Supplementary Material

Table S1. Information on sites used in the study, including estuary type as defined by Hume et al. (2016)

Estuary	Site	Year	Month	Estuary type	Latitude	Longitude
Ahuriri	a	2006	Feb	Tidal lagoon	–39.4835	176.8783
Ahuriri	a	2007	Feb	Tidal lagoon	–39.4835	176.8783
Ahuriri	a	2008	Feb	Tidal lagoon	–39.4835	176.8783
Ahuriri	a	2009	Mar	Tidal lagoon	–39.4835	176.8783
Ahuriri	a	2010	Feb	Tidal lagoon	–39.4835	176.8783
Ahuriri	a	2011	Feb	Tidal lagoon	–39.4835	176.8783
Ahuriri	a	2012	Feb	Tidal lagoon	–39.4835	176.8783
Ahuriri	a	2013	Feb	Tidal lagoon	–39.4835	176.8783
Ahuriri	a	2014	Feb	Tidal lagoon	–39.4835	176.8783
Ahuriri	a	2015	Feb	Tidal lagoon	–39.4835	176.8783
Ahuriri	b	2006	Feb	Tidal lagoon	–39.4872	176.8790
Ahuriri	b	2007	Feb	Tidal lagoon	–39.4872	176.8790
Ahuriri	b	2008	Feb	Tidal lagoon	–39.4872	176.8790
Ahuriri	b	2009	Mar	Tidal lagoon	–39.4872	176.8790
Ahuriri	b	2010	Feb	Tidal lagoon	–39.4872	176.8790
Ahuriri	b	2011	Feb	Tidal lagoon	–39.4872	176.8790
Ahuriri	b	2012	Feb	Tidal lagoon	–39.4872	176.8790
Ahuriri	b	2013	Feb	Tidal lagoon	–39.4872	176.8790
Ahuriri	b	2014	Feb	Tidal lagoon	–39.4872	176.8790
Ahuriri	b	2015	Feb	Tidal lagoon	–39.4872	176.8790
Ahuriri	c	2006	Feb	Tidal lagoon	–39.4839	176.8758
Ahuriri	c	2007	Feb	Tidal lagoon	–39.4839	176.8758
Ahuriri	c	2008	Feb	Tidal lagoon	–39.4839	176.8758
Ahuriri	d	2007	Feb	Tidal lagoon	–39.4868	176.8864
Ahuriri	d	2008	Feb	Tidal lagoon	–39.4868	176.8864
Ahuriri	d	2009	Mar	Tidal lagoon	–39.4868	176.8864
Ahuriri	d	2010	Feb	Tidal lagoon	–39.4868	176.8864
Ahuriri	d	2011	Feb	Tidal lagoon	–39.4868	176.8864
Ahuriri	d	2012	Feb	Tidal lagoon	–39.4868	176.8864
Ahuriri	d	2013	Feb	Tidal lagoon	–39.4868	176.8864
Ahuriri	d	2014	Feb	Tidal lagoon	–39.4868	176.8864
Ahuriri	d	2015	Feb	Tidal lagoon	–39.4868	176.8864
Ahuriri	e	2009	Mar	Tidal lagoon	–39.4824	176.8841
Ahuriri	e	2010	Feb	Tidal lagoon	–39.4824	176.8841
Ahuriri	e	2011	Feb	Tidal lagoon	–39.4824	176.8841
Ahuriri	e	2012	Feb	Tidal lagoon	–39.4824	176.8841
Ahuriri	e	2013	Feb	Tidal lagoon	–39.4824	176.8841
Ahuriri	e	2015	Feb	Tidal lagoon	–39.4824	176.8841
Akaroa	childrens	2009	Apr	Deep drowned valley	–43.7988	172.9643
Akaroa	childrens	2010	Mar	Deep drowned valley	–43.7988	172.9643
Akaroa	childrens	2011	Mar	Deep drowned valley	–43.7988	172.9643
Akaroa	childrens	2012	Mar	Deep drowned valley	–43.7988	172.9643
Akaroa	childrens	2013	Mar	Deep drowned valley	–43.7988	172.9643
Akaroa	childrens	2014	Mar	Deep drowned valley	–43.7988	172.9643
Akaroa	childrens	2015	Mar	Deep drowned valley	–43.7988	172.9643
