

Supplementary Materials: Estimating the Impact of Drought on Groundwater Resources of the Marshall Islands

Brandon L. Barkey and Ryan T. Bailey

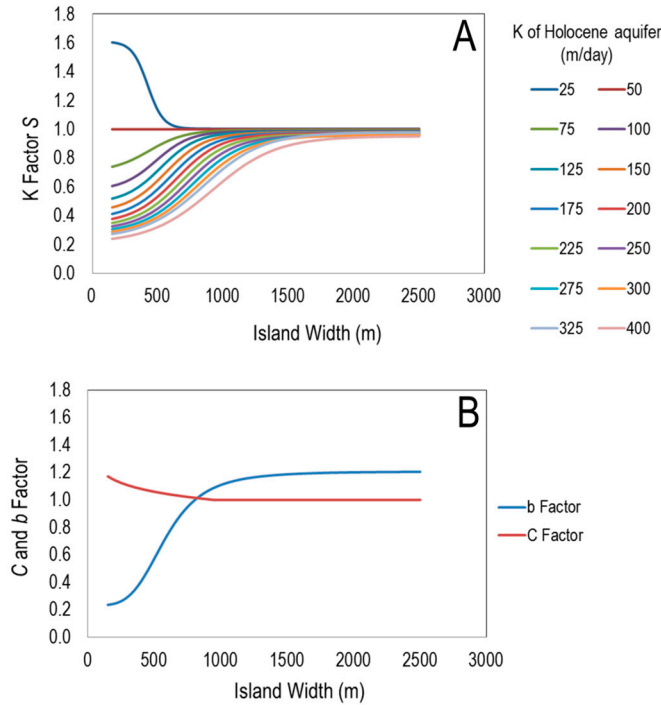


Figure S1. Charts for parameters S , C , and b of the algebraic model, after Bailey et al. [1], as a function of island width. (A) Parameter S values graphed with respect to island width, with varying values of Hydraulic Conductivity K (m/day) of the Holocene aquifer; (B) Parameter C and b values graphed with respect to island width.

Table S1. Algebraic model parameters and resulting Z_{max} (m) for 680 islands in the Marshall Islands for average rainfall conditions. Results are listed by atoll. The last column contains Z_{max} during the peak of a major drought, for selected islands of each atoll.

Atoll	Island Location	Island Width (m)	Rainfall (m/Year)	K (m/Day)	Reef Plate Constant	Z_{max} (m)	Z_{max} Drought (m)	
Ailinglaplap	A	Windward	750	3.03	400	1.02	7.62	
	B	Windward	150	3.03	400	1.17	0.94	
	C	Windward	336	3.03	400	1.11	2.54	
	D	Windward	202	3.03	400	1.14	1.49	
	E	Windward	287	3.03	400	1.12	2.12	
	F	Windward	131	3.03	400	1.17	0.71	
	G-Jih	Windward	594	3.03	400	1.05	5.32	4.05
	H	Windward	275	3.03	400	1.12	2.07	
	I	Windward	535	3.03	400	1.06	4.73	
	J	Windward	470	3.03	400	1.07	4.12	
	K	Windward	178	3.03	400	1.17	1.24	
	L	Windward	192	3.03	400	1.17	1.36	
	M	Windward	222	3.03	400	1.14	1.64	
	N	Windward	181	3.03	400	1.17	1.27	
O-Bigatyelang	Leeward	779	3.03	50	1.02	16.78	12.65	
	P	Leeward	424	3.03	50	1.08		12.32
	Q	Leeward	261	3.03	50	1.12		7.87
	R	Leeward	173	3.03	50	1.17		4.98

S	Leeward	149	3.03	50	1.17	3.90	
T	Leeward	261	3.03	50	1.12	7.87	
U	Leeward	260	3.03	50	1.12	7.85	
V	Leeward	255	3.03	50	1.12	7.73	
W	Leeward	528	3.03	50	1.06	14.71	
X	Leeward	190	3.03	50	1.17	5.64	
Y	Leeward	350	3.03	50	1.09	10.62	
Z	Leeward	500	3.03	50	1.06	14.58	
AA	Leeward	277	3.03	50	1.12	8.20	
AB	Leeward	402	3.03	50	1.08	12.13	
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Ailuk							
A	Windward	867	1.89	400	1.01	7.97	
B	Windward	516	1.89	400	1.06	3.78	
C-Enijabro Island	Windward	500	1.89	400	1.06	3.76	
D-Anekalik	Windward	574	1.89	400	1.05	4.38	
E	Windward	350	1.89	400	1.09	2.15	
F-Eneneman Island	Windward	164	1.89	400	1.17	0.78	
G	Windward	263	1.89	400	1.12	1.43	
H	Windward	241	1.89	400	1.14	1.25	
I-Ajeleb Island	Windward	550	1.89	400	1.05	4.35	
J	Windward	346	1.89	400	1.11	1.86	
K	Windward	141	1.89	400	1.17	0.59	
L	Windward	194	1.89	400	1.17	0.97	
M	Windward	157	1.89	400	1.17	0.72	
N	Windward	138	1.89	400	1.17	0.56	
O	Windward	227	1.89	400	1.14	1.19	
P	Windward	608	1.89	400	1.04	4.95	
Q	Windward	337	1.89	400	1.11	1.84	
R	Windward	164	1.89	400	1.17	0.78	
S	Windward	192	1.89	400	1.17	0.96	
T-Bio Island	Windward	373	1.89	400	1.09	2.20	
U	Windward	180	1.89	400	1.17	0.89	
V	Windward	212	1.89	400	1.14	1.11	
W-Tabu Island	Windward	261	1.89	400	1.12	1.42	
X	Windward	340	1.89	400	1.11	1.85	
Y-Koonoon	Windward	170	1.89	400	1.17	0.82	0.23
Z	Windward	156	1.89	400	1.17	0.71	
AA	Windward	300	1.89	400	1.11	1.73	
AB	Windward	440	1.89	400	1.08	2.71	
AC	Windward	247	1.89	400	1.14	1.27	
AD	Windward	308	1.89	400	1.11	1.76	
AE	Windward	322	1.89	400	1.11	1.80	
AF	Windward	339	1.89	400	1.11	1.85	
AG-Aneaudik	Windward	180	1.89	400	1.17	0.89	
AH-Eneao Island	Windward	187	1.89	400	1.17	0.93	
AI	Windward	230	1.89	400	1.14	1.20	
AJ-Ailuk Island	Mixed	764	1.89	200	1.02	11.16	8.27
AK	Leeward	521	1.89	50	1.06	11.80	7.49
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Arno							
A	Leeward	290	3.03	50	1.12	8.44	
B	Windward	150	3.03	400	1.17	0.94	
C	Windward	156	3.03	400	1.17	1.01	
D	Windward	172	3.03	400	1.17	1.18	
E-Erekaejji	Windward	729	3.03	400	1.03	7.03	5.62
F	Windward	214	3.03	400	1.14	1.58	
G	Windward	230	3.03	400	1.14	1.69	
H	Windward	250	3.03	400	1.12	1.93	
I	Windward	229	3.03	400	1.14	1.69	
J	Windward	187	3.03	400	1.17	1.32	
K	Windward	142	3.03	400	1.17	0.85	
L	Windward	186	3.03	400	1.17	1.31	
M	Windward	177	3.03	400	1.17	1.23	
N	Windward	145	3.03	400	1.17	0.88	
O	Windward	152	3.03	400	1.17	0.97	
P	Windward	273	3.03	400	1.12	2.06	
Q	Windward	162	3.03	400	1.17	1.08	

