have less of an impact on freshwater availability than the large-scale pumping of streamwater to supply residential developments in Launiupoko. Cultural informants did, however, note a decline in key, culturally important natural resources such as ‘o‘opu (goby fish), ‘ōpae (endemic shrimp), the shellfish *hīhīwai* (*Neritina granosa*) and *hapawai* (*Theodoxus vespertinus*), *limu*, and nearshore fish has occurred since the 1970s when these wells were first installed. The Maui County wells were installed at roughly the same time that Pioneer Mill increased its water usage. Additional declines in the quality, abundance, and availability of fresh water occurred after West Maui Land Company purchased Pioneer Mill’s water infrastructure in the early 2000s and began diverting water to Launiupoko. The latter development coincided with the installation of leach fields and septic systems, which were seen by community members as a possible cause for declines in *limu* populations.

This Ka Pa‘akai Analysis found that although the existing Maui County wells are not the primary burden upon fresh water in the Launiupoko Aquifer System, they do contribute to an overall scarcity of fresh water that impacts the vitality of ongoing traditional and customary practices. The MDWS has therefore agreed to undertake a number of feasible actions to maintain and potentially increase supplies of fresh water for traditional and customary practices. This Ka Pa‘akai Analysis identified a number of feasible actions to help mitigate the potential impacts of the existing wells, which include soliciting ongoing feedback from community members; employing a *mauka* to *makai* approach to water conservation;

supporting community-based efforts to restore watersheds; repairing, replacing, and maintaining existing infrastructure; maintaining and monitoring water quality; and developing alternative water source strategies.

*Many words in the Hawaiian language, 'Ōlelo Hawai'i, are used throughout this report. In addition to being defined the first time that they are introduced in the report, all Hawaiian-language words are defined in the glossary (see Section 8 Glossary of Hawaiian Words Used in the Text).*

## CONTENTS

<b>1</b>	<b>Introduction .....</b>	<b>1</b>
1.1	Lahaina Water Management Area .....	1
1.2	Launiupoko Aquifer System .....	3
1.3	Water Issues .....	3
1.4	Ka Pa‘akai Framework .....	3
1.4.1	Ka Pa‘akai Analysis .....	4
<b>2</b>	<b>Cultural and Historic Background .....</b>	<b>8</b>
2.1	A Brief Historic Context for Traditional Hawaiian Cultural Knowledge .....	8
2.1.1	The Significance of Water in Hawaiian Culture .....	9
2.1.2	Shoreline Traditional Hawaiian Practices in West Maui .....	9
2.2	Lahaina Moku .....	10
2.2.1	Place Names .....	10
2.2.2	Lahaina in the Traditional Period .....	10
2.2.3	Mo‘o of Lahaina .....	12
2.2.4	Early Post-Contact Accounts of Lahaina .....	13
2.2.5	Lahaina as the Royal Residence .....	14
2.2.6	Infilling of Loko o Mokuhinia .....	14
2.2.7	Traditional Water Distribution System in Lahaina .....	15
2.2.8	Shoreline Traditional Practices in Lahaina Moku .....	16
2.3	Māhele ‘Āina .....	18
2.3.1	Land Awards, Moku of Lahaina .....	18
2.3.2	Land Awards, Ahupua‘a of Pana‘ewa .....	18
2.3.3	Land Awards, Ahupua‘a of Ku‘ia .....	18
2.4	Plantation History .....	18
2.4.1	Lahaina’s Plantation Ditches .....	19
2.5	Historic Properties within Lahaina .....	20
2.5.1	Historic Properties within Pana‘ewa .....	20
<b>3</b>	<b>Community Consultation .....</b>	<b>21</b>
3.1	Community Consultation Methodology .....	21
3.2	Public Comments for the Instream Flow Standards Assessment Reports .....	22
3.2.1	Public Comments for the Ukumehame, Olowalu, Launiupoko, and Kaua‘ula Instream Flow Standard Assessment Reports .....	22
3.3	Individual Interviews .....	25
3.3.1	Harold “Hale” Kaniho .....	25
3.3.2	Ke‘eaumoku Kapu .....	26
3.3.3	Charles Maxwell .....	28
3.3.4	Blossom Feiteira .....	28
3.3.5	‘Aha Moku o Maui, Inc., Consultation Meeting .....	33
<b>4</b>	<b>Cultural, Historical, and Natural Resources .....</b>	<b>39</b>
4.1	Culturally Significant Natural Resources .....	39
4.1.1	Limu .....	39
4.1.2	Freshwater Stream Species .....	39
4.1.3	Lo‘i Kalo Farming .....	39
4.1.4	Native Plant Resources, Lā‘au Lapa‘au .....	40
4.2	Cultural and Historical Sites .....	40

4.2.1	Mokuhinia and Moku'ula .....	40
4.3	Coastal Fishing and Gathering.....	40
4.4	Pūnāwai .....	41
4.5	Iwi Kūpuna .....	41
<b>5</b>	<b>Assessment of Potential Impacts .....</b>	<b>42</b>
5.1	Types of Traditional and Customary Rights Referenced Under the State Water Code.....	42
5.2	Approach to Assessing Impacts.....	42
5.3	Community Concerns .....	42
5.3.1	Ahupua'a-Based Approach.....	43
5.3.2	Abundance and Quality of Freshwater Flow .....	43
5.3.3	Reduced Water Quality .....	44
5.3.4	Need for Additional Community Input for Current and Future Projects .....	44
<b>6</b>	<b>Proposed Actions To Protect Traditional And Customary Native Hawaiian Rights.....</b>	<b>45</b>
6.1	Apply an Ahupua'a-Based Approach to All Water Use Decisions .....	45
6.1.1	Mauka: Reforestation and Invasive Species Control to Improve Watershed Health.....	45
6.1.2	Makai: Monitoring Culturally Important Aquatic Species .....	46
6.2	Protect and Recharge Groundwater and Surface Water Flow .....	46
6.2.1	Maintaining and Monitoring Current Water Supplies .....	46
6.2.2	Alternative Water Source Strategies .....	47
6.3	Support Water Quality .....	47
6.4	Repair, Replace, and Maintain Existing Infrastructure.....	47
6.5	Solicit Ongoing Community Input for Current and Future Projects.....	47
<b>7</b>	<b>Summary .....</b>	<b>49</b>
<b>8</b>	<b>Glossary of Hawaiian Words Used in the Text.....</b>	<b>50</b>
<b>9</b>	<b>References Cited .....</b>	<b>53</b>

## **Appendices**

Appendix A. Request for Consultation Letter

## **Figures**

Figure 1. Map of aquifer systems within the Lahaina Aquifer Sector. ....	2
Figure 2. Map of the Launiupoko aquifer system. ....	5
Figure 3. Location of Kanahā 1 and 2 wells. ....	6
Figure 4. Location of Waipuka 1 and 2 wells. ....	7

# 1 INTRODUCTION

On behalf of the County of Maui Department of Water Supply (MDWS), SWCA Environmental Consultants (SWCA) has conducted this Ka Pa‘akai Analysis in support of the water use permit application for existing Kanahā 1 and 2 and Waipuka 1 and 2 wells located within the Launiupoko Aquifer System in the Lahaina Aquifer Sector.

## 1.1 Lahaina Water Management Area

In 2022, the State of Hawai‘i, Department of Land and Natural Resources (DLNR), Commission on Water Resources Management (CWRM) designated the Lahaina Aquifer Sector as a Surface and Ground Water Management Area. This decision was made in accordance with Hawai‘i Revised Statutes (HRS) Chapter 174C, the State Water Code, and Hawai‘i Administrative Rules (HAR) Title 13, Water Resources, Chapter 171, Designation and Regulation of Water Management Areas. As a result of this designation, the MDWS is required to submit water use permit applications to the CWRM for all of its existing and proposed water sources within the Lahaina Aquifer Sector.

The Lahaina Aquifer Sector includes the *moku* (districts) of Lahaina and Kā‘anapali, both within West Maui. The Lahaina Aquifer Management Area includes the Honokōhau, Honolulu, Honokahua, Kahana, Honokōwai, Wahikuli, Kahoma, Kaua‘ula, Launiupoko, Olowalu, and Ukumehame Surface Water Hydrologic Units and the Honokōhau, Honolulu, Honokōwai, Launiupoko, Olowalu, and Ukumehame Groundwater Hydrologic Units. The Honolulu, Honokōhau, Kahana, Honokōwai, and Wahikuli Hydrologic Units are in the Kā‘anapali Aquifer System, whereas the Launiupoko, Ukumehame, Olowalu, and Kaua‘ula Hydrologic Units are within the Lahaina Aquifer System (Figure 1). The present report focuses on the Launiupoko Hydrologic Unit, on the leeward flanks of the West Maui Mountains. The Launiupoko Hydrologic Unit, on the southwest flank of Pu‘u Kukui, encompasses the *ahupua‘a* (traditional land divisions) of Pana‘ewa and Launiupoko in the Lahaina moku (DLNRCWRM 2019c).

In coming to its decision, the CWRM noted several concerns regarding the surface water and groundwater resources in the Lahaina Aquifer Sector:

- These resources could be threatened by existing or proposed withdrawals or diversions of water
- There is the potential for harm to ground water quantity and quality by saltwater intrusion
- There are serious historic and ongoing disputes over current and planned uses of water
- There is climate uncertainty and potential drought and decline in rainfall and recharge
- There is surface and groundwater interaction and connection that should be managed in an integrated manner.

The MDWS currently operates two surface water treatment plants and eight well pumps within the Lahaina Aquifer Sector. These existing sources withdraw groundwater from the Honolulu aquifer system and the Launiupoko aquifer system, and surface water from Honokōhau and Kanahā Streams. The MDWS is preparing water use permit applications for all of these existing water sources. In addition, the MDWS plans to prepare water use permit applications for new water sources under development.

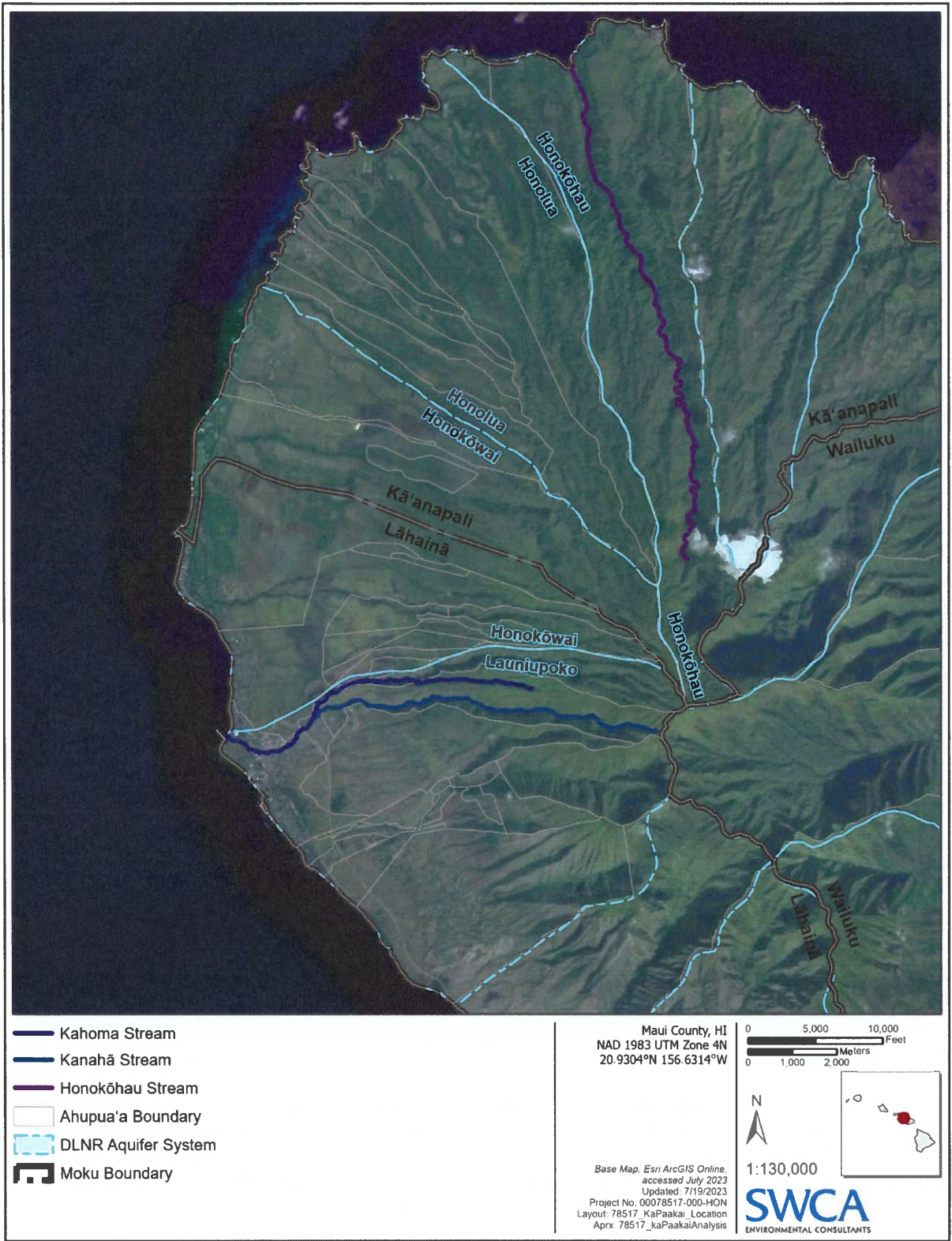


Figure 1. Map of aquifer systems within the Lahaina Aquifer Sector.

## 1.2 Launiupoko Aquifer System

The Launiupoko aquifer system encompasses the ahupua‘a of Pana‘ewa and Ku‘ia (Figure 2), as well as several other ahupua‘a. County water sources within the Launiupoko Aquifer System include surface water from Kanahā Stream and the existing wells of Kanahā 1 and 2 and Waipuka 1 and 2 (Figure 3 and Figure 4). These sources provide water to the communities of Lahaina and Launiupoko. The Kanahā and Kahoma streams flow within the Launiupoko Hydrologic Unit. The existing MDWS wells of Kanahā 1 and 2 are located in Pana‘ewa Ahupua‘a slightly north of the Kanahā Stream before it merges with the Kahoma Stream. Waipuka 1 and 2 are just south of the Kanahā Stream in Ku‘ia Ahupua‘a.

## 1.3 Water Issues

The Maui Water Use and Development Plan (2019) acknowledges that West Maui’s water resources are constrained by climate change issues such as rising temperatures, increasingly erratic and decreasing rainfall, and other changes in weather patterns. In addition, anthropogenic factors such as increasing population, urban growth, complicated legal processes, lack of capital to improve aging infrastructure, and tensions between the needs of various water users must all be considered by the County when determining water allocations. Existing plantation irrigation systems from Maui Land and Pineapple and Pioneer Mill Irrigation Systems in West Maui, for example, continue to deteriorate since the state transitioned away from pineapple and sugar cane, even though *kalo* (taro, *Colocasia esculenta*) farmers continue to rely on these systems (Maui Department of Water Supply 2019:73). Many of these environmental and anthropogenic factors impact the health and vitality of traditional and customary practices taking place within the Lahaina Aquifer Sector.

## 1.4 Ka Pa‘akai Framework

As water use within the Lahaina Aquifer Sector has the potential to affect traditional and customary Native Hawaiian rights and practices, a required part of the CWRM water use permit application for each water use is the preparation of a Ka Pa‘akai Analysis. These analyses will follow the guidelines established by the 2000 Hawai‘i Supreme Court decision in *Ka Pa‘akai O Ka ‘Aina v. Land Use Commission*. The Ka Pa‘akai Analysis and consultation process is designed to identify Native Hawaiian cultural, historical, and natural resources and propose feasible actions to protect against potential impacts to Native Hawaiian customary and traditional rights.

The Hawai‘i State Constitution was amended in 1978 to specifically recognize traditional and customary Hawaiian practices. Article XII Section 7 of the Constitution states that, “The State reaffirms and shall protect all rights, customarily and traditionally exercised for subsistence, cultural and religious purposes and possessed by ahupua‘a tenants who are descendants of Native Hawaiians who inhabited the Hawaiian Islands prior to 1778, subject to the right of the State to regulate such rights.”

Cultural practices are broadly defined as traditions, beliefs, practices, life ways, and the societal history of a community and its traditions, arts, crafts, music, medicine, religion, and related institutions. Hawai‘i State agencies have the responsibility to assess the potential impacts of proposed actions on environmental resources in the public trust in order to preserve and protect customary and traditional Native Hawaiian rights to the extent feasible.

The Hawai‘i Supreme Court in *Ka Pa‘akai O Ka ‘Aina v. Land Use Commission* (2000) reaffirmed that “the State and its agencies are obligated to protect the reasonable exercise of customarily and traditionally exercised rights of Hawaiians to the extent feasible.” The Court provided an analytical framework “to effectuate the State’s obligation to protect Native Hawaiian customary and traditional practices while

reasonably accommodating competing private [property] interests.” Under this framework, state and county agencies must independently assess the following when considering proposed actions, such as reviewing land use applications or, as in this case, water use permit applications:

- The identity and scope of “valued cultural and historical or natural resources” in the petition area, including the extent to which traditional and customary native Hawaiian rights are exercised in the petition area;
- The extent to which those resources—including traditional and customary Native Hawaiian rights—will be affected or impaired by the proposed action; and
- The feasible action, if any, to be taken by the LUC [Land Use Commission, or any state agency] to reasonably protect native Hawaiian rights if they are found to exist. (Ka Pa‘akai O Ka ‘Aina v. Land Use Commission 94 Haw 31, Haw. 2000:25–26)

The Ka Pa‘akai Analysis and consultation process is intended to address each of these three elements.

#### **1.4.1 Ka Pa‘akai Analysis**

As part of the MDWS’s water use permit application for its existing and proposed water uses within the Lahaina Aquifer Management Area, a Ka Pa‘akai Analysis is required for each application. This analysis is designed to identify the cultural/historical/natural resources and traditional and customary Native Hawaiian practices that may be affected by the permit action and to develop mitigation measures to protect these resources and rights.

The Ka Pa‘akai Analysis for the existing Maui County wells located within the Launiupoko Aquifer System follows the guidelines established by the 2000 Hawai‘i Supreme Court decision and involves:

- The identification of cultural, historical, and natural resources of value to Native Hawaiians located within the water use permit area, and the extent to which traditional and customary Native Hawaiian rights are exercised in the area
- The determination of the extent to which those resources, including traditional and customary Native Hawaiian rights, will be affected or impaired by actions associated with the existing water use
- If impacts are found to exist, the identification of actions that could be taken, as needed, to reasonably protect traditional and customary Hawaiian rights and practices within the permit areas.

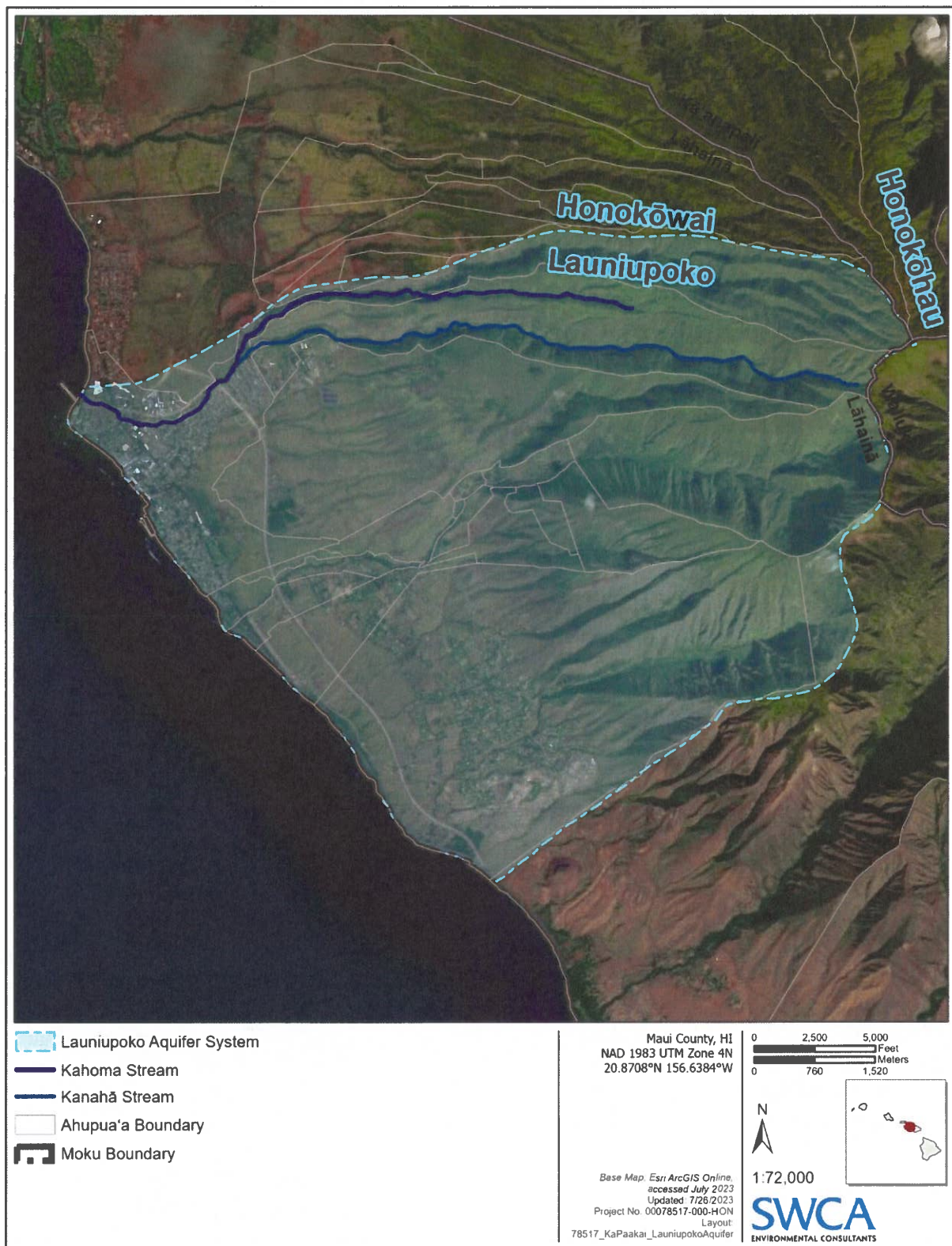


Figure 2. Map of the Launiupoko aquifer system.

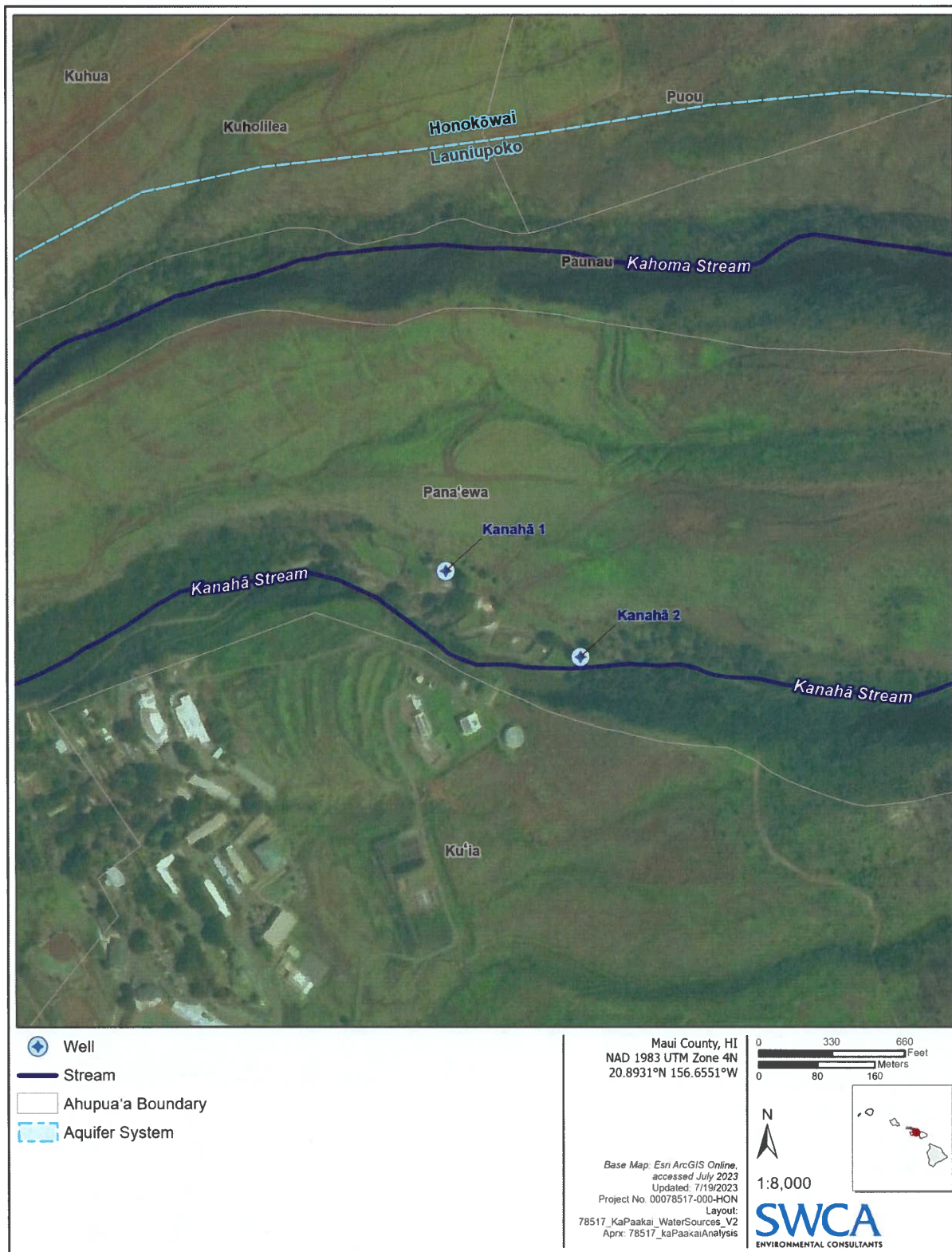


Figure 3. Location of Kanahā 1 and 2 wells.



