

Table 2. Concentrations (mg/L) and Percentage Reductions (%) from Baseline Modelling

Site	NOF Statistic	Baseline	BAU 2025	BAU 2040	BAU 2080	SILVER 2025	SILVER 2040	SILVER 2080	GOLD 2025	GOLD 2040	GOLD 2080
Huangarua River at Ponatahi Bridge	Median (mg/L)	0.3015	0.2901	0.2896	0.2896	0.2671	0.2532	0.2532	0.2532	0.2532	0.2532
	Median (% change from Baseline)		-3.8%	-3.9%	-3.9%	-11.4%	-16.0%	-16.0%	-16.0%	-16.0%	-16.0%
	95th Percentile (mg/L)	1.0542	1.0608	1.0539	1.0539	0.9705	0.933	0.933	0.9331	0.933	0.933
	95th Percentile (% change from Baseline)		0.6%	-0.0%	-0.0%	-7.9%	-11.5%	-11.5%	-11.5%	-11.5%	-11.5%
Kopuaranga River at Stuarts	Median (mg/L)	0.9663	0.8679	0.8679	0.8679	0.8387	0.7967	0.7967	0.7966	0.7965	0.7965
	Median (% change from Baseline)		-10.2%	-10.2%	-10.2%	-13.2%	-17.5%	-17.5%	-17.6%	-17.6%	-17.6%
	95th Percentile (mg/L)	2.1119	1.9206	1.9206	1.9206	1.8709	1.7766	1.7766	1.7769	1.7769	1.7769
	95th Percentile (% change from Baseline)		-9.1%	-9.1%	-9.1%	-11.4%	-15.9%	-15.9%	-15.9%	-15.9%	-15.9%
Makahakaha Stream at Mouth	Median (mg/L)	0.7769	0.7768	0.7768	0.7768	0.7488	0.7299	0.7299	0.7299	0.7299	0.7299
	Median (% change from Baseline)		-0.0%	-0.0%	-0.0%	-3.6%	-6.0%	-6.0%	-6.1%	-6.1%	-6.1%
	95th Percentile (mg/L)	1.691	1.6909	1.6909	1.6909	1.6337	1.5956	1.5955	1.5955	1.5955	1.5955
	95th Percentile (% change from Baseline)		-0.0%	-0.0%	-0.0%	-3.4%	-5.6%	-5.6%	-5.6%	-5.6%	-5.6%
Mangatarere River at SH2	Median (mg/L)	0.7512	0.7455	0.7446	0.7254	0.7017	0.7	0.6946	0.6926	0.6918	0.6874
	Median (% change from Baseline)		-0.8%	-0.9%	-3.4%	-6.6%	-6.8%	-7.5%	-7.8%	-7.9%	-8.5%
	95th Percentile (mg/L)	2.2003	2.2009	2.2009	2.1562	2.1915	2.1899	2.1889	2.1899	2.1895	2.1882
	95th Percentile (% change from Baseline)		0.0%	0.0%	-2.0%	-0.4%	-0.5%	-0.5%	-0.5%	-0.5%	-0.5%
Otukura Stream at Mouth	Median (mg/L)	1.4279	1.4126	1.4126	1.4126	1.2128	1.2128	1.2126	1.2072	1.2072	1.2072
	Median (% change from Baseline)		-1.1%	-1.1%	-1.1%	-15.1%	-15.1%	-15.1%	-15.5%	-15.5%	-15.5%
	95th Percentile (mg/L)	1.5856	1.5052	1.5052	1.5052	1.298	1.2981	1.2979	1.2918	1.2918	1.2918
	95th Percentile (% change from Baseline)		-5.1%	-5.1%	-5.1%	-18.1%	-18.1%	-18.1%	-18.5%	-18.5%	-18.5%
Parkvale Stream at weir	Median (mg/L)	1.4818	1.4794	1.4794	1.4794	1.3095	1.3093	1.3093	1.2949	1.2949	1.2949
	Median (% change from Baseline)		-0.2%	-0.2%	-0.2%	-11.6%	-11.6%	-11.6%	-12.6%	-12.6%	-12.6%