Akaroa	robinsons	2009	May	Deep drowned valley	–43.7642	172.9577
Akaroa	robinsons	2010	Mar	Deep drowned valley	–43.7642	172.9577
Akaroa	robinsons	2011	Mar	Deep drowned valley	–43.7642	172.9577
Akaroa	robinsons	2012	Mar	Deep drowned valley	–43.7642	172.9577

Estuary	Site	Year	Month	Estuary type	Latitude	Longitude
Akaroa	robinsons	2013	Mar	Deep drowned valley	–43.7642	172.9577
Akaroa	robinsons	2014	Apr	Deep drowned valley	–43.7642	172.9577
Akaroa	robinsons	2015	Apr	Deep drowned valley	–43.7642	172.9577
Avonheathcote	a	2001	Feb	Tidal lagoon	–43.5492	172.7170
Avonheathcote	b	2001	Feb	Tidal lagoon	–43.5490	172.7393
Avonheathcote	c	2001	Feb	Tidal lagoon	–43.5392	172.7329
Avonheathcote	avon	2007	Apr	Tidal lagoon	–43.5206	172.7275
Avonheathcote	avon	2011	Apr	Tidal lagoon	–43.5206	172.7275
Avonheathcote	dischargepoint	2007	Apr	Tidal lagoon	–43.5408	172.7212
Avonheathcote	dischargepoint	2011	Mar	Tidal lagoon	–43.5408	172.7212
Avonheathcote	heathcote	2007	NA	Tidal lagoon	–43.5607	172.7023
Avonheathcote	heathcote	2011	Apr	Tidal lagoon	–43.5607	172.7023
Avonheathcote	humphreysdrive	2007	Apr	Tidal lagoon	–43.5543	172.7038
Avonheathcote	humphreysdrive	2011	Apr	Tidal lagoon	–43.5543	172.7038
Avonheathcote	pleasantpointjetty	2007	Apr	Tidal lagoon	–43.5314	172.7302
Avonheathcote	pleasantpointjetty	2011	Mar	Tidal lagoon	–43.5314	172.7302
Avonheathcote	ploverstreet	2007	Apr	Tidal lagoon	–43.5482	172.7431
Avonheathcote	ploverstreet	2011	Mar	Tidal lagoon	–43.5482	172.7431
Awarua	a	2005	Nov	Shallow drowned valley	–46.5760	168.4293
Awarua	b	2005	Nov	Shallow drowned valley	–46.5817	168.5090
Bluff	a	2005	Nov	Shallow drowned valley	–46.5602	168.3023
Bluff	b	2005	Nov	Shallow drowned valley	–46.5483	168.3414
Catlins	a	2016	Dec	Tidal lagoon	–46.4768	169.6997
Catlins	b	2016	Dec	Tidal lagoon	–46.4723	169.6387
Delaware	a	2009	Jan	Tidal lagoon	–41.1717	173.4369
Delaware	b	2009	Jan	Tidal lagoon	–41.1652	173.4495
Delaware	c	2009	Jan	Tidal lagoon	–41.1665	173.4218
Fortrose	a	2004	Feb	Tidal lagoon	–46.5713	168.7876
Fortrose	a	2005	Jan	Tidal lagoon	–46.5713	168.7876
Fortrose	a	2006	Jan	Tidal lagoon	–46.5713	168.7876
Fortrose	b	2004	Feb	Tidal lagoon	–46.5629	168.7880
Fortrose	b	2009	Feb	Tidal lagoon	–46.5629	168.7880
Freshwater	a	2011	Feb	Deep drowned valley	–46.9059	167.9774
Freshwater	a	2013	Feb	Deep drowned valley	–46.9059	167.9774
Freshwater	b	2011	Feb	Deep drowned valley	–46.9045	167.9888
Freshwater	b	2013	Feb	Deep drowned valley	–46.9045	167.9888
Haldane	a	2006	Feb	Tidal lagoon	–46.6412	169.0316