Figure 4. Location of Waipuka 1 and 2 wells.

## **2 CULTURAL AND HISTORIC BACKGROUND**

This section presents the past and present historical and cultural significance of the permit area with a focus on water sources. This cultural and historic background also serves to provide context to some of the historic and ongoing disputes over water use in the Lahaina Aquifer Sector Area. These disputes were among the concerns raised by the CWRM when designating the area as a Surface and Ground Water Management Area. The following research is intended to help identify cultural, historical, and natural resources of value to Native Hawaiians located within the water use permit area and to be sufficient to the extent appropriate to assess potential impacts to traditional and customary Hawaiian rights and practices pertaining to water in the permit area.

### **2.1 A Brief Historic Context for Traditional Hawaiian Cultural Knowledge**

In any sensitive discussion of Native Hawaiian culture, one must understand the role of colonization in eroding traditional cultural knowledge systems. Native Hawaiian culture—past and present—exists in close partnership with its natural environment. Changes in the traditional land tenure system and the adoption of western concepts of land ownership in the nineteenth century had significant direct and indirect impacts on traditional and customary Hawaiian rights and practices tied to *‘āina* (land). The privatization of land resulted in the loss and destruction of many significant cultural resources and denied Native Hawaiian cultural practitioners access to lands previously used for traditional cultural purposes.

The loss of traditional Hawaiian cultural knowledge during the nineteenth and early twentieth centuries was further compounded by the devastating decline in the native population resulting from the introduction of foreign diseases to which the Hawaiian people had no developed immunity. Changes in traditional life ways resulting from the migration of younger people from the country districts to growing economic centers such as the port of Honolulu, as well as the shift from subsistence agriculture to the commercial cultivation of crops such as pineapple and sugar, contributed to a loss of cultural memory. With the passing of the last custodians of specialized cultural knowledge, that knowledge was lost forever.

Informants interviewed for this study have identified the effects of pineapple and sugar cane plantations, as well as the growth of tourism and luxury housing developments as primary factors that have profoundly changed the environment of West Maui. The cumulative impacts of these industries on the environment have posed significant challenges for Native Hawaiians, hindering their ability to maintain certain traditional and customary practices reliant upon the health of the *‘āina*.

Not until 1978 was the Hawai‘i Constitution amended to protect and preserve the traditional customary rights of Native Hawaiians, and not until 1995 did the Hawai‘i Supreme Court confirm Native Hawaiian rights to access undeveloped and under-developed private lands (State of Hawaii Environmental Council 1997:1). These actions came much too late to prevent irretrievable loss of traditional cultural knowledge. With this in mind, it is important to note that an absence of evidence is not evidence of absence. The authors of this Ka Pa‘akai Analysis recognize that the loss of Hawaiian traditional cultural knowledge likely applies to the current study area. It is probable that there are place names whose meaning has been lost or which themselves have been forgotten, and traditions no longer passed on. We also recognize that, while we have made a good faith effort to identify traditional and customary Hawaiian rights and practices associated with the study area, it is possible that there may be place names missed, traditional history misinterpreted, or *kūpuna* (elder) voices not heard.

As this Ka Pa‘akai Analysis shows, however, despite the enduring legacies of colonialism, there are many individuals who possess cultural knowledge, and efforts to revitalize traditional and customary Hawaiian rights and practices are growing. For these cultural revitalization efforts to succeed, it is crucial to support the health of the environments that sustain Native Hawaiian cultural traditions and customs. At the core of ensuring the possibility of these cultural revitalization efforts lies the availability of clean water, which forms the foundation of healthy environments.

### **2.1.1 The Significance of Water in Hawaiian Culture**

In *Native Planters in Old Hawaii*, E. S. Craighill Handy, Elizabeth Green Handy, and Mary Kawena Pukui explain that the significance of water in Hawaiian culture is reflected in the Hawaiian words for wealth and law.

Water, which gave life to food plants as well as to all vegetation, symbolized bounty for the Hawaiian gardener for it irrigated his staff of life—taro. Therefore, the word for water reduplicated meant wealth in general, for a land or a people that had abundant water was wealthy.

The word waiwai means wealth, prosperity, ownership, possession. Literally it is “water-water.” A Hawaiian farmer who had all the water he needed for growing taro was indeed a prosperous man...

The word kânāwai, or law, also tied back to water. Ka-na-wai is literally “belonging-to-the-waters.” With farms along the water system upon which all depended, a farmer took as much as he required and then closed the inlet so that the next farmer could get his share of water—and so it went until all had the water they needed. This became a fixed thing, the taking of one’s share and looking after his neighbor’s rights as well, without greed or selfishness.

So a person’s right to enjoy his privileges, and conceding the same right to his fellow man, gave the Hawaiians their word for law, kânāwai, or the equal sharing of water. (Handy and Handy 1972:57–58)

### **2.1.2 Shoreline Traditional Hawaiian Practices in West Maui**

Native Hawaiians were keen observers of native ecosystems. The ahupua‘a system was premised upon the interconnections between *mauka* (inland) and *makai* (coastal) ecosystems, and between *wai* (fresh water) and *kai* (ocean water or saltwater). The people of old were aware that the health of important marine resources required freshwater discharge from mauka areas (Winter et al. 2018). Many prized species of fish rely upon *limu* (algae) for their food; many species of nearshore limu thrive best in areas with both fresh water and ocean mixing (Abbott 1992). These ancient realizations about the parallels between healthy freshwater and ocean ecosystems were also clearly articulated by kūpuna during ethnographic interviews, community testimony, and existing oral history interviews cited in this report.

Lahaina was known for its abundant marine resources. Inhabitants of West Maui relied heavily on fishing in the pre-Contact and early post-Contact periods. According to E.S. Craighill Handy:

On the south side of western Maui the flat coastal plain all the way from Kihei and Maalaea to Honokahua, in old Hawaiian times, must have supported many fishing settlements and isolated fisherman’s houses, where sweet potatoes were grown in the sandy soil or red *lepo* near the shore. For fishing, this coast is the most favorable on Maui, and, although a considerable amount of taro was grown, I think it is reasonable to

suppose that the large fishing population which presumably inhabited this leeward coast ate more sweet potatoes than taro with their fish.... (Handy 1940:159–160)

A.D. Kahaulelio discussed fishing lore in the area around the turn of the last century, including 'ō'io (ladyfish/bonefish, *Albula vulpes*) fishing:

The other division is the division called Mamali oio and is done just beyond the reef and places close to shore, from the steamer landing of Maalaea to the cape of Kunounou at Honokapohau, district of Lahaina. These are the places in which fishing is done by those of Olowalu, Lahaina, Kaanapali, Honolua, and Honokohau. (Kahaulelio May 2, 1902, cited in Sterling 1998:17)

## **2.2 Lahaina Moku**

### **2.2.1 Place Names**

#### **2.2.1.1 LAHAINA**

Oral traditions surrounding the origins of the name Lahaina often describe a lack of rain, drought, and the intensity of the sun in the area. In their *Place Names of Hawai'i*, Mary Kawena Pukui, Samuel Elbert, and Esther Mookini indicate that the old pronunciation of Lahaina was “Lā-hainā,” which literally translates as “cruel sin (said to be named for droughts)” (Pukui et al. 1974:127).

#### **2.2.1.2 PANA'EWA**

The ahupua'a of Pana'ewa is situated between the streams of Kahoma and Kanahā in the *kalana* (a land division smaller than a moku; a county) of Lahaina. The meaning of the ahupua'a name appears to be “to shoot crookedly.” The Lahainaluna High School grounds are situated partially in this ahupua'a (Pata 2022: 80).

#### **2.2.1.3 KU'IA**

The name of the ahupua'a of Ku'ia can be literally translated as “obstructed” (Handy et al. 1974:120).

### **2.2.2 Lahaina in the Traditional Period**

Some idea of cultivation within Lahaina during the pre-Contact period can be obtained from early post-Contact descriptions of the area. In 1823, Lahaina was covered with groves of 'ulu (breadfruit, *Artocarpus altilis*), kō (sugar cane, *Saccharum officinarum*), kalo, mai'a (banana, *Musa paradisiaca*), 'uala (sweet potato, *Ipomoea batatas*), wauke (paper mulberry, *Broussonetia papyrifera*), and melon patches, all watered by streams. (Arago 1823:119-120, and Fornander 1918-1919: 540-541, cited in Handy and Handy 1972:712-713). Lahaina was well known for breadfruit. *Mele* (songs) reference the area of Lahaina as *ka malu ulu o Lele*, “the breadfruit-shade of Lele [an old name for Lahaina]” (Handy et al. 1972:235). Hawaiian historian Samuel Mānaiakalani Kamakau also references Lahaina as a place of abundant fresh water flowing through the *pili* (bunchgrass, *Heteropogon contortus*): “Lahaina of the gurgling of the gushing waters among the pili grass” (1991:105).

### 2.2.2.1 LAHAINA AS THE SEAT OF POWER ON MAUI

Lahaina was described by Pukui, Elbert, and Mookini as the seat of power of Maui *ali'i* (chiefs or nobles) (Pukui et al. 1974). Pi'ilani established his chiefly residence in Lahaina in the sixteenth century (Kamakau 1961; Kamakau 1991:49). The area was fed by the streams and flanked by rich nearshore fisheries, making it abundant with food sources to support the seat of the *ali'i*. (Handy et al. 1972:492) In *He Wahi Mo'olelo no Kaua'ula a me Kekāhi 'Āina o Lahaina i Maui: A Collection of Traditions and Historical Accounts of Kaua'ula and Other Lands of Lahaina, Maui*, ethnographers Kepā Maly and Onaona Maly describe an area rich in resources. They describe how the *kula kahakai* (nearshore lands) were densely populated, with many chiefly residences and places of worship (Maly and Maly 2007: 4). *Loko i'a* (fishponds), *lo'i kalo* (taro pond fields), and groves of important trees dotted the landscape. The gently sloping flat lands known as *kula* (plain or open country) had both wet and dryland *kalo* (Maly and Maly 2007:4; 10). The Kahoma, Kanahā, and Kaua'ula valleys, fed by streams of the same name, all extended behind Lahaina (Maly and Maly 2007: 4). Maly and Maly also describe how *'auwai* (irrigation channels) were constructed using natural stream flows to feed thousands of *lo'i kalo* (2007:10). They go on to write:

At least two notable *'auwai*, which span several *ahupua'a* between Kaua'ula and Kahoma, are described in native lore, and are roughly datable by the chiefs associated with them. The earliest *'auwai* in the Lahainaluna vicinity, is known as *'Auwaiawao*, and is reportedly named for the Chiefess Wao, sister of Kaululā'au, who ruled a portion of Maui in ca. 1390 (cf. Pualewa, 1863, in this study).

The second *'auwai* is known as *'Auwai o Pi'ilani*, and is reportedly associated with the King, Pi'ilani, who ruled Maui and the neighboring islands in ca. 1450 (both Pi'ilani and his son Kiha-a-Pi'ilani, are associated with many public works projects around Maui, that were of benefit to the larger population of the island). The *'Auwai o Pi'ilani* has its headwaters in the Kaua'ula Stream and irrigated lands along both side of the stream, with waterways extending to at least the *'ili* [traditional land division, smaller in size and next in importance to an *ahupua'a*, usually a subdivision of an *ahupua'a*] of Pi'ilani in the *ahupua'a* of Paunau, below Lahainaluna. (Maly and Maly 2007:10)

Handy et al. (1972) offered the following comments:

West Maui had two main centers of population concentrated in areas where the abundant streams from the deeply eroded central dome brought water to large *lo'i* systems. Of these two we take that on the southern coast as our Type Area, because there are better descriptions from early times.

Lahaina District was a favorable place for the high chiefs of Maui and their entourage for a number of reasons: the abundance of food from both land and sea; its equable climate and its attractiveness as a place of residence; it had probably the largest concentration of population, with its adjoining areas of habitation; easy communication with the other heavily populated area of eastern and northeastern West Maui, "The Four Streams," and with the people living on the western, southwestern and southern slope of Haleakala; and its proximity to Lanai and Molokai.

Southeastward along the coast from the *ali'i* settlement were a number of areas where dispersed populations grew taro, sweet potato, breadfruit and coconut on slopes below and in the sides of valleys which had streams with constant flow. All this area, like that around and above Lahaina, is now sugar-cane land. Ukumehame had extensive terraces below its canyon, some of which were still planted with taro in 1934; these terrace systems used to extend well down below the canyon. *'Olowalu*, the largest and deepest

valley on southwest Maui, had even more extensive lo'i lands both in the valley and below. Just at the mouth of the valley we found in 1934 a little settlement of five kauhale (family homes) surrounded by their flourishing lo'i. There are said to be abandoned lo'i far up in the valley. In and below the next valley, Launiupiko [Launiupoko], there were no evidences of lo'i, and the people of 'Olowalu said there had never been any. But we think there must have been a few, although the land is, in general, dry and rough. Next beyond this, going along the coast toward Lahaina, is Kaua'ula Gulch above Waine'e, and here in 1934 there were a few lo'i in which Hawaiians were still growing taro.

Lahaina's main taro lands, on the lower slopes running up to the west side of Pu'u Kukui, were watered by two large streams, Kanaha and Kahoma, which run far back into deep valleys whose sides were too precipitous for terracing. (Handy et al. 1972:492)

The lo'i kalo of the area were of such strategic importance that they were targeted during an attack by Alapa'i in 1738. Samuel Mānaiakalani Kamakau noted that Alapa'i employed the "unusual tactic" of drying up the streams of Kaua'ula, Kanahā, and Kahoma to starve the forces of the Lahaina-based ali'i Ka'uhi. Alapa'i's men also kept close watch over the various streams of Olowalu, Ukumehame, Wailuku, and Honokōwai (Kamakau 1961:75).

## **2.2.3 Mo'o of Lahaina**

In Hawaiian tradition, fresh water is closely associated with *mo'o akua*. Mo'o are a class of water deities (*akua*) known to inhabit bodies of fresh water. Among some families, mo'o are considered to be 'aumakua or family gods. Many mo'o have alternate body forms or kinolau. Four predominate kinolau of mo'o include the mo'o (lizard), the 'ilio mo'o (brindled dog), the 'o'opu (goby fish), and the nananana/lanalana (spider) (Brown 2022:66). There is an abundance of evidence that Native Hawaiians continue to observe traditional and customary practices associated with mo'o. Specific examples of this, are provided by Marie Alohālani Brown in her text, *Ka Po'e Mo'o Akua: Hawaiian Reptilian Water Dieties* (Brown 2022:167–173).

The following references, cited in the text *Ka Po'e Mo'o Akua*, document a variety of oral traditions related to mo'o inhabiting the Lahaina area. In 1861 T.W. Kaikuaana wrote of the near drowning of a child at the Mokuhinia pool in Lahaina and attributes the incident to the mo'o who lived in the pond (T.W. Kaikuaana to the editors of *Ka Hae Hawai'i*, cited in Brown 2022:167). As discussed below, this mo'o, who is the namesake of the Mokuhinia fishpond in Lahaina, was witnessed at the death of Kamehameha V (Brown 2022:188). Another reference mentions a female mo'o named Lua'ehu residing at Lua'ehu in Lahaina, characterized by her reddish hair (Brown 2022:186). A male mo'o associated with Mauna Pa'upa'u, a hill overlooking Lahainaluna School, was honored with the construction of a *heiau* (traditional temple or shrine) by the ali'i Kamohomoho (Brown 2022:188).

Several geographical features across the Hawaiian Islands are regarded as the remnants of mo'o, and thus these mo'o are memorialized in the 'āina (Brown 2022:109). As an example of this, Ke'eaumoku Kapu, describes one of the mountains above Kaua'ula Valley, called Mauna Kawahine, as a mo'o who gave birth to a mo'o-son who now resides at Rapa Nui in the form of a *moai* (the famous monoliths of Rapa Nui, also known as Easter Island). Kapu also describes a ridge overlooking Kaua'ula Valley by the name of Mo'o Ahia. He claims that this mo'o was a protector of the Lahaina area and indicated a connection between Mo'o Ahia and Mokuhinia Pond (Kapu 2008).

### **2.2.3.1 MOKUHINIA, THE MO'O OF LOKO O MOKUHINIA**

The fishpond Loko o Mokuhinia held great significance, as it housed the sacred island of Moku'ula, where generations of Maui chiefs resided. This fishpond played a central role in the royal complex.

The fishpond is named for the guardian mo'ō who resides there. The mo'ō Mokuhinia is also known as Kihawahine, the deified princess and daughter of Pi'ilani. Upon his victory over Maui, Kamehameha I adopted Mokuhinia as one of his protectors. Kamehameha I's son, Kauikeaouli, who resided at Moku'ula, was a descendant of the Maui royal family through his mother, Keopuolani. Thus he shared a direct familial relationship with Mokuhinia through his ancestor Pi'ilani (Fornander 1916-17 and Kamakau 1964:83, cited in National Park Service 1997)

Mokuhinia was said by Kamakau to have been seen at Kapunakea fishpond in Lahaina, as well as Paukūkalo and Kanahā fishponds at Wailuku, and also was seen at Kalepolepo fishpond when Kamehameha Kapuāiwa died. The author S.W. Nā'ili'ili mentions this mo'ō in *Ke Au Okoa* (Brown 2022:187-188). The mo'ō Mokuhinia was also known to visit the fishpond of Kanahā in Wailuku and beyond:

The mo'ō Mokuhinia has been seen on Maui at Kapunakea, in Lahaina, and at Paukukalo and Kanaha in Wailuku; and she showed herself at Kalepolepo at the time that Kamehameha Kapuāiwa died. She has appeared before hundreds and thousands of people. At the close of the year 1838 she almost capsized Kekauluohi, who was going by canoe across the pond of Mokuhinia from Moku'ula on her way to church at Waine'e. Many people from Hawaii to Kauai have seen the terrible form of the mo'ō. (Kamakau 1968:83)

## **2.2.4 Early Post-Contact Accounts of Lahaina**

It is clear from early post-Contact accounts that the valleys irrigated by the Kanahā and Kahoma streams were widely cultivated through careful management of the water from these streams in pre-Contact and early post-Contact times. According to Menzies:

[Lahaina, 1793] ... [We soon] entered the verge of the woods where we observed the rugged banks of a large rivulet that came out of the chasm cultivated and watered with great neatness and industry. Even the shelving cliffs of rock were planted with esculent roots, banked in and watered by aqueducts from the rivulet with as much art as if their level had been taken by the most ingenious engineer...The indefatigable labor in making these little fields in so rugged a situation, the care and industry with which they were transplanted, watered and kept in order, surpassed anything of the kind we had ever seen before ... (1920:105, 112, cited in Handy 1940:104–106)

Arago also described Lahaina as an agriculturally productive area in the early 1800s:

The environs of Lahaina are like a garden. It would be difficult to find a soil so fertile, or a people who can turn it to greater advantage; little pathways efficiently raised, and kept in excellent condition, serve as communications between different estates. These are frequently divided into trenches, through which a fresh and limpid stream flows tranquilly giving life to the plantations, the sole riches of the country. Hollow squares of depths of two, three, and sometimes four feet, nourish various sorts of vegetables and plants; amongst which we distinguish the Caribee-cabbage, named here taro; double rows of banana, bread-fruit, cocoa-nut, *palma-christi*, and paper-mulberry trees, intercept rays of the sun, and allow you to walk midday ... (1823: 119–120)

In contrast, Handy observed that lo'i kalo were not cultivated in Launiupoko even in historic times.

Although there is a sizable stream bed and deep valley here, there is no visible evidence of wet taro cultivation, and the Hawaiian planters at Olowalu say that lo'i never existed in Launiupoko. It is possible that there may have been a few terraces on the level land at the

base of the valley, but this is wholly arid now and covered with dense brush.” (Handy 1940:103)

## **2.2.5 Lahaina as the Royal Residence**

Eventually Kauikeaouli, King Kamehameha III, settled in the Lahaina area and established his own royal residence there. Lahaina thus became the seat of the Kingdom of Hawai'i from 1837 to 1845. The National Register of Historic Places (NRHP) nomination for King Kamehameha III's Royal Residential Complex (also known as Moku'ula/Loko Mokuhinia/Hale Piula, State Inventory of Historic Places site number 50-50-03-2967) describes the site thusly:

King Kamehameha III's royal residential complex in Lahaina, Maui ... is the site of the home of the king of the Hawaiian Islands from 1837 to 1845 when the town was capital of the kingdom. The site is a traditional home for Maui royalty, noted as being the site of King Pi'ilani's residence in the sixteenth century (cf Kamakau 1991:49, 1961:342). Almost the entire site, which consisted of fishponds, freshwater springs, islands, causeways, retaining walls, beach berms, residential and mortuary buildings, is buried by coral and soil fill and is presently used as a County Park. Extensive architectural and artifactual remains exist underground, as was demonstrated in a recent archaeological survey (Klieger et al. 1995).

Although most widely associated with the period of Kamehameha III, the site appears to be a place of traditional Native Hawaiian cultural significance. The islet of Moku'ula, located in the fishpond of Mokuhinia, was a sacred place protected by royal hju (taboo). It was considered a grotto of a royal protector deity named Kihawahine or Mokuhinia, who traditionally swam through the surrounding fishpond of Mokuhinia in the form of a giant lizard (mo o) (Kamakau 1964:85; Manu 1884). The goddess was a deified princess, daughter of Maui king Pi'ilani of the sixteenth century, whose family resided at the site (Fornander 1916-1917 V[I]:176; I"V:242). Kamehameha I, upon his conquest of Maui in the late eighteenth century, adopted this deity. His sons and successors, Kamehameha II and III, were scions of the indigenous Maui royal family through their mother, Keopuolani. The lizard goddess Kihawahine ranked in no small part as the guardian of the succeeding Kamehameha dynasty that was in the process of unifying the archipelago (Kamakau 1964:54). A continuing association of religious function, as a shrine to Kihawahine, continued at this site from the days of Pi'ilani to the establishment of the royal residence here by Kamehameha III. Archaeological and historical investigations performed by Bishop Museum for Lahaina Restoration Foundation and County of Maui (Klieger 1993; Klieger et al. 1995) demonstrate that the surrounding Loko Mokuhinia pond was the site of indigenous Hawaiian aquaculture and pondfield agriculture, as determined from early land tenure documents (the Great Mahele of 1848) and eighteenth and early nineteenth-century ethnohistoric accounts. This traditional subsistence activity may have been much older at this site. (National Park Service 1997)

## **2.2.6 Infilling of Loko o Mokuhinia**

In the post-Contact period, the health of Mokuhinia declined with the introduction of invasive species such as mosquitoes. The fishpond of Mokuhinia was eventually filled in and covered up by the Department of Health to prevent the spread of mosquito-borne illnesses. The sacred island of Moku'ula was also covered up at that time. Prior to that, the mausoleum in which prominent ali'i were buried was located on the island of Moku'ula within the fishpond of Mokuhinia. The *iwi* (bones) of the ali'i buried within the mausoleum of Moku'ula were moved to Waiola Church during the reign of Kauikeaouli, Kamehameha III (Kapu 2008).

