

## APPENDIX ONE

### Annual Rainfall 2001/2002 Compared to Mean Annual Rainfall For Various Northland Stations.

Site No.	Rainfall Station	Authority	Start Record	Annual Rainfall 2002-03	Mean Annual Rainfall	%
548201	Mangapai	MET	1970	1256	1376	91
534724	Kaikohe Hill	NRC	1985	1514	1635	93
533817	Ohaeawai	NRC	1967	1712	1844	93
535510	Wairoa Farms Waima	NRC	1976	2619	2816	93
546212	Jordan Valley	NRC	1967	1490	1568	95
641511	Tara	NRC	1946	1541	1621	95
532801	Taus Falls	MET	1951	2167	2269	96
539710	Bayleys Beach	NRC	1976	1098	1144	96
545501	Matapouri	MET	1967	1360	1387	98
546301	Glenbervie	NRC	1947	1843	1876	98
641310	NDC Maungaturoto	NRC	1992	1329	1350	98
531711	Kaeo Paitu	NRC	1963	1809	1836	99
641210	Higgins Paparoa	NRC	1991	1415	1421	100
531310	Te Rore - Mangamuka	NRC	1966	1793	1796	100
533201	Puhata	MET	1979	1493	1481	101
548211	Jones - Mangapai	NRC	1972	1535	1514	101
531715	Kaeo Bramley's	NRC	1971	1978	1950	101
548310	Whittle Spingfield	NRC	1964	1497	1463	102
547338	Robert Street	NRC	1989	1385	1353	102
530810	Matauri Bay	NRC	1986	2049	1986	103
539812	Dargaville	NRC	2000	1299	1253	104
532311	Takahue Top	NRC	1971	1942	1863	104
546203	Ruatangata	MET	1963	1592	1527	104
640411	Glenmohr Road Waipu	NRC	1969	1528	1465	104
548210	Palmer Mangapai	NRC	1988	1380	1316	105
546412	Fergusson Ngunguru	NRC	1968	1987	1889	105
546316	Batt Ngunguru	NRC	1987	1899	1804	105
530701	Kaeo	MET	1987	1734	1644	105
547512	Taiharuru	NRC	1988	1291	1222	106
549010	Monymusk	NRC	1976	1373	1299	106
439301	Rangiputa	MET	1970	1255	1187	106
630901	Arapohue	MET	1955	1268	1195	106
425902	Paua	MET	1970	1312	1233	106
530204	Aupouri	NRC	1967	1310	1231	106
545201	Puhipuhi Auto	NRC	1905	2136	2006	106
532903	Kerikeri Aero	MET	1978	1941	1817	107
530710	Giesber -Kaeo	NRC	1983	1837	1710	107
544311	Peach Road	NRC	1981	2522	2343	108
545310	Opuawhanga	NRC	1968	2094	1931	108
542010	Wakelins Haruru Falls	NRC	1979	1688	1554	109
439201	Waiharara1	MET	1956	1301	1191	109
532710	Puketi Road	NRC	1963	2467	2252	110
547411	Parua Bay	NRC	1986	1683	1536	110
547219	Cemetery Rd - Maunu	NRC	1979	1715	1564	110