Haldane	a	2009	Feb	Tidal lagoon	–46.6412	169.0316
Haldane	a	2010	Feb	Tidal lagoon	–46.6412	169.0316
Haldane	a	2011	Feb	Tidal lagoon	–46.6412	169.0316
Haldane	b	2013	Feb	Tidal lagoon	–46.6427	169.0322
Havelock	a	2001	Feb	Shallow drowned valley	–41.2701	173.7690
Havelock	a	2014	Feb	Shallow drowned valley	–41.2701	173.7690
Havelock	a	2015	Mar	Shallow drowned valley	–41.2701	173.7690
Havelock	b	2001	Feb	Shallow drowned valley	–41.2706	173.7742
Havelock	b	2014	Feb	Shallow drowned valley	–41.2706	173.7742
Havelock	b	2015	Mar	Shallow drowned valley	–41.2706	173.7742
Havelock	c	2015	Mar	Shallow drowned valley	–41.2706	173.7691
Havelock	d	2015	Mar	Shallow drowned valley	–41.2707	173.7739
Jacobs River	a	2003	Feb	Tidal lagoon	–46.3442	168.0090
Jacobs River	a	2004	Feb	Tidal lagoon	–46.3442	168.0090
Jacobs River	a	2005	Jan	Tidal lagoon	–46.3442	168.0090
Jacobs River	a	2006	Jan	Tidal lagoon	–46.3442	168.0090
Jacobs River	a	2011	Feb	Tidal lagoon	–46.3442	168.0090
Jacobs River	b	2003	Feb	Tidal lagoon	–46.3453	167.9919

Estuary	Site	Year	Month	Estuary type	Latitude	Longitude
Jacobs River	b	2004	Feb	Tidal lagoon	–46.3453	167.9919
Jacobs River	b	2005	Jan	Tidal lagoon	–46.3453	167.9919
Jacobs River	b	2006	Jan	Tidal lagoon	–46.3453	167.9919
Jacobs River	b	2011	Feb	Tidal lagoon	–46.3453	167.9919
Jacobs River	c	2003	Feb	Tidal lagoon	–46.3348	167.9718
Jacobs River	c	2004	Feb	Tidal lagoon	–46.3348	167.9718
Jacobs River	c	2005	Jan	Tidal lagoon	–46.3348	167.9718
Jacobs River	c	2006	Jan	Tidal lagoon	–46.3348	167.9718
Jacobs River	c	2011	Feb	Tidal lagoon	–46.3348	167.9718
Jacobs River	d	2012	Jan	Tidal lagoon	–46.3343	167.9706
Jacobs River	d	2013	Mar	Tidal lagoon	–46.3343	167.9706
Jacobs River	e	2012	Jan	Tidal lagoon	–46.3312	168.0004
Jacobs River	e	2013	Apr	Tidal lagoon	–46.3312	168.0004
Kaipara	a	2001	Feb	Shallow drowned valley	–36.1602	174.3882
Kaipara	b	2001	Feb	Shallow drowned valley	–36.1375	174.3857
Kaipara	c	2001	Feb	Shallow drowned valley	–36.2272	174.3306
Lyttelton	governors	2011	May	Deep drowned valley	–43.6211	172.6553
Lyttelton	governors	2012	Mar	Deep drowned valley	–43.6211	172.6553
Lyttelton	governors	2013	Feb	Deep drowned valley	–43.6211	172.6553
Lyttelton	governors	2014	Mar	Deep drowned valley	–43.6211	172.6553
Lyttelton	governors	2015	Apr	Deep drowned valley	–43.6211	172.6553
Lyttelton	hob	2011	Mar	Deep drowned valley	–43.6474	172.6660
Lyttelton	hob	2012	Mar	Deep drowned valley	–43.6474	172.6660
Lyttelton	hob	2013	Mar	Deep drowned valley	–43.6474	172.6660