The Lahainaluna Seminary was eventually established in the area, displacing some of the native tenants. Kamakau described the events in 1835 in which the Lahainaluna Schools took over important agricultural lands in the area:

...When the high school at Lahainaluna was built the chiefs consented to the erecting of the schoolhouse and the houses for teachers and pupils, and to the pupils' cultivating potatoes on the land of the school and on the hill, but the rich lands above and below the stream were for the natives of the places. In 1835 the missionaries at the yearly council appealed to the king and chiefs for more land, for the pupils often went hungry. The king consented and left it to Ulu-maheihēi to give whatever land was right in his judgment. He gave, under protest of the natives who owned the land, the taro land by the stream of Kanaha on the side toward the sea to the taro land of Kelawea cutting the water taro patches of Kaukahoku, running straight down to Kumu'ula [i.e., Kāua'ula in original Hawaiian text] and down to the stream and rising and cutting the land of Ho'olulu and ascending to the pali. This was the boundary toward the sea. The mauka boundary was the stone mauka of Rev. Lorrin Andrews' place and straight down to the brook and running straight along and rising to the pali. All the taro cultivations were below Makaili'i and adjoining Kukuikapu. And there were two cattle pastures: the plain of Ku'ia to Kāua'ula turning upward as far as Kāhili, and the plain of Pana'ewa between Kanaha and Kahoma where is the plain of Pahalona. These were the lands given by Ulu-maheihēi, and when the chiefs complained and said that these were their lands given by Kamehameha, and that all their taro land had been taken away and nothing left but a few breadfruit trees, Ulu-maheihēi answered, "It is a fine thing; do not get excited about the land. Give your land to those who are seeking knowledge. This is the thing which will establish the government of your chiefs... Knowledge is fundamental to living as a chief." When Elizabeth Kina'u visited Lahainaluna in 1837 she gave more land extending to the creek of Wao<sup>7</sup>. (Kamakau 1961:355, Maly and Maly 2007: 40–41)

## **2.2.7 Traditional Water Distribution System in Lahaina**

The 1895 court case of *Horner v. Kumuliili* provides a window into how the water in the Lahaina area was used traditionally. At a time when most *maka'āinana* (commoners) cultivated lo'i kalo, it was essential that all lo'i kalo had access to sufficient water to reduce conflict among community members and allow all families to flourish. The following quote demonstrates how the *kōnohiki* (traditional land manager) ensured adequate irrigation of every lo'i through an "eleven day system:"

... the ancient method of dividing and distributing water of Kauaula stream was by length of time and use. Generally the ahupuaas or ilis [smaller traditional land division] of land of a certain name situated on the level land below or 'makai' has land, mainly kalo patches, in the valley above or 'mauka' bearing the same name. One or two lands makai have no counterpart mauka, and at least one land mauka has no counterpart makai. These mauka kalo patches are similar to the 'leles' or outlying portions of an ahupuaa, well known on other islands of this group as 'leles' though as a rule they seem not to be so called in Lahaina. In order to irrigate these lands small ditches or auwais [ditch, canal] were dug in very ancient times, through which the waters led from the main stream on the lands. On the Kaanapali or western side there are three main auwais, the first one nearest to the head of the valley is 'Piilani,' then below is 'Waimana,' then 'Puuhuliliole." On the Olowalu or eastern side are, first, 'Puupai,' then 'Muliwaikane.'

There are numbers of other auwais of much lesser length which start from the stream, irrigate a few patches and then turn to the stream. The ahupuaas and ilis in this part of Lahaina were divided into two principal divisions each containing eleven lands. In order

to make the division even, a few lesser ahupuaas were bracketed in pairs and treated as one land, and have one ‘water day.’ Division one, for example, had the water during the day, and Division two during the night, the day being from 5 o’clock a.m. to 5 o’clock p.m., and the night being the remainder of the twenty-four hours. While during eleven consecutive days the lands in Division one were having the water in rotation according to an arranged schedule during the day, the lands in Division two were having it at night. Then, when the last land in each division had been watered, a shift was made, beginning the list again, and Division two received the water in the daytime and Division one took it at night, and so in endless rotation.

The ancient method of using water was this: When the ‘day’ of a certain ahupuaa, named “Kooka” for example, came around, the kalo patches belonging to it and bearing the same name, being mauka, had the water first run into them by the latera auwai until they were filled, then the water would be turned back into the main stream and then taken out on to the land below named “Kooka.”...

The konohiki endeavored to secure equality of division and to avoid troublesome quarrels between tenants; and when the quantum of water in the stream was diminished through drought he saw to it that the quantity used by each was divided equally. The water from the auwai was subdivided among the various cultivators according to the amount of land cultivated and the needs of each. But one when kuleana seemed to need more water than the others at any particular time the konohiki would on request allow a constant small stream of water to continue to run in the particular auwai, after the patches were filled and while the main body of the land below was receiving its assigned supply. This is called “koi wai,” and witnesses say that when their patches were dry they would ask and obtain a little water from the konohiki and their own neighbors...

The testimony of those familiar with the ‘eleven day’ system (and it was so found by the commission) that when the water day of a certain land came around all the water of the Kauaula stream was entitled to be turned into the particular auwai leading the water to the said land...mc. Campbell says that supplying kalo patches with water but once in eleven days is not now sufficient to keep the crop in good growing condition, and he attributes the success of the old eleven day system when he was a resident of Lahaina to the freshet or storm water which came down more then than now...

It is evident from the testimony that the intent and spirit of the ingenious ‘eleven day’ system of water supply in this locality, elaborated from long experience by men whose aim was to secure equal rights to all and to avoid quarrels, was to give the mauka lands in rotation sufficient water for the successful growing of kalo. And it must be remembered that the mauka lands were to have their water first. (Sterling 1998:30–31)

### **2.2.8 Shoreline Traditional Practices in Lahaina Moku**

Ethnohistoric research depicts Lahaina as a settlement rich in marine resources. The coastline of Lahaina was particularly abundant with *akule* (big-eyed or goggle-eyed scad, *Trachurus crumenophthalmus*) and ‘opelu (mackerel scad, *Decapterus pinnulatus* and *D. maruadsi*) (MDWS 2019:15) However, *akule* and ‘opelu are far from the only species utilized by Native Hawaiians. Kahalelio, writing in an article on fishing lore in the Hawaiian language newspaper *Ka Nupepa Kuokoa* (May 30, 1902) also discussed local practices for fishing for *lālākea* (whitetip shark, *Pterolamiops longimanus*) and hammerhead sharks (*Sphyrnidae* sp.) in the area:

It was much practiced by old timers of this ahupuaa of Makila, and also by the people of upland of Kauaula since we were children...The kinds of sharks caught by the

hoomoemoe method were the lalakea [whitetip shark (*Pterolamiops longimanus*)] and hammerheads...Mr. Editor, the place where hoomoemoe fishing was done at Pahee, in Launiupoko, Lahaina. When you arrive at the little cape of Keahuiki and down the small incline, the first sandy stretch you come to extending over to the rocky beach and adjoining with the sand of the left side, that was the place where nets were laid. (Sterling 1998:27)

Kahaulelio also reported large school of *nehu* (anchovies, *Encrasicholina purpureus*) coming to Launiupoko, Keonooko, and sometimes Māla (cited in Sterling 1998:27).

Several traditional fishponds were constructed along the shores of West Maui. In her 1992 book *Lā'au Hawai'i: Traditional Hawaiian Uses of Plants*, Isabella Abbott discusses how loko i'a not only provided fish for the ali'i, but also afforded habitat for a variety of different species of edible limu. She recounts a phrase that a limu gatherer repeated to her about the value of the limu that grows in loko i'a: "Some for us, and some for the fish" (Abbott 1992). Some species, like *limu 'ele'ele* (*Enteromorpha prolifera*), grew in all types of fishponds, whether on offshore reef flats or inland sites such as estuaries, brackish pools, springs, or streams. Other edible species, like *limu manaua* (*Gracilaria coronopifolia*) and *limu huluhuluwaena*, preferred the seaward sides of fishponds in more saline areas. Still other freshwater limu are only collected from upland sources such as lo'i, ponds, and streams (Abbott 1992:46–48).

The subsistence use of abundant shoreline resources within Lahaina continued well into the twenty-first century. As recently as 2012, representatives of the Lahaina Civic Club noted that the shoreline between Launiupoko and Awalua "[c]ontains many resources which are critical for the continuance of traditional and customary native Hawaiian practices (pole fishing, diving, collecting limu, camping, etc.)" (personal communication, February 1, 2012, cited in McGerty and Spear 2012:15).

An even more detailed description of traditional and customary uses of marine resources in Lahaina comes from Kepā Maly and Isaac Harp's interview with Frank Harrison and Teresa Smith-Neizman on March 25, 2003. The interview was entitled "Recollections of Fisheries at Lāhainā and Māla, Maui; and Kaunolū Lāna'i; and 'Ōpelu Fishing in the Present Day" (Maly and Maly 2003b:1002). Fish were plentiful at the time of the interview. F. Harrison discussed fishing for several species of fish common to the area, including 'ōpelu (Mackerel scad, *Decapterus macarellus*, *pinnulatus* and/or *D. maruads*), 'ōpelu kala (a kala fish staying with 'ōpelu schools, *Naso hexacanthus*), 'ulua (the adult stage of certain species in the family of Carangidae), *pāpio* (the youngest stage of 'ulua), *moelua/weke 'ula* (*Mulloidichthys vanicolensis*), *moano* (goatfish, *Parupeneus multifasciatus*), *moano hulu* (similar to weke 'ula but with a beard), and 'umi'umi (unknown, "whiskered") (Maly and Maly 2003b:1012, 1016). They also discussed the types of limu common to the area.

At the time of the interview in 2003, T. Smith-Neizman described an area with plentiful limu easily available for gatherers. She specifically mentioned collecting *ogo* (*Gracilaria parvisipora*), *manaua*, *līpoa* (*Dictyopteris plagiogramma* and *D. australis*), and *wāwae'iole* (*Codium edule*). It is worth contrasting Smith-Neizman's depicts the shores of Lahaina as so abundant with limu that traditional gatherers could collect as much as they wanted, with the observations by Blossom Feiteira and Ke'eaumoku and U'ilani Kapu recorded as part of the current study that indicate that all types of limu in Lahaina are disappearing (see Sections 3.5, Blossom Feiteira, and 3.6, 'Aha Moku o Maui Consultation Meeting, below). Smith-Neizman, however, also observed that runoff from swimming pool water or another source encouraged the growth of several kinds of inedible "pilau limu," including a variety of green, slimy, hair-like limu, that tangled up with the edible limu (Maly and Maly 2003b:1014). This recollection may dovetail with the Kapus' belief that the installation of septic systems and leach systems in the early 2000s affected water quality, eventually causing a dramatic decline in limu populations (see Section 3.6, 'Aha Moku o Maui Consultation Meeting, below).

## 2.3 Māhele ‘Āina

A dramatic change that affected the lives of Hawaiians in the 1840s was the Māhele ‘Āina (land division, also known as the Great Māhele or simply the Māhele), which ended the traditional Hawaiian system of land tenure and ushered in private ownership of land. Under the traditional system, the *maka ‘āinana* (common people) occupied and worked the land under the supervision of the ali‘i and their konohiki (land stewards). The chiefs in turn held the land in trust for the ali‘i nui, who held it in trust for the akua (the gods). The Māhele, instituted by Kamehameha III, legalized the private ownership of land along the Western model, legislating that the lands of the Hawaiian Kingdom were to be “divided into three parts—one to the Chiefs, one for the support of the Government, and a third for the King’s personal use. These we know by the names of ‘Konohiki,’ ‘Government’ and ‘Crown Lands’” (Indices of Awards 1929:vii). It was principally from within the chief’s “one-third of the Great Māhele that the common people, who were their tenants, received title to the small holdings which are known as ‘Kuleanas.’ These Kuleanas were areas which these tenants had improved and used for their own purposes” (Indices of Awards 1929:vii).

In December 1845, a Board of Commissioners to Quiet Land Titles (often referred to as the Land Board or Land Commission) was established to investigate land claims and make awards based on these claims and their supporting testimony. If a claim was approved by the Land Board, a Land Commission Award (LCA) was granted to the claimant. These LCA properties were known as *kuleana* lands. Each claim was assigned a *helu* (LCA number). Often a single kuleana claim consisted of several ‘*āpana* (land divisions). An index of these claims can be found in *Indices of Awards Made by the Board of Commissioners to Quiet Land Titles in the Hawaiian Islands* prepared by the Office of the Commissioner of Public Lands of the Territory of Hawai‘i in 1929 (Indices of Awards 1929).

### 2.3.1 Land Awards, Moku of Lahaina

In total, 603 Lands Awards, including Land Commission Awards, were recorded for the moku of Lahaina in the Kīpuka database (Office of Hawaiian Affairs [OHA] 2023d). The large number of Land Commission Awards corresponds with the ethnohistoric research pointing to a large population in the area.

### 2.3.2 Land Awards, Ahupua‘a of Pana‘ewa

The Māhele land awards for the ahupua‘a of Pana‘ewa include 11 kuleana claimed by eight kuleana tenants, Kamehameha III claimed one piece of land, the Board of Education was granted one school lot, and the remaining lands were claimed by Mataio Kekuanaoa under the LCA number 11216:15 (OHA 2023d).

### 2.3.3 Land Awards, Ahupua‘a of Ku‘ia

Ruth Ke‘elikōlani laid claim to the entire ahupua‘a of Ku‘ia under the LCA number 7716:11.1 and Royal Patent Grant number 8146 (OHA 2023c). No kuleana claims were made for Ku‘ia ahupua‘a.

## 2.4 Plantation History

During the late 1800s, the stream of Kanahā and Kahoma streams were still full of abundant, flowing water:

Before the building of the sugar mills in Lahaina, water was seen flowing through the streams of Kauaula, Kanaha and Kahoma. Taro was seen growing abundantly, and on the

terrace banks, there was growing cabbage, bananas and such. The people of Lahaina were always seen planting taro. Thus it was known that the famines were set aside, and the abundance of the land made this clear ... Thus it is right that the people of Lahaina, plant these foods, that they may end these famines ... (Kahaulelio 1867:4, [Maly, translator], cited in Maly 2007:934)

In 1860, James Campbell started what would become known as the Pioneer Mill Company, a sugar plantation in Lahaina. As the years progressed, the company expanded its holdings by acquiring Lahaina Sugar Company and the West Maui Sugar Company. By 1885, Pioneer Mill Company was cultivating 600 acres out of the total 900 acres it owned, and this number increased to 8,000 acres by 1910. In 1913, Pioneer Mill Company acquired the Olowalu Company, adding 1,200 acres of cane land to the plantation. By 1935, over 10,000 acres were producing cane for the Pioneer Mill. Approximately 1,000 acres of cane was flumed directly to the mill while the rest of the cane was transported by rail (Hawaiian Sugar Planters' Association 2004).

Irrigation of Pioneer Mill Company's fields, an area approximately 10 miles long and 1.5 miles wide with altitudes between 10 and 700 feet, was accomplished with water drawn from wells and water transported from the West Maui Mountains. The McCandless brothers drilled the first well on Maui specifically for Pioneer Mill Company in 1883. By 1935, substantial investments, totaling more than \$3,000,000, were made in water development, including gravity systems and underground supplies (Hawaiian Sugar Planters' Association 2004).

By the 1930s and 1940s, few families continued to farm in the valleys of Kaua'ula, Kanahā, and Kahoma. (Maly and Maly 2007:13). During the current study, the consultation meeting with 'Aha Moku o Maui members Ke'eaumoku Kapu and U'ilani Kapu revealed that, even if many families ceased kalo cultivation by the 1940s, a handful of families still cultivated kalo in Kaua'ula Valley and nearby areas up until the 1970s. They recalled the 1950s as a time with abundant water, before a significant amount of water in the Kahoma and Kanahā streams was redirected (see Section 3.6, 'Aha Moku o Maui Consultation Meeting).

## **2.4.1 Lahaina's Plantation Ditches**

It is clear from early accounts that the valleys irrigated by the Kanahā and Kahoma streams in pre-Contact and early post-Contact times were widely cultivated through careful management of the water from these streams (Handy 1940:104–106, cited in Sterling 1998:36). The traditional “eleven day” water management system described above dramatically changed during the plantation era (see Section 2.2.4, Traditional Water Distribution System in Lahaina). Pioneer Mill Company was the plantation of most relevance for the current permit area. Pioneer Mill Company established a number of ditches of the same name as the streams that they tapped into or areas that they served. Pioneer Mill Company's ditch systems named Kahoma, Kanaha, Kaua'ula, Launiupoko, Olowalu, and Ukumehame are briefly described here. The Kanahā ditch supplied Maui County, the Lahainaluna ditch, and the Pioneer Mill Company factory (Wilcox 1997: 134). According to Carol Wilcox, in her book *Sugar Water: Hawai'i's Plantation Ditches*, the two intakes of Kanahā ditch had a combined median of 3.68 million gallons a day (mgd). The County of Maui had rights to 0.5 mgd. Lahainaluna Schools, by way of the State of Hawai'i, was entitled to flow for 4.5 hours a day after Maui County was served. The surplus was sold by Pioneer Mill Company to the County of Maui after the needs of the factory were satisfied. The overflow went back into the Lahainaluna ditch. (Wilcox 1997:136-137)

Below is a short review of the flows of each ditch prior to Pioneer Mill Company's closure in 1999.

- Kahoma ditch was reported to have an average flow of 3 mgd.

- Kanahā ditch was reported to have an average flow of 3.8 mgd.
- Kaua‘ula ditch, upgraded in 1929, was reported to have an average flow of 4.5 mgd. (Wilcox 1997:66)

## **2.5 Historic Properties within Lahaina**

The Office of Hawaiian Affairs’ Kīpuka database lists a total of 136 identified historic properties located within the moku of Lahaina (OHA 2023d).

### **2.5.1 Historic Properties within Pana‘ewa**

Two historic properties possessing State Inventory of Historic Places (SIHP) numbers were recorded within the ahupua‘a of Pana‘ewa. These include SIHP Site 50-50-03-01776, the Haia Terrace Systems and SIHP Site 50-50-03-02483, the Kahoma Stream Agricultural/Habitation Complex (OHA 2023b). Both of these sites provide further proof that the ahupua‘a of Pana‘ewa was heavily cultivated in *ka wā kahiko* (pre-Contact times).

### 3 COMMUNITY CONSULTATION

#### 3.1 Community Consultation Methodology

SWCA identified and consulted with individuals familiar with past and present cultural activities conducted in the permit areas, particularly those related to water. To initiate this process, SWCA compiled a list of cultural consultation contacts that included government agencies, Native Hawaiian Organizations (NHOs), community groups, and individuals identified as having a potential interest in water use activities in the Lahaina Aquifer Sector.

In compiling this list, SWCA included all NHOs listed on the U.S. Department of Interior’s *Native Hawaiian Organization Notification List* whose geographical purview is Maui Island and whose stated mission relates to environment and/or culture. The list also included select NHOs with a statewide purview whose stated mission relates to environment and/or culture. SWCA prepared a request for consultation letter, a copy of which was sent out to each of the contacts on the cultural consultation contact list. The request for consultation letter delineated the area of the Lahaina Aquifer Sector, described the Ka Pa‘akai Analysis component of the water use permit application, and requested assistance in:

- Identifying *kama‘āina* (long-term residents), kūpuna, and other individuals who might be willing to share their cultural knowledge of the permit areas and their cultural resources.
- Information on present and past water use in the permit areas.
- Information on place names and cultural traditions associated with the permit areas.
- Information on cultural resources that may be impacted by water use activities by the MDWS.
- Knowledge of traditional gathering practices within the permit area, both past and ongoing.
- Information on any current cultural practices being carried out within the permit areas.
- Any other concerns the community might have related to cultural practices within or in the vicinity of the permit areas.

The text of the request for consultation letter is provided in Appendix A of this report.

To supplement the current community consultant efforts undertaken as part of this Ka Pa‘akai Analysis, SWCA researched previous, publicly available studies that involved consultation with members of the Lahaina community regarding water issues. Information provided by community members and cultural practitioners as part of these studies that have direct relevance to the issues addressed in this analysis have been included in the following sections. The results of individual interviews, both previous and current, are presented under the names of the individuals interviewed.

## **3.2 Public Comments for the Instream Flow Standards Assessment Reports**

In 2017 and 2019, the State of Hawai‘i, DLNR, CWRM held consultation meetings to gather public comments for the Instream Flow Standard Assessment Reports (IFSAR) for the Lahaina Aquifer Sector. The public comments given during the meeting for Ukumehame, Olowalu, Launiupoko, and Kaua‘ula are applicable to the current Ka Pa‘akai Analysis and are presented here to enhance and supplement the community consultation effort for this Ka Pa‘akai Analysis.

### **3.2.1 Public Comments for the Ukumehame, Olowalu, Launiupoko, and Kaua‘ula Instream Flow Standard Assessment Reports**

The Maui Water Use Draft Plan references a meeting conducted on March 8, 2017, during which community members submitted testimony that the DLNR should “...refrain from issuing any more water permits before Native Hawaiian water rights are restored to practice traditional and cultural uses” (Maui Water Use Draft Plan 2019:20). These concerns were evident during two separate consultation meetings while developing the IFSAR for the Lahaina Aquifer Sector. The CWRM held a consultation meeting for the Hydrologic Unit of Ukumehame, Olowalu, Launiupoko, and Kaua‘ula. As part of this study, the comments from the community were reviewed to determine what sorts of traditional and customary practices were carried out in the area, and what sorts of potential mitigation measures were recommended by these community members. A total of 13 people testified in person during the meeting for Ukumehame, Olowalu, Launiupoko, and Kaua‘ula. The following section discusses the most relevant comments for the purpose of this report.

The public comments for Ukumehame, Olowalu, Launiupoko, and Kaua‘ula revealed community concerns pertaining to sufficient water to irrigate existing and future lo‘i, the need for land stewards to maintain the ditches to ensure continuous water flow, enforcement of existing water allocations, and the need to protect and monitor populations of native stream species. The most relevant comments for this analysis have been broken down by theme.

#### **3.2.1.1 INSUFFICIENT MONITORING AND ENFORCEMENT OF CURRENT WATER SUPPLIES**

Rose Marie Duey spoke on behalf of the Olowalu Cultural Preserve, emphasizing the need for adequate water to preserve, protect, and perpetuate cultural practices like farming lo‘i kalo. She also references significant cultural, archaeological, and burial sites in the Olowalu Cultural Reserve:

Olowalu Cultural Reserve has 74 acres of leases lands for 99 years from Olowalu Elua Associates. These lands are the significant cultural and archaeological burial sites, and most of its kuleanas. The mission of Olowalu Cultural Reserve is to preserve, perpetuate and educate the practices of our kanaka maoli by rebuilding what has been lost through years of plantation’s disturbances... There are 40 kuleana with an acreage of 100 plus, which were partly in kalo and mahiai. Please ensure that we will have wai to continue our traditional and customary practices from the Olowalu River. (DLNR CWRM 2018:1)...

Several people called out the need for enforcement of existing water allocations. Albert Perez opined:

... I think the only way is to make a presumption that the water is supposed to be in the stream for instream uses, for kalo farmers, for the ecosystem, the native fish. And then for every diversion that you have, you ... need a gage. You need a meter. Before the

diversion and after the diversion, so that you know exactly how much water is being taken ... (DLNR CWRM 2018:9-10)

Jonathan Scheuer, with the Department of Hawaiian Homelands (DHHL), and John Duey felt that the IFSAR report radically under-estimated the amount of water required for lo'i kalo. Scheuer also argued that CWRM must consider the impacts of climate change on stream flows in coming decades when allocating water for future generations of kalo farmers:

On the reports, you guys have buried in there, a suggestion that using the Water Commission's irrigation standard program that lo'i kalo needs 6600 gallons per acre per day. At least in the Ukumehame report. Maybe a zero was dropped off. It's radically undercounting of how much water, even by USGS reports that the Water Commission has relied on previously which have said, at a conservative minimum, 150,000 gallons per acre per day is what lo'i kalo need.... But, to do this for all, almost 400 stream in the State, we're talking like my grandchildren's time by the time you've set instream flow standards, at which time climate change and other driving factors are going to create even more problems... But as near as I can understand, you're trying to say, okay, we're supposed to protect instream flows and there's all sorts of things associated with instream flow standards like recreational uses, kalo growing, traditional and customary access, all these things...the burden is never supposed to be on public trust uses of water... I'm sorry, it's supposed to be the private diverters who are coming up and saying, yeah, we are proving that we're not affecting native Hawaiian rights, we're not affecting streamflow, we're not affecting anybody's kuleana rights, in order to take this amount of water we want for development. (DLNR CWRM 2018:3)...