	95th Percentile (mg/L)	1.8463	1.8573	1.8573	1.8573	1.7306	1.7306	1.7305	1.7211	1.7211	1.7211
	95th Percentile (% change from Baseline)		0.6%	0.6%	0.6%	-6.3%	-6.3%	-6.3%	-6.8%	-6.8%	-6.8%
Ruamahanga River at U/S Lake Wai Outlet	Median (mg/L)	0.5013	0.4734	0.4732	0.4723	0.4142	0.41	0.4099	0.4093	0.4093	0.4092
	Median (% change from Baseline)		-5.6%	-5.6%	-5.8%	-17.4%	-18.2%	-18.2%	-18.4%	-18.4%	-18.4%
	95th Percentile (mg/L)	0.9307	0.9209	0.9202	0.9159	0.8796	0.8536	0.8533	0.8531	0.8531	0.8529
	95th Percentile (% change from Baseline)		-1.1%	-1.1%	-1.6%	-5.5%	-8.3%	-8.3%	-8.3%	-8.3%	-8.4%
Ruamahanga River at Pukio	Median (mg/L)	0.4578	0.4191	0.4188	0.4173	0.3859	0.3801	0.3799	0.379	0.379	0.3788
	Median (% change from Baseline)		-8.5%	-8.5%	-8.8%	-15.7%	-17.0%	-17.0%	-17.2%	-17.2%	-17.2%
	95th Percentile (mg/L)	0.9507	0.9405	0.9401	0.9367	0.9049	0.8801	0.8798	0.8794	0.8793	0.8791
	95th Percentile (% change from Baseline)		-1.1%	-1.1%	-1.5%	-4.8%	-7.4%	-7.5%	-7.5%	-7.5%	-7.5%
Ruamahanga River at Te Ore Ore	Median (mg/L)	0.3662	0.3446	0.3446	0.3427	0.3334	0.3206	0.3206	0.3207	0.3207	0.3207
	Median (% change from Baseline)		-5.9%	-5.9%	-6.4%	-9.0%	-12.5%	-12.5%	-12.4%	-12.4%	-12.4%
	95th Percentile (mg/L)	0.9463	0.9402	0.9402	0.9373	0.9145	0.8744	0.8744	0.8741	0.874	0.874
	95th Percentile (% change from Baseline)		-0.6%	-0.6%	-1.0%	-3.4%	-7.6%	-7.6%	-7.6%	-7.6%	-7.6%
Ruamahanga River at Gladstone Bridge	Median (mg/L)	0.5187	0.4505	0.4501	0.4482	0.4226	0.4133	0.4131	0.4132	0.4132	0.4128
	Median (% change from Baseline)		-13.2%	-13.2%	-13.6%	-18.5%	-20.3%	-20.4%	-20.3%	-20.3%	-20.4%
	95th Percentile (mg/L)	1.0346	1.0212	1.0204	1.0141	0.9846	0.9532	0.953	0.9529	0.9529	0.9528
	95th Percentile (% change from Baseline)		-1.3%	-1.4%	-2.0%	-4.8%	-7.9%	-7.9%	-7.9%	-7.9%	-7.9%
Ruamahanga River at Waihenga	Median (mg/L)	0.4398	0.3991	0.3987	0.3973	0.3703	0.364	0.3638	0.3629	0.3629	0.3627
	Median (% change from Baseline)		-9.3%	-9.4%	-9.7%	-15.8%	-17.2%	-17.3%	-17.5%	-17.5%	-17.5%
	95th Percentile (mg/L)	0.9542	0.9436	0.943	0.9385	0.911	0.8853	0.885	0.8847	0.8846	0.8844
	95th Percentile (% change from Baseline)		-1.1%	-1.2%	-1.7%	-4.5%	-7.2%	-7.3%	-7.3%	-7.3%	-7.3%
Ruamahanga River at Wardells	Median (mg/L)	0.6625	0.5388	0.5383	0.5352	0.4971	0.4886	0.4882	0.4882	0.4881	0.4877