Lyttelton	hob	2014	Apr	Deep drowned valley	–43.6474	172.6660
Lyttelton	hob	2015	Apr	Deep drowned valley	–43.6474	172.6660
Mangonui	Man-10	2016	Feb	Shallow drowned valley	–34.9970	173.5523
Mangonui	man-11	2016	Feb	Shallow drowned valley	–34.9970	173.5469
Mangonui	man-15	2016	Feb	Shallow drowned valley	–34.9759	173.5410
Mangonui	man-17	2016	Feb	Shallow drowned valley	–34.9820	173.5535
Mangonui	man-19	2016	Feb	Shallow drowned valley	–34.9897	173.5565
Mangonui	man-2	2016	Feb	Shallow drowned valley	–34.9938	173.5358
Mangonui	man-20	2016	Feb	Shallow drowned valley	–34.9957	173.5567
Mangonui	man-21	2016	Feb	Shallow drowned valley	–34.9987	173.5563
Mangonui	man-22	2016	Feb	Shallow drowned valley	–35.0034	173.5564
Mangonui	man-3	2016	Feb	Shallow drowned valley	–34.9961	173.5364
Mangonui	man-4	2016	Feb	Shallow drowned valley	–34.9994	173.5376
Mangonui	man-5	2016	Feb	Shallow drowned valley	–35.0008	173.5400
Mangonui	man-6	2016	Feb	Shallow drowned valley	–35.0032	173.5414
Mangonui	man-7	2016	Feb	Shallow drowned valley	–34.9983	173.5436
Mangonui	man-9	2016	Feb	Shallow drowned valley	–34.9928	173.5483
Moutere	a	2006	Mar	Shallow drowned valley	–41.1486	173.0175
Moutere	a	2013	Mar	Shallow drowned valley	–41.1486	173.0175
Moutere	a	2015	Mar	Shallow drowned valley	–41.1486	173.0175
Moutere	b	2006	Mar	Shallow drowned valley	–41.1696	173.0433
Moutere	b	2013	Mar	Shallow drowned valley	–41.1696	173.0433
Moutere	b	2015	Mar	Shallow drowned valley	–41.1696	173.0433
Nelson Haven	a	2012	Apr	Tidal lagoon	–41.2280	173.3143
Nelson Haven	b	2012	Apr	Tidal lagoon	–41.2470	173.3050
Nelson Haven	c	2012	Apr	Tidal lagoon	–41.2491	173.2957
New River	a	2001	Feb	Shallow drowned valley	–46.4625	168.3426
New River	b	2001	Feb	Shallow drowned valley	–46.4769	168.3355
New River	b	2003	Feb	Shallow drowned valley	–46.4769	168.3355
New River	b	2004	Feb	Shallow drowned valley	–46.4769	168.3355
New River	b	2005	Jan	Shallow drowned valley	–46.4769	168.3355

Estuary	Site	Year	Month	Estuary type	Latitude	Longitude
New River	b	2010	Feb	Shallow drowned valley	–46.4769	168.3355
New River	c	2001	Feb	Shallow drowned valley	–46.4760	168.3029
New River	c	2003	Feb	Shallow drowned valley	–46.4760	168.3029
New River	c	2004	Feb	Shallow drowned valley	–46.4760	168.3029
New River	c	2005	Jan	Shallow drowned valley	–46.4760	168.3029
New River	c	2010	Feb	Shallow drowned valley	–46.4760	168.3029
New River	d	2001	Feb	Shallow drowned valley	–46.4592	168.3173
New River	d	2003	Feb	Shallow drowned valley	–46.4592	168.3173
New River	d	2004	Feb	Shallow drowned valley	–46.4592	168.3173