Kekai Keahi recalls being the only kalo farmer in Lahaina growing up, and not realizing until later that the reasons for this had to do with access to land and water:

... Looking at that, and then I look at the river in Lahaina, except for Ukumehame after they went stop the plantation, I looking at the rivers in Lahaina. Ho, 100 percent dry. So where was the protection, where's this protection, for all these things that is stated in the law and that's supposed to be protected. Nobody protecting 'em... Skippy and Kanoe went into the streams, and you'd be shocked to see if you give life one chance, how fast she come back. Because in that stream, it's pretty hard to walk around without almost stepping on one fish. It's serious, yeah...The instream flow standard, interim instream flow, you was saying to me that at any point that can be amended, the flow, based on usage, in case we get more people return to the valley, then more water is needed for the valley as far as kuleanas and what not. So, I can see plenty guys going home, you just gotta give them one chance. Just like the fish, give them water, the people going come home... (DLNR CWRM 2018:7-9) ...

He also mentions the need for enforcement, especially for large landowners like Kamehameha Schools and West Maui Land who use much of the water in Kahoma Stream.

A number of people called for enough water access that would allow future generations of kānaka maoli to return to farming kalo. For example, Foster Ampong stated:

I would like to see the Commission address each stream and the amount of water each valley will need to raise taro. Because these taro patches are ancient. They were here thousands of years, literally, before any of the development that you see today. And so the water that has been drawn from the rivers, from these kahawai, has been drawn by the taro farmer for millenniums, from time immemorial... And so, I would like to see the Commission address and look at how much water each taro farmer would need based

upon the taro patches that’s in the stream. So if you have one family that’s using one or two patches, you can’t say that, OK, that’s all he’s going to need. When in his whole ‘ili ‘aina, or his kuleanas, he may have 23, 25, 30 patches. So, the determination should be based upon that ... (DLNR CWRM 2018:9).

Jessica Kailani Ross expressed a similar statement:

Many people have been displaced from their land for 150, 100 years or more, and we’re finding our way back to our kuleanas, our land commission awards, and we’re rediscovering how to live in a sustainable way ... We don’t have our land base. And as we return to our land base, we will return to lo‘i kalo and we will need the water. So you need to keep that in mind and put a significant amount aside for reopening lo‘i kalo and returning, rehabilitating the people. (DLNR CWRM 2018:2)

### **3.2.1.2 NEED TO MANAGE WATER USING AN AHUPUA‘A-BASED APPROACH**

U‘ilani Kapu, from Kaua‘ula, expressed concern that water from one ahupua‘a should not be diverted to another:

I’m here because this private water company transfers water to Launiupoko. [Under traditional Hawaiian water management] the transfer of ahupua‘a to ahupua‘a was never taken up. It shouldn’t be. It shouldn’t be done now, because one ahupua‘a sustains itself by its own water resources. And the other ahupua‘a is supposed to do the same. Kauaula water is for Kauaula, for all the kuleanas that live there. We have over, I would say, 50 to 75 people within that area now. All the families have come home, and we depend on this. We depend on it for our household. We depend on it for our farming. We depend on it for everything ... (DLNR CWRM 2018:1–2)

### **3.2.1.3 NEED FOR MONITORING OF CULTURALLY IMPORTANT STREAM SPECIES**

Charlie Palakiko argued that maintenance of the *‘auwai* (ditch) and restoring water to the streams brings back important species. He noted that in about 2002, they began cleaning up the Waimana ‘auwai to irrigate his lo‘i, and by 2015, a number of stream species had returned and the fresh water had traveled all the way to the ocean in Kaua‘ula:

... A few years later, we already were seeing ‘o‘opu in the stream, along with crayfish and clams which were from the reservoir... So if I started, let’s say, 2002. So by 2011, 2012, it reached the ocean already. And there was stream life in there from the beginning, but you couldn’t see it ... (DLNR CWRM 2018:5–6)

He also argued that the presence of species like *‘ōpae* (endemic shrimp) and *‘o‘opu* (goby fish) makes the Kaua‘ula Hydrologic Unit a candidate for protection based on riparian, aquatic, cultural, and recreational resources:

I started walking in the stream at Puamana and I started to find ‘o‘opu. So get ‘o‘opu inside the stream. Had prawns, everything in there. And even now after the 2016 storm, all the ‘ōpae that was in the mountain all came down. So now I’m finding ‘ōpae all below the diversion. And I’ve seen them in my auwai, they’re probably in my patches, they’re in the stream ... so basically all we gotta restore is a small section of dry stream to connectivity. You know? And there’s life in there already ... (DLNR CWRM 2018:5–6)

Kanoelani Steward, an assistant marine coordinator with the Nature Conservancy on Maui in cooperation with the Division of Aquatic Resources, worked with the cultural practitioner Uncle Skippy Hau to document a diversity of species of fish in the area, including ‘ōpae ‘oeha‘a (*Macrobrachium grandimamus*); hīhiwai or wī (*Neritina granosa*); hapawai (*Theodoxus vespertinus*); ‘o‘opu naniha (*Stenogobius hawaiiensis*); ‘o‘opu ‘akupa (*Eleotris sandwicensis*); ‘o‘opu nākea (*Awaous guamensis*); ‘o‘opu nōpili (*Sicyopterus stimpsoni*); and ‘o‘opu ‘alamo‘o (*Lentipes concolor*):

We’ve been collecting native fish and invertebrate data that includes all five species of ‘o‘opu, ‘opae kuahiwi or kala‘ole, ‘opae ‘oeha‘a, and hīhiwai, and hapawai...I can offer today and what I do want to share is our observations from Ukumehame, Olowalu, and Kauaula. And what I do want to share is our observations from Ukumehame, Olowalu, and Kauaula. And I’ll start with Kauaula. It’s just like a short list of different species that we’ve been seeing. Mainly, just highlighting on the native aquatic species. And so in Kauaula, when me and Uncle Skippy first walked down there, back in July, we actually saw a couple dead ‘o‘opu naniha, but this past time that we went down, last month, we seen nakea and ‘akupa. Then, moving up in the middle areas, we also saw nakea over there as well. Above the diversion in Kauaula, we didn’t see any fish, but we did see ‘opae. Uncle Charlie guys pointed that out. In Olowalu, in the middle region of Olowalu, we saw a lot of nakea and nopili. And in the upper Olowalu, we saw the same species, nopili and nakea, as well. “And then Ukumehame was exciting because there was a lot of old hīhiwai eggs in the middle region, as well as nopili and nakea. And then we got to the top, more towards the top of the valley, we actually saw hīhiwai and ‘opae kuahiwi, and nopili, nakea, and ‘o‘opu ‘alamo‘o. (DLNR CWRM 2018: 6-7)

### **3.3 Individual Interviews**

The following sections include the results of interviews with community members and cultural practitioners from the Lahaina area.

#### **3.3.1 Harold “Hale” Kaniho**

Some information about fishing for ‘o‘opu and ‘ōpae in the Pana‘ewa area came from an oral history interview with Harold “Hale” Kaniho in Olowalu conducted for the 2008 documentary “Lahaina – Waves of Change” (Kaniho 2008). H. Kaniho’s interview reveals that Pana‘ewa was abundant with o‘opu, ‘ōpae, and other fish when he was young:

When we were young ... [the area of Pana‘ewa] was sacred to us. There were some places I remember [my dad] telling us stories about places and what we needed to do. And be very respectable in that area. He didn’t trust us too much when we were young ... he would say you guys stay close to the sea ... he was telling us ... you do certain things ... But when we were ready to come home, that was the time we would get the o‘opu and ‘ōpae because it was easy ... and it didn’t take much to get and take home what we wanted ... my dad used to bring it down to the cave and we used to tie it across the river and we didn’t used to understand why he used to do that but later on, we found that the cool water from the river would go into the meat and keep it fresh underneath .You know? And it was exciting. In there three days four days we would be ready to go home, we would pack all our things and go home. But we learned something why he did those things and how to preserve the food and stuff like that ... (Kaniho 2008)

He also discussed farming in the area of Ukumehame when he was young:

[T]here was taro and there were people who used to live there also ... it was really beautiful ... all this taro fields and came all the way to, there were two stream inside that area, and there were oranges, Hawaiian oranges, you don't see Hawaiian oranges today like how they have in the valley. And all kinds of things was growing in there ... (Kaniho 2008)

### **3.3.2 Ke'eaumoku Kapu**

An oral history interview with Ke'eaumoku Kapu provided a wealth of information about the area of Kaua'ula and its connections to the sacred island of Moku'ula. The oral history interview with Ke'eaumoku Kapu conducted for the 2008 documentary "Lahaina – Waves of Change" (Kapu 2008). He connects the burials of prominent ali'i on Moku'ula with the sacredness of the Kaua'ula area. The interview was transcribed by Tamara Luthy for this report. He traced connections between Kaua'ula, Moku'ula, and the fishpond of Mokuhinia with Mauna Kawahine and 'Īao valley. He identified the only east-facing moai on the island of Rapa Nui as the mo'o born of Mauna Kawahine. He also discusses the navigational importance of Kaho'olawe for journeys to Kahiki (Tahiti). The following sections of the interview have been abridged and edited for clarity.

#### **3.3.2.1 PRESENCE OF LARGE NUMBERS OF IWI KŪPUNA**

K. Kapu stated that over 200 chiefly and ancestral burials (*iwi kūpuna*) are in this area, including those of many important ali'i. He mentions that the historical site of Hale Kumu Ka Lano at Puhapuhaiki Ridge was where Kahekili met with his chiefs prior to battling Kahahana on O'ahu. He also discussed the connection between Kaua'ula and the island of Moku'ula, where Keopuolani, Nahienaena, and Kaumuali'i were buried. When the Department of Health covered up this island in 1914 to stop the spread of mosquito-related diseases, the iwi of these ali'i were said to have been moved to Waiola Church. He discusses the possibility that the sacred queen Keopuolani's iwi may not actually lie in Waiola Church. He also mentions that the *'ohana* (family) that were traditional curators of these lands placed *ko'a* (coral) from the original mausoleum on Moku'ula on burials that were *pili 'ohana* (close family) to them in Kaua'ula.

#### **3.3.2.2 SACRED GEOGRAPHY LINKING LAHAINA TO THE BROADER PACIFIC**

K. Kapu's oral history interview provides a unique window onto the geographical connections between sites in the Kaua'ula Valley to the broader Pacific. He describes the sacred geography of the area as follows:

This general area we in right now is called Ko'oka. This is part of the ahupua'a of Waine'e. We are right in the heart of Kaua'ula valley that extends all the way down makai to the sacred island called Moku'ula. Up here on the tops there's a mountain that's called Mauna Kawahine. In the east is 'Īao which means "the dawning"...from the rising of the sun to the setting of the sun. From the rising you have 'Īao...The sun sets in the west is Mauna Kawahine...between the rising and the setting...Above Pu'u Kukui is the mountains of Ka Halawai, where the waters meet. And its right up above this one mountain called Mo'o Ahia. Right between 'Īao and Mauna Kawahine is the sacredness of dualities, "kaua" meaning you and I, "ula," anything that is red is sacred. So we are in the heart of the walewale, the walewale is like the afterbirth. And in this general area, in this 'āina where we are now, is the area where a lot of our chiefly ancestral burials are.

The inside where the sun rises, the internment of Kahekili's father Kekaulike 1732. They were kanu'ing in there. What separates the ridge of 'Īao and Mauna Kawahine is

Pu'u Kāhili. Pu'u Kāhili is the royal standard of our people. The kāhili represented the physical, spiritual embodiment of a person, yeah? So every time you see the kāhili walk in the old days, the kāhili had the iwi of our kūpuna upon it. So why is that ridge so important to be called Pu'u Kāhili? And it's even more fearful for us now that because of the encroachment of development that we have to get the story out. To say that this place needs to be saved, this place needs to have just as much attention as Moku'ula...

...And the names upon the stones that have been etched and the stones up here are families and chiefly burials that once dictated the hinterlands of Lahaina. Lahaina was the major stomping grounds of our past. I mean, you have Kaho'olawe, you have Lāna'i, you have Moloka'i, that was the kingdom there. This is the piko, this is the hiapo... This is the general area pertaining to when from Kahiki to here is this is where our kupunas came from. And we migrated back and forth. It talks about Kaho'olawe... this is our navigational points. Upon Kaho'olawe the smallest fin that you see on the top is Moa'ula, the navigational seat. Upon the point of Pu'u Pehe, between Pu'u Pehe and Moaula that's the roadways to Tāhiti and Hoku Pā, the star that is above, that is our celestial navigation, that is our genealogy. Navigation *mo'okū'auhau* (genealogy) – the ridge that is in our background is called Mo'o Ahia... Mo'o Ahia was the mythical dragon or the mythical protector of Lahaina. Mo'o Ahia the lizard. [The fishpond] Mokuhinia – Mo'oku Hinia – fat abundant mo'o lizard.... The puna – the wai, the sacred water, Moku'ula... this place has so much importance and so little time to share, all because there are because there are bigger plans for this area. Mauna Kawahine... there was a mo'o that was born from Mauna Kawahine and it shot out from the bosom of Mauna Kawahine and sailed into the south Pacific. The umbilical cord detached it fell in the middle of the ocean forming the island called Te Pito o te Henua, and that island is Rapanui... What is the significance of Te Pito o te Henua – there is a moai 18 feet tall. All of the rest of the moais in eastern island is basically west, there is only one facing east to Hawai'i that is sitting on its knees. And that one is still here where it was born from Mauna Kawahine... (Kapu 2008)

### **3.3.2.3 MOKUHINIA AND MOKU'ULA: SACRED PLACES IN NEED OF CARE**

K. Kapu also described the fate of Mokuhinia pond and the sacred island of Moku'ula after the pond became infested with mosquitoes. He expresses anguish at the loss of connection to Hawaiian identity and cultural that occurred when this area was covered over in the 1920s.

When the island because of pestilence, because of mosquito infestation, and things like that, the kingdom felt it necessary to move the kingdom of Hawaii to O'ahu and that's where it is still, in 'Iolani Palace. Before that the ponds of Mokuhinia and the place of Malu'ulu-u-Lele where the 'ulu trees sprang forth that area upon that area Moku'ula, the island of Moku'ula, was basically covered because the Health Department felt that it was because of the infestation of mosquitoes and diseases they felt it was important that they should bury the island. So when they covered the island they basically covered the identity and character of our people... (Kapu 2008)

### **3.3.2.4 KALO FARMING AS THE ESSENCE OF CULTURAL SURVIVAL**

As expressed frequently by other ethnographic interviews and existing oral histories, K. Kapu describes a relationship to farming that is deeply entwined with physical and cultural vitality. He discusses the benefits of cultivating kalo, 'awa, mai'a, and other crops for kūpuna in poor health. He suggests that the disconnection of Hawaiian people from the ability to grow kalo is akin to cultural genocide:

[The taro that we grow] is mainly for our kūpuna. None of this style, none of the food that comes from this area is for profit or for sale. It is all to feed our people. It is like in the past, when the kingdom once existed...If people need 'awa for 'ōma'i when they are sick, we share that. If people need mea 'ai we have kalo, we have mai'a, we have 'uala, we have some papaya, we can provide. Our kūpuna, they are living kinda unhealthy today. All because diabetes you know all those type things, smoking, those are bad too, asthma, heart problems. It is all about bringing back the kuleana, the responsibilities. Bringing back the legacy of this place, and how to make people even more, wake them up and say, this is one of the areas that really needs some protection because it is being depleted from a greater power. And that the families that are still living in these areas, that still are the original families from the time of the kingdom, are now facing that genocide that our kūpuna was afraid that we would face. So and there is our old saying and it is a western saying that liquor is for drinking and water is for fighting... (Kapu 2008)

### **3.3.3 Charles Maxwell**

The Maui College “Preserving our Recollections” archive includes an oral interview with Kahi Charles Kauluwehi Maxwell. Born on May 14, 1937, in Nāpili, Lahaina, Maxwell served as a cultural consultant at Maui Ocean Center and held the position of *po'o* (head) of Hui Mālama I Nā Iwi Kūpuna o Hawai'i Nei, a prominent NHO dedicated to safeguarding iwi kūpuna. Maxwell's family has a shark 'aumakua tradition. The territory of this shark 'aumakua stretches from Ukumehame to Ma'alaea (Maxwell 2001).

### **3.3.4 Blossom Feiteira**

Blossom Feiteira, a Lahaina native, has deep familial ties to West Maui. Her grandmother was born in Lahaina and her grandfather is from Honokōwai. She can trace her genealogy seventeen generations in West Maui. Blossom spent her childhood playing in the waterways of Lahaina and Ka'ānapali and learned traditional gathering practices from her kupuna. Her grandmother's father Albert Kaaiawahia was a *hanawai* (irrigation) man for Pioneer Mill, responsible for monitoring the diversion of waterways from Honokōhau to Ka'ānapali. Feiteira first started to notice environmental impacts to shoreline and stream cultural resources when she was a teenager in the 1970s. This interview was conducted by Wainani Traub.

#### **3.3.4.1 OCEAN RESOURCES**

B. Feiteira recalls the abundance of ocean resources when she was growing up in the 1960s. She describes limu such as *wāwae 'iole* (*Codium edule*), *kohu* (*Asparagopsis taxiformis*), and *lipoa* (*Dictyopteris plagiogramma*). She also describes an abundance of fish including *manini* (*Acanthurus triostegus*), *kole* (surgeonfish, *Ctenochaetus strigosus*), *owama/oama* (young weke or goatfish; *Mullidea* sp.), *halalu* (young akule; *Trachurops crumenophthalmus*), *kūmū* (*Parupeneus porphyreus*), weke, and sharks. She also described a number of edible marine invertebrates such as *kūpe 'e* (edible marine snails; *Nerita polita*), *'ōpihi* (*Cellana* sp.), *hā 'uke 'uke* (*Colobocentrotus atratus*), *wana* (long-spined sea urchins; possibly *Diadema paucispinum* or *Echinothrix diadema*), and *he 'e* (octopus).

We had—besides the manuea we had choke waiole [sic *wāwae 'iole*], we had kohu, lipoa, we had the limu that we called the 'ōpihi limu. And they were all abundant and they were all within the area that we recognize as the muliwai. And the fish was—we had all varieties we had the manini, we had kole—when the migration happened with the owama/oama and the halalu; it was amazing. Kūmū, weke, we even had sharks—baby sharks would be found along the shoreline and their birthing areas. We had kūpe'e,

‘ōpihi, hā‘ui‘ui [hā‘uke‘uke], wana, we had he‘e. The shoreline abounded with you know so abundant that there was never any issue about that we couldn’t get any food out of the ocean (Feiteira 2023).

B. Feiteira describes environmental changes she noticed beginning in about the 1970s. She noticed deteriorating environmental conditions which she linked to golf courses and tourist accommodations. She particularly mentions that limu began to disappear at this time. She also notes that the water at the shoreline was saltier than before.

Kupuna started telling us that we couldn’t lay our nets in a certain places cause nevah had enough fish. The kupuna could tell something was wrong. Limu was deteriorating, the beds were slowly dying, the water was rougher than normal, and we noticed that the water was saltier at the shoreline... This was in the 70s. I was in high school. When this was starting to really really be more visible. And around that time was the significant development of the resort area. And so we had these massive golf courses coming on. Nice green grass. Tourists were getting awesome water. But for us as kanaka we weren’t getting the benefit of that. And even back in those days we began to notice what that kind of development was doing to our shoreline (Feiteira 2023).

B. Feiteira describes the change in the limu on the shoreline.

As the muliwai began to shrink and the runoff started impacting that’s when we began to notice all these limu started to disappear. We couldn’t even walk on the reef because it became so slimy and we saw limu that we never saw before and we didn’t know if we could eat it. And the reefs became so slimy that if we tried to walk on it we would slip and fall. Our nets, within a couple of hours of putting our nets out there some kind of algae would already be stuck to our nets. And it was very difficult to clean. Kupuna said no touch already it’s too dangerous there’s not enough. Even the limu was getting coated with this slimy brown gunky stuff. Kupuna said don’t eat that cause we don’t know what that is...(Feiteira 2023)

### **3.3.4.2 SHORELINE FRESH WATER SPRINGS**

B. Feiteira describes the various shoreline places where freshwater springs are found and explains that these springs used to give out more water.

There were a couple of places. In Pakala it’s actually right in front of Moku‘ula and Mokuhinia pond. So we know in that area there were underground springs where people could gather fresh water. And then in Wahikuli on the Lahaina side of the beach there was freshwater underground springs. Polanui also in Lahaina closer to the Launiupoko side there was a couple of them that you could go gather water from. It permeates out of the sand so forcefully that you could actually gather fresh water out of those areas. So we know there’s underground springs but—we also know that the amount of water that was coming out of the ground was way less than what was when we were kids. If the ‘āina doesn’t have the ability to capture water to recharge—that’s what will happen. To be honest with you people have asked many times if there’s any underground freshwater springs along the shoreline and we would tell them no not anymore. So those of us that know—like I haven’t gathered any kind of freshwater from those areas for about 20 years now. But I know about 3 or 4 of the families that continue to do so. And they maintain the confidentiality of that place (Feiteira 2023).

### **3.3.4.3 HUKILAU**

B. Feiteira's family had a tradition of conducting *hukilau*, a fishing technique involving a group of people using a long net to circle and entrap fish. The Feiteira family would conduct hukilau under the guidance of kupuna who would direct them to specific locations to perform a hukilau. The purpose of the hukilau was not solely for fishing; hukilau was used as a means to manage fish populations in certain areas that were becoming too abundant. Hukilau played an essential role in maintaining a balanced ocean ecosystem.

B. Feiteira shared that beginning in about the 1970s, she started to notice changes occurring on the land that were affecting the shoreline. It was around this time that kupuna instructed people not to fish in certain places where they noticed declines in the fish populations. They also observed changes in the limu or algae. It was not as abundant as it once was.

### **3.3.4.4 STREAMS**

B. Feiteira described the deleterious effects of the stream diversions on 'ōpae, hīhīwai, and 'o'opu due to pineapple and sugar cane cultivation.

And so being able to access mauka we began to see the effects of the diversion. So as more and more water was being diverted from the natural streamflow our native plants were slowly shrinking away diminishing and as a result of that the marine life in the streams were also diminishing and deteriorating.

I remember kupuna taking us all the way down to the ocean to the shoreline to gather the 'ōpae (shrimp), the hīhīwai (endemic grainy snail (*Neritina granosa*)), the larva and walking up in buckets to the streams and building cascades so that the 'o'opu [Hawaiian freshwater gobies (in the families *Eleotridae*, *Gobiidae*, and *Blennidae*) could go up. And there was so little water available that we saw less and less stream life at the shoreline. Because we all played up there we also began to notice that water in the streams was so significantly depleted but the ditch systems were full. And that's when I realized that all of it was going either towards the pineapple plantation or the sugar cane (Feiteira 2023).

### **3.3.4.5 MEDICINAL PLANTS AND MAUKA GATHERING**

She also observed an overall dessication of the areas mauka of the stream diversions, leading to a decline in the presence and abundance of medicinal and edible plants such as 'uhaloa (*Waltheria indica*), mamaki (*Pipturus* sp.), white hala (*Pandanus tectorius*), and 'ōhia 'ai (*Eugenia malaccensis*). The decline in these plants was so pronounced that her kūpuna told her not to gather them anymore.

We used to go mauka with kupuna so they could teach us how to properly gather the lā'au. We had a couple of practitioners in our community and as they got older the kuleana became ours—the young people. To go up mauka and gather on their behalf. And we began to see that even those areas were slowly but surely diminishing. And we were seeing more invasives coming in. And it was just getting more and more difficult to try and maintain those areas. I don't know if there's any medicinal native plants left up mauka in Lahaina. Cause when I moved out of Lahaina in my senior year kupuna told us "no go" we have to let it go and hope that things will be able to regenerate. Cause when we used to go up sometimes we didn't gather. What we did is we observed as the plants and the flowers began to bloom it was a signal for us to monitor. So when we started to see we would gather the seeds and we would replant the seeds to try and maintain that area. But it got to the point where that was no longer feasible for us. And kupuna would

say it's because they are taking all the water. There was nothing from the 'āina to use to regenerate itself.

