

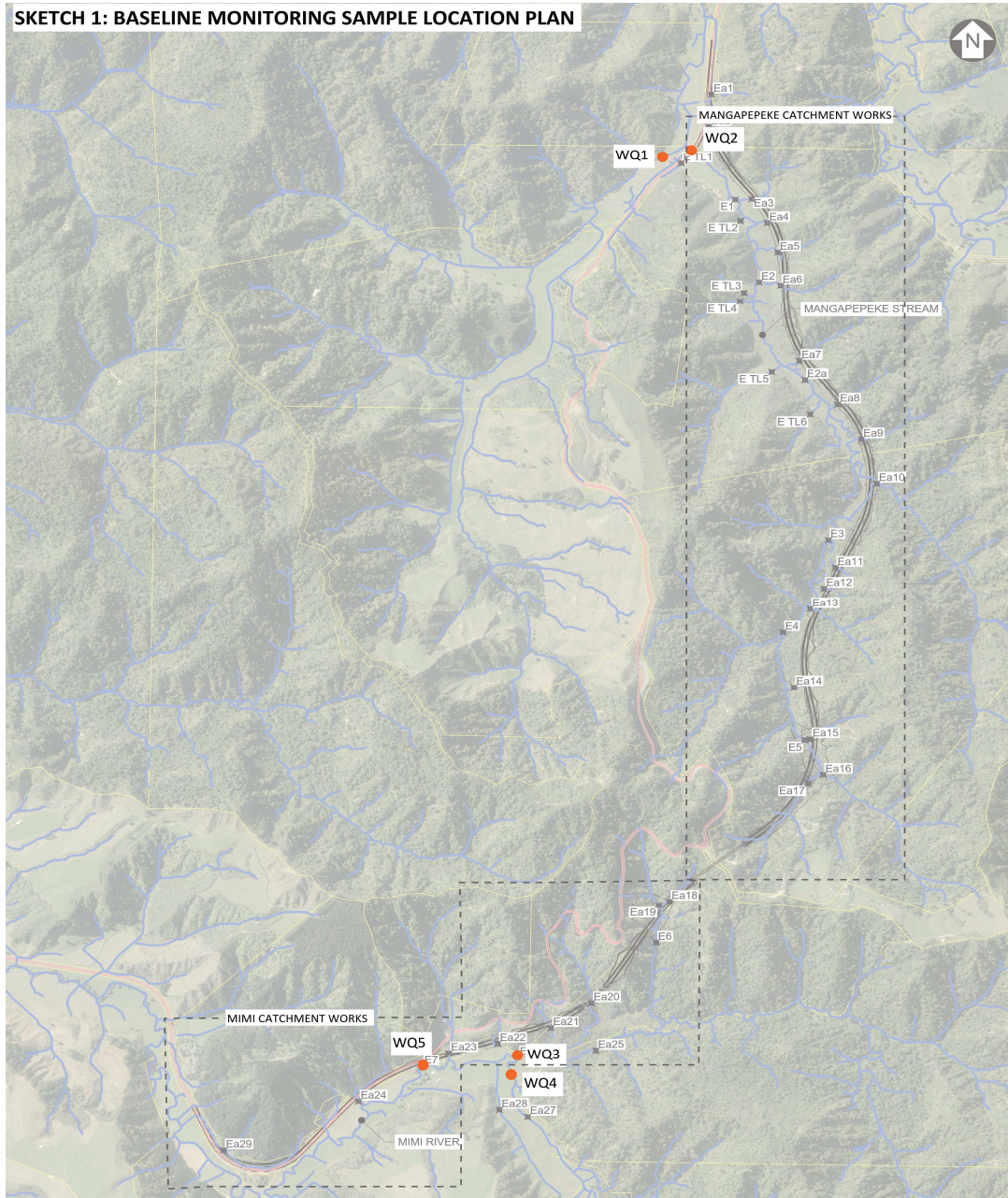
### Summary as at 20 July 2018

No. sampling events 14  
 Rainfall intensity: 2.8 to 37.6 mm/hr  
 Rainfall 24 hr total: 17.8 to 170 mm

**Table 1: Summary of low and high samplers means**

Sampling location	Mangapepeke		Mimi		
	WQ1	WQ2	WQ4	WQ3	WQ5
	North control	North d/s project	South control	South d/s Mimi wetland	South d/s project
pH	6.86	6.95	6.89	6.85	6.91
Turbidity (NTU)	10521	748	2709	868	1799
TSS (mg/L)	10182	958	4657	1829	2946