New River	d	2005	Jan	Shallow drowned valley	–46.4592	168.3173
New River	d	2010	Feb	Shallow drowned valley	–46.4592	168.3173
New River	e	2012	NA	Shallow drowned valley	–46.4753	168.3006
New River	e	2013	Feb	Shallow drowned valley	–46.4753	168.3006
New River	f	2012	NA	Shallow drowned valley	–46.4406	168.3288
New River	f	2013	Feb	Shallow drowned valley	–46.4406	168.3288
Ngunguru	1	2016	Mar	Tidal lagoon	–35.6447	174.4694
Ngunguru	10	2016	Mar	Tidal lagoon	–35.6394	174.4974
Ngunguru	11	2016	Mar	Tidal lagoon	–35.6354	174.5002
Ngunguru	12	2016	Mar	Tidal lagoon	–35.6421	174.4986
Ngunguru	13	2016	Mar	Tidal lagoon	–35.6398	174.4998
Ngunguru	14	2016	Mar	Tidal lagoon	–35.6350	174.5028
Ngunguru	15	2016	Mar	Tidal lagoon	–35.6396	174.5031
Ngunguru	16	2016	Mar	Tidal lagoon	–35.6309	174.5077
Ngunguru	17	2016	Mar	Tidal lagoon	–35.6295	174.5096
Ngunguru	19	2016	Mar	Tidal lagoon	–35.6334	174.5018
Ngunguru	2	2016	Mar	Tidal lagoon	–35.6458	174.4662
Ngunguru	20	2016	Mar	Tidal lagoon	–35.6305	174.5041
Ngunguru	21	2016	Mar	Tidal lagoon	–35.6277	174.5101
Ngunguru	22	2016	Mar	Tidal lagoon	–35.6282	174.5145
Ngunguru	3	2016	Mar	Tidal lagoon	–35.6421	174.4731
Ngunguru	4	2016	Mar	Tidal lagoon	–35.6429	174.4751
Ngunguru	5	2016	Mar	Tidal lagoon	–35.6450	174.4759
Ngunguru	6	2016	Mar	Tidal lagoon	–35.6429	174.4813
Ngunguru	7	2016	Mar	Tidal lagoon	–35.6392	174.4890
Ngunguru	8	2016	Mar	Tidal lagoon	–35.6424	174.4924
Ngunguru	9	2016	Mar	Tidal lagoon	–35.6380	174.4933
Ohiwa	a	2001	Feb	Deep drowned valley	–37.9976	177.0935
Ohiwa	b	2001	Feb	Deep drowned valley	–38.0068	177.1228
Ohiwa	c	2001	Feb	Deep drowned valley	–37.9911	177.0685
Ohiwa	d	2001	Feb	Deep drowned valley	–37.9825	177.0847
Orowaiti	a	2007	Jan	Tidal lagoon	–41.7452	171.6350
Orowaiti	b	2007	Jan	Tidal lagoon	–41.7529	171.6257
Porirua	pauaa	2009	Jan	Tidal lagoon	–41.0983	174.8724
Porirua	pauaa	2010	Jan	Tidal lagoon	–41.0983	174.8724
Porirua	pauab	2009	Jan	Tidal lagoon	–41.1004	174.9095
Porirua	pauab	2010	Jan	Tidal lagoon	–41.1004	174.9095
Porirua	poria	2009	Jan	Tidal lagoon	–41.1063	174.8633
Porirua	poria	2010	Jan	Tidal lagoon	–41.1063	174.8633
Porirua	porib	2009	Jan	Tidal lagoon	–41.1278	174.8419
Porirua	porib	2010	Jan	Tidal lagoon	–41.1278	174.8419
Ruataniwha	a	2001	Feb	Tidal lagoon	–40.6490	172.6638
Ruataniwha	b	2001	Feb	Tidal lagoon	–40.6545	172.6776
Ruataniwha	c	2001	Feb	Tidal lagoon	–40.6498	172.6672
Shag River	a	2016	Dec	Tidal lagoon	–45.4804	170.8113
Shag River	b	2016	Dec	Tidal lagoon	–45.4774	170.8080

Estuary	Site	Year	Month	Estuary type	Latitude	Longitude