R	Windward	157	3.03	400	1.17	1.02	
S	Windward	132	3.03	400	1.17	0.72	
T	Windward	320	3.03	400	1.11	2.48	
U	Windward	153	3.03	400	1.17	0.98	
V	Windward	403	3.03	400	1.08	3.49	
W	Windward	370	3.03	400	1.09	2.97	
X	Windward	138	3.03	400	1.17	0.80	
Y	Windward	284	3.03	400	1.12	2.11	
Z	Windward	217	3.03	400	1.14	1.60	
AA	Windward	224	3.03	400	1.14	1.65	
AB	Windward	150	3.03	400	1.17	0.94	
AC	Windward	240	3.03	400	1.14	1.76	
AD	Windward	155	3.03	400	1.17	1.00	
AE	Windward	136	3.03	400	1.17	0.77	
AF	Windward	222	3.03	400	1.14	1.64	
AG	Windward	176	3.03	400	1.17	1.22	
AH	Windward	210	3.03	400	1.14	1.55	
AI	Windward	155	3.03	400	1.17	1.00	
AJ	Windward	166	3.03	400	1.17	1.12	
AK	Windward	175	3.03	400	1.17	1.21	
AL	Windward	258	3.03	400	1.12	1.98	
AM	Windward	401	3.03	400	1.08	3.48	
AN	Windward	224	3.03	400	1.14	1.65	
AO	Windward	467	3.03	400	1.07	4.11	
AP	Windward	171	3.03	400	1.17	1.17	
AQ-Rakaru	Mixed	452	3.03	200	1.07	6.69	4.38
AR	Leeward	388	3.03	50	1.09	11.04	
AS	Leeward	347	3.03	50	1.11	9.80	
AT-Kirage	Leeward	178	3.03	50	1.17	5.18	2.42
AU	Leeward	240	3.03	50	1.14	7.16	
AV	Leeward	260	3.03	50	1.12	7.85	
AW	Leeward	416	3.03	50	1.08	12.25	
AX	Leeward	375	3.03	50	1.09	10.91	
AY	Leeward	184	3.03	50	1.17	5.41	
AZ	Leeward	226	3.03	50	1.14	6.79	
BA	Leeward	974	3.03	50	1.00	16.83	
BB	Leeward	205	3.03	50	1.14	6.16	
BC	Leeward	162	3.03	50	1.17	4.51	
BD	Leeward	202	3.03	50	1.14	6.06	
BE	Leeward	142	3.03	50	1.17	3.54	
BF	Leeward	582	3.03	50	1.05	15.53	
BG	Leeward	193	3.03	50	1.17	5.74	
BH	Leeward	361	3.03	50	1.09	10.75	
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A	Windward	550	2.78	400	1.05	5.12	
B	Windward	185	2.78	400	1.17	1.23	
C	Windward	177	2.78	400	1.17	1.16	
D	Windward	144	2.78	400	1.17	0.82	
E	Windward	150	2.78	400	1.17	0.89	
F	Windward	286	2.78	400	1.12	2.00	
G	Windward	137	2.78	400	1.17	0.74	
H-Tabal	Windward	1005	2.78	400	1.00	10.67	8.53
I	Windward	140	2.78	400	1.17	0.77	
J	Windward	255	2.78	400	1.12	1.85	
K	Windward	166	2.78	400	1.17	1.05	
L	Windward	290	2.78	400	1.12	2.02	
M	Windward	195	2.78	400	1.17	1.31	
N	Windward	460	2.78	400	1.07	3.94	
O	Windward	212	2.78	400	1.14	1.48	
P	Windward	322	2.78	400	1.11	2.35	
Q	Windward	250	2.78	400	1.12	1.82	
R	Windward	137	2.78	400	1.17	0.74	
S	Windward	680	2.78	400	1.03	6.32	
T	Leeward	204	2.78	50	1.14	5.77	
U	Leeward	280	2.78	50	1.12	7.79	4.64
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Ebon							