We used to have a grove of white hala. —When I was about 31 or 32 I went up mauka because a kupuna wanted hala. I found one tree left of the grove. Just one. I was heartbroken.

We used to get 'uhaloa. Mamake [sic māmaki]. 'Uhaloa was pretty prevalent because as the plantation increased activity we began to see a lot incidences of asthma happening in our community. So kupuna would resort to making sure that their yard was well maintained and there was no dirt or dust. But as the plantation did their harvesting and planting all that dust would permeate all the houses. So 'uhaloa actually was used as well as—and this is really funny because where my grandma lived there are about, I want to say like 15 or 16 houses on the street where she lived. Every house had a mountain apple tree. An 'ōhi'a 'ai tree and the reason why is because they used the flower and the bark to make tea for the asthmatics (Feiteira 2023).

B. Feiteira draws the connection between water scarcity up mauka and the loss of medicinal plants for cultural practitioners to prepare medicines, emphasizing the broad impacts of water scarcity on all aspects of life. Furthermore, Feiteira highlights the challenges Native Hawaiians face in passing cultural knowledge onto future generations who have inherited drastically different environmental conditions.

For kupuna it was really a disappointing and sad time because they firmly believed that these plants that grow in the wild are much more consistent and the strength of the lā'au makes for better medicine. And so it's difficult to replicate the environment up mauka in the wild in your backyard. And so not having sufficient water available for our lā'au to grow also led to additional impacts in our community. It isn't just about growing food, it's about the level of impact that water has in all aspects of our life. And growing up with these kupuna I learned that. And you know taking that mana'o today and trying to pass that knowledge onto my grandchildren has become a very difficult process because there is no water for them to really understand the impact. A lot of the streams have very little water or no water. And so how do you tell your grandkid that in order for you to have a sound and healthy environment you have to be able to access water. The streams need to be flowing. The muliwai needs to be wide reaching so that you have the kind of food you want to eat from the ocean (Feiteira 2023).

### **3.3.4.6 OTHER COMMENTS**

B. Feiteira recalls the quality of the tap water when she was a child:

I remember growing up in Lahaina we could take water out of the tap and if you let the container sit for just a few minutes there was condensation on the container. The water was that cold. And the water was sweet tasting. So as we began to notice the depletion of water in the streams. The taste of the water changed. And the water was much warmer. For us, it didn't feel healthy enough for us. And even to use it for watering our garden in the backyard for the ti leaf [*Cordyline fruticosa*] we began to notice the plants weren't growing as healthy as they used to (Feiteira 2023).

B. Feiteira expressed the personal discontent of her grandmother's father when pressured to divert additional water for Pioneer Mill Company:

My grandmother's father was a hanawai [irrigation] man from Pioneer Mill. So he maintained all of the ditches, monitored all of the streams. And my grandma would tell me that one time her father would come home and be very very unhappy with the

situation at Pioneer Mill because he was being instructed to divert more water. My grandmother's father grew up in Kaupō on the ranch. So he noticed a significant difference in the way water flowed from the stream—including when it rains up mauka and the way it lays on the 'āina and the recharge into the aquifers. That was significantly changing (Feiteira 2023).

B. Feiteira articulates the significance that stream restoration would have on contemporary Native Hawaiian cultural revitalization efforts:

Having those streams restored provides an opportunity for kanaka in West Maui to be able to see a restoration process take place where we can once again see 'o'opu, 'ōpae, hīhīwai, all of that eco life be slowly brought back into those streams. And it's not just for food but also for kuleana purposes. Having that living breathing entity alive and well means that kupuna have the tools necessary to pass knowledge on. It's stuff that you just cannot learn about reading a book. And if you can regenerate the forest restoring its natural elements. The forest will regenerate and restore itself. And so having that ability to do that fortunately for us on Maui—you know we have this major Axis deer challenge. So the deer have not appeared in West Maui yet. And so we still have that opportunity to be more maka'ala about the forests in West Maui and be able to work on not just preserving it but actively starting to restore it. But it begins with the availability of water. So if we can do work—more work in the restoration of our watershed areas. We know that more water will come but you gotta do the work. So the county can work with DLNR to begin that process there are groups and organizations in West Maui that can lend their expertise in getting this work done. But there has to be a solid and long-term commitment in terms of funding in order to see that kind of stuff happen. So it's going to be a long process but we have to start someplace. And we know that once we can get the watershed functioning the way its supposed to—and the stream flows—proper amount of water in the streams that goes all the way to makai we're going to start to see the shoreline start to repair itself as well (Feiteira 2023).

### **3.3.4.7 RECOMMENDATIONS**

When asked if she has recommendations for the MDWS, B. Feiteira responded with, “Ideally, the most radical would be to shut down the ditches and allow the water to return to the streams”:

That would be the most auspicious activity is to start to rebuild the watershed from up mauka. Coupled with many things. We're not seeing as much of a devastation as we could be but we do know that Pu'u Kukui has gotten less than about only 50 % of water in the past few years. It used to be up to 400 inches of rain per year. They're now getting between 200 and 250 inches a year. And so the need to start to restore those upland forests will play a crucial role in bringing back a lot of the water because fortunately the cloud cover still sits on the mauna up there. There's just not anything up there to capture that.

And the drier it is in West Maui, the more prevalent the brushfires are. And already you know, some of the fires have already hit the base of the mountain. So we know that a lot of the restorative opportunities in those areas have significantly impacted the ability of the 'āina to catch the water. Cause now it turns into runoff and it ends up in the ocean (Feiteira 2023).

### **3.3.5 'Aha Moku o Maui, Inc., Consultation Meeting**

A consultation meeting was held with U'ilani and Ke'eaumoku Kapu from the Lahaina section of 'Aha Moku o Maui, Inc., on July 6, 2023. K. Kapu and U. Kapu not only live in mauka areas, but also work alongside the shoreline. Therefore, they have seen firsthand the impacts to traditional and customary practices coming from stream diversions, excessive pumping of water, leach fields, and septic systems in the area.

#### **3.3.5.1 REDUCED GROUNDWATER AND SURFACE WATER FLOW**

##### **3.3.5.1.1 Insufficient Monitoring and Enforcement of Current Water Supplies**

K. Kapuu and U. Kapu are very concerned about "collateral damage" to kuleana rights, such as sufficient access to fresh water to irrigate kalo crops and support culturally important natural resources such as 'o'opu and various species of limu. K. Kapu and U. Kapu are involved in restoring and taking care of historic Mokuhinia fishpond and are eager to begin potential projects there in the near future. However, restoration of this fishpond (now covered by Malu'uluolele Park) requires sufficient fresh water, which is difficult to achieve with the amount of water being pumped from the existing skimming well. K. Kapu noticed several cascading effects from insufficient water for the fishpond, including increased populations of mosquitoes and accumulation of silt.

Within the Ku'ia area, there's an area called Waine'e. Waine'e is within the same area where we are located, along the bottom at Mokuhinia. So Waine'e means "creeping water," and the water which used to fill Mokuhinia pond which came from a karst system. Now if that skimming well or any other potential wells adversely affect that genealogy of Waine'e which we can see evidently is now, the potential of bringing back historic properties is negligent. It ain't gonna happen because of what is happening now. ...[Current pumping levels in the skimming well is] definitely going to be more of an impact now, and this we've seen maybe in the last two and a half, three months. Slowly, gradually emptying out, and right now it is probably only ponds near the ocean, but there is a lot of silt. One of the county workers came and utilized our canal for gathering guppies so they can take them on the other side of town because the mosquito infestation that is happening throughout town. When there is droughts, there's ponds, and when there's ponds, there's mosquito habitats. We don't have any guppies in our waterways over here, so potentially the risk of those invasive species like mosquitoes is gonna make – they will be back if we don't get that streamflow going. Like I said, that A and B well is impacting us (Kapu and Kapu 2023).

He expressed concern that Maui County's water sources could contribute to cumulative impacts in Kaua'ula, which already has reduced surface water availability due to water being diverted to Launiupoko. The cumulative impact of reduced freshwater flow directly impacts the availability of water for farming kalo as well as harming limu populations in the area in front of Mokuhinia fishpond. K. Kapu observed that the existing Pump A and Pump B are being pumped 24 hours a day, with adverse effects on the canal in front of their property at 505 Front Street.

[There is] a pump that runs in the parking lot of 505 [Front Street, their property in front of Mokuhinia fishpond] 24 hours ... Um, the last I checked is about a month ago. There's minimal flow, which the water used to be gushing out from 505 ... So that's an adverse effect. Ah, less water going to the ocean, that's a trigger ... That whole area, if you look at the at the geographics of the area, Ka Limu a Pi'ilani, that exist from Waine'e, that goes from the outskirts of Ku'ia, Kahoma, and Kaua'ula, that core system all trickled down to that one area, Mokuhinia. So that's our trigger, and its, its, its, you know, you

don't have to be one scientist to figure it out. Especially I dive in that area. I dive for limu. My 'ohana dives for limu. The Ka'a'ane family, the Hussey family. There's only about three, maybe four people that still cultivate [limu] in the area, but we are seeing that adverse effect (Kapu and Kapu 2023).

He was also concerned that his own water use permit for Mokuhinia fishpond might be hampered by what he perceived to be profligate water usage by existing water use permit holders.

I am right now going through the process of reviewing our water use permit application for our building, because of aquaponics and because we are also responsible for the management and careship of Moku'ula Mokuhinia Pond. So we have potential projects in the near future but if they exceed the existing use, of all the potential wells out there that are existing, if they exceed the use, then...what's the possibility of all other projects that we going to need the water, does it qualify for new usage? You know, that is my fear, because of what is being pumped right now and CWRM has no clue on how they are gonna require them to pump less until they submit their water use application in August. Right now, we are dealing with a lot. I mean, this is not even drought, manmade triggers that are happening that are diverting water outside of Lahaina...So bringing this awareness to you guys knowing that your potential wells and other existing wells in the area might create an adverse effect...We see it already (Kapu and Kapu 2023).

K. Kapu says that his 'ohana and another family use that same streamwater for kalo. He expressed concern that CWRM is looking to lower Instream Flow Standards to get a mauka to makai flow. However, he feels that the real problem is not the existing Instream Flow Standard, but that water is being diverted away midstream to supply the water needs for Launiupoko.

You would think that Kaua'ula would be easy to have the mauka to makai flow, but it doesn't. So that is a trigger for us saying that the water can't make it from the mauka to the makai all the way from the top to the bottom, then what is the problem in between the middle? And why isn't West Maui or Makila Land Company not being compliant to the use – uh Instream Flow Standards set by the Commission, gee I don't know how many years ago, 3.4 million gallons, now they wanna lessen it to 2 million gallons of water? I mean, that's good for recharging the aquifer but at the halfway point, I don't see the mathematics on why CWRM is allowing these things to happen knowing that they have a huge population in Launiupoko that Mahanaluanui and potential development even towards Olowalu...But how much of that water is going back to the ocean now that they are going to lessen the Instream Flow Standard? That doesn't make sense. So where is all that water going if they are requiring the owners of Launiupoko to do the full system? (Kapu and Kapu 2023).

They had clearly observed within their own lifetimes the impacts of first Pioneer Mill Company's, and later West Maui Land's, water usage on the ability to farm kalo. They recalled that in the 1950s, water was abundant. However, they knew that the Keahi family ceased taro cultivation in the 1970s at the time when Pioneer Mill was pumping water at full capacity. The Kalepo and Keahi families were only able to recultivate kalo when Kamehameha Schools redirected a significant amount of water back into the stream.

According to K. Kapu, the current Instream Flow Standards state that 2 mgd should be flowing through Kahoma and Kanahā. K. Kapu and U. Kapu expressed frustration at the lack of enforcement of existing Instream Flow Standards. They urged CWRM to do more frequent monitoring to see if Instream Flow Standards in Kanahā and Kahoma are being met:

All of these adverse that is happening, we see it happening periodically all the time, but we gotta do our own monitoring. We gotta monitor the river flow. We gotta monitor what is going into the pipes system to provide for kuleana and Kamehameha schools. So how to mitigate the impact of what is going on is...I think CWRM has really gotta be a little bit more proactive towards mandating to make sure that the existing stays where existing water should be especially for the instream flow standards set already. Once the Instream Flow Standard was set for all these valleys – Olowalu, Launiupoko, Kaua'ula and Kahoma – that's all set, but if that was set on the total amount of volume that the state said they got this much volume, let's put two million gallons back [unclear] If you do the mauka to makai monitoring, you're not getting the two million gallons of water. I don't know whether or not because of saturation, but Kahoma wouldn't be a problem because that river is hardened from, um, I would say, the mouth of the valley all the way down to the river. Because of the canal that they put in. Kaua'ula is a different story but seeing that Kaua'ula had more volume where the commission said 3.34 million gallons used to sustain the river, you're not even getting periodically that mauka to makai flow, or enough of that mauka to makai flow...So, it is not efficiently working its way down to the bottom, which gives us a trigger (Kapu and Kapu 2023).

K. Kapu stated that the monitoring stations set up by CWRM are not being checked regularly. He added that his son monitors the amount of water coming out from intake to the hydro plant and monitors the surface water from Kaua'ula reservoir.

Ke'eaumoku urged CWRM to scrutinize the Ka Pa'akai Analysis for Launiupoko Irrigation Company, LLC's, existing water use permits. He admitted that they had previously filed an injunction against Launiupoko Irrigation Company, LLC, for diverting water from Kaua'ula Valley to Launiupoko:

I mean, I did see a notice out there soliciting from the greater community on a Ka Pa'akai analysis. They know the people that they gotta come to. But they been in litigation so long that I don't think they wanna come to us. But a lot of our points are valid. If they gonna do a Ka Pa'akai Analysis, then they should step it up. Or the Commission should require them, especially on the A and B Wells. They pumping 800,000 gallons of water which is dryin' up our system over here and adversely affecting our shoreline, then I think the Commission on Water Resource Management should mandate that they only draw X amount, a certain amount, because the potential risk of the County wells are not being inoperable and new uses all being challenged by an existing use well, which is only used for the cultivation of sugarcane now being used for ranch lots, gated community, mansions. That is what they drawing right now. So, I mean, when you talk about the private sector vs. the residents of the general community, ha! We know how that is going to end up, basically (Kapu and Kapu 2023).

According to him, the judge said West Maui Land had to keep 300,0000 gallons in the system to supplement for kuleana usage and provide water for Kamehameha Schools. He expressed concern over skimming well, which is already drawing brackish water.

They are drawing too much. It was historically known in the past that Pioneer Mill needed to shut that well down or pump it at a lesser capacity because of the impact to historic property which is Moku'ula. And that is historically written down so if that could be noted here in this Ka Pa'akai Analysis that it is already creating an environmental impact to our surface water on how much water they are drawing. I got notes saying they are already pulling up brackish water because of the size of the pump so what's happening is happening in an existing well (Kapu and Kapu 2023).

### **3.3.5.2 REDUCED WATER QUALITY**

K. Kapu shared that within the Ku'ia area, there is an area called Waine'e. Waine'e means "creeping water." He stated that the water that used to fill Mokuhinia fishpond came from a karst system. He worried that the wells may affect the geology of Waine'e in a way that limits the water flowing into Mokuhinia. He stated that there is potential of bringing back historic properties like Mokuhinia, but that it is not going to happen because of what is happening now to upstream water sources:

West Maui Land Company diverted 100% of the water to Launiupoko in exchange for Launiupoko to build all those homes up there on a leach field system, where a lot of the water did go back to the ocean, but it was dirty water. That's why we have that major adverse effect that impacted the families up there in the area which utilized the water not just for domestic use but taking care of a lotta the cultivation that they were growing around the house like food crops... Where there is no flow in the river, and where there's no flow in the river, we get ponds full of 'o'opu that eventually will die if they don't restore the waterflow again. So, the trigger is literally us, that we seen an adverse effects throughout for as long as we been there and how worsened its getting, especially now when they get...projects pending in the Launiupoko area ... [W]e stepped in and fought for about seven years for Launiupoko to...for it to be agriculture and not homes. And you know, we were at LUC for that long, trying to fight that, because we knew the adverse effects that would happen, but unfortunately, we have ranch homes. [laughs] Well, not ranch homes; mansions and swimming pools. Where is their swimming pool water going? That is the next questions. You know, all of these pools that is being built, where is that water going? What kind of that adverse effect is that water doing to our ocean? (Kapu and Kapu 2023)

U. Kapu directly linked the installation of leach fields to the loss of limu populations in Lahaina:

And you could, you could smell the lipoa (*Dictyopteris pagiogramm* and *D. australis*) as you drive through Lahaina and now you cannot...When Launiupoko was being built, that's when our limu started disappearing. That's when they started using...the septic stuff, leach fields. They were using the leach fields. The leach fields were contaminating our water (Kapu and Kapu 2023).

U. Kapu observed that the reduced streamflow also manifests itself in warmer water, which in turn causes the kalo to rot. The warmer spring temperature affects the crops of 12 or 13 families in the area of Kanaha and Kahoma.

So, our 'ohana has our lo'is in Kanahā and Waipuka. There has been...warmer water temperature in the stream coming from that and affecting some of the lo'is that have been giving them rottage in their kalo. And our fear is when West Maui Land Company starts building all their houses or whatever they are going to be doing in that area above that, might be a much bigger adverse effect. Um, so I dunno if they are going to be applying for water. I doubt it because they never do. They just drill their wells and just do it. That is another concern for the families in Kanahā that are doing their lo'i kalo, is they are already seeing the temperature turning warm and rottage in their taro. That is what I wanted to share on that one. Plenty patches over there. There are about 12 or 13 families that have patches over there in Kanahā and Kahoma (Kapu and Kapu 2023).

### **3.3.5.3 NEED TO MANAGE WATER USING AN AHUPUA'A-BASED APPROACH**

#### **3.3.5.3.1 Mauka: Need for Reforestation and Invasive Species Control to Improve Watershed Health**

A major impact observed by K. Kapu and U. Kapu is increased fire risk. The more water gets diverted from the stream, the higher the fire risk. Decreased forest cover mauka causes less freshwater runoff into the makai fisheries. U. Kapu stated:

Plus, too, Lahaina is so dry that everybody pumping all this well out, this water out. We see fire hazards. 'Cuz drought is not being – the water is not there for the ground. It is drying it up so bad that, you know, that's a fire hazard for sure (Kapu and Kapu 2023).

They noted that three fires had occurred in the area since 2007, and that the last fire went almost into the *wao akua* (the highest elevation of mountain ranges; realm of the gods and spirits). Once the fire burned that high, they noticed that the clouds stay in the valley, leading to reduced water makai of the area. She described three fires that had ravaged the forests from 2007. Everything from Pa'upa'u to Launiupoko was burned during the most recent fire. K. Kapu then went on to discuss the efforts of Kamehameha Schools to reforest the areas damaged by the wildfires near Pa'upa'u:

[E]ven da kine morning dew in the valley doesn't exist anymore really because of the forestry. So once the fire burned the top of the "L" area and it started climbing, all that reforestation, that forestation that we had up there, that's no longer there, so the clouds stay in the valley. They don't come out...And Kamehameha Schools just right now looking at reforestation of the Pa'upa'u Ku'ia mauka areas, we are involved in that reforestation project. See if we can get something planted up there to bring the clouds outside of the valley. So, we can, so we can slowly have the potential of that morning dew that we used to have. [The reforestation is at] 1,400 ft elevation. So, everything from Pa'upa'u all the way across to Launiupoko area, everything burned. There is no longer any tall trees like they had. They had Eucalyptus tree forests. [unclear] Pa'upa'u. All of that is gone. And because it is gone, all that is hot up there. It's in the working stages right now, but Kamehameha Schools is looking at a long-time lease of 11,000 acres. Hopefully we can be involved in the reforestation project or what they are doing over there (Kapu and Kapu 2023).

They would like to see the County continue its efforts to support reforestation in Kahoma Valley in coordination with Kamehameha Schools and other community groups. Kamehameha Schools is working with their geologist and community partners to get more water down to Ku'ia through restoring the forests around Pa'upa'u. Ke'eaumoku says that if they can bring water back to Ku'i and Kahoma Valley, then it can bring back the clouds and the rain.

### **3.3.5.4 NEED FOR MONITORING CULTURALLY IMPORTANT SPECIES**

K. Kapu and U. Kapu also observed that hīhīwai and 'o'opu don't exist in Kaua'ula Valley anymore. According to them, Kahoma and Kanahā still have big 'o'opu and hīhīwai, but Kahoma and Kanahā no longer have limu coming from upstream. U. Kapu described now even some of the more common varieties of limu are scarce in Lahaina.

And then the adverse effects also for Kaua'ula is um the hīhīwai and the 'o'opu. They don't exist in there anymore. Our limu is gone from our mouth area from where we used to gather our limu..And then for Kahoma and Kanahā, their 'o'opu is big, they have no problems with the 'o'opu. 'O'opu, hīhīwai, but the limu that goes to the ocean is not

there. So we are trying to figure that out on how come the limu has all, all disappeared from Lahaina. So that's an adverse effect culturally (Kapu and Kapu 2023).

U. Kapu informed us that at the area around Mokuhinia known as Ka Limu a Pi'ilani no longer has abundant limu, although there were once 11 species of limu there. They still see limu kohu (*Asparagopsis taxiformis*), lipoa (*Dictyopteris pagiogramm* and *D. australis*), and līpe'e (*Laurencia* sp.), but they can no longer find manaua (*Gracilaria coronopifolia*), 'ele'ele (*Enteromorpha prolifera*), or wāwae'iole (*Codium edule*). K. Kapu then explained that a number of likeminded people are attempting to cultivate limu around Ka Limu a Pi'ilani using limu gathered from Pohakupule. They assist with summer programs to educate students about limu cultivation and collection. However, they observed that kūpuna who used to gather limu around the areas of Māla are no longer able to, even though previously every household relied on limu they gathered from the shoreline. K. Kapu went on to describe how current efforts to restore limu populations in the area are hampered by the lack of mauka to makai flow of fresh water.

[There is an area on the shoreline] known as Ka Limu a Pi'ilani. So that was once a highly concentrated of almost 11, 11 species of limu...Twenty-three from Launiupoko to Māla. So, because of that, our summer programs included limu cultivation to try to check out where the hot spots are. We don't even have our... the potential for a lot of our kūpuna that used to comb the areas of Māla. Māla was high potential for manaua, uh, all those different types. Over here in front of 505 Front Street which is Lahaina town, in front of Mokuhinia, we probably get kohu, lipoa, līpepe, um no manaua, no līpe'e, no 'ele'ele, but the prominent limu that we had once upon a time doesn't exist anymore. So, we went out to Pohakupule, which is Windmills, to get mama clusters to try to recultivate the area over here.

But the, the sad part of this whole thing here is a lot of our limu harvesters or cultivators [unclear] two at the most, prominently in the 70s and 80s, you had every household that was reliant on this limu here. From that, I can honestly say, this is an adverse because you don't have the freshwater mingling with the saltwater to breed back that limu cultivation that we once had. Possibility of bringing that back. It's possible. But we just gotta mandate make sure we have enough, and I think that's why the instream flow standards was set. To make sure there's an equilibrium so we have that consistent cultivation of kalo growing along the shoreline which would bring the fish, which would bring the lawai'a fisherman, the gatherers, the shoreline people, because a lot of the fish, a lot of the fish stay out of the reef because there is no limu along the shoreline...The kalo cultivation of all that, the ko'e, the cleaning of the limu, goes into the river that goes into the ocean also feeds that historic property here. Because we don't have that mauka to makai flow, the balance is upset (Kapu and Kapu 2023).

She and K. Kapu agreed that streamflow and the mixing of the groundwater flow were required to sustain healthy populations of limu.

## 4 CULTURAL, HISTORICAL, AND NATURAL RESOURCES

The following is a short overview of cultural, historical, and natural resources of value to Native Hawaiians within the vicinity of the permit area. This overview is the results of archival research and interviews with individuals knowledgeable about contemporary traditional and customary Native Hawaiian rights and practices undertaken within the permit area or associated with freshwater resources. These cultural resources are needed for Native Hawaiians to have the ability to conduct cultural practices and perpetuate Indigenous Knowledge.