Shakespeare	seagrass	2016	Feb	Deep drowned valley	–41.2796	173.9952
Shakespeare	unvegetated	2016	Feb	Deep drowned valley	–41.2802	173.9968
Tauranga	1	2011	Dec	Shallow drowned valley	–37.4524	175.9714
Tauranga	10	2011	Dec	Shallow drowned valley	–37.5356	175.9331
Tauranga	11	2011	Dec	Shallow drowned valley	–37.5490	175.9546
Tauranga	12	2011	Dec	Shallow drowned valley	–37.5617	175.9535
Tauranga	13	2011	Dec	Shallow drowned valley	–37.5608	175.9395
Tauranga	14	2011	Dec	Shallow drowned valley	–37.5737	175.9311
Tauranga	15	2011	Dec	Shallow drowned valley	–37.5077	175.9937
Tauranga	16	2011	Dec	Shallow drowned valley	–37.4863	175.9594
Tauranga	17	2011	Dec	Shallow drowned valley	–37.5493	176.0132
Tauranga	18	2011	Dec	Shallow drowned valley	–37.5604	176.0356
Tauranga	19	2011	Dec	Shallow drowned valley	–37.5517	176.0043
Tauranga	2	2011	Dec	Shallow drowned valley	–37.4633	175.9741
Tauranga	20	2011	Dec	Shallow drowned valley	–37.5744	176.0618
Tauranga	21	2011	Dec	Shallow drowned valley	–37.5503	175.9760
Tauranga	22	2011	Dec	Shallow drowned valley	–37.5785	175.9930
Tauranga	23	2011	Dec	Shallow drowned valley	–37.5761	175.9890
Tauranga	24	2011	Dec	Shallow drowned valley	–37.5990	176.0298
Tauranga	25	2011	Dec	Shallow drowned valley	–37.5976	176.0328
Tauranga	26	2011	Dec	Shallow drowned valley	–37.5986	175.9938
Tauranga	27	2011	Dec	Shallow drowned valley	–37.5991	175.9860
Tauranga	28	2011	Dec	Shallow drowned valley	–37.6011	175.9771
Tauranga	29	2011	Dec	Shallow drowned valley	–37.6045	176.0863
Tauranga	3	2011	Dec	Shallow drowned valley	–37.4638	175.9546
Tauranga	30	2011	Dec	Shallow drowned valley	–37.6049	176.0878
Tauranga	31	2011	Dec	Shallow drowned valley	–37.6227	176.1224
Tauranga	32	2011	Dec	Shallow drowned valley	–37.6301	176.1235
Tauranga	33	2011	Dec	Shallow drowned valley	–37.6335	176.1316
Tauranga	34	2011	Dec	Shallow drowned valley	–37.6345	176.1334
Tauranga	35	2011	Dec	Shallow drowned valley	–37.6218	176.0970
Tauranga	36	2011	Dec	Shallow drowned valley	–37.6201	176.0188
Tauranga	37	2011	Dec	Shallow drowned valley	–37.6231	175.9841
Tauranga	38	2011	Dec	Shallow drowned valley	–37.6331	175.9945
Tauranga	39	2011	Dec	Shallow drowned valley	–37.6251	176.0113
Tauranga	4	2011	Dec	Shallow drowned valley	–37.4693	175.9501
Tauranga	40	2011	Dec	Shallow drowned valley	–37.6375	176.0209
Tauranga	41	2011	Dec	Shallow drowned valley	–37.6326	176.0252
Tauranga	42	2011	Dec	Shallow drowned valley	–37.6334	176.0373
Tauranga	43	2011	Dec	Shallow drowned valley	–37.6040	176.0389