A-Enekoion	Mixed	348	4.04	200	1.11	4.83	3.49
B	Mixed	240	4.04	200	1.14	3.33	
C	Windward	231	4.04	400	1.14	2.04	
D	Windward	163	4.04	400	1.17	1.31	
E	Windward	139	4.04	400	1.17	0.97	
F	Windward	139	4.04	400	1.17	0.97	0.64
G	Windward	180	4.04	400	1.17	1.51	
H	Windward	230	4.04	400	1.14	2.03	
I	Mixed	145	4.04	200	1.17	1.68	
J	Leeward	170	4.04	50	1.17	5.84	
K-Ebon	Leeward	175	4.04	50	1.17	6.09	
L	Leeward	190	4.04	50	1.17	6.78	
M	Leeward	834	4.04	50	1.02	17.39	
N	Leeward	300	4.04	50	1.11	10.74	
O	Leeward	174	4.04	50	1.17	6.04	
P	Leeward	250	4.04	50	1.12	9.08	
Q	Leeward	473	4.04	50	1.07	15.19	
R-Bwilel	Leeward	210	4.04	50	1.14	7.58	
S-Toka	Leeward	780	4.04	50	1.02	17.40	13.20
T-Didi	Leeward	128	4.04	50	1.17	3.34	
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Enewetak							
A	Windward	335	1.52	400	1.11	1.55	
B-Enjebi	Windward	986	1.52	400	1.00	8.50	7.73
C	Windward	217	1.52	400	1.14	0.95	
D	Windward	202	1.52	400	1.14	0.88	
E	Windward	326	1.52	400	1.11	1.53	
F	Windward	350	1.52	400	1.09	1.82	
G	Windward	683	1.52	400	1.03	5.02	
H	Windward	454	1.52	400	1.07	2.76	
I	Windward	430	1.52	400	1.08	2.31	
J	Windward	290	1.52	400	1.12	1.28	
K	Windward	200	1.52	400	1.14	0.87	
L-Runit	Windward	219	1.52	400	1.14	0.96	
M	Windward	128	1.52	400	1.17	0.39	
N	Windward	224	1.52	400	1.14	0.98	
O-Japtan	Windward	600	1.52	400	1.04	4.43	
P-Medren	Mixed	525	1.52	200	1.06	5.52	
Q-Enewetak	Mixed	612	1.52	200	1.04	7.50	5.05
R	Leeward	185	1.52	50	1.17	3.21	
S	Leeward	131	1.52	50	1.17	1.74	
T	Leeward	164	1.52	50	1.17	2.71	
U	Leeward	138	1.52	50	1.17	1.96	
V	Leeward	128	1.52	50	1.17	1.63	
W	Leeward	205	1.52	50	1.14	3.64	
X	Leeward	225	1.52	50	1.14	4.00	
Y	Leeward	150	1.52	50	1.17	2.32	0.63
Z	Leeward	267	1.52	50	1.12	4.78	
AA	Leeward	255	1.52	50	1.12	4.63	
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Jaluit							
A	Mixed	474	3.54	200	1.07	7.20	
B	Windward	168	3.54	400	1.17	1.26	
C	Windward	212	3.54	400	1.14	1.73	
D	Windward	152	3.54	400	1.17	1.07	
E	Windward	150	3.54	400	1.17	1.05	
F	Windward	154	3.54	400	1.17	1.10	
G	Windward	309	3.54	400	1.11	2.67	
H	Windward	175	3.54	400	1.17	1.34	
I	Windward	130	3.54	400	1.17	0.77	
J	Windward	245	3.54	400	1.14	1.98	
K	Windward	140	3.54	400	1.17	0.91	
L	Windward	159	3.54	400	1.17	1.16	
M	Windward	212	3.54	400	1.14	1.73	
N	Windward	154	3.54	400	1.17	1.10	
O	Windward	155	3.54	400	1.17	1.11	
P	Windward	155	3.54	400	1.17	1.11	
Q	Windward	125	3.54	400	1.17	0.69	