	Median (% change from Baseline)		-18.7%	-18.7%	-19.2%	-25.0%	-26.2%	-26.3%	-26.3%	-26.3%	-26.4%
	95th Percentile (mg/L)	1.2717	1.2451	1.2449	1.2348	1.2004	1.1669	1.1655	1.1663	1.1663	1.1654
	95th Percentile (% change from Baseline)		-2.1%	-2.1%	-2.9%	-5.6%	-8.2%	-8.4%	-8.3%	-8.3%	-8.4%
Tauanui River at Mouth	Median (mg/L)	0.1271	0.1275	0.1275	0.1275	0.1267	0.1263	0.1263	0.1262	0.1262	0.1262
	Median (% change from Baseline)		0.4%	0.3%	0.3%	-0.3%	-0.7%	-0.7%	-0.7%	-0.7%	-0.7%
	95th Percentile (mg/L)	0.3367	0.3367	0.3367	0.3367	0.3289	0.3285	0.3285	0.3285	0.3285	0.3285
	95th Percentile (% change from Baseline)		0.0%	-0.0%	-0.0%	-2.3%	-2.4%	-2.4%	-2.4%	-2.4%	-2.4%
Tauherenikau River at Websters	Median (mg/L)	0.0633	0.0623	0.0623	0.0623	0.0558	0.0557	0.0557	0.0552	0.0552	0.0552
	Median (% change from Baseline)		-1.7%	-1.7%	-1.7%	-11.9%	-12.0%	-12.0%	-12.8%	-12.8%	-12.8%
	95th Percentile (mg/L)	0.2872	0.3013	0.3013	0.3013	0.2532	0.2532	0.2532	0.2498	0.2498	0.2498
	95th Percentile (% change from Baseline)		4.9%	4.9%	4.9%	-11.9%	-11.8%	-11.9%	-13.0%	-13.0%	-13.0%
Taueru River at Gladstone	Median (mg/L)	0.724	0.7236	0.7237	0.7237	0.6981	0.6594	0.6594	0.6594	0.6593	0.6593
	Median (% change from Baseline)		-0.0%	-0.0%	-0.0%	-3.6%	-8.9%	-8.9%	-8.9%	-8.9%	-8.9%
	95th Percentile (mg/L)	1.4038	1.4037	1.4037	1.4037	1.3625	1.2908	1.2908	1.2908	1.2907	1.2907
	95th Percentile (% change from Baseline)		-0.0%	-0.0%	-0.0%	-2.9%	-8.1%	-8.1%	-8.0%	-8.1%	-8.1%
Turanganui River at Mouth	Median (mg/L)	0.1572	0.1571	0.1538	0.1538	0.1508	0.1502	0.1502	0.1502	0.1502	0.1502
	Median (% change from Baseline)		-0.0%	-2.1%	-2.1%	-4.0%	-4.4%	-4.4%	-4.4%	-4.4%	-4.4%
	95th Percentile (mg/L)	0.62	0.6199	0.6069	0.6069	0.5963	0.5945	0.5945	0.5945	0.5945	0.5945
	95th Percentile (% change from Baseline)		-0.0%	-2.1%	-2.1%	-3.8%	-4.1%	-4.1%	-4.1%	-4.1%	-4.1%
Waingawa River at South Rd	Median (mg/L)	0.0952	0.094	0.094	0.0938	0.0927	0.0925	0.0925	0.0925	0.0925	0.0925
	Median (% change from Baseline)		-1.2%	-1.2%	-1.4%	-2.6%	-2.8%	-2.8%	-2.8%	-2.8%	-2.8%
	95th Percentile (mg/L)	0.24	0.2398	0.2398	0.239	0.2391	0.2386	0.2386	0.2386	0.2386	0.2386
	95th Percentile (% change from Baseline)		-0.1%	-0.1%	-0.4%	-0.4%	-0.6%	-0.6%	-0.6%	-0.6%	-0.6%
Waiohine River at Bicknells	Median (mg/L)	0.1948	0.182	0.182	0.1805	0.1691	0.1688	0.1688	0.1667	0.1667	0.1666