Tauranga	44	2011	Dec	Shallow drowned valley	–37.6318	176.0603
Tauranga	46	2011	Dec	Shallow drowned valley	–37.6504	176.0430
Tauranga	47	2011	Dec	Shallow drowned valley	–37.6592	176.0346
Tauranga	48	2011	Dec	Shallow drowned valley	–37.6795	176.0439
Tauranga	49	2011	Dec	Shallow drowned valley	–37.6589	176.0569
Tauranga	5	2011	Dec	Shallow drowned valley	–37.4681	175.9668
Tauranga	50	2011	Dec	Shallow drowned valley	–37.6619	176.0618
Tauranga	51	2011	Dec	Shallow drowned valley	–37.6477	176.1160
Tauranga	52	2011	Dec	Shallow drowned valley	–37.6411	176.0805
Tauranga	53	2011	Dec	Shallow drowned valley	–37.6567	176.0762
Tauranga	54	2011	Dec	Shallow drowned valley	–37.6639	176.0996
Tauranga	55	2011	Dec	Shallow drowned valley	–37.6739	176.1031
Tauranga	56	2011	Dec	Shallow drowned valley	–37.6794	176.1076
Tauranga	57	2011	Dec	Shallow drowned valley	–37.6747	176.1186
Tauranga	58	2011	Dec	Shallow drowned valley	–37.6585	176.1315

Estuary	Site	Year	Month	Estuary type	Latitude	Longitude
Tauranga	59	2011	Dec	Shallow drowned valley	–37.6642	176.1505
Tauranga	6	2011	Dec	Shallow drowned valley	–37.4805	175.9511
Tauranga	60	2011	Dec	Shallow drowned valley	–37.6630	176.1602
Tauranga	61	2011	Dec	Shallow drowned valley	–37.6680	176.1637
Tauranga	62	2011	Dec	Shallow drowned valley	–37.6816	176.1514
Tauranga	63	2011	Dec	Shallow drowned valley	–37.6824	176.1539
Tauranga	64	2011	Dec	Shallow drowned valley	–37.6850	176.1550
Tauranga	65	2011	Dec	Shallow drowned valley	–37.6820	176.1796
Tauranga	66	2011	Dec	Shallow drowned valley	–37.6755	176.1868
Tauranga	67	2011	Dec	Shallow drowned valley	–37.6832	176.2030
Tauranga	68	2011	Dec	Shallow drowned valley	–37.7052	176.1685
Tauranga	69	2011	Dec	Shallow drowned valley	–37.7228	176.1550
Tauranga	7	2011	Dec	Shallow drowned valley	–37.4943	175.9442
Tauranga	70	2011	Dec	Shallow drowned valley	–37.7224	176.1614
Tauranga	71	2011	Dec	Shallow drowned valley	–37.7071	176.1963
Tauranga	72	2011	Dec	Shallow drowned valley	–37.7066	176.2104
Tauranga	73	2011	Dec	Shallow drowned valley	–37.7077	176.2159
Tauranga	74	2011	Dec	Shallow drowned valley	–37.6980	176.2280
Tauranga	75	2011	Dec	Shallow drowned valley	–37.7195	176.1956
Tauranga	8	2011	Dec	Shallow drowned valley	–37.5022	175.9751
Tauranga	9	2011	Dec	Shallow drowned valley	–37.5244	175.9578
Tokomairiro	a	2017	Dec	Tidal lagoon	–46.2161	170.0438
Tokomairiro	b	2017	Dec	Tidal lagoon	–46.2095	170.0447
Waikawa 1	a	2016	Jan	Deep drowned valley	–41.2680	174.0398
Waikawa 2	a	2005	Jan	Tidal lagoon	–46.6224	169.1451