R	Windward	154	3.54	400	1.17	1.10	
S	Windward	160	3.54	400	1.17	1.17	
T	Windward	130	3.54	400	1.17	0.77	
U	Windward	210	3.54	400	1.14	1.72	
V	Windward	129	3.54	400	1.17	0.75	
W	Windward	215	3.54	400	1.14	1.76	
X	Windward	135	3.54	400	1.17	0.84	
Y	Windward	175	3.54	400	1.17	1.34	
Z	Windward	189	3.54	400	1.17	1.48	0.75
AA	Windward	194	3.54	400	1.17	1.53	
AB	Windward	150	3.54	400	1.17	1.05	
AC	Windward	140	3.54	400	1.17	0.91	
AD	Windward	183	3.54	400	1.17	1.42	
AE	Windward	240	3.54	400	1.14	1.94	
AF	Windward	292	3.54	400	1.12	2.37	
AG	Windward	186	3.54	400	1.17	1.45	
AH	Windward	300	3.54	400	1.11	2.62	
AI	Windward	445	3.54	400	1.08	3.86	
AJ	Windward	185	3.54	400	1.17	1.44	
AK	Windward	216	3.54	400	1.14	1.77	
AL	Windward	144	3.54	400	1.17	0.97	
AM	Windward	174	3.54	400	1.17	1.33	
AN	Windward	156	3.54	400	1.17	1.12	
AO	Windward	136	3.54	400	1.17	0.85	
AP	Windward	200	3.54	400	1.14	1.63	
AQ	Windward	233	3.54	400	1.14	1.90	
AR	Windward	210	3.54	400	1.14	1.72	
AS	Windward	540	3.54	400	1.06	4.99	
AT	Mixed	314	3.54	200	1.11	4.28	
AU	Mixed	311	3.54	200	1.11	4.26	
AV	Mixed	317	3.54	200	1.11	4.30	
AW	Mixed	220	3.54	200	1.14	2.84	
AX	Mixed	162	3.54	200	1.17	1.88	
AY	Mixed	160	3.54	200	1.17	1.85	
AZ-Jaluit Island	Mixed	684	3.54	200	1.03	11.25	8.79
BA	Leeward	250	3.54	50	1.12	8.39	
BB	Leeward	157	3.54	50	1.17	4.74	
BC	Leeward	337	3.54	50	1.11	10.60	
BD	Leeward	279	3.54	50	1.12	9.08	
BE	Leeward	338	3.54	50	1.11	10.62	
BF	Leeward	190	3.54	50	1.17	6.24	
BG	Leeward	210	3.54	50	1.14	6.99	
BH	Leeward	600	3.54	50	1.04	16.59	
BI	Leeward	150	3.54	50	1.17	4.37	2.33
BJ	Leeward	256	3.54	50	1.12	8.55	
BK	Leeward	237	3.54	50	1.14	7.83	
BL	Leeward	295	3.54	50	1.12	9.40	
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Kwajalein							
A-*Roi-Namur	Windward	800	2.40	400	1.02	7.87	5.92
B	Windward	229	2.40	400	1.14	1.43	
C	Windward	230	2.40	400	1.14	1.44	
D	Windward	309	2.40	400	1.11	2.09	
E	Windward	263	2.40	400	1.12	1.71	
F	Windward	193	2.40	400	1.17	1.16	
G	Windward	256	2.40	400	1.12	1.67	
H	Windward	173	2.40	400	1.17	1.01	
I	Windward	170	2.40	400	1.17	0.98	
J	Windward	150	2.40	400	1.17	0.80	
K	Windward	372	2.40	400	1.09	2.59	
L	Windward	350	2.40	400	1.09	2.52	
M-Bigej	Windward	350	2.40	400	1.09	2.52	
N	Mixed	217	2.40	200	1.14	2.15	
O	Mixed	180	2.40	200	1.17	1.68	
P	Windward	133	2.40	400	1.17	0.62	
Q	Windward	135	2.40	400	1.17	0.64	
R-Ebeye	Windward	252	2.40	400	1.12	1.65	0.65

S	Windward	134	2.40	400	1.17	0.63	
T-*Kwajalein A-A'	Mixed	600	2.59	200	1.04	9.45	8.84
U-Enubuj	Leeward	160	2.59	50	1.17	3.96	
V	Leeward	339	2.59	50	1.11	8.77	
W-Gea	Leeward	363	2.59	50	1.09	9.81	
X-Nimi	Leeward	220	2.59	50	1.14	5.94	
Y-Guu	Leeward	268	2.59	50	1.12	7.21	
Cross Section B-B'	Mixed	750	2.59	200	1.02	12.23	
AA	Leeward	278	2.59	50	1.12	7.39	
AB	Leeward	166	2.59	50	1.17	4.19	
AC	Leeward	253	2.59	50	1.12	6.91	
AD	Leeward	257	2.59	50	1.12	7.00	
AE	Leeward	375	2.59	50	1.09	9.94	
AF	Leeward	433	2.59	50	1.08	11.39	
AG	Leeward	215	2.59	50	1.14	5.80	
AH	Leeward	365	2.59	50	1.09	9.83	
AI	Leeward	146	2.59	50	1.17	3.36	
AJ	Leeward	146	2.59	50	1.17	3.36	
AK	Leeward	135	2.59	50	1.17	2.84	
AL	Leeward	139	2.59	50	1.17	3.03	
AM	Leeward	140	2.59	50	1.17	3.08	1.43
AN	Leeward	145	2.59	50	1.17	3.31	
AO	Leeward	193	2.59	50	1.17	5.14	
AP	Leeward	227	2.59	50	1.14	6.11	
AQ-Eru	Leeward	489	2.59	50	1.07	12.73	
AR	Leeward	279	2.59	50	1.12	7.41	
AS	Leeward	436	2.59	50	1.08	11.41	
AT	Leeward	163	2.59	50	1.17	4.08	
AU	Leeward	151	2.59	50	1.17	3.58	
AV	Leeward	241	2.59	50	1.14	6.44	
AW	Leeward	510	2.59	50	1.06	13.73	
AX	Leeward	145	2.59	50	1.17	3.31	
AY	Leeward	215	2.59	50	1.14	5.80	
AZ	Leeward	340	2.59	50	1.11	8.78	
BA	Leeward	222	2.59	50	1.14	5.99	
BB-Ebadon	Windward	763	2.40	400	1.02	7.25	5.34
BC	Windward	260	2.40	400	1.12	1.69	
BD	Windward	273	2.40	400	1.12	1.75	
BE	Windward	270	2.40	400	1.12	1.74	
BF	Windward	430	2.40	400	1.08	3.12	
BG	Windward	230	2.40	400	1.14	1.44	
BH	Windward	176	2.40	400	1.17	1.03	
BI	Mixed	260	2.40	200	1.12	2.68	
BJ	Mixed	383	2.40	200	1.09	4.19	
BK	Mixed	264	2.40	200	1.12	2.71	
BL	Mixed	165	2.40	200	1.17	1.48	
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Lae							
A	Windward	375	2.40	400	1.09	2.59	
B	Windward	210	2.40	400	1.14	1.32	
C	Windward	247	2.40	400	1.14	1.53	
D	Windward	230	2.40	400	1.14	1.44	
E	Windward	215	2.40	400	1.14	1.35	
F	Windward	338	2.40	400	1.11	2.18	
G	Windward	240	2.40	400	1.14	1.49	
H	Windward	140	2.40	400	1.17	0.70	
I	Windward	400	2.40	400	1.08	3.06	
J	Windward	800	2.40	400	1.02	7.87	5.92
K	Leeward	128	2.40	50	1.17	2.35	
L	Leeward	240	2.40	50	1.14	6.07	2.55
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Likiep							
A	Windward	1150	2.15	400	1.00	11.89	
B	Windward	302	2.15	400	1.11	1.91	
C	Windward	586	2.15	400	1.05	4.66	
D	Windward	140	2.15	400	1.17	0.64	
E	Windward	171	2.15	400	1.17	0.91	
F	Windward	178	2.15	400	1.17	0.96	

