

Area Label	Inlet No.	C	Area		*T _c	I ₁₀	Correction Factor	I ₁₀	Q _(INC)	Q _(DP)	Discharge Point No.	Discharge Point Name	Discharge Point Location		Receiving Water Classification
			(SF)	(ac)	(min)	From NOAA		(in/hr)	(cfs)				Lat.	Long.	
1-0	N/A	0.9	49174.65	1.129	10	1.11	2.4	2.66	2.71	43.74	1	Unnamed Irrigation Ditch (Tributary of Kalialinui Gulch)	20.885003	-156.416362	Class 2, Inland
1-1	1-1	0.9	313519.44	7.197	10	1.11	2.4	2.66	17.26						
N/A	1-2	0.9	0.00	0.000	10	1.11	2.4	2.66	0.00						
1-3	1-3	0.9	5091.31	0.117	10	1.11	2.4	2.66	0.28						
1-4	1-4	0.9	8811.97	0.202	10	1.11	2.4	2.66	0.49						
1-5	1-5	0.9	942.34	0.022	10	1.11	2.4	2.66	0.05						
1-6	1-6	0.9	9360.04	0.215	10	1.11	2.4	2.66	0.52						
1-7	1-7	0.9	9422.35	0.216	10	1.11	2.4	2.66	0.52						
1-8	1-8	0.9	7831.90	0.180	10	1.11	2.4	2.66	0.43						
1-9	1-9	0.9	12328.37	0.283	10	1.11	2.4	2.66	0.68						
1-9a	1-9a	1.9	40158.77	0.922	10	1.11	2.4	2.66	4.67						
1-10	1-10	0.9	12210.10	0.280	10	1.11	2.4	2.66	0.67						
1-11	1-11	0.9	4734.88	0.109	10	1.11	2.4	2.66	0.26						
1-12	1-12	0.9	8171.37	0.188	10	1.11	2.4	2.66	0.45						
1-13	1-13	0.9	131736.43	3.024	10	1.11	2.4	2.66	7.25						
1-14	1-14	0.9	9956.58	0.229	10	1.11	2.4	2.66	0.55						
1-15	1-15	0.9	12294.93	0.282	10	1.11	2.4	2.66	0.68						
1-16	1-16	0.9	11950.16	0.274	10	1.11	2.4	2.66	0.66						
1-17	1-17	0.9	11759.18	0.270	10	1.11	2.4	2.66	0.65						
1-18	1-18	0.9	9732.47	0.223	10	1.11	2.4	2.66	0.54						
1-19	1-19	0.9	11956.68	0.274	10	1.11	2.4	2.66	0.66						
1-20	1-20	0.9	12095.13	0.278	10	1.11	2.4	2.66	0.67						
1-21	1-21	0.9	11516.49	0.264	10	1.11	2.4	2.66	0.63						
1-22	1-22	0.9	11495.01	0.264	10	1.11	2.4	2.66	0.63						
1-23	1-23	0.9	9712.31	0.223	10	1.11	2.4	2.66	0.53						
1-24	1-24	0.9	7599.87	0.174	10	1.11	2.4	2.66	0.42						
1-25	1-25	0.9	16551.55	0.380	10	1.11	2.4	2.66	0.91						
2-1	N/A	0.9	380216.72	8.729	10	1.11	2.4	2.66	20.93	20.93	2A	Unnamed Irrigation Ditch (Tributary of Keahua Stream)	20.877387	-156.402480	Class 2, Inland
									2B	20.877362	-156.402730				
3-1	N/A	0.9	2295.12	0.053	10	1.11	2.4	2.66	0.13	0.13	3	Unnamed Irrigation Ditch (Tributary of Keahua Stream)	20.877424	-156.402259	Class 2, Inland
4-0	N/A	0.9	128970.57	2.961	10	1.11	2.4	2.66	7.10	31.80	4A	Unnamed Irrigation Ditch (Tributary of Keahua Stream)	20.877460	-156.402078	Class 2, Inland
4-1	4-1	0.9	7271.38	0.167	10	1.11	2.4	2.66	0.40						
4-2	4-2	0.9	11979.28	0.275	10	1.11	2.4	2.66	0.66						
4-3	4-3	0.9	12351.14	0.284	10	1.11	2.4	2.66	0.68						
4-4	4-4	0.9	10940.84	0.251	10	1.11	2.4	2.66	0.60						
4-5	4-5	0.9	6978.40	0.160	10	1.11	2.4	2.66	0.38						
4-6	4-6	0.9	57213.88	1.313	10	1.11	2.4	2.66	3.15						
4-7	4-7	0.9	10479.84	0.241	10	1.11	2.4	2.66	0.58						
4-8	4-8	0.9	10895.28	0.250	10	1.11	2.4	2.66	0.60						
4-9	4-9	0.9	69920.23	1.605	10	1.11	2.4	2.66	3.85						
4-10	4-10	0.9	10625.59	0.244	10	1.11	2.4	2.66	0.58						
4-11	4-11	0.9	10696.62	0.246	10	1.11	2.4	2.66	0.59						
4-12	4-12	0.9	10867.85	0.249	10	1.11	2.4	2.66	0.60						
4-13	4-13	0.9	70425.25	1.617	10	1.11	2.4	2.66	3.88						
4-14	4-14	0.9	21876.86	0.502	10	1.11	2.4	2.66	1.20						