Waikawa 2	a	2006	Jan	Tidal lagoon	–46.6224	169.1451
Waikawa 2	a	2007	Feb	Tidal lagoon	–46.6224	169.1451
Waikawa 2	a	2008	Feb	Tidal lagoon	–46.6224	169.1451
Waikawa 2	b	2005	Jan	Tidal lagoon	–46.6285	169.1499
Waikawa 2	b	2006	Jan	Tidal lagoon	–46.6285	169.1499
Waikawa 2	b	2007	Feb	Tidal lagoon	–46.6285	169.1499
Waikawa 2	b	2008	Feb	Tidal lagoon	–46.6285	169.1499
Waikouaiti	a	2016	Dec	Tidal lagoon	–45.6350	170.6558
Waikouaiti	b	2016	Dec	Tidal lagoon	–45.6250	170.6507
Waikouaiti	c	2016	Dec	Tidal lagoon	–45.6207	170.6369
Waimea	a	2001	Feb	Shallow drowned valley	–41.3173	173.1825
Waimea	a	2006	Apr	Shallow drowned valley	–41.3173	173.1825
Waimea	a	2014	Mar	Shallow drowned valley	–41.3173	173.1825
Waimea	a	2015	Mar	Shallow drowned valley	–41.3173	173.1825
Waimea	b	2001	Feb	Shallow drowned valley	–41.2643	173.0878
Waimea	b	2006	Apr	Shallow drowned valley	–41.2643	173.0878
Waimea	b	2014	Mar	Shallow drowned valley	–41.2643	173.0878
Waimea	c	2001	Feb	Shallow drowned valley	–41.2996	173.1775
Waimea	c	2006	Apr	Shallow drowned valley	–41.2996	173.1775
Waimea	c	2014	Mar	Shallow drowned valley	–41.2996	173.1775
Waimea	c	2015	Mar	Shallow drowned valley	–41.2996	173.1775
Waimea	d	2001	Feb	Shallow drowned valley	–41.2809	173.1062
Waimea	d	2006	Apr	Shallow drowned valley	–41.2809	173.1062
Waimea	d	2014	Mar	Shallow drowned valley	–41.2809	173.1062
Waimea	d	2015	Mar	Shallow drowned valley	–41.2809	173.1062
Waitangi	wat10	2013	May	Deep drowned valley	–35.2681	174.0716
Waitangi	wat4	2013	May	Deep drowned valley	–35.2731	174.0758
Waitangi	wat5	2013	May	Deep drowned valley	–35.2724	174.0727
Waitangi	wat6	2013	May	Deep drowned valley	–35.2800	174.0684
Waitangi	wat7	2013	May	Deep drowned valley	–35.2758	174.0671

Estuary	Site	Year	Month	Estuary type	Latitude	Longitude
Waitangi	wat8	2013	May	Deep drowned valley	–35.2741	174.0601
Waitangi	wat9	2013	May	Deep drowned valley	–35.2696	174.0772
Whangarae	a	2016	Mar	Tidal lagoon	–41.0983	173.6175
Whangarae	b	2016	Mar	Tidal lagoon	–41.1017	173.6212
Whangaroa	kae	2009	Feb	Shallow drowned valley	–35.0664	173.7382
Whangaroa	kae	2010	Feb	Shallow drowned valley	–35.0664	173.7382
Whangaroa	kae	2011	Feb	Shallow drowned valley	–35.0664	173.7382
Whangaroa	kah	2009	Feb	Shallow drowned valley	–35.0491	173.7114
Whangaroa	kah	2010	Feb	Shallow drowned valley	–35.0491	173.7114
Whangaroa	kah	2011	Feb	Shallow drowned valley	–35.0491	173.7114

Reference

Hume T, Gerbeaux P, Hart D, Kettles H, Neale D (2016) A classification of New Zealand's coastal hydrosystems. Prepared for Ministry for the Environment