G	Windward	145	2.15	400	1.17	0.69	
H	Windward	140	2.15	400	1.17	0.64	
I	Windward	125	2.15	400	1.17	0.48	
J	Windward	125	2.15	400	1.17	0.48	
K	Windward	193	2.15	400	1.17	1.07	
L	Windward	239	2.15	400	1.14	1.37	
M	Windward	146	2.15	400	1.17	0.70	
N	Windward	157	2.15	400	1.17	0.80	
O	Windward	189	2.15	400	1.17	1.04	
P	Windward	125	2.15	400	1.17	0.48	
Q	Windward	300	2.15	400	1.11	1.90	
R	Windward	155	2.15	400	1.17	0.78	
S	Windward	344	2.15	400	1.11	2.04	
T	Windward	557	2.15	400	1.05	4.63	
U	Windward	463	2.15	400	1.07	3.45	
V	Windward	225	2.15	400	1.14	1.30	
W	Windward	135	2.15	400	1.17	0.59	
X	Windward	475	2.15	400	1.07	3.47	
Y	Windward	216	2.15	400	1.14	1.25	
Z-Lado Island	Windward	483	2.15	400	1.07	3.48	2.61
AA	Mixed	569	2.15	200	1.05	7.79	
AB-Entrance Island	Leeward	426	2.15	50	1.08	10.14	5.95
AC	Leeward	227	2.15	50	1.14	5.32	
AD	Leeward	276	2.15	50	1.12	6.42	
AE	Leeward	192	2.15	50	1.17	4.44	
AF	Leeward	195	2.15	50	1.17	4.52	
AG	Leeward	278	2.15	50	1.12	6.45	
AH	Leeward	765	2.15	50	1.02	15.45	
AI	Leeward	200	2.15	50	1.14	4.68	
AJ	Leeward	127	2.15	50	1.17	2.12	
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*Majuro							
A	Leeward	240	3.16	50	1.14	7.36	
B	Mixed	303	3.16	200	1.11	3.93	
C	Windward	130	3.16	400	1.17	0.71	
D-Rongrong	Windward	394	3.16	400	1.09	3.11	2.29
E	Windward	195	3.16	400	1.17	1.43	
F	Windward	125	3.16	400	1.17	0.64	
G	Windward	150	3.16	400	1.17	0.97	
H-Calalin	Windward	257	3.16	400	1.12	2.02	
I-Kiddenen	Windward	145	3.16	400	1.17	0.91	
J	Windward	148	3.16	400	1.17	0.95	
K-Eneko	Windward	192	3.16	400	1.17	1.40	
L	Windward	130	3.16	400	1.17	0.71	
M	Windward	145	3.16	400	1.17	0.91	
N	Windward	140	3.16	400	1.17	0.85	
O	Windward	183	3.16	400	1.17	1.32	
P	Windward	165	3.16	400	1.17	1.14	
Q-Enemaunt	Windward	139	3.16	400	1.17	0.83	
R	Windward	197	3.16	400	1.17	1.45	
S	Windward	190	3.16	400	1.17	1.39	
T	Windward	159	3.16	400	1.17	1.07	
U	Windward	248	3.16	400	1.14	1.86	
V	Windward	175	3.16	400	1.17	1.24	
W-Ejit	Windward	200	3.16	400	1.14	1.51	
X-Darrit	Windward	334	3.16	400	1.11	2.60	
Y-Majuro	Mixed	550	3.16	200	1.05	8.96	6.08
Z	Leeward	200	3.16	50	1.14	6.16	
AA	Leeward	250	3.16	50	1.12	7.82	
AB-Airport	Leeward	265	3.16	50	1.12	8.17	
AC	Leeward	240	3.16	50	1.14	7.36	
AD-*Laura	Leeward	1240	3.16	50	1.00	17.04	14.13
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Maloelap							
A-Kaven	Windward	1090	2.53	400	1.00	11.13	9.58
B	Windward	140	2.53	400	1.17	0.72	
C	Windward	325	2.53	400	1.11	2.22	
D	Windward	225	2.53	400	1.14	1.46	