### 4.1 Culturally Significant Natural Resources

Native Hawaiian culture focused heavily upon natural resources. The moku system allowed Native Hawaiians to manage biocultural resources in a sustainable fashion, which provided food to inhabitants from mauka to makai (Winter et al. 2018). Excluding insects and other invertebrates, there are nine native species found in Hawai‘i’s streams. These consist of five types of fish, two types of crustaceans, and two types of mollusks. All of these species exhibit amphidromous behavior, which means they migrate between freshwater habitats and the ocean. Eight of these species are endemic to Hawai‘i. Native Hawaiians called the fish ‘o‘opu, the crustaceans ‘ōpae, and the mollusks hīhīwai (or wī) and hapawai. While there are several more Hawaiian names to describe regional variations and physical differences of these creatures, these are the most common names by which they are known. Several ‘ōlelo no ‘eau (traditional Hawaiian proverbs and poetical sayings) and mo ‘olelo (oral histories; myths, legends, or stories) demonstrate that Native Hawaiians were observant of these creatures and understood their life cycles, behaviors, and habitats well. These native freshwater fish, crustaceans, and mollusks were an important food source to Native Hawaiians (Miike 2004:14–18).

#### 4.1.1 Limu

Native Hawaiians use freshwater and marine limu as a relish or condiment to season food. While the marine varieties of limu are known for their more pronounced taste, the freshwater limu found on rocks in streams is also collected and enjoyed as part of the diet (Krauss 1993:16). Many species of nearshore limu thrive best in areas with both fresh water and ocean mixing (Abbott 1992).

B. Feiteira remembered that the shores of West Maui were home to abundant limu varieties in the 1960s, especially manuea, kohu, wailoe, lipoa, and ‘ōpihi limu. Limu ‘ele‘ele, limu kohu, limu līpe‘e, limu līpoa, limu manuea, and limu wāwae‘iole also emerged as culturally significant species previously abundant in the area prior to the 1970s.

#### 4.1.2 Freshwater Stream Species

Oral history interviews and public testimony from H. Kaniho, K. Kapu, C. Palakiko, K. Steward, and others reveal that culturally important freshwater stream species such as ‘o‘opu ‘akupa, ‘opu ‘alamo‘o, ‘o‘opu nākea, ‘opu naniha, ‘o‘opu nōpili, ‘ōpae kuahiwi/kala‘ole (*Atyoida bisulcate*), ‘ōpae ‘oeha‘a, hapawai, and hīhīwai/wī used to be abundant in the Kahoma and Kanahā streams.

#### 4.1.3 Lo‘i Kalo Farming

The cultural importance of kalo cultivation arose in nearly every interview and segment of public testimony presented in this report. Kalo farming emerged as perhaps the most important traditional and customary cultural practice taking place in the vicinity of the permit areas.

#### **4.1.4 Native Plant Resources, *Lā‘au Lapa‘au***

B. Feiteira’s interview described how she and her kūpuna used to gather *lā‘au* from the upland areas of West Maui. The plants she observed when she was younger, such as *mamaki*, *‘uhaloa*, *‘ōhi‘a ‘ai*, and *hala*, have diminished over time. She recalls a grove of white *lauhala* which today contains only a single tree. Her kupuna advised her and others to gather seeds from these plants and replant them to encourage the plants to regenerate and flourish. She mentions that there is no longer sufficient rainfall and groundwater to support the abundance of culturally important plant species that she observed in her youth. She also observed a dramatic increase of invasive plant species in the areas where native plant species used to flourish. According to Feiteira, the plants that grow in their native habitat possess greater potency compared to those cultivated in one’s garden. Therefore, *lā‘au lapa‘au* (medicinal plant) practitioners prefer to use wild-grown plants for their medicines.

### **4.2 Cultural and Historical Sites**

The area of Lahaina was the seat of power for many generations of ali‘i, beginning in at least the sixteenth century with Pi‘ilani. King Kamehameha III, Kauikeaouli, also established his royal court near Mokuhinia. This site, King Kamehameha III’s Royal Residential Complex (also known as Moku‘ula/Loko Mokuhinia/Hale Piula), is listed on the NRHP (SIHP Site 50-50-03-2967).

Other sites are listed in the Kīpuka database for the moku of Lahaina include Mokuhinia fishpond and the island of Moku‘ula.

#### **4.2.1 Mokuhinia and Moku‘ula**

Mokuhinia fishpond and the sacred island of Moku‘ula in Lahaina stand out as sites that community members wish to see revitalized. B. Feiteira, U. Kapu, and K. Kapu all mentioned cultural revitalization efforts to revive the fishpond. Moku‘ula was considered to be a sacred island and, at one time, was the location of the royal mausoleum before the royal iwi kūpuna were moved to Waiola Church. This fishpond provided sustenance for ruling ali‘i since the reign of Pi‘ilani in the 16th century, and possibly even earlier. Mokuhinia was also the residence of a mo‘o of the same name believed to be Kihawahine, the daughter of Pi‘ilani. There is an abundance of evidence that Native Hawaiians continue to observe traditional and customary practices associated with mo‘o (Brown 2022:167–173). Accordingly, Mokuhinia is still believed to be a protector of Lahaina.

### **4.3 Coastal Fishing and Gathering**

The nearshore marine environment of Lahaina has supplied the people of the area for centuries. The coast off of Lahaina was known for its rich fisheries since at least the time when Pi‘ilani established Lahaina as his seat of power. Kahaulelio’s (1902) accounts revealed the area to be rich in marine resources, including *nehu* and several species of sharks.

B. Feiteira also recalled healthy populations of fish such as *kole*, *owama/oamao*, *manini*, *halalu*, *kūmū*, *weke*, and sharks, in addition to other marine species such as *kūpe‘e*, *‘opihi* (limpets; *Cellana talcosa*, *C. sandwicensis*, *C. exarata*, and *C. melanostoma*.), *hā‘uke‘uke*, *wana*, and *he‘e*. B. Feiteira’s discussion revealed that fish populations decreased so noticeably during the 1970s that her kūpuna advised her that certain sections of ocean should no longer be fished.

Existing oral history interviews conducted with F. Harrison and T. Smith-Neizman also reveal the importance of fishing to the local community. They describe the presence of ‘ōpelu, ‘ulua, ‘ōpelu kala, pāpio, weke ‘ula, moano, moano hulu, and ‘umi‘umi (see Maly 2003b).

#### **4.4 Pūnāwai**

B. Feiteira recounted how she used to gather water from freshwater springs in front of Moku‘ula and Mokuhinia fishpond when she was younger. She also recalled underground freshwater streams in Wahikuli and Polanui that flowed into the ocean. She recalled that the water gushed out from these springs so forcefully in the past that you could easily collect fresh water there, but today there is no longer sufficient flow to allow for this kind of fresh water gathering.

#### **4.5 Iwi Kūpuna**

K. Kapu’s (2007) interview revealed that ‘ohana within Kaua‘ula are aware of over 200 burials in the valley, including ali‘i burials. The area of Waiuli, mauka of Honokōhau, Honolulu, and Honokahua, was known for freshwater burials of maka‘āinana (*ho‘oilina kupapa‘u*) in pre-Contact and early post-Contact times (Kamakau 1968: Loc. 1194). The interview with K. Kapu also indicated that the areas of Kaua‘ula and Moku‘ula are known as areas where important ali‘i were buried.

## **5 ASSESSMENT OF POTENTIAL IMPACTS**

A primary purpose of this Ka Pa‘akai Analysis is to identify “the extent to which those resources—including traditional and customary native Hawaiian rights—will be affected or impaired by the proposed action” (Ka Pa‘akai O Ka ‘Aina 2000). This section presents the assessment of potential impacts to traditional and customary Native Hawaiian rights and practices as a result of the proposed continued use of MDWS wells Kanahā 1 and 2 and Waipuka 1 and 2 within the Launiupoko Aquifer System.

### **5.1 Types of Traditional and Customary Rights Referenced Under the State Water Code**

The following provision on Native Hawaiian water rights outlined in the State Water Code, HRS §174C-101, defines the types of traditional and customary water rights of Native Hawaiians:

(c) Traditional and customary rights of ahupua‘a tenants who are descendants of native Hawaiians who inhabited the Hawaiian Islands prior to 1778 shall not be abridged or denied by this chapter. Such traditional and customary rights shall include, but not be limited to, the cultivation or propagation of taro on one’s own kuleana and the gathering of hīhīwai, ‘ōpae, o‘opu, limu, thatch, ti leaf, aho cord, and medicinal plants for subsistence, cultural, and religious purposes. (2019:15).

It is notable that kalo, hīhīwai, ‘ōpae, o‘opu, limu, and medicinal plants are specifically identified here.

### **5.2 Approach to Assessing Impacts**

Using the information gathered through archival research, oral history interviews, and reports containing cultural consultation testimony, SWCA identified cultural resources, including traditional and customary Native Hawaiian practices, within the permit areas of Kanahā 1 and 2 and Waipuka 1 and 2. This study also determined the extent to which these resources and practices will be affected or impaired by the proposed continued water use of these MDWS wells.

The potential impacts to traditional and customary practices extend beyond the immediate vicinity of the existing wells mentioned above. Activities such as lo‘i kalo farming; subsistence gathering of stream and nearshore ocean species, and the gathering of lā‘au lapa‘au from areas mauka of the existing wells could all be impacted by changes in freshwater availability due to the existing wells. Fresh water availability also impacts efforts to restore cultural properties such as the Mokuhinia fishpond and revitalize ecosystems through propagating native plants and limu.

Given the geographic extent of the Launiupoko aquifer system, this report cannot definitively identify and address the full breadth of potential impacts to all cultural resources and traditional and customary practices in the areas near the Kanahā 1 and 2 and Waipuka 1 and 2 wells. Nevertheless, our research reveals that existing pressure on freshwater resources already endangers the traditional and customary practices described above. Community members expressed fears that diminished streamflow could further threaten the survival of these cultural practices.

### **5.3 Community Concerns**

Based upon information from our ethnographic interviews, existing oral history interviews, and region-specific public testimony from the IFSAR meetings, we identified the following community concerns

pertaining to freshwater quality and access and subsequent impacts to cultural practices in the existing well permit areas.

### **5.3.1 Ahupua‘a-Based Approach**

The community expressed that water needs to be managed holistically and should employ an ahupua‘a-wide approach.

#### **5.3.1.1 CONCERNS REGARDING FOREST AND WATERSHED HEALTH**

- The protection of watersheds from mauka to makai emerged as a common concern of community members.
- The most common concern voiced by community members was the need to restore and protect streamflow to irrigate lo‘i kalo.
- According to several individuals, adequate fresh water is needed to ensure the growth and regeneration of native species.
- Several community members personally observed changes in the presence and abundance of culturally important freshwater species under different stream conditions. They would like to see MDWS monitor and protect populations of culturally important native species found in streams. These include the five types of ‘o‘opu fish, the two types of crustaceans or ‘ōpae, and the two types of mollusks, hīhīwai (or wī) and hapawai.
- Members of the ‘Aha Moku specifically called out the need to ensure ecosystem resilience against fire hazards and climate change by protecting native forests and water resources.
- Several community members suggested bringing back the kānāwai system of water management for lo‘i kalo farming.

#### **5.3.1.2 CONCERNS REGARDING NEARSHORE AND OCEAN RESOURCES**

- A few community members personally observed changes in the presence and abundance of culturally important saltwater species under different stream conditions. They would like to see MDWS monitor and protect populations of culturally important limu species such as limu ‘ele‘ele, limu kohu, limu līpe‘e, limu līpoa, manaua, and limu waiwai. Other culturally important marine vertebrate species in the area include: kole, owama/oama, manini, halalu, kūmū, weke, and *manō* (sharks), in addition to invertebrate species such as kūpe‘e, ‘opihi, hā‘uke‘uke, wana, and he‘e.
- Informants noted that insufficient freshwater mauka to makai flow allows mosquitoes to breed in Mokuhinia and other coastal ponds.

### **5.3.2 Abundance and Quality of Freshwater Flow**

#### **5.3.2.1 INSUFFICIENT MONITORING AND ENFORCEMENT OF CURRENT WATER SUPPLIES**

- Several individuals claim that their observations of the streamflow do not align with established instream flow standards and that they would like to see CWRM monitor actual instream flow.

- A common sentiment within the IFSAR testimony is that kalo farmers would like to see all streams restored to 100% flow. Community members called out the fact that decreasing freshwater flow resulted in increasing water temperatures, causing kalo crops to rot.
- Another frequent concern was the lack of enforcement of existing water allocations, particularly for large landowners who are perceived to receive preferential water access over kalo farmers.

#### **5.3.2.2 AGING AND BROKEN INFRASTRUCTURE**

- Aging and broken infrastructure, such as dams, gages, stream diversions, etc., came up as a major cause for concern in the community. Kalo farmers want to see responsible parties repair and maintain existing ditch infrastructure to ensure consistent streamflow.
- Several individuals also expressed frustration that the burden for clearing debris from the ditches and 'auwais all too often falls onto individual kalo farmers.

#### **5.3.2.3 LACK OF VIABLE ALTERNATIVE WATER SUPPLIES**

- Numerous community members expressed an interest in greater use of R1 water for non-potable uses.

#### **5.3.3 *Reduced Water Quality***

- Members of the 'Aha Moku observed adverse effects from runoff and sedimentation on both streams and the nearshore environment, particularly impacting culturally important species of limu.
- Reduced water quality, particularly from runoff, directly impacts community members' restoration efforts at Mokuhinia fishpond.
- Certain coastal freshwater springs are also much more saline now than they were in the past, meaning community members cannot gather fresh water from them for subsistence or cultural practices.

#### **5.3.4 *Need for Additional Community Input for Current and Future Projects***

- K. Kapu's (2007) interviews discussed the high concentration of iwi kūpuna in Kaua'ula Valley.
- Potential undocumented kuleana uses may exist within the permit area that did not emerge during this research. These undocumented kuleana uses could be identified through additional community input.
- Community members may also wish to maintain access to lands for gathering, hunting, fishing, and other Native Hawaiian traditional and customary practices.

## **6 PROPOSED ACTIONS TO PROTECT TRADITIONAL AND CUSTOMARY NATIVE HAWAIIAN RIGHTS**

Following the assessment of potential impacts associated with the proposed permit activity, SWCA and the MDWS identified a series of feasible actions that could be taken to mitigate these impacts and serve to reasonably protect and revitalize Native Hawaiian rights, traditions, and customs associated with the permit area. The feasible actions suggested here are intended to address community concerns expressed in ethnographic interviews, oral history interviews, and community consultation and testimony from the IFSAR meetings.

### **6.1 Apply an Ahupua'a-Based Approach to All Water Use Decisions**

Upon analyzing the findings of the community consultation, public testimony from the IFSAR meetings, and oral history interviews, it is clear that a mauka to makai approach is essential for revitalizing Native Hawaiian traditional and customary practices. The health of the upland forests directly impacts streams and aquifers, which in turn affects the nearshore environment.

- In making decisions regarding water use within the Launiupoko aquifer system, the MDWS will employ an ahupua'a-based approach. This involves not only taking into account the potential impacts to the lands in the immediate vicinity of the permit activity, but considering the effect of the project on the entire watershed, from the uplands to the nearshore waters, as well as the cultural practices currently being carried out within the ahupua'a.
- As part of its community outreach efforts, the MDWS will seek to raise public awareness of ahupua'a management practices and foster partnerships for use and management of water sources with existing community and school-based ahupua'a restoration efforts.
- As part of this ahupua'a-based approach to water planning and management, the MDWS will work with the local community and cultural practitioners to monitor and protect both the upland watershed and the coastal marine resources.

#### **6.1.1 *Mauka: Reforestation and Invasive Species Control to Improve Watershed Health***

The 'Aha Moku observed that the depletion of groundwater directly impacts native vegetation in the mountains, rendering these areas vulnerable to repeat wildfires. A decline in vegetation in the mountains then impacts cloud coverage and rainfall. Invasive species often outcompete native species and also potentially use up more water than native species. Invasive grasses are particularly vulnerable to wildfires.

- Maui County will continue financial support for watershed management partnerships designed to improve groundwater recharge, reduce fire hazards, and prevent erosion through native species reforestation, invasive species control, fencing, and weed eradication efforts.
- The MDWS will support watershed partnerships' outreach to West Maui schools to develop service-learning experiences that allow keiki to assist with invasive species control and the planting of native species.

### **6.1.2 Makai: Monitoring Culturally Important Aquatic Species**

A number of community members observed local declines in culturally important stream, nearshore, and marine species since the 1970s, when the County began to drill wells and also when Pioneer Mill Company sold its water management infrastructure to West Maui Land.

- CWRM and the University of Hawai'i Water Resources Research Center should consider developing, coordinating, and funding a region-wide system for inventorying and monitoring culturally important native aquatic species such as fish, limu, mollusks, and shrimp that may be affected by and are indicators of changing water supply. They should partner with community organizations like Kamehameha Schools, 'Aha Moku o Maui, Inc., cultural practitioners, and other relevant NHOs in these endeavors.
- The MDWS will support and fund inventorying and monitoring culturally important native species conducted by watershed partnerships in watersheds directly impacted by the MDWS's existing and planned water sources.

## **6.2 Protect and Recharge Groundwater and Surface Water Flow**

### **6.2.1 Maintaining and Monitoring Current Water Supplies**

The availability of fresh water to irrigate lo'i kalo and revitalize fishponds emerged as the most common concern among community members when discussing surface water issues. To ensure sufficient streamflow to irrigate kalo and feed fishponds, the MDWS will:

- Work with the State CWRM to ensure that existing instream flow standards are being met. In those cases where existing instream flow standards are not feasible due to the limitations of existing wells, the MDWS will work with CWRM to develop alternate strategies to ensure adequate water supplies.
- Monitor and enforce current water use restrictions by all existing users in a water shortage.
- Utilize U.S. Geological Survey water studies to determine the most sustainable ways for the County to pump, manage, and develop groundwater withdrawals.
- Install a monitoring well for Launiupoko to aid in understanding changes to water levels over time.

### **6.2.2 Alternative Water Source Strategies**

Many community members expressed interest in alternative water strategies, such as recycling greywater (R1) to be used for landscaping and other non-potable uses. To this end, the MDWS will:

- Support capital improvement program funding for recycled water projects and needed infrastructure expansion in the Lahaina region to offset potable water to the maximum extent feasible.
- Support exploration and permitting of greywater systems to offset potable water use.
- Explore desalination of seawater and brackish water as alternative water supply for West Maui demand.

## **6.3 Support Water Quality**

Several community members noticed that a decline in water quality impacts limu populations. They observed also that the runoff from leach fields and/or septic systems potentially impacted restoration efforts at Mokuhinia fishpond and contributed to the loss of key limu species prized by gatherers. To combat water quality issues, the MDWS will:

- Encourage the State Department of Health and Maui County to focus cesspool upgrades to areas impacting the nearshore marine environment and prioritize expanding sewer lines into residential areas that are currently unsewered to reduce the amount of wastewater entering the aquifer and nearshore environment.

## **6.4 Repair, Replace, and Maintain Existing Infrastructure**

Community members indicated that the plantation-era ditches contain aging infrastructure. Since Pioneer Mill Company shut down, no one regularly maintains any blockages upstream that could reduce stream flow. Community members sometimes personally remove debris build-up in the ditches and 'auwais, but they feel that they should not be personally responsible for maintaining these systems. They also feel that the County and the State should be responsible for ensuring that these systems will continue to function in the event of "100-year storms." The MDWS will do its part to ensure proper infrastructure functioning by:

- Continuing to repair and maintain existing gages, pumps, 'auwais, dams, and other infrastructure that is controlled by the MDWS to ensure efficient water supply and avoid wastage.
- Regularly maintain the Kanahā stream diversion.

## **6.5 Solicit Ongoing Community Input for Current and Future Projects**

Members of 'Aha Moku stated that many community members have a stake in water use decisions, and recommend regular venues for them to share their *mana'o* (thoughts). Therefore, the MDWS should:

- Hold annual meetings with community groups, cultural practitioners, lineal and cultural descendants of the area, and other interested community members to encourage ongoing cooperation and consultation regarding MDWS projects.
- Consult with 'Aha Moku for water development projects in the subject moku for information on impacts on Native Hawaiian traditional and customary uses and advice on proper actions.
- Promote existing MDWS grant programs by proactively advertising in venues such as social media, in OHA's *Ka Wai Ola* magazine, and in local newspapers.

## 7 SUMMARY

The Native Hawaiian worldview recognizes that managing water resources requires a comprehensive and unified approach. It emphasizes the idea that we cannot address water issues separately, but instead need to consider them as interconnected and interdependent. Additionally, it is not enough to ensure the *survival* of traditional and customary practices in the existing well permit areas; instead, all feasible efforts should be made to allow these practices to *thrive*. The natural and cultural resources at the basis of these traditional and customary practices must be sufficiently healthy to allow cultural practitioners to perpetuate these practices by passing them on to future generations.

A number of important traditional and cultural practices were identified in the areas surround the wells addressed in this study. Based upon ethnohistoric research, existing oral history interviews, public testimony from the IFSAR meetings, and ethnographic interviews, lo‘i kalo farming, subsistence fishing, gathering of marine resources, gathering of limu and lā‘au lapa‘au, and cultural revitalization efforts at the historic fishpond Mokuhinia emerged as important ongoing cultural practices which may be impacted by the quality, abundance, and availability of fresh water. Cultural practitioners are currently engaged in efforts to restore Mokuhinia fishpond, replant native plants mauka of the wells, and reintroduce populations of culturally important species of limu. Others expressed the need to monitor populations of these and other culturally important species, such as ‘o‘opu, ‘ōpae, hīhīwai, hapawai, and marine species such as edible invertebrates and nearshore fish species dependent upon limu for food. Community members expressed particular concern for populations of ‘o‘opu and ‘ōpae, as these creatures require mauka to makai connectivity during their lifespan since they spawn in the rivers and grow to maturity in the ocean.

Ethnographic interviews, community consultation, and existing oral history interviews describe declines in culturally important natural resources beginning in the 1970s, when a significant amount of water was diverted away for agriculture and housing developments. Reductions in waterflow were identified by community members as the cause of increasing water temperatures in lo‘i kalo, causing crops to rot. A decline in water quality since the early 2000s, which community members linked to the installation of septic systems and leach fields, was also identified as a major risk to kalo crops, limu, and marine vertebrates reliant on limu for survival. Finally, increasingly arid conditions in mauka areas observed by community members led to an increased fire risk and potential decline in culturally important plant species.

The existing wells at Kanahā 1 and 2 and Waipuka 1 and 2 have been in place since the 1970s. In the course of this Ka Pa‘akai analysis, no one explicitly identified the County wells as the primary source of the problems described above. Nevertheless, MDWS staff recognize that water withdrawal via well development will reduce the water flow or discharge along the coast, which may in turn have an impact on groundwater-dependent ecosystems, including the nearshore fisheries, resources, and practices referenced in the applicant’s analysis.

This Ka Pa‘akai analysis identified a number of feasible actions to help mitigate the potential impacts of the existing wells, which include soliciting ongoing feedback from community members; employing a mauka to makai approach to water conservation; supporting community-based efforts to restore watersheds; repairing, replacing, and maintaining existing infrastructure; maintaining and monitoring water quality; and developing alternative water source strategies.