Attachment A-5 Drainage Area Calculations

4-15	4-15	0.9	10833.63	0.249	10	1.11	2.4	2.66	0.60	4B	20.877480	-156.401872			
4-16	4-16	0.9	8263.76	0.190	10	1.11	2.4	2.66	0.45						
4-17	4-17	0.9	33520.36	0.770	10	1.11	2.4	2.66	1.85						
4-18	4-18	0.9	8453.69	0.194	10	1.11	2.4	2.66	0.47						
4-19	4-19	0.9	7307.09	0.168	10	1.11	2.4	2.66	0.40						
4-20	4-20	0.9	9704.64	0.223	10	1.11	2.4	2.66	0.53						
4-21	4-21	0.9	2049.27	0.047	10	1.11	2.4	2.66	0.11						
4-22	4-22	0.9	8492.63	0.195	10	1.11	2.4	2.66	0.47						
4-23	4-23	0.9	8484.01	0.195	10	1.11	2.4	2.66	0.47						
4-24	4-24	0.9	8438.89	0.194	10	1.11	2.4	2.66	0.46						
4-25	4-25	0.9	20738.25	0.476	10	1.11	2.4	2.66	1.14						
5-0	N/A	0.9	1760.91	0.040	10	1.11	2.4	2.66	0.10				0.10	5	Unnamed Irrigation Ditch (Tributary of Keahua Stream)
6-0	N/A	0.9	19286.41	0.443	10	1.11	2.4	2.66	1.06	1.06	6A	Unnamed Irrigation Ditch (Tributary of Keahua Stream)	20.871773	-156.392196	Class 2, Inland
											6B		20.871899	-156.392554	
7-0	N/A	0.9	325659.53	7.476	10	1.11	2.4	2.66	17.92	17.92	7	Unnamed Irrigation Ditch (Tributary of Keahua Stream)	20.871202	-156.392163	Class 2, Inland
8-0	N/A	0.9	148413.16	3.407	10	1.11	2.4	2.66	8.17	24.67	8A	Unnamed Irrigation Ditch (Tributary of Keahua Stream)	20.871609	-156.392033	Class 2, Inland
8-1	8-1	0.9	9816.52	0.225	10	1.11	2.4	2.66	0.54						
8-2	8-2	0.9	12278.09	0.282	10	1.11	2.4	2.66	0.68						
8-3	8-3	0.9	11780.45	0.270	10	1.11	2.4	2.66	0.65						
8-4	8-4	0.9	11283.10	0.259	10	1.11	2.4	2.66	0.62						
8-5	8-5	0.9	37136.87	0.853	10	1.11	2.4	2.66	2.04						
8-6	8-6	0.9	11234.15	0.258	10	1.11	2.4	2.66	0.62						
8-7	8-7	0.9	11076.88	0.254	10	1.11	2.4	2.66	0.61						
8-8	8-8	0.9	107330.49	2.464	10	1.11	2.4	2.66	5.91						
8-9	8-9	0.9	10620.52	0.244	10	1.11	2.4	2.66	0.58						
8-10	8-10	0.9	11971.08	0.275	10	1.11	2.4	2.66	0.66						
8-11	8-11	0.9	10655.41	0.245	10	1.11	2.4	2.66	0.59						
8-12	8-12	0.9	8099.38	0.186	10	1.11	2.4	2.66	0.45						
8-13	8-13	0.9	9811.44	0.225	10	1.11	2.4	2.66	0.54						
8-14	8-14	0.9	8306.82	0.191	10	1.11	2.4	2.66	0.46						
8-15	8-15	0.9	8387.60	0.193	10	1.11	2.4	2.66	0.46						
8-16	8-16	0.9	8434.95	0.194	10	1.11	2.4	2.66	0.46						
8-17	8-17	0.9	8507.08	0.195	10	1.11	2.4	2.66	0.47						
8-18	8-18	0.9	3078.97	0.071	10	1.11	2.4	2.66	0.17						
9-0	N/A	0.9	299128.51	6.867	10	1.11	2.4	2.66	16.46	16.46	9	Lowrie Ditch (Tributary of Pukalani Stream)	20.867114	-156.380683	Class 2, Inland
10-0	N/A	0.9	10607.98	0.244	10	1.11	2.4	2.66	0.58	0.58	10	Lowrie Ditch (Tributary of Pukalani Stream)	20.867227	-156.380546	Class 2, Inland
11-0	N/A	0.9	17160.21	0.394	10	1.11	2.4	2.66	0.94	0.94	11	Lowrie Ditch (Tributary of Pukalani Stream)	20.867372	-156.380508	Class 2, Inland
12-0	N/A	0.9	175328.68	4.025	10	1.11	2.4	2.66	9.65						
12-1	12-1	0.9	1404.44	0.032	10	1.11	2.4	2.66	0.08						
12-2	12-2	0.9	9517.45	0.218	10	1.11	2.4	2.66	0.52						
12-3	12-3	0.9	0.00	0.000	10	1.11	2.4	2.66	0.00						