E	Windward	260	2.53	400	1.12	1.76	
F	Windward	172	2.53	400	1.17	1.04	
G	Windward	130	2.53	400	1.17	0.61	
H	Windward	136	2.53	400	1.17	0.68	
I	Windward	145	2.53	400	1.17	0.78	
J	Windward	182	2.53	400	1.17	1.12	
K	Windward	190	2.53	400	1.17	1.18	
L	Windward	314	2.53	400	1.11	2.18	
M	Windward	570	2.53	400	1.05	4.97	
N	Windward	150	2.53	400	1.17	0.83	
O	Windward	210	2.53	400	1.14	1.37	
P	Windward	205	2.53	400	1.14	1.33	
Q	Windward	495	2.53	400	1.07	3.81	
R	Windward	233	2.53	400	1.14	1.51	
S	Windward	436	2.53	400	1.08	3.23	
T	Windward	180	2.53	400	1.17	1.11	
U	Windward	177	2.53	400	1.17	1.08	
V	Windward	235	2.53	400	1.14	1.52	
W	Windward	1220	2.53	400	1.00	12.78	
X	Windward	140	2.53	400	1.17	0.72	
Y	Windward	326	2.53	400	1.11	2.22	
Z	Windward	720	2.53	400	1.03	6.74	
AA	Leeward	280	2.53	50	1.12	7.29	
AB	Leeward	180	2.53	50	1.17	4.62	
AC	Leeward	340	2.53	50	1.11	8.63	
AD	Leeward	200	2.53	50	1.14	5.28	
AE	Leeward	151	2.53	50	1.17	3.51	
AF	Leeward	245	2.53	50	1.14	6.41	2.79
AG	Leeward	240	2.53	50	1.14	6.30	
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Mili							
A	Mixed	675	3.54	200	1.03	11.24	8.79
B	Windward	191	3.54	400	1.17	1.50	
C	Windward	266	3.54	400	1.12	2.23	
D	Windward	267	3.54	400	1.12	2.23	
E	Windward	199	3.54	400	1.17	1.58	
F	Windward	215	3.54	400	1.14	1.76	
G	Windward	234	3.54	400	1.14	1.90	
H	Windward	300	3.54	400	1.11	2.62	
I	Windward	145	3.54	400	1.17	0.98	
J	Windward	210	3.54	400	1.14	1.72	
K	Windward	190	3.54	400	1.17	1.49	
L	Windward	264	3.54	400	1.12	2.22	
M	Windward	251	3.54	400	1.12	2.13	
N	Windward	232	3.54	400	1.14	1.89	
O	Windward	270	3.54	400	1.12	2.25	
P	Windward	285	3.54	400	1.12	2.33	
Q	Windward	125	3.54	400	1.17	0.69	
R	Windward	270	3.54	400	1.12	2.25	
S	Windward	150	3.54	400	1.17	1.05	
T	Windward	160	3.54	400	1.17	1.17	
U	Windward	125	3.54	400	1.17	0.69	
V	Windward	160	3.54	400	1.17	1.17	
W	Windward	175	3.54	400	1.17	1.34	
X	Windward	300	3.54	400	1.11	2.62	
Y	Windward	190	3.54	400	1.17	1.49	
Z	Windward	170	3.54	400	1.17	1.29	
AA	Windward	227	3.54	400	1.14	1.85	
AB	Windward	205	3.54	400	1.14	1.67	
AC	Windward	262	3.54	400	1.12	2.20	
AD	Windward	176	3.54	400	1.17	1.35	
AE	Windward	187	3.54	400	1.17	1.46	
AF	Windward	153	3.54	400	1.17	1.08	
AG	Windward	265	3.54	400	1.12	2.22	1.11
AH	Leeward	185	3.54	50	1.17	6.04	
AI	Leeward	377	3.54	50	1.09	11.89	
AJ-Enujet	Leeward	237	3.54	50	1.14	7.83	4.40

AK	Leeward	145	3.54	50	1.17	4.10	
AL	Leeward	144	3.54	50	1.17	4.04	
AM	Leeward	166	3.54	50	1.17	5.19	
AN-Arbur	Leeward	245	3.54	50	1.14	8.05	
AO	Leeward	1670	3.54	50	1.00	17.24	14.55
AP	Leeward	210	3.54	50	1.14	6.99	
AQ	Leeward	215	3.54	50	1.14	7.16	
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Namorik							
A-Matamat	Windward	733	3.66	400	1.03	7.25	5.81
B	Windward	831	3.66	400	1.02	8.45	6.97
C	Windward	318	3.66	400	1.11	2.76	1.60
D	Leeward	732	3.66	50	1.03	17.17	12.77
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Namu							
A	Windward	550	2.90	400	1.05	5.20	
B	Windward	325	2.90	400	1.11	2.43	
C	Windward	464	2.90	400	1.07	4.03	2.61
D	Windward	300	2.90	400	1.11	2.33	
E	Windward	145	2.90	400	1.17	0.86	
F	Windward	143	2.90	400	1.17	0.83	
G	Windward	168	2.90	400	1.17	1.11	
H	Windward	150	2.90	400	1.17	0.92	
I	Windward	125	2.90	400	1.17	0.60	
J	Windward	170	2.90	400	1.17	1.13	
K	Windward	208	2.90	400	1.14	1.49	
L	Windward	250	2.90	400	1.12	1.88	
M	Windward	185	2.90	400	1.17	1.27	
N	Windward	265	2.90	400	1.12	1.96	
O	Windward	156	2.90	400	1.17	0.98	
P	Windward	210	2.90	400	1.14	1.51	
Q	Windward	365	2.90	400	1.09	2.89	
R	Mixed	179	2.90	200	1.17	1.91	
S	Leeward	240	2.90	50	1.14	6.95	
T	Leeward	209	2.90	50	1.14	6.11	
U	Leeward	282	2.90	50	1.12	8.06	4.86
V	Leeward	240	2.90	50	1.14	6.95	
W	Leeward	244	2.90	50	1.14	7.05	
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Rongelap							
A	Mixed	494	1.64	200	1.07	4.86	3.58
B	Windward	306	1.64	400	1.11	1.57	
C	Windward	275	1.64	400	1.12	1.32	
D	Windward	257	1.64	400	1.12	1.26	
E	Windward	275	1.64	400	1.12	1.32	
F	Windward	438	1.64	400	1.08	2.45	1.70
G	Windward	233	1.64	400	1.14	1.08	
H	Windward	228	1.64	400	1.14	1.06	
I	Windward	187	1.64	400	1.17	0.83	
J	Windward	480	1.64	400	1.07	2.95	
K	Mixed	275	1.64	200	1.12	2.09	
L	Mixed	145	1.64	200	1.17	0.88	
M	Windward	215	1.64	400	1.14	1.00	
N	Windward	147	1.64	400	1.17	0.57	
O	Windward	275	1.64	400	1.12	1.32	
P	Mixed	433	1.64	200	1.08	3.96	
Q	Leeward	150	1.64	50	1.17	2.48	
R	Leeward	240	1.64	50	1.14	4.52	
S	Leeward	235	1.64	50	1.14	4.44	
T	Leeward	285	1.64	50	1.12	5.33	
U	Leeward	148	1.64	50	1.17	2.42	
V	Leeward	200	1.64	50	1.14	3.79	
W	Leeward	450	1.64	50	1.07	9.60	5.63
X	Windward	275	1.64	400	1.12	1.32	
Y	Windward	305	1.64	400	1.11	1.57	
Z	Windward	667	1.64	400	1.03	5.21	
AA	Mixed	185	1.64	200	1.17	1.29	
AB	Leeward	481	1.64	50	1.07	9.74	
AC	Leeward	245	1.64	50	1.14	4.60	