## 8 GLOSSARY OF HAWAIIAN WORDS USED IN THE TEXT

<i>ahupua'a</i>	traditional land division usually extending from the mountains to the sea and encompassing a range of environmental zones that were known and used by the land's early Hawaiian residents. It was "so called because the boundary was marked by a heap (ahu) of stones surmounted by an image of a pig (pua'a), or because a pig or other tribute was laid on the altar as tax to the chief" (Pukui and Elbert 1971:8).
<i>'āina</i>	land
<i>ali'i</i>	chief, individual of chiefly blood
<i>'auwai</i>	ditch, canal
<i>halalu</i>	young akule, <i>Trachurops crumenophthalmus</i>
<i>hanawai</i>	irrigation
<i>hapawai</i>	a shellfish, <i>Theodoxus vespertinus</i>
<i>hā'uke'uke</i>	a type of edible sea urchin; <i>Colobocentrotus atratus</i>
<i>he'e</i>	octopus
<i>heiau</i>	traditional temple or shrine
<i>hīhīwai</i>	an endemic, edible, freshwater and brackish grainy snail, <i>Neritina granosa</i> ; also known as wī if in fresh water; there is a shellfish of the same name
<i>'ili</i>	traditional land division, smaller in size and next in importance to an ahupua'a, usually a subdivision of an ahupua'a
<i>ho'oilina kupapa'u</i>	freshwater burials of maka'āinana
<i>ilina</i>	burial site, grave, tomb, cemetery
<i>iwi kūpuna</i>	ancestral remains
<i>kalana</i>	a land division smaller than a moku; a county
<i>kalo</i>	taro, <i>Colocasia esculenta</i>
<i>kole</i>	surgeonfish, <i>Ctenochaetus strigosus</i>
<i>konohiki</i>	land stewards, sometimes minor ali'i
<i>kula</i>	plain or open country
<i>kūmū</i>	goatfish; <i>Parupeneus porphyreus</i>
<i>kūpe'e</i>	an edible marine snail; <i>Nerita polita</i>
<i>lālākea</i>	whitetip shark, <i>Pterolamiops longimanus</i>

<i>limu</i>	marine and freshwater algae
<i>limu 'ele'ele</i>	<i>Enteromorpha prolifera</i>
<i>limu kohu</i>	<i>Asparagopsis taxiformis</i>
<i>limu līpe 'e</i>	<i>Laurencia</i> sp.
<i>limu līpoa</i>	<i>Dictyopteris pagiogramm</i> and <i>D. australis</i>
<i>limu manauea</i>	<i>Gracilaria coronopifolia</i>
<i>limu wāwae 'iole</i>	<i>Codium edule</i>
<i>maka 'āinana</i>	common people
<i>makai</i>	toward the sea
<i>manini</i>	a common reef surgeonfish; <i>Acanthurus triostegus</i>
<i>manō</i>	shark
<i>mauka</i>	inland
<i>moano</i>	goatfish; <i>Parupeneus multifasciatus</i>
<i>moelua</i>	weke 'ula; <i>Mulloidichthys vanicolensis</i>
<i>moku</i>	district, land section, or island
<i>mo 'o</i>	water spirit or lizard goddess
<i>mo 'okū 'auhau</i>	genealogy
<i>nehu</i>	anchovies, <i>Encrasicholina purpureus</i>
<i>ogo</i>	a limu; <i>Gracilaria parvisipora</i> , sometimes also called manauea
<i>'ōhi 'a 'ai</i>	mountain apple tree, <i>Eugenia malaccensis</i>
<i>'opihi</i>	limpets; <i>Cellana talcosa</i> , <i>C. sandwicensis</i> , <i>C. exarata</i> , and <i>C. melanostoma</i>
<i>'o 'opu</i>	refers to species of fish in the families Eleotridae, Gobiidae, and Blennidae
<i>'o 'opu 'akupa</i>	<i>Eleotris sandwicensis</i>
<i>'opu 'alamo 'o</i>	<i>Lentipes concolor</i>
<i>'o 'opu nākea</i>	<i>Awaous guamensis</i>
<i>'opu naniha</i>	<i>Stenogobius hawaiiensis</i>
<i>'o 'opu nōpili</i>	<i>Sicyopterus stimpsoni</i>

<i>‘ōpae</i>	endemic shrimp
<i>‘ōpae kuahiwi/kala‘ole</i>	<i>Atyoida bisulcata</i>
<i>‘ōpae ‘oeha‘a</i>	<i>Macrobrachium grandimamus</i>
<i>‘ōpelu</i>	Mackerel scad, <i>Decapterus macarellus</i> , <i>pinnulatus</i> and/or <i>D. maruads</i>
<i>‘ōpelu kala</i>	a kala fish staying with ‘ōpula schools; <i>Naso hexacanthus</i>
<i>owama/oama</i>	young weke or goatfish
<i>pāpio</i>	the youngest stage of ‘ulua
<i>‘uala</i>	sweet potato; <i>Ipomoea batatas</i>
<i>‘uhaloa</i>	a medicinal plant; <i>Waltheria indica</i>
<i>‘ulua</i>	carangids; the adult stage of certain species of fish such as Giant Trevally, crevalle, jack, or pompano, in the family of Carangidae
<i>wana</i>	long-spined sea urchins; possibly <i>Diadema paucispinum</i> or <i>Echinothrix diadema</i>
<i>weke</i>	certain species of the Mullidae, surmullets or goatfish. All weke have large scales and are usually found in reefs, sometimes in deep water

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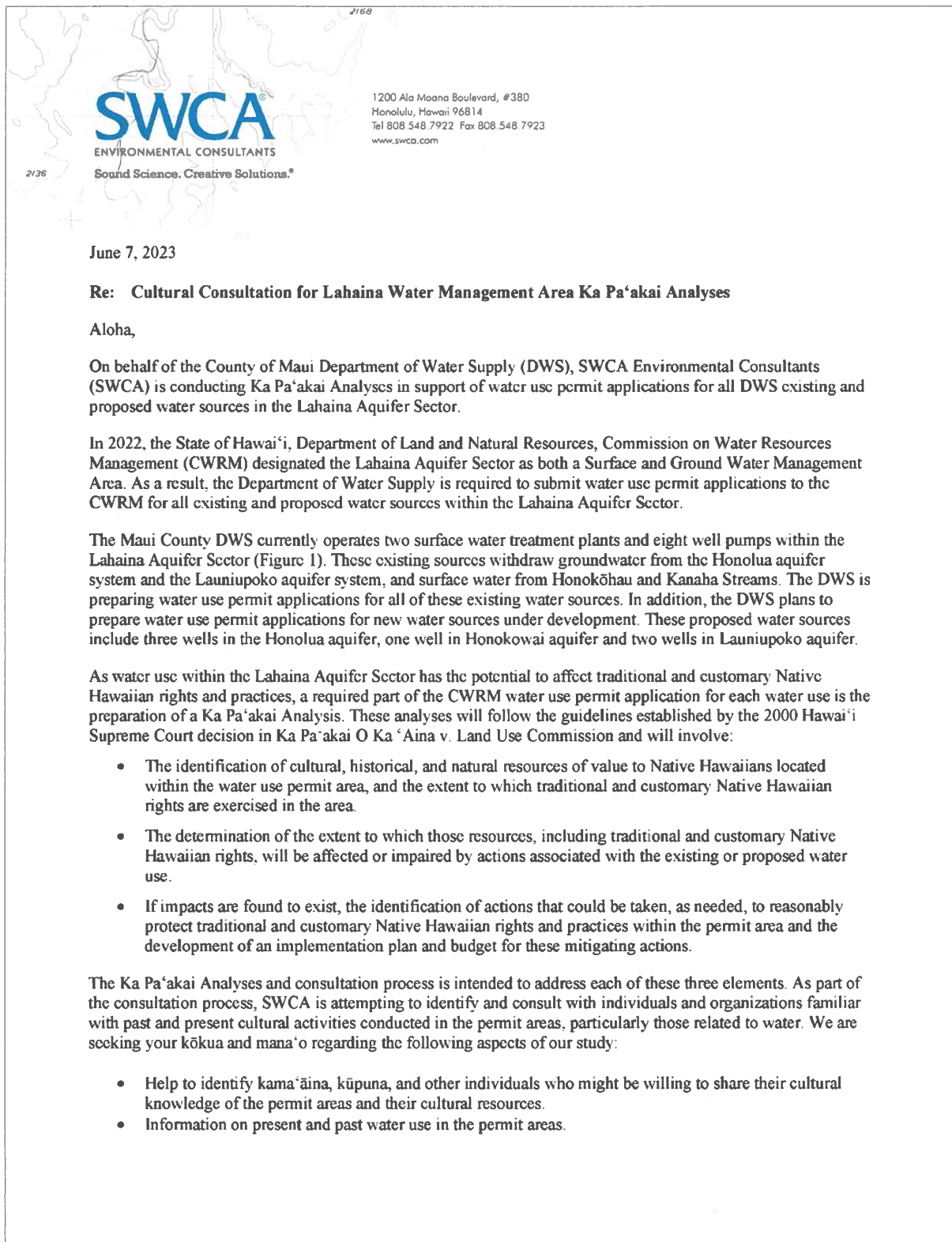
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## **Appendix A**

### **Request for Consultation Letter**



June 7, 2023

**Re: Cultural Consultation for Lahaina Water Management Area Ka Pa'akai Analyses**

Aloha,

On behalf of the County of Maui Department of Water Supply (DWS), SWCA Environmental Consultants (SWCA) is conducting Ka Pa'akai Analyses in support of water use permit applications for all DWS existing and proposed water sources in the Lahaina Aquifer Sector.

In 2022, the State of Hawai'i, Department of Land and Natural Resources, Commission on Water Resources Management (CWRM) designated the Lahaina Aquifer Sector as both a Surface and Ground Water Management Area. As a result, the Department of Water Supply is required to submit water use permit applications to the CWRM for all existing and proposed water sources within the Lahaina Aquifer Sector.

The Maui County DWS currently operates two surface water treatment plants and eight well pumps within the Lahaina Aquifer Sector (Figure 1). These existing sources withdraw groundwater from the Honolua aquifer system and the Launiupoko aquifer system, and surface water from Honokōhau and Kanaha Streams. The DWS is preparing water use permit applications for all of these existing water sources. In addition, the DWS plans to prepare water use permit applications for new water sources under development. These proposed water sources include three wells in the Honolua aquifer, one well in Honokowai aquifer and two wells in Launiupoko aquifer.

As water use within the Lahaina Aquifer Sector has the potential to affect traditional and customary Native Hawaiian rights and practices, a required part of the CWRM water use permit application for each water use is the preparation of a Ka Pa'akai Analysis. These analyses will follow the guidelines established by the 2000 Hawai'i Supreme Court decision in *Ka Pa'akai O Ka 'Aina v. Land Use Commission* and will involve:

- The identification of cultural, historical, and natural resources of value to Native Hawaiians located within the water use permit area, and the extent to which traditional and customary Native Hawaiian rights are exercised in the area.
- The determination of the extent to which those resources, including traditional and customary Native Hawaiian rights, will be affected or impaired by actions associated with the existing or proposed water use.
- If impacts are found to exist, the identification of actions that could be taken, as needed, to reasonably protect traditional and customary Native Hawaiian rights and practices within the permit area and the development of an implementation plan and budget for these mitigating actions.

The Ka Pa'akai Analyses and consultation process is intended to address each of these three elements. As part of the consultation process, SWCA is attempting to identify and consult with individuals and organizations familiar with past and present cultural activities conducted in the permit areas, particularly those related to water. We are seeking your kōkua and mana'o regarding the following aspects of our study:

- Help to identify kama'āina, kūpuna, and other individuals who might be willing to share their cultural knowledge of the permit areas and their cultural resources.
- Information on present and past water use in the permit areas.

- Information on place names and cultural traditions associated with the permit areas.
- Information on cultural resources that may be impacted by water use activities by the DWS.
- Knowledge of traditional gathering practices within the permit area, both past and ongoing.
- Information on any current cultural practices being carried out within the permit areas.
- Any other concerns the community might have related to cultural practices within or in the vicinity of the permit areas.

We appreciate any information you would be willing to share regarding the permit areas and those individuals knowledgeable about its past and present cultural uses. Please contact us at [Wainani.Traub@swca.com](mailto:Wainani.Traub@swca.com) or by phone at (808) 646-6309. We look forward to hearing from you.

Mahalo no kou kōkua 'ana mai,



Wainani Traub  
Assistant Project Anthropologist

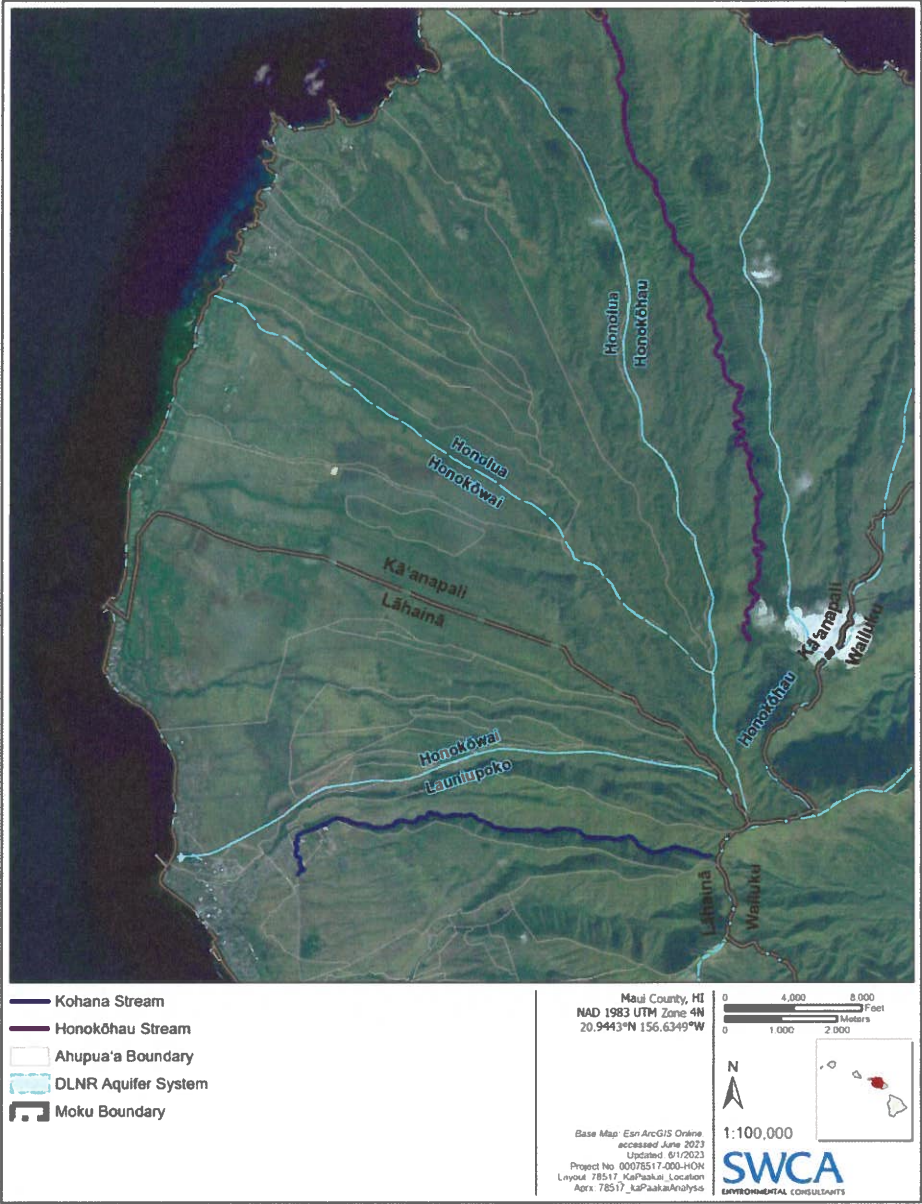


Figure 1. Lahaina Aquifer Sector

*This page intentionally left blank.*

## **APPENDIX D: DEPARTMENT OF HAWAIIAN HOMELANDS DOCUMENTS REFERENCED**

Leialii – Honokōwai Regional Plan (December 2009)

Maui Island Plan (September 2014)

Water Policy Plan (July 2014)

State Water Projects Plan Update (May 2017)

Mahinahina Surface Water Treatment Plant, Honokōwai, Final Beneficiary Consultation  
Report (September 2018)

Honokōwai Master Plan Final Environmental Assessment Anticipated Finding of No  
Significant Impact (February 2022)

*“By Water All Things Find Life”*

# APPENDIX E

## OTHER PERTINENT INFORMATION

### 18. EFFICIENCY

#### MDWS CONSERVATION PLAN

The DWS contracted a consultant to improve and make recommendations to our current DW5 water conservation approach, which currently includes a number of supply-side and demand-side conservation strategies. These strategies are attached and provides savings calculations from various program that are currently underway at the DWS, including programs that may work in the future. These conservation programs are considered based on the special water use contexts and behaviors of Maui residents and businesses, and includes a public outreach component which educates and provides public events to give away free high-efficiency fixtures, toilets, rain barrels and irrigation system components to help home owners save water and money.

## **DWS Conservation Planning**

The County of Maui Department of Water Supply (DWS) conducts a robust water conservation plan, which includes ongoing and planned projects that are categorized as follows:

### **1. Conservation Programs (CP)**

- a. Toilet Replacement Program (dual-flush, ultra-high efficiency, .8/1.28 gpf) - 100% free
- b. Rain Barrel Program (Ivy 50 gal) - 100% free
- c. High efficiency fixture giveaway-100% free
- d. Outdoor irrigation B-Hyve "smart" hose timer giveaway- 100% free

These programs and giveaways are tracked for estimated water savings and have been developed with qualifying rules and guidelines for both our customers and county citizens.

- e. Watershed Protection Grants Program

This grants program has been funding highly specialized organizations who help protect and preserve the County of Maui watersheds from invasive plant and animal species that damages and endangers native Hawaiian ecosystems that critical for recharging water sources and maintaining high water quality.

- f. Public outreach

Every year, the DWS runs water conservation advertisements in various media outlets, at the airport, on public transit, and participates at various public events with a booth to promote our programs, provide informational materials, free program giveaways, and speak directly to the public and answer questions about the DWS water distribution system that people are curious about. We provide information and support for both young and old to learn and participate in water conservation and to help protect our water sources.

The DWS has just concluded its 12<sup>th</sup> Annual Water Conservation Poster Contest and its 6<sup>th</sup> Annual Source Water Protection Video Contest. Over the years, these very successful contests have attracted thousands of grade school and high school participants, and allowed representatives from many different organizations to judge their creative entries. Winners and their schools have received various prizes, which aim to encourage on-going participation and curiosity about what and why water conservation is so important to their future.

Information about the DWS water conservation efforts can also be found here:

<https://waterresources.mauicounty.gov/153/Water-Conservation>

### **2. Conservation Capital Improvement Projects (CCIP)**

As water consumption rises due to urban growth and development, water reuse is on the rise. The DWS is at the forefront of finding ways to apply this practice with maturing technology in

the public space, to help pave the way its expanded use in Maui's commercial and residential space.

a. Greywater reuse systems

The State of Hawaii's first mechanical greywater reuse system installed at Launiupoko Beach Park in Lahaina, Maui. Provides up to 3K-12K per day of reusable water for landscape irrigation, depending on patronage. 3K at 1.1MG savings per year with automatic variable production, and scalable to recycled (R-1) quality if permitted by DOH.

Another ongoing greywater project is at the Kanaha Beach Park in Kahului, Maui. This system provides up to 4-6 times the amount of savings estimated at the recently installed Launiupoko Beach Park Greywater Reuse System. It is currently in Phase 1, Design and Permitting, with Phase 2, Procurement and Construction, scheduled to begin in 2024.

b. Xeriscape outdoor landscaping demonstration project

Xeriscaping promotes native Hawaiian plant species instead of high water-intensity ornamental plants to save water, especially in drier, drought-stricken, areas of Maui. The DWS is preparing to coordinate with the Maui Nui Botanical Gardens in Kahului, Maui, to build a xeriscape demonstration project, which provides the public an opportunity to see and learn about xeriscaping in the different microclimates of Maui.

3. Conservation Strategies (CS)

The DWS continues to investigate other feasible options to save water. These potential options include physical improvements and policy changes that are being explored:

- A Bill for a Water Conservation Ordinance (working draft)
- Xeriscape Improvements (physical incentives via rebate)
- Ordinances New Build (with indoor & outdoor LEED)
- More Efficient Agricultural Irrigation Management
- Actionable Drought & Climate Change Incentives
- Public Outreach to HOAs on Xeriscaping (technical support)
- LEED Water Efficiency Incentive Program (Materials for Residential and Commercial/Resorts)
- Grey Water Residential Program
- SMART Irrigation Controller (zoned irrigation with sprinklers)
- Neighborhood Greywater System Pilot (Centralized Reuse Treatment System)
- Department of Parks and Recreation Irrigation Efficiency Program (30% reduction)
- Commercial Greywater Reuse Pilot (Hotels and Businesses Irrigation)
- Condominium Complex Greywater System Pilot (Bathrooms/Shower/Laundry)
- Large Catchment System for Upcountry and Hana Residents (irrigation and garden)

The County of Maui Department of Water Supply  
Water Conservation  
Water Resources and Planning Division

- Hot Water Recirculators Program
- Residential Laundry to Landscape
- New Build Reuse Systems
- Pool Cover Program
- Hotel Efficient HVAC Program (Laundry to cooling towers)
- New Home Buyer Dual Piping (greywater)
- Agriculture Water Reuse Pilot
- Commercial Laundromat Water Reuse
- Agritecture: Urban and peri-urban horticulture, micro-gardens, hydroponics
- Water audit on all County facilities
- County Properties High Efficiency Fixtures Retrofitting (i.e. Schools and Office)

4. Supply-Side Intervention Strategies (SSIS)

There are several ways that the DWS continues to find ways to conserve water and make its operations more efficient:

a. Water auditing

Under Act 169, SLH 2016, the DWS has completed all mandatory yearly utility water audits that were validated by the Commission of Water Resources Management (CWRM).

b. Leak Detection Program

The DWS has an evolving leak detection program that aims to reduce non-revenue water loss and to help target priority water distribution infrastructure maintenance improvements.

c. Meter Replacement Program

For the past several years, aging service meters have been replaced throughout the DWS service subsystems. This program is also helping DWS and its customers better track usage to reduce water losses faster and more efficiently.

d. Re-using Production Water

The DWS is improving its ability to reuse production water by sending it back to its headworks.

e. Hydraulic Model

In 2023, the DWS will be contracting with a consultant to develop its hydraulic model to assist in estimating and modeling water levels, pressures, flows and velocities in its water distribution system.

f. PRV replacement and pressure monitoring

The DWS continues to improve its awareness to properly adjust PRVs and how to better monitor them to find optimal pressures to reduce water loss.

g. District submetering and master metering

The DWs is exploring ways to better track and analyze water consumption throughout its water distribution systems through district and master metering options.

## APPENDIX F



# Hawaii Water Audit Validation Effort (WAVE)

## FY2022 Validation Document

This document describes a third-party level-one water audit validation for one hydraulically discrete water system.

### Call Information

#### System

Utility Name: Maui DWS  
System Name: Lahaina  
Approximate PWS ID: 214  
Reporting Period: FY 2022  
Count of Service Connections: 3,446 [3,439]  
Miles of Mains: 61.4  
Average Operating Pressure: 58 PSI  
Customer Retail Unit Cost: \$5.16/1,000 gallons  
Variable Production Cost: \$1,102.80  
[\$747.30]/MG

#### Participants

Validator/Support Caller: Neal Fujii / Nicholas Ing  
Validator Qualifications: Equivalent to AWWA CA-NV Validator Certificate  
Utility Participants: Robert De Robles, Edna Manzano  
Call Date: 7/10/2023

### Key Performance Indicators

Indicator	Maui DWS Median*	FY2022 Result (FY2021 Result)	Notes
Cost of Apparent Losses per Connection:			General Comments: Comparing FY2021 with FY2022, Water Supplied increased 148 MG, Authorized Consumption increased 201 MG, Water Loss decreased 52 MG. This water audit produced an unrealistic performance indicator ILI (<1).
Apparent Loss per Conn. per Day:		96 (94) gal/conn/yr	Note that the FY2020 water audit showed negative real losses and the FY2021 water audit showed a low level of real loss leakage.
Cost of Real Losses per Mile of Main:			Due to the inconsistent water audit results from year to year, the validator recommends that MDWS conduct a deeper review of the Water Supplied and the Authorized Consumption volumes used for the Lahaina water audit. This could be accomplished through a Level 2 Water Audit Validation ( <i>Validated water audits have been corroborated with investigations of raw data and archived reports of instrument accuracy. The best sources of data to inform the water audit have been identified.</i> )
Real Loss per Connection per Day:		4 (48) gal/conn/day	
Real Losses per Mile of Main per Day:		N/A gal/mile/day	MDWS staff reported that in FY2022, 2,605 of 3,446 customer meters were replaced for Lahaina (2" or smaller). No leak detection survey performed in Lahaina in FY2022.
Infrastructure Leakage Index:		0.26 (3.33)	

\*Audits presenting unrealistic results have been excluded from summary median calculations.