12-4	12-4	0.9	9785.30	0.225	10	1.11	2.4	2.66	0.54	63.49	12	Lowrie Ditch (Tributary of Pukalani Stream)	20.867848	-156.380058	Class 2, Inland
12-5	12-5	0.9	9598.40	0.220	10	1.11	2.4	2.66	0.53						
12-6	12-6	0.9	9592.53	0.220	10	1.11	2.4	2.66	0.53						
12-7	12-7	0.9	9622.56	0.221	10	1.11	2.4	2.66	0.53						
12-8	12-8	0.9	11927.10	0.274	10	1.11	2.4	2.66	0.66						
12-9	12-9	0.9	11860.37	0.272	10	1.11	2.4	2.66	0.65						
12-10	12-10	0.9	8959.43	0.206	10	1.11	2.4	2.66	0.49						
12-11	12-11	0.9	9805.10	0.225	10	1.11	2.4	2.66	0.54						
12-12	12-12	0.9	9164.87	0.210	10	1.11	2.4	2.66	0.50						
12-13	12-13	0.9	12008.85	0.276	10	1.11	2.4	2.66	0.66						
12-14	12-14	0.9	12122.51	0.278	10	1.11	2.4	2.66	0.67						
12-15	12-15	0.9	11054.44	0.254	10	1.11	2.4	2.66	0.61						
12-16	12-16	0.9	112894.11	2.592	10	1.11	2.4	2.66	6.21						
12-17	12-17	0.9	9458.20	0.217	10	1.11	2.4	2.66	0.52						
12-18	12-18	0.9	9866.74	0.227	10	1.11	2.4	2.66	0.54						
12-19	12-19	0.9	9913.58	0.228	10	1.11	2.4	2.66	0.55						
12-20	12-20	0.9	12109.79	0.278	10	1.11	2.4	2.66	0.67						
12-21	12-21	0.9	10776.34	0.247	10	1.11	2.4	2.66	0.59						
12-22	12-22	0.9	11142.11	0.256	10	1.11	2.4	2.66	0.61						
12-23	12-23	0.9	76742.24	1.762	10	1.11	2.4	2.66	4.22						
12-24	12-24	0.9	6308.03	0.145	10	1.11	2.4	2.66	0.35						
12-25	12-25	0.9	7668.32	0.176	10	1.11	2.4	2.66	0.42						
12-26	12-26	0.9	11985.33	0.275	10	1.11	2.4	2.66	0.66						
12-27	12-27	0.9	10883.93	0.250	10	1.11	2.4	2.66	0.60						
12-28	12-28	0.9	155695.43	3.574	10	1.11	2.4	2.66	8.57						
12-29	12-29	0.9	10858.77	0.249	10	1.11	2.4	2.66	0.60						
12-30	12-30	0.9	10862.67	0.249	10	1.11	2.4	2.66	0.60						
12-31	12-31	0.9	10711.57	0.246	10	1.11	2.4	2.66	0.59						
12-32	12-32	0.9	10635.31	0.244	10	1.11	2.4	2.66	0.59						
12-33	12-33	0.9	10473.33	0.240	10	1.11	2.4	2.66	0.58						
12-34	12-34	0.9	12247.63	0.281	10	1.11	2.4	2.66	0.67						
12-35	12-35	0.9	9713.65	0.223	10	1.11	2.4	2.66	0.53						
12-36	12-36	0.9	6222.82	0.143	10	1.11	2.4	2.66	0.34						
12-37	12-37	0.9	2472.23	0.057	10	1.11	2.4	2.66	0.14						
12-38	12-38	0.9	11868.58	0.272	10	1.11	2.4	2.66	0.65						
12-39	12-39	0.9	11292.99	0.259	10	1.11	2.4	2.66	0.62						
12-40	12-40	0.9	9963.90	0.229	10	1.11	2.4	2.66	0.55						
12-41	12-41	0.9	11356.42	0.261	10	1.11	2.4	2.66	0.63						
12-42	12-42	0.9	5513.81	0.127	10	1.11	2.4	2.66	0.30						
12-43	12-43	0.9	21806.68	0.501	10	1.11	2.4	2.66	1.20						
12-44	12-44	0.9	11061.57	0.254	10	1.11	2.4	2.66	0.61						
12-45	12-45	0.9	33408.79	0.767	10	1.11	2.4	2.66	1.84						
12-46	12-46	0.9	10823.12	0.248	10	1.11	2.4	2.66	0.60						
12-47	12-47	0.9	9082.31	0.209	10	1.11	2.4	2.66	0.50						
12-48	12-48	0.9	10119.33	0.232	10	1.11	2.4	2.66	0.56						
12-49	12-49	0.9	35320.83	0.811	10	1.11	2.4	2.66	1.94						
12-50	12-50	0.9	9283.75	0.213	10	1.11	2.4	2.66	0.51						
12-51	12-51	0.9	7628.19	0.175	10	1.11	2.4	2.66	0.42						
12-52	12-52	0.9	7770.03	0.178	10	1.11	2.4	2.66	0.43						
12-53	12-53	0.9	49548.50	1.137	10	1.11	2.4	2.66	2.73						
12-54	12-54	0.9	9635.63	0.221	10	1.11	2.4	2.66	0.53						
12-55	12-55	0.9	9610.34	0.221	10	1.11	2.4	2.66	0.53						