AD	Leeward	152	1.64	50	1.17	2.54	
AE	Leeward	260	1.64	50	1.12	5.01	
AF	Leeward	245	1.64	50	1.14	4.60	
AG	Leeward	170	1.64	50	1.17	3.05	
AH	Leeward	295	1.64	50	1.12	5.44	
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Ujae							
A-Enylamieg	Windward	508	2.40	400	1.06	4.26	2.78
B	Windward	175	2.40	400	1.17	1.02	
C	Windward	520	2.40	400	1.06	4.27	
D	Windward	203	2.40	400	1.14	1.27	
E	Windward	335	2.40	400	1.11	2.18	
F	Windward	209	2.40	400	1.14	1.31	
G	Windward	675	2.40	400	1.03	6.06	
H	Leeward	170	2.40	50	1.17	4.11	1.43
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Utirik							
A	Windward	132	1.64	400	1.17	0.45	0.18
B	Windward	400	1.64	400	1.08	2.39	1.27
C-Nwaja	Windward	1370	1.64	400	1.00	12.27	11.68
D-Aon Island	Leeward	615	1.64	50	1.04	12.65	8.55
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Wotho							
A-Medyeron	Windward	850	2.10	400	1.01	8.21	
B	Windward	275	2.10	400	1.12	1.59	
C-Wotho Island	Windward	1310	2.10	400	1.00	13.14	11.26
D	Windward	130	2.10	400	1.17	0.53	
E	Windward	193	2.10	400	1.17	1.05	
F-Kabbon	Mixed	1150	2.10	200	1.00	14.96	12.77
G	Leeward	183	2.10	50	1.17	4.11	1.13
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Wotje							
A	Windward	277	2.27	400	1.12	1.70	
B	Windward	250	2.27	400	1.12	1.58	
C	Windward	390	2.27	400	1.09	2.54	
D	Windward	140	2.27	400	1.17	0.67	
E	Mixed	130	2.27	200	1.17	0.89	
F	Mixed	151	2.27	200	1.17	1.23	
G-Anelijik	Windward	555	2.27	400	1.05	4.74	
H	Windward	256	2.27	400	1.12	1.61	
I	Windward	135	2.27	400	1.17	0.62	
J	Windward	285	2.27	400	1.12	1.73	
K	Mixed	245	2.27	200	1.14	2.30	
L	Mixed	135	2.27	200	1.17	0.97	
M	Mixed	230	2.27	200	1.14	2.18	
N-Ormed	Windward	700	2.27	400	1.03	6.53	
O	Windward	320	2.27	400	1.11	2.05	
P	Windward	260	2.27	400	1.12	1.63	
Q	Windward	220	2.27	400	1.14	1.32	
R	Windward	145	2.27	400	1.17	0.72	
S	Windward	180	2.27	400	1.17	1.02	
T	Windward	290	2.27	400	1.12	1.75	
U	Windward	130	2.27	400	1.17	0.56	
V	Windward	140	2.27	400	1.17	0.67	
W	Windward	150	2.27	400	1.17	0.77	
X	Windward	370	2.27	400	1.09	2.49	
Y	Windward	250	2.27	400	1.12	1.58	
Z	Windward	186	2.27	400	1.17	1.07	
AA	Windward	150	2.27	400	1.17	0.77	
AB	Windward	370	2.27	400	1.09	2.49	
AC	Windward	270	2.27	400	1.12	1.67	
AD	Windward	307	2.27	400	1.11	2.00	
AE	Windward	130	2.27	400	1.17	0.56	
AF	Windward	150	2.27	400	1.17	0.77	
AG	Windward	150	2.27	400	1.17	0.77	
AH	Windward	235	2.27	400	1.14	1.41	
AI	Windward	139	2.27	400	1.17	0.66	
AJ-Wotje	Windward	1080	2.27	400	1.00	10.90	9.47
AK	Windward	194	2.27	400	1.17	1.12	