532611	Waihou Valley	NRC	1979	1857	1691	110
641413	Hakarau	NRC	1980	1556	1413	110
545111	Towai Dawson	NRC	1978	1735	1575	110
640501	Waipu Cove	MET	1948	1440	1306	110
537901	Parakao	MET	1951	1649	1473	112
531411	Victoria Valley	NRC	1966	1975	1747	113
534442	Opononi	MET	1967	1470	1296	113
536811	Froggat Opouteke	NRC	1967	2142	1873	114
548212	Marsden Point	NRC	1986	1392	1217	114
547220	Te Hihi Maunu	NRC	1988	2076	1778	117
531205	Kaitaia Obs	MET	1985	1578	1349	117
537815	Kereru Tangowahine	NRC	1978	1973	1673	118
534503	Rawene2	MET	1977	1504	1275	118
547223	Redwood - Maunu	NRC	1983	1849	1565	118
543012	Whangae	NRC	1981	1846	1552	119
538801	Mamaranui	MET	1951	1554	1302	119
530205	Wiessing - Awanui	NRC	1992	1582	1316	120
545213	Morgan Hukerenui	NRC	1974	1940	1592	122
531911	Kaikaha Kerikeri	NRC	1987	2029	1662	122
438111	Wallace - Houhora	NRC	2001	1337	short record	na
531414	Peria	NRC	2000	2063	short record	na
536612	Tutumoe	NRC	2001	2379	short record	na
536810	Twin Bridges	NRC	1991	1627	short record	na
537614	Coates Kaihu	NRC	1995	1715	short record	na
543013	Kawaglen Whangae	NRC	1999	1767	short record	na
543110	Opuia	NRC	1993	1552	short record	na
543311	Oakura Murphy	NRC	1993	1851	short record	na
545312	Dandilion - Puhipuhi	NRC	1995	2152	short record	na
546218	Cathcart - Ruatangata	NRC	1990	1516	short record	na
546512	Wellington Bay	NRC	1993	1460	short record	na
547224	McIntosh Otaika	NRC	1995	1563	short record	na
547225	Cooper Whatitiri	NRC	1998	1588	short record	na
535412	Waioterama	NRC	1999	1661	short record	na
545013	Motatau	NRC	1995	1582	short record	na
545311	Kirikiritoki	NRC	2000	2011	short record	na
533301	Rotokakahi	NRC	1996	1755	short record	na
548213	Ruakaka	NRC	2000	1441	short record	na

## APPENDIX TWO

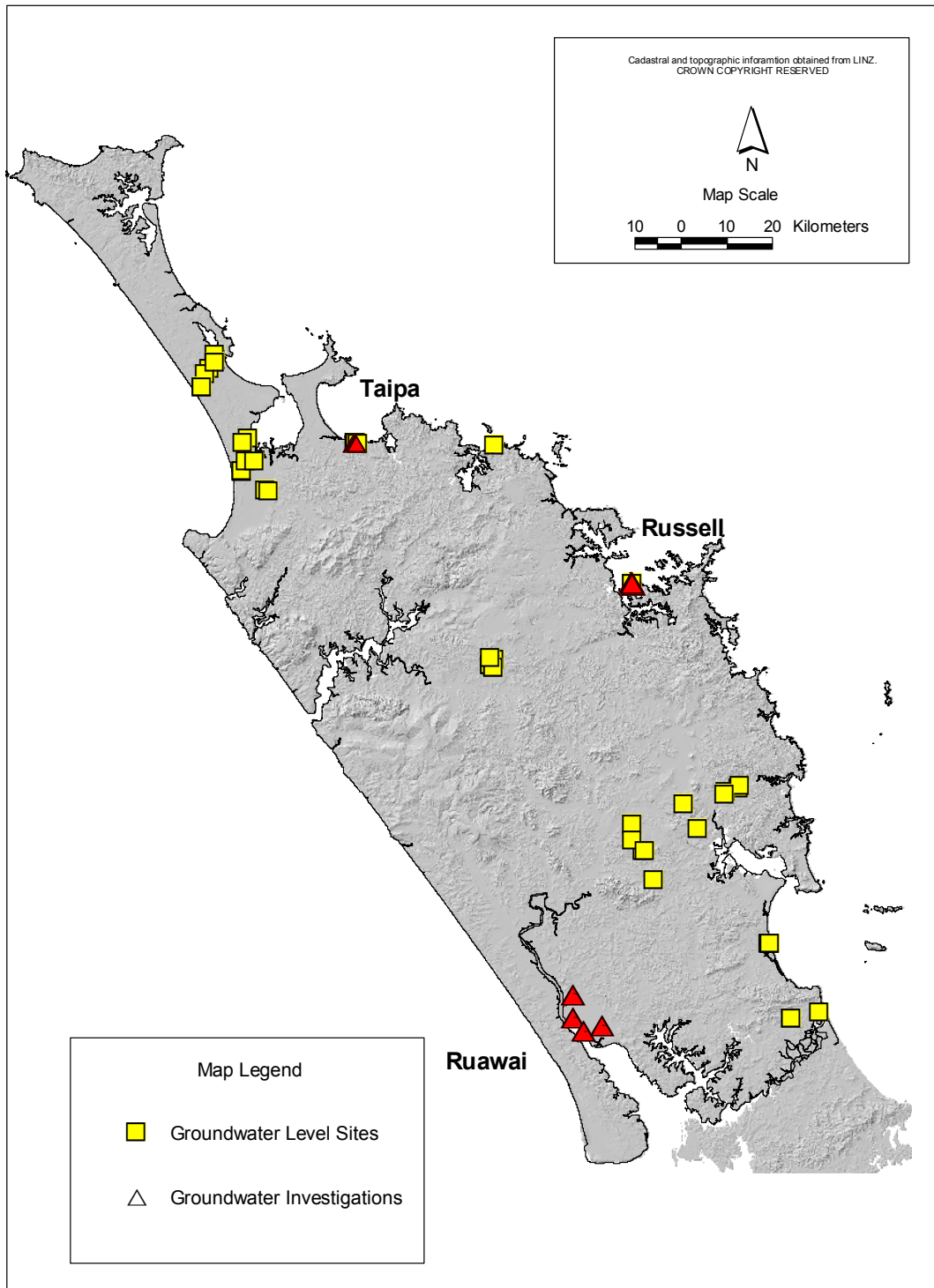
### Hydrometric Station Details as indicated on Figure 3.1 (Automatic Rainfall and Water level Recording Stations in Northland)