	Median (% change from Baseline)		-6.6%	-6.6%	-7.4%	-13.2%	-13.4%	-13.4%	-14.5%	-14.5%	-14.5%
	95th Percentile (mg/L)	0.6632	0.645	0.645	0.6377	0.6373	0.6363	0.6362	0.6352	0.6352	0.6351
	95th Percentile (% change from Baseline)		-2.7%	-2.7%	-3.8%	-3.9%	-4.1%	-4.1%	-4.2%	-4.2%	-4.2%
Waipoua River at Colombo Rd Bridge	Median (mg/L)	0.8012	0.6562	0.6562	0.6507	0.6169	0.6115	0.6115	0.6096	0.6096	0.6096
	Median (% change from Baseline)		-18.1%	-18.1%	-18.8%	-23.0%	-23.7%	-23.7%	-23.9%	-23.9%	-23.9%
	95th Percentile (mg/L)	1.8535	1.8257	1.8257	1.7994	1.7557	1.7355	1.7355	1.7354	1.7354	1.7354
	95th Percentile (% change from Baseline)		-1.5%	-1.5%	-2.9%	-5.3%	-6.4%	-6.4%	-6.4%	-6.4%	-6.4%
Whangaehu River at 250m from Ruamahanga Confluence	Median (mg/L)	1.3948	1.3591	1.3591	1.3591	1.1339	1.1275	1.1275	1.1273	1.1273	1.1273
	Median (% change from Baseline)		-2.6%	-2.6%	-2.6%	-18.7%	-19.2%	-19.2%	-19.2%	-19.2%	-19.2%
	95th Percentile (mg/L)	1.5004	1.4636	1.4636	1.4636	1.2589	1.2202	1.2202	1.22	1.22	1.22
	95th Percentile (% change from Baseline)		-2.5%	-2.5%	-2.5%	-16.1%	-18.7%	-18.7%	-18.7%	-18.7%	-18.7%

Table 3. Current landuse area in ha (% of total)

Site	Dairy	Dairy Support	Arable	Sheep and Beef	Native Bush	Other	Total
Huangularua River at Ponatahi Bridge	-	46 (0.2%)	-	25581 (84.6%)	693 (2.3%)	3918 (13.0%)	30239
Kopuaranga River at Stuarts	808 (4.8%)	281 (1.7%)	-	14103 (84.5%)	154 (0.9%)	1339 (8.0%)	16686
Makahakaha Stream at Mouth	129 (2.1%)	389 (6.3%)	38 (0.6%)	5155 (83.3%)	4 (0.1%)	477 (7.7%)	6192
Mangatarere River at SH2	2842 (23.8%)	357 (3.0%)	40 (0.3%)	2515 (21.0%)	4190 (35.1%)	2003 (16.8%)	11947
Otukura Stream at Mouth	2790 (29.8%)	2454 (26.2%)	-	1611 (17.2%)	83 (0.9%)	2428 (25.9%)	9366
Parkvale Stream at weir	1246 (24.9%)	553 (11.0%)	-	980 (19.6%)	42 (0.8%)	2185 (43.6%)	5006
Ruamahanga River at Gladstone Bridge	3564 (2.7%)	2095 (1.6%)	791 (0.6%)	81249 (60.8%)	20401 (15.3%)	25593 (19.1%)	133694
Ruamahanga River at Pukio	14438 (5.9%)	5867 (2.4%)	1556 (0.6%)	132684 (53.9%)	45104 (18.3%)	46717 (19.0%)	246366
Ruamahanga River at Te Ore Ore	1115 (3.6%)	549 (1.8%)	3 (0.0%)	17950 (57.8%)	7487 (24.1%)	3974 (12.8%)	31078
Ruamahanga River at U/S Lake Wai Outlet	16146 (6.3%)	6139 (2.4%)	1556 (0.6%)	136133 (53.5%)	47016 (18.5%)	47506 (18.7%)	254496
Ruamahanga River at Waihenga	13451 (5.7%)	5413 (2.3%)	1487 (0.6%)	128058 (54.2%)	44818 (19.0%)	42862 (18.2%)	236089