AL	Windward	247	2.27	400	1.14	1.47	
AM	Windward	252	2.27	400	1.12	1.59	
AN-Arbur	Windward	145	2.27	400	1.17	0.72	
AO-Egmedio	Mixed	495	2.27	200	1.07	5.92	4.48
AP	Mixed	283	2.27	200	1.12	2.73	
AQ	Mixed	402	2.27	200	1.08	4.80	
AR	Leeward	152	2.27	50	1.17	3.29	
AS	Leeward	150	2.27	50	1.17	3.21	
AT	Leeward	350	2.27	50	1.09	8.89	
AU	Leeward	147	2.27	50	1.17	3.09	
AV-Toton	Leeward	188	2.27	50	1.17	4.52	1.39
AW	Leeward	493	2.27	50	1.07	11.91	
AX	Leeward	300	2.27	50	1.11	7.53	
AY-Anekomkwau	Leeward	240	2.27	50	1.14	5.83	
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Ailinginae							
A	Windward	170	1.69	400	1.17	0.75	
B	Mixed	160	1.69	200	1.17	1.07	
C	Windward	230	1.69	400	1.14	1.10	
D	Windward	157	1.69	400	1.17	0.66	
E	Windward	243	1.69	400	1.14	1.15	0.26
F	Windward	550	1.69	400	1.05	4.11	
G	Leeward	313	1.69	50	1.11	6.20	
H	Leeward	219	1.69	50	1.14	4.27	
I	Leeward	174	1.69	50	1.17	3.24	
J	Leeward	244	1.69	50	1.14	4.70	
K	Leeward	127	1.69	50	1.17	1.75	
L	Leeward	151	1.69	50	1.17	2.58	
M	Leeward	319	1.69	50	1.11	6.26	2.07
N	Leeward	229	1.69	50	1.14	4.45	
O	Leeward	163	1.69	50	1.17	2.93	
P	Leeward	560	1.69	50	1.05	12.03	
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Bikar							
A	Windward	237	1.26	400	1.14	0.88	0.18
B-Bikar Island	Leeward	280	1.26	50	1.12	4.25	0.67
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Bikini							
A-Namu	Windward	674	1.52	400	1.03	5.01	
B	Leeward	345	1.52	50	1.11	5.96	
C	Mixed	181	1.52	200	1.17	1.18	
D	Mixed	159	1.52	200	1.17	0.97	
E	Windward	168	1.52	400	1.17	0.67	
F-*Bikini	Windward	800	1.52	400	1.02	6.75	5.22
G-*Enyu	Mixed	500	1.52	200	1.06	5.47	3.36
H	Leeward	271	1.52	50	1.12	4.83	
I	Leeward	260	1.52	50	1.12	4.69	
J	Leeward	300	1.52	50	1.11	5.55	
K	Leeward	564	1.52	50	1.05	11.32	7.30
L	Leeward	300	1.52	50	1.11	5.55	
M	Leeward	310	1.52	50	1.11	5.66	
N	Leeward	171	1.52	50	1.17	2.88	
O	Leeward	125	1.52	50	1.17	1.53	
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Erikub							
A	Windward	193	2.45	400	1.17	1.18	
B	Windward	130	2.45	400	1.17	0.59	0.35
C-Bogengoa	Mixed	150	2.45	200	1.17	1.28	0.55
D	Leeward	147	2.45	50	1.17	3.27	
E	Leeward	405	2.45	50	1.08	10.82	
F	Leeward	144	2.45	50	1.17	3.13	
G-Enego	Leeward	337	2.45	50	1.11	8.42	5.36
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Knox							
A	Mixed	125	3.61	200	1.17	1.10	0.90
B	Leeward	240	3.61	50	1.14	8.02	4.49
C	Leeward	182	3.61	50	1.17	5.99	
D	Leeward	158	3.61	50	1.17	4.86	
E	Leeward	150	3.61	50	1.17	4.43	
F	Leeward	180	3.61	50	1.17	5.91	

G	Leeward	150	3.61	50	1.17	4.43	
H	Leeward	206	3.61	50	1.14	6.94	
I	Leeward	130	3.61	50	1.17	3.25	
J	Leeward	170	3.61	50	1.17	5.45	
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Rongerik							
A	Windward	142	1.64	400	1.17	0.53	0.18
B	Windward	375	1.64	400	1.09	1.99	
C	Windward	134	1.64	400	1.17	0.47	
D	Windward	385	1.64	400	1.09	2.01	
E	Windward	850	1.64	400	1.01	7.57	
F-Eniwetak	Mixed	250	1.64	200	1.12	1.95	0.36
G	Leeward	300	1.64	50	1.11	5.92	1.92
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Taka							
A	Windward	150	1.69	400	1.17	0.61	0.19
B	Windward	495	1.69	400	1.07	3.02	2.21
C	Leeward	185	1.69	50	1.17	3.51	0.47
Taongi							
A	Windward	130	0.51	400	1.17	0.15	0.00
B-Kamwome	Windward	600	0.51	400	1.04	2.05	0.59
C-Bwelije	Windward	480	0.51	400	1.07	1.17	0.00
D-Sibyilia Island	Mixed	510	0.51	200	1.06	2.38	0.00
E	Leeward	190	0.51	50	1.17	1.24	0.00
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Ujelang							
A	Leeward	334	2.20	50	1.11	7.77	
B	Windward	136	2.20	400	1.17	0.61	0.30
C	Leeward	175	2.20	50	1.17	4.01	
D	Leeward	257	2.20	50	1.12	6.21	
E	Mixed	500	2.20	200	1.06	6.75	
F-Ujelang	Leeward	180	2.20	50	1.17	4.17	1.28
G	Leeward	215	2.20	50	1.14	5.14	
H	Leeward	150	2.20	50	1.17	3.13	
I	Leeward	135	2.20	50	1.17	2.51	

References

1. Bailey, R.T.; Jenson, J.W.; Olsen, A.E. Estimating the Ground Water Resources of Atoll Islands. *Water* **2010**, *2*, 1–27.