Number	Station Name	Easting	Northing	Automatic Recorder Station Type
1	Cape Reinga	2481600	6752500	MetService Rainfall Station
2	Selwyn Swamp	2526500	6698000	NRC Water Level Recorder Non Telemetered
3	Awanui	2535300	6676100	NRC Rain Recorder Telemetered
3	Awanui	2535300	6676100	NIWA Water Level Recorder Telemetered
4	Kaitaia	2534900	6674200	MetService Rainfall Station
5	Taipa	2553300	6689300	NRC Groundwater Level Recorders Non Telemetered
6	Oruru	2557500	6680100	NRC Rain Recorder Telemetered
6	Oruru	2557500	6680100	NIWA Water Level Recorder Telemetered
7	Victoria	2553100	6673000	NRC Rain Recorder Telemetered
8	Rotokakahi	2539500	6654500	NRC Water Level Recorder Telemetered
8	Rotokakahi	2539500	6654500	NRC Rain Recorder Telemetered
9	Kaero	2583038	6670826	NRC Rain Recorder Telemetered
10	Purerua	2603400	6674300	MetService Rainfall Station
11	Rangitane	2598880	6667033	NRC Water Level Recorder Non Telemetered
12	Kerikeri	2595500	6668700	MetService Rainfall Station
13	Maungaparerua Rain	2591300	6662200	NIWA Rain Recorder Telemetered
13	Maungaparerua	2591300	6662200	NIWA Water Level Recorder Telemetered
14	Waipapa	2573500	6658400	NIWA Water Level Recorder Telemetered
15	Punakitere	2570300	6637300	NRC Water Level Recorder Telemetered
16	Ohaeawai	2590100	6649000	NRC Rain Recorder Telemetered
17	Kaikohe	2585500	6641800	MetService Rainfall Station
18	Waitangi	2604600	6651800	NRC Rain Recorder Non Telemetered
19	Waitangi	2606100	6657700	NIWA Water Level Recorder Telemetered
20	Veronica Channel	2612700	6653600	NRC Water Level Recorder Non Telemetered
21	Russell	2612900	6659100	NRC Groundwater Level Recorders Non Telemetered
22	Waiharakeke	2603300	6644600	NRC Water Level Recorder Non Telemetered
23	Puhipuhi	2626500	6632000	NRC Rain Recorder Telemetered
24	Waiotu	2622200	6629100	NRC Water Level Recorder Non Telemetered
25	Whakapara	2626100	6628000	NRC Water Level Recorder Telemetered
26	Ngunguru Weir	2640500	6621200	NRC Water Level Recorder Telemetered
26	Ngunguru Rain	2640500	6622200	NRC Rain Recorder Telemetered
27	Glenbervie	2632500	6615200	NRC Rain Recorder Non Telemetered
28	Mangahuru Weir	2629500	6617000	NRC Water Level Recorder Non Telemetered
29	Robert Str	2630500	6607500	NRC Rain Recorder Non Telemetered
30	Waiarohia	2629800	6607500	NRC Water Level Recorder Non Telemetered
31	Raumanga	2629500	6606600	NRC Water Level Recorder Non Telemetered
32	Puriri Park	2626900	6606000	NRC Groundwater Level Recorders Non Telemetered
33	Whangarei	2634000	6602800	MetService Rainfall Station
34	Okarika	2616300	6620300	NRC Rain Recorder Non Telemetered
35	Wairua	2615000	6615800	NRC Water Level Recorder Non Telemetered
36	Hikurangi	2604950	6616600	NRC Water Level Recorder Non Telemetered
37	Mangere	2614200	6610800	NRC Water Level Recorder Non Telemetered
38	Waipao	2612700	6607700	NRC Water Level Recorder Non Telemetered
39	Poroti West	2613000	6606900	NRC Groundwater Level Recorders Non Telemetered
40	Wairua Bridge	2609600	6607200	NRC Water Level Recorder Telemetered