Ruamahanga River at Wardells	2322 (3.6%)	1518 (2.4%)	161 (0.3%)	38490 (59.9%)	10298 (16.0%)	11495 (17.9%)	64284
Tauanui River at Mouth	-	-	-	617 (14.9%)	2535 (61.0%)	1003 (24.1%)	4155
Taueru River at Gladstone	298 (0.6%)	246 (0.5%)	587 (1.2%)	39655 (80.5%)	242 (0.5%)	8217 (16.7%)	49244
Tauherenikau River at Websters	267 (1.8%)	419 (2.9%)	-	944 (6.5%)	11255 (77.7%)	1596 (11.0%)	14481
Turanganui River at Mouth	260 (3.9%)	38 (0.6%)	-	1810 (26.8%)	3491 (51.8%)	1141 (16.9%)	6740
Waingawa River at South Rd	215 (1.4%)	127 (0.9%)	-	2389 (16.0%)	9856 (65.8%)	2382 (15.9%)	14969
Waiohine River at Bicknells	6070 (15.4%)	1036 (2.6%)	227 (0.6%)	3595 (9.1%)	23641 (60.1%)	4750 (12.1%)	39320
Waipoua River at Colombo Rd Bridge	173 (1.0%)	670 (3.8%)	113 (0.6%)	9862 (56.5%)	2802 (16.1%)	3832 (22.0%)	17452
Whangaehu River at 250m from Ruamahanga Confluence	915 (6.3%)	299 (2.1%)	45 (0.3%)	10335 (70.9%)	5 (0.0%)	2979 (20.4%)	14578

Table 4. Retirement (area in ha)

Site	BAU 2025	BAU 2040	BAU 2080	SILVER 2025	SILVER 2040	SILVER 2080	GOLD 2025	GOLD 2040	GOLD 2080
Huangularua River at Ponatahi Bridge	107	107	107	2285	3240	3240	3240	3240	3240
Kopuaranga River at Stuarts	0	0	0	353	1068	1068	1068	1068	1068
Makahakaha Stream at Mouth	0	0	0	218	341	341	341	341	341
Mangatarere River at SH2	0	0	0	0	0	0	0	0	0
Otukura Stream at Mouth	0	0	0	0	1	1	1	1	1
Parkvale Stream at weir	0	0	0	0	0	0	0	0	0
Ruamahanga River at U/S Lake Wai Outlet	107	245	347	5634	11092	11092	11092	11092	11092
Ruamahanga River at Pukio	107	245	347	5376	10812	10812	10812	10812	10812
Ruamahanga River at Te Ore Ore	0	52	61	452	1244	1244	1244	1244	1244
Ruamahanga River at Gladstone Bridge	0	138	231	2468	6340	6340	6340	6340	6340
Ruamahanga River at Waihenga	107	245	347	5272	10637	10637	10637	10637	10637
Ruamahanga River at Wardells	0	132	225	1241	3008	3008	3008	3008	3008
Tauanui River at Mouth	0	0	0	5	8	8	8	8	8
Tauherenikau River at Websters	0	0	0	0	0	0	0	0	0
Taueru River at Gladstone	0	0	0	1213	3310	3310	3310	3310	3310
Turanganui River at Mouth	2	67	152	123	131	131	131	131	131
Waingawa River at South Rd	0	7	7	0	5	5	5	5	5
Waiohine River at Bicknells	0	0	0	0	0	0	0	0	0
Waipoua River at Colombo Rd Bridge	0	79	163	314	454	454	454	454	454
Whangaehu River at 250m from Ruamahanga Confluence	0	0	0	452	1286	1286	1286	1286	1286

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