# System Specific Data Validity Notes

Grade	FY2022 Result	Notes
Volume from Own Sources (VfOS):	5	The Lahaina system is fed by nine wells and two surface water treatment facilities. Well start-up flushing is recorded and deducted from production. Surface water treatment facility operators have noted a difference between raw water intake meter readings and potable effluent meter readings from their facilities in this area due to production needs. The Lahaina system is disconnected from rest of the island so it requires its own independent sources. In this audit period, 48% of Volume from Own Sources is metered because production from wells are based on pump run time, while WTP production is based on flow meters. MDWS should review the VfOS data to understand the accuracy of the methods of measurement and the potential for data handling errors. Note that the Lahaina system has a North and a South service area withing the distribution system which is interconnected by a 16" transmission line which <i>may</i> be metered. MDWS staff believes that there is little water interdependency between the North and South sections.
VfOS Master Meter and Supply Error Adj:	3	System operational practices do not differ from county operational practices.
Water Imported (WI):	n/a	-
WI Master Meter and Supply Error Adj:	n/a	-
Water Exported (WE):	n/a	-
WE Master Meter and Supply Error Adj:	n/a	-
Billed Metered Authorized Consumption:	7	Most of the customers in the Lahaina system are residential with very few agricultural users. There are hotels and commercial properties that use large volumes of water. Customer meters in Lahaina were installed between 1997 – 2003. Meter replacement project (using AMR meters) is ongoing in Lahaina. In FY2021 MDWS replaced 228 meters. In 2022 MDWS replaced 2,605 small meters (2" or smaller). DVG is limited by reactive customer meter testing.
Billed Unmetered Authorized Consumption:	n/a	There are no billed unmetered customers. System operational practices do not differ from county operational practices.
Unbilled Metered Authorized Consumption:	n/a	This field left blank since this volume is not known for this audit period. System operational practices do not differ from county operational practices.
Unbilled Unmetered Authorized Consumption:	5	There may be some exceptional operational uses in the Lahaina system that have not been included in the volume entered in the water audit.
Unauthorized Consumption:	5	System operational practices do not differ from county operational practices.
Customer Metering Inaccuracies:	5	System operational practices do not differ from county operational practices.
Systematic Data Handling Errors:	5	System operational practices do not differ from county operational practices.
Length of Mains:	5	System operational practices do not differ from county operational practices.
Number of Service Connections:	5	System operational practices do not differ from county operational practices. This number decreased by 4 compared with previous audit period.
Average Length of Customer Service Line:	10	-

Average Operating Pressure:	3	System operational practices do not differ from county operational practices. The system is gravity fed from high elevation sources (Mahinahina WTF is at a high elevation), using PRVs to step-down pressure.
Annual Operating Cost:	10	System operational practices do not differ from county operational practices.
Customer Retail Unit Cost:	9	System operational practices do not differ from county operational practices.
Variable Production Cost:	5	System operational practices do not differ from county operational practices.
Overall Score:	57	A score in the range of 50-75 indicates a priority for data management refinement, business process analysis, and consideration of loss control intervention.

---

\*Additional detail can be found in the county-wide operational practices follow up document.

#### Past Year's Activity: System

##### Data Management

- Meter replacement project (using AMR meters) is ongoing in Lahaina. In FY2022, 2,605 of 3,446 customer meters were replaced for Lahaina (2" or smaller).

##### Loss Recovery

- See island-wide summary document.

#### Opportunities: System

##### Data Management

- Meter replacement project is ongoing in Lahaina.

##### Loss Recovery

- See island-wide summary document – there are no specific opportunities to note for this system.

Validator Signature: \_\_\_\_\_



Name: Neal Fujii

Utility Executive Signature: \_\_\_\_\_

Name: \_\_\_\_\_

# AWWA Free Water Audit Software v5.0

American Water Works Association Copyright © 2014, All Rights Reserved

This spreadsheet-based water audit tool is designed to help quantify and track water losses associated with water distribution systems and identify areas for improved efficiency and cost recovery. It provides a "top-down" summary water audit format, and is not meant to take the place of a full-scale, comprehensive water audit format.

Auditors are strongly encouraged to refer to the most current edition of AWWA M36 Manual for Water Audits for detailed guidance on the water auditing process and targeting loss reduction levels

The spreadsheet contains several separate worksheets. Sheets can be accessed using the tabs towards the bottom of the screen, or by clicking the buttons below.

## Please begin by providing the following information

Name of Contact Person:	Robert De Robles / Edna Manzano		
Email Address:	robert.derobles@co.mau.hi.us / edna.manzano@co.mau.hi.us		
Telephone   Ext.:	8084633110	3113 / 3108	
Name of City / Utility:	LAHAINA		
City/Town/Municipality:	Maui County DWS		
State / Province:	Hawaii (HI)		
Country:	USA		
Year:	2022	Financial Year	
Start Date:	07/2021	Enter MMYYYY numeric format	
End Date:	06/2022	Enter MMYYYY numeric format	
Audit Preparation Date:	3/15/2021		
Volume Reporting Units:	Million gallons (US)		
PWSID / Other ID:	214		

## The following guidance will help you complete the Audit

All audit data are entered on the **Reporting Worksheet**  
Value can be entered by user  
Value calculated based on input data  
These cells contain recommended default values

Use of Option (Radio) Buttons: Pcnt: 0.25% Value:

Select the default percentage by choosing the option button on the left  
To enter a value, choose this button and enter a value in the cell to the right

The following worksheets are available by clicking the buttons below or selecting the tabs along the bottom of the page

### Instructions

The current sheet. Enter contact information and basic audit details (year, units etc)

### Reporting Worksheet

Enter the required data on this worksheet to calculate the water balance and data grading

### Comments

Enter comments to explain how values were calculated or to document data sources

### Performance Indicators

Review the performance indicators to evaluate the results of the audit

### Water Balance

The values entered in the Reporting Worksheet are used to populate the Water Balance

### Dashboard

A graphical summary of the water balance and Non-Revenue Water components

### Grading Matrix

Presents the possible grading options for each input component of the audit

### Service Connection Diagram

Diagrams depicting possible customer service connection line configurations

### Definitions

Use this sheet to understand the terms used in the audit process

### Loss Control Planning

Use this sheet to interpret the results of the audit validity score and performance indicators

### Example Audits

Reporting Worksheet and Performance Indicators examples are shown for two validated audits

### Acknowledgements

Acknowledgements for the AWWA Free Water Audit Software v5.0

If you have questions or comments regarding the software please contact us via email at: [wlc@awwa.org](mailto:wlc@awwa.org)



# AWWA Free Water Audit Software: Reporting Worksheet

WAS v5.0

American Water Works Association  
Copyright © 2014. All Rights Reserved.Water Audit Report for: **LAHAINA (214)**Reporting Year: **2022** **7/2021 - 6/2022**

Please enter data in the white cells below. Where available, metered values should be used; if metered values are unavailable please estimate a value. Indicate your confidence in the accuracy of the input data by grading each component (n/a or 1-10) using the drop-down list to the left of the input cell. Hover the mouse over the cell to obtain a description of the grades

**All volumes to be entered as: MILLION GALLONS (US) PER YEAR**

To select the correct data grading for each input, determine the highest grade where the utility meets or exceeds all criteria for that grade and all grades below it.

**Master Meter and Supply Error Adjustments****WATER SUPPLIED**

&lt;----- Enter grading in column 'E' and 'J' -----&gt;

Volume from own sources:   MG/Yr  
Water imported:   MG/Yr  
Water exported:   MG/Yr

Pcnt:   MG/Yr  
  MG/Yr  
  MG/Yr

Enter negative % or value for under-registration  
Enter positive % or value for over-registration

**WATER SUPPLIED:**  MG/Yr**AUTHORIZED CONSUMPTION**

Billed metered:   MG/Yr  
Billed unmetered:   MG/Yr  
Unbilled metered:   MG/Yr  
Unbilled unmetered:   MG/Yr

**AUTHORIZED CONSUMPTION:**  MG/Yr

Click here:  for help using option buttons below  
Pcnt:   MG/Yr

Use buttons to select percentage of water supplied OR value

**WATER LOSSES (Water Supplied - Authorized Consumption)** MG/Yr**Apparent Losses**Unauthorized consumption:  MG/Yr

Default option selected for unauthorized consumption - a grading of 5 is applied but not displayed

Customer metering inaccuracies:   MG/Yr  
Systematic data handling errors:   MG/Yr

Default option selected for Systematic data handling errors - a grading of 5 is applied but not displayed

**Apparent Losses:**  MG/Yr

Pcnt:   MG/Yr  
  MG/Yr  
  MG/Yr

**Real Losses (Current Annual Real Losses or CARL)**Real Losses = Water Losses - Apparent Losses:  MG/Yr**WATER LOSSES:**  MG/Yr**NON-REVENUE WATER****NON-REVENUE WATER:**  MG/Yr

= Water Losses + Unbilled Metered + Unbilled Unmetered

**SYSTEM DATA**

Length of mains:   miles  
Number of active AND inactive service connections:    
Service connection density:   conn./mile main

Are customer meters typically located at the curbside or property line? Average length of customer service line:  ft (length of service line, beyond the property boundary, that is the responsibility of the utility)

Average length of customer service line has been set to zero and a data grading score of 10 has been applied

Average operating pressure:   psi**COST DATA**

Total annual cost of operating water system:   \$/Year  
Customer retail unit cost (applied to Apparent Losses):   \$/1000 gallons (US)  
Variable production cost (applied to Real Losses):   \$/Million gallons ☐ Use Customer Retail Unit Cost to value real losses

**WATER AUDIT DATA VALIDITY SCORE:**

\*\*\* YOUR SCORE IS: 59 out of 100 \*\*\*

A weighted scale for the components of consumption and water loss is included in the calculation of the Water Audit Data Validity Score

**PRIORITY AREAS FOR ATTENTION:**

Based on the information provided, audit accuracy can be improved by addressing the following components:

1: Volume from own sources

2: Customer metering inaccuracies

3: Variable production cost (applied to Real Losses)



AWWA Free Water Audit Software:  
System Attributes and Performance Indicators

WAS v5.0  
American Water Works Association  
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Water Audit Report for: LAHAINA (214)

Reporting Year: 2022 7/2021 - 6/2022

\*\*\* YOUR WATER AUDIT DATA VALIDITY SCORE IS: 59 out of 100 \*\*\*

System Attributes:

Apparent Losses:	120.635	MGYr
+	4.652	MGYr
=	125.287	MGYr
Unavoidable Annual Real Losses (UARL):	17.97	MGYr
Annual cost of Apparent Losses:	\$622,478	
Annual cost of Real Losses:	\$5,130	Valued at Variable Production Cost

Return to Reporting Worksheet to change this assumption

Performance Indicators:

Financial:



Non-revenue water as percent by volume of Water Supplied:

6.4%

Non-revenue water as percent by cost of operating system:

9.2%

Real Losses valued at Variable Production Cost

Operational Efficiency:



Apparent Losses per service connection per day:

95.91

gallons/connection/day

Real Losses per service connection per day:

3.70

gallons/connection/day

Real Losses per length of main per day\*:

N/A

Real Losses per service connection per day per psi pressure:

0.06

gallons/connection/day/psi

From Above, Real Losses = Current Annual Real Losses (CARL):

4.65

million gallons/year

Infrastructure Leakage Index (ILI) [CARL/UARL]:

0.26

\* This performance indicator applies for systems with a low service connection density of less than 32 service connections/mile of pipeline



# AWWA Free Water Audit Software: Water Balance

WAS v5.0  
American Water Works Association  
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Water Audit Report for: LAHAINA (214)							
Reporting Year: 2022			7/2021 - 6/2022				
Data Validity Score: 59							
Own Sources (Adjusted for known errors)	Water Exported 0.000	Authorized Consumption 1,908.683	Billed Authorized Consumption 1,903.598	Billed Water Exported		Revenue Water 0.000	
				Billed Metered Consumption (water exported is removed)		Revenue Water	
				1,903.598		1,903.598	
				Billed Unmetered Consumption		0.000	
				Unbilled Metered Consumption		0.000	
	System Input 2,033.970	Water Supplied 2,033.970	Apparent Losses 120.635	Unbilled Unmetered Consumption		Non-Revenue Water (NRW) 130.372	
				5.085			
				Unauthorized Consumption			5.085
				Customer Metering Inaccuracies			110.791
				Systematic Data Handling Errors			4.759
Water Imported 0.000	Water Losses 125.287	Real Losses 4.652	Leakage on Transmission and/or Distribution Mains		Leakage on Service Connections Not broken down		
			Not broken down				
			Leakage and Overflows at Utility's Storage Tanks				
			Not broken down				



# AWWA Free Water Audit Software:

## Dashboard

WAS v5.0  
American Water Works Association  
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The graphic below is a visual representation of the Water Balance with bar heights proportional to the volume of the audit components

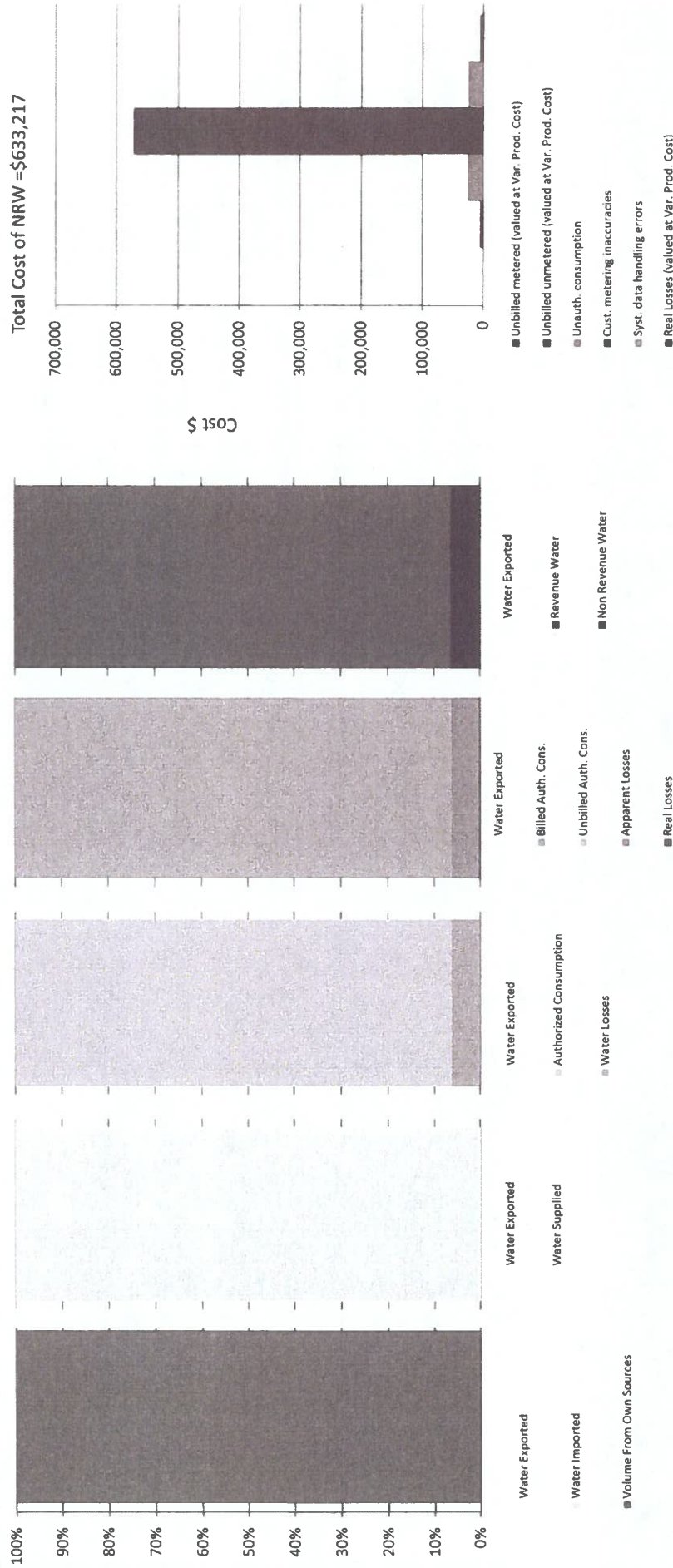
### Water Audit Report for: LAHAINA (214)

Reporting Year: 2022

7/2021 - 6/2022

Data Validity Score: 59

☐ Show me the VOLUME of Non-Revenue Water  
☒ Show me the COST of Non-Revenue Water



# APPENDIX G

## 21. TABLE 4: 12-MONTH AVERAGE CALCULATION AS OF THE DATE OF DESIGNATION

County of Maui

Department of Water Supply

Monthly Source Report (Lahaina and Honokahau)

1000gal

WELL NAME	Aquifer System	Aug-21	Sep-21	Oct-21	Nov-21	Dec-21	Jan-22	Feb-22	Mar-22	Apr-22	May-22	Jun-22	Jul-22	Current Year
<b>Lahaina</b>														
Kanaha 575	Launiupoko	7,867	5,256	2,863	3,773	2,060	1,343	4,892	9,277	5,233	5,511	7,210	2,261	57,546
Kanaha 576	Launiupoko	8,467	3,062	3,485	3,631	1,235	754	1,979	6,866	1,616	4,443	922	711	37,171
Waipuka 559	Launiupoko	10,303	9,549	9,192	7,866	3,511	2,790	3,943	6,448	7,571	6,672	3,958	552	72,355
Waipuka 560	Launiupoko	10,126	8,434	6,495	5,463	1,101	625	5,406	11,427	7,151	7,675	7,528	2,178	73,609
Napili A 569	Honolua	542	265	392	1,071	144	83	309	20,766	2,319	2,103	174	594	28,762
Napili B 570	Honolua	14,367	25,523	24,046	21,917	18,217	19,448	21,897	25,536	13,624	15,077	18,024	11,264	228,940
Napili C 571	Honolua	43,711	9,073	5,169	11,339	8,677	6,739	2,449	5,105	17,925	21,761	34,096	37,638	203,682
Honokahua A 572	Honolua	0	0	0	0	0	0	0	0	0	0	0	0	0
Honokahua B 573	Honolua	29,716	28,960	28,904	22,613	19,368	20,724	23,691	26,905	9,016	10,997	3,483	12,734	237,111
DAILY AVERAGE		4,035	3,004	2,598	2,589	1,752	1,694	2,306	3,624	2,149	2,395	2,513	2,191	30,850
LANIUPOKO WELL FIELD MONTHLY		36,763	26,301	22,035	20,733	7,907	5,512	16,219	34,018	21,571	24,301	19,618	5,702	240,680
LANIUPOKO WELL FIELD (1000 GPD)		1,186	877	711	691	255	178	579	1,097	719	784	654	184	659.57

## #21. TABLE 4: 12-MONTH AVERAGE CALCULATION AS OF THE DATE OF DESIGNATION FOR LANIUPOKO WELL FIELD

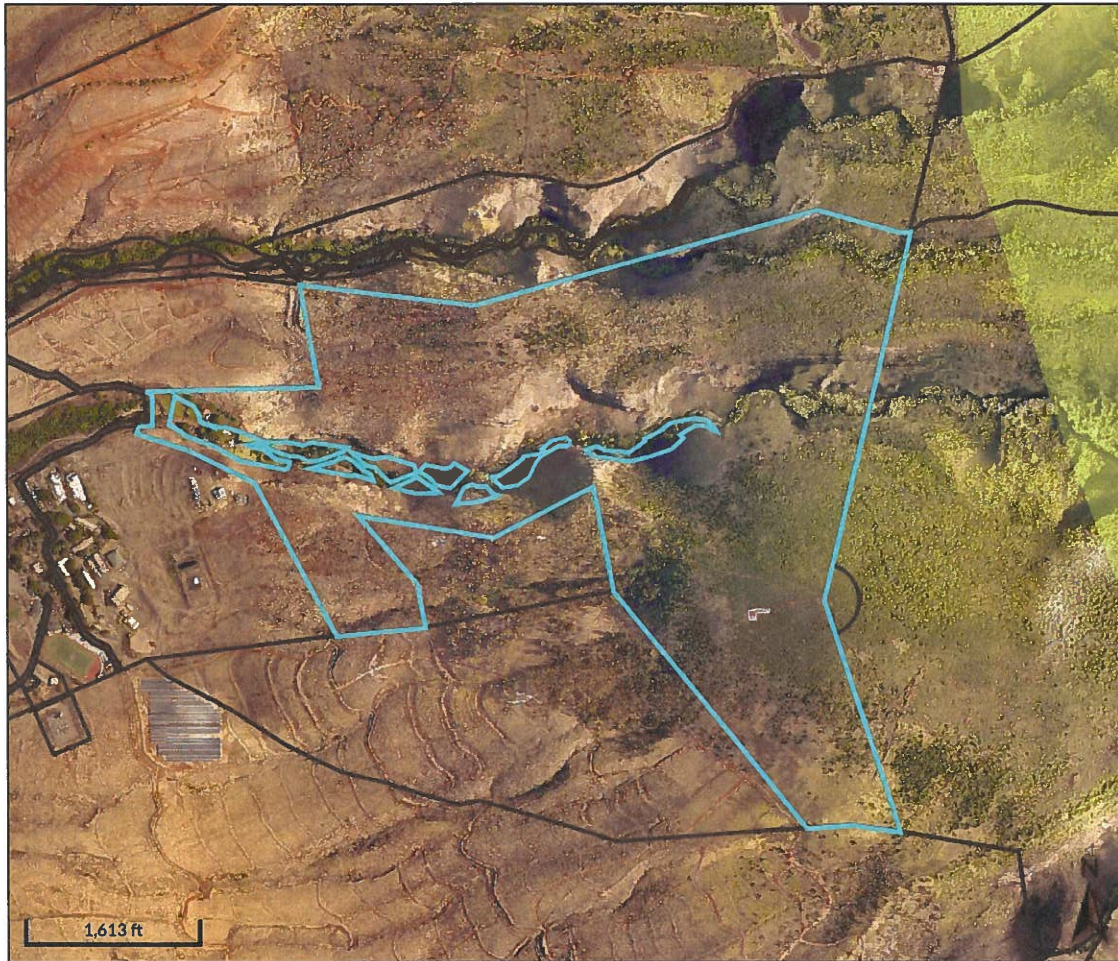
MM/YY	AVERAGE DAILY (GPD)	Metered	Estimated	Active but unknown	Inactive
8/21	1,185,903	x			
9/21	876,700	x			
10/21	710,806	x			
11/21	691,100	x			
12/21	255,065	x			
1/22	177,806	x			
2/22	579,242	x			
3/22	1,097,358	x			
4/22	719,033	x			
5/22	783,903	x			
6/22	653,933				
7/22	183,935				
12 MONTH AVERAGE	659,566				

# APPENDIX H

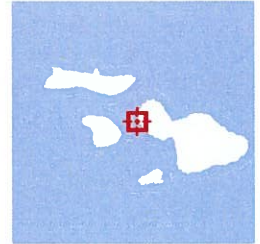
(1 OF 2)



## Kanaha 1 575 Well Parcel - TMK 4-6-018:007



Overview



Legend

 Parcels

Parcel ID	460180070000	Situs/Physical Address	PANAWEA, LAHAINA	Assd Land Value	\$558,200	Last 2 Sales			
Acreage	387.804	Mailing Address	STATE OF HAWAII	Assd Building Value	\$0	Date	Price	Reason	Qual
Class	AGRICULTURAL; CONSERVATION					2/22/1996	0	n/a	U
						1/31/1989	0	n/a	U
				Total Assd Value	\$558,200				
				Exempt Value	\$558,200				
				Taxable Value	\$0				

Brief Tax Description n/a

(Note: Not to be used on legal documents)

Date created: 7/11/2023

Last Data Uploaded: 7/11/2023 7:36:51 AM

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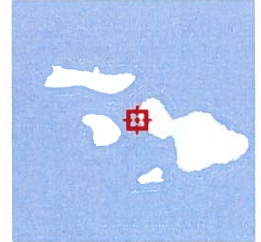
# APPENDIX H (2 OF 2)



## Kanaha 2 576 Well Parcel - TMK 4-6-018:012



Overview



Legend

☐ Parcels

Parcel ID	460180120000	Situs/Physical Address	980 LAHAINALUNA RD	Assd Land Value	\$1,172,300	Last 2 Sales Date	2/22/1996	Price	0	Reason	n/a	Qual	U
Acreage	86.837	Mailing Address	STATE OF HAWAII	Assd Building Value	\$17,725,600		n/a	0	0	n/a	n/a	n/a	
Class	NON-OWNER-OCCUPIED/RESIDENTIAL			Total Assd Value	\$18,897,900								
				Exempt Value	\$18,897,900								
				Taxable Value	\$0								

Brief Tax Description n/a

(Note: Not to be used on legal documents)

Date created: 7/9/2023

Last Data Uploaded: 7/9/2023 7:39:12 AM

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