Attachment A-5 Drainage Area Calculations

12-56	12-56	0.9	9134.62	0.210	10	1.11	2.4	2.66	0.50						
12-57	12-57	0.9	9009.39	0.207	10	1.11	2.4	2.66	0.50						
12-58	12-58	0.9	18864.41	0.433	10	1.11	2.4	2.66	1.04						
13-0	N/A	0.9	7369.21	0.169	10	1.11	2.4	2.66	0.41	0.41	13	Unnamed Irrigation Ditch (Tributary of Pukalani Stream)	20.865413	-156.373642	Class 2, Inland
14-0	N/A	0.9	151720.97	3.483	10	1.11	2.4	2.66	8.35	8.35	14A	Unnamed Irrigation Ditch (Tributary of Pukalani Stream)	20.862233	-156.371334	Class 2, Inland
											14B	Unnamed Irrigation Ditch (Tributary of Pukalani Stream)	20.860744	-156.370136	
15-0	N/A	0.9	137671.89	3.161	10	1.11	2.4	2.66	7.58	7.58	15	Unnamed Irrigation Ditch (Tributary of Pukalani Stream)	20.859879	-156.370661	Class 2, Inland
16-0	N/A	0.9	222329.60	5.104	10	1.11	2.4	2.66	12.24	14.05	16A	Unnamed Irrigation Ditch (Tributary of Pukalani Stream)	20.856884	-156.363701	Class 2, Inland
16-1	16-1	0.9	32939.48	0.756	10	1.11	2.4	2.66	1.81		16B	Unnamed Irrigation Ditch (Tributary of Pukalani Stream)	20.856652	-156.363716	
17-0	N/A	0.9	1313.12	0.030	10	1.11	2.4	2.66	0.07	0.07	17	Unnamed Irrigation Ditch (Tributary of Pukalani Stream)	20.857136	-156.363760	Class 2, Inland
18-0	N/A	0.9	51644.53	1.186	10	1.11	2.4	2.66	2.84	2.84	18	Unnamed Irrigation Ditch (Tributary of Pukalani Stream)	20.857321	-156.363717	Class 2, Inland
19-0	N/A	0.9	2793.90	0.064	10	1.11	2.4	2.66	0.15	0.15	19	Unnamed Irrigation Ditch (Tributary of Keahua Stream)	20.871436	-156.392110	Class 2, Inland

Total= 105.453 ac

Total= 255.29 CFS

Total Impervious Area= 105.453 ac

*Calculations based on Rational Method 2yr-1hr design storm