41	Mangakahia	2605700	6606800	NRC Water Level Recorder Telemetered
42	Twin Bridges	2587681	6618754	NRC Rain Recorder Telemetered
42	Mangakahia	2587500	6619000	NIWA Water Level Recorder Telemetered
43	Opouteke Brookvale	2584300	6613300	NRC Rain Recorder Telemetered
44	Opouteke	2589300	6611400	NRC Water Level Recorder Telemetered
45	Kaihu	2572500	6604200	NRC Water Level Recorder Telemetered
46	Dargaville	2589300	6584100	NRC Water Level Recorder Telemetered
46	Dargaville	2589300	6584100	NRC Rain Recorder Telemetered
46	Dargaville	2587900	6595000	MetService Rainfall Station
47	Manganui	2611100	6581600	NRC Water Level Recorder Telemetered
48	Marsden Point	2645300	6595200	NRC Water Level Recorder Telemetered
49	Ruakaka Weir	2637400	6591800	NRC Water Level Recorder Non Telemetered
50	North	2637800	6583700	NRC Water Level Recorder Telemetered
51	Ahuroa	2637900	6576700	NRC Water Level Recorder Telemetered
52	Waionehu	2642000	6575800	NRC Water Level Recorder Non Telemetered
53	Waihihohoi	2639500	6576200	NRC Water Level Recorder Non Telemetered
54	Brynderwyn	2638300	6571800	NRC Rain Recorder Telemetered
55	Tara Rain	2647700	6564600	NRC Rain Recorder Non Telemetered
55	Tara	2647400	6564800	NRC Groundwater Level Recorders Non Telemetered
56	Mangawhai	2653400	6566200	NRC Groundwater Level Recorders Non Telemetered
57	Pouto Point	2616600	6537000	NRC Water Level Recorder Telemetered

# APPENDIX THREE:

## Current Groundwater Level Monitoring Sites and Specific Groundwater Investigations



## APPENDIX FOUR:

### State of the Environment groundwater monitoring sites and National groundwater monitoring programme sites