**SKETCH 1: BASELINE MONITORING SAMPLE LOCATION PLAN**



**TABLE 2: WQ1 SUMMARY (NORTH CONTROL)**

ID	Sampling details			North Control - low sampler			North Control - high sampler			
	Event date	Total rainfall (mm)	Peak intensity (mm/hr)	Comments	pH_l	TSS (g/m3)_l	Turbidity (NTU)_l	pH_h	TSS (g/m3)_h	Turbidity (NTU)_h
				<b>Max</b>	<b>7.0</b>	<b>45000</b>	<b>58000</b>	<b>7.3</b>	<b>16300</b>	<b>9200</b>
				<b>Mean</b>	<b>6.9</b>	<b>16741</b>	<b>18524</b>	<b>6.9</b>	<b>3624</b>	<b>2518</b>
1	8/11/2017	25	11	sampler not installed			S			
2	5/01/2018	81	25	Possible slow leak noted during collection (low only)	7.00	7300.00	4100.00	6.40	16300.00	9200.00
3	18/01/2018	50	8		7.00	162.00	101.00	6.70	177.00	97.00
4	12/02/2018	23	6	only low collected	7.00	66.00	34.00			
5	8/03/2018	170	38		6.90	25000.00	21000.00	6.90	1260.00	640.00
6	9/04/2018	25	3	only high collected				6.80	990.00	208.00
7	12/04/2018	47	15	only high tested				6.70	2400.00	1800.00
8	16/04/2018	53	23	only high tested				7.30	610.00	137.00
9	6/05/2018	26	11	only low collected	6.80	660.00	430.00			
10	24/05/2018	31	9	only high tested				7.00	3500.00	3100.00
11	6/06/2018	18	15	only high tested				7.00	3600.00	2900.00
12	13/06/2018	34	8		6.80	39000.00	46000.00	7.00	4300.00	4400.00
13	18/06/2018	61	11	only low collected	6.50	45000.00	58000.00			
14	1/07/2018	53	12	only high tested				6.80	3100.00	2700.00

**TABLE 3: WQ2 SUMMARY (DOWNSTREAM NORTH)**

ID	Sampling details			North discharge - low sampler			North discharge - high sampler		
Event date	Total rainfall (mm)	Peak intensity	Comments	pH_l	TSS (g/m3)_l	Turbidity (NTU)_l	pH_h	TSS (g/m3)_h	Turbidity (NTU)_h
		(mm/hr)							
			<b>Max</b>	<b>7.40</b>	<b>4900.00</b>	<b>3300.00</b>	<b>7.20</b>	<b>3200.00</b>	<b>2800.00</b>
			<b>Mean</b>	<b>7.08</b>	<b>930.00</b>	<b>708.14</b>	<b>6.82</b>	<b>985.55</b>	<b>787.18</b>
1	8/11/2017	25	11 Test round - rainfall measured at TRC station	6.90	1180.00	1500.00	6.90	980.00	1050.00
2	5/01/2018	81	25 Possible low sampler collected from a previous event. Possible slow leak on high sampler noted during collection	7.10	94.00	53.00	7.10	3200.00	2800.00
3	18/01/2018	50	8 Both samplers not full	7.00	17.00	18.10	6.80	43.00	34.00
4	12/02/2018	23	6 Only high tested				7.20	63.00	46.00
5	8/03/2018	170	38	7.10	360.00	230.00	6.90	119.00	93.00
6	9/04/2018	25	3	7.40	125.00	51.00	6.60	76.00	46.00
7	12/04/2018	47	15 only high tested				6.80	970.00	740.00
8	16/04/2018	53	23 only low collected	7.20	74.00	43.00			
9	6/05/2018	26	11 only high tested				6.50	310.00	230.00
10	24/05/2018	31	9 only high tested				6.70	1010.00	710.00
11	6/06/2018	18	15 only low collected	7.00	4900.00	3300.00			
12	13/06/2018	34	8 only low collected	6.90	690.00	470.00			
13	18/06/2018	61	11 only high tested				6.90	870.00	510.00
14	1/07/2018	53	12 only high tested				6.60	3200.00	2400.00

**TABLE 4: WQ3 SUMMARY**

ID	Sampling details				South wetland - low sampler			South wetland - high sampler		
	Event date	Total rainfall (mm)	Peak intensity (mm/hr)	Comments	pH_l	TSS (g/m3)_l	Turbidity (NTU)_l	pH_h	TSS (g/m3)_h	Turbidity (NTU)_h
				<b>Max</b>	<b>7.10</b>	<b>10100.00</b>	<b>4200.00</b>	<b>7.20</b>	<b>10900.00</b>	<b>4900.00</b>
				<b>Mean</b>	<b>6.88</b>	<b>2021.00</b>	<b>828.33</b>	<b>6.82</b>	<b>1637.64</b>	<b>907.27</b>
1	8/11/2017	25	11	sampler not installed						
2	5/01/2018	81	25		6.90	750.00	370.00	6.70	10900.00	4900.00
3	18/01/2018	50	8	Intakes blocked by vegetation	6.90	330.00	155.00	6.70	610.00	330.00
4	12/02/2018	23	6	only low collected	7.10	66.00	32.00			
5	8/03/2018	170	38		6.70	10100.00	4200.00	6.70	2800.00	2300.00
6	9/04/2018	25	3		6.80	280.00	39.00	6.80	280.00	165.00
7	12/04/2018	47	15	only high tested				6.90	1660.00	1440.00
8	16/04/2018	53	23	only high tested				7.20	145.00	54.00
9	6/05/2018	26	11	only high tested				6.80	310.00	152.00
10	24/05/2018	31	9	only high tested				6.70	610.00	240.00
11	6/06/2018	18	15	only high tested				6.70	79.00	56.00
12	13/06/2018	34	8	only low collected	6.90	600.00	174.00			
13	18/06/2018	61	11	only high tested				6.90	300.00	172.00
14	1/07/2018	53	12	only high tested				6.90	320.00	171.00

**TABLE 5: WQ4 SUMMARY (SOUTH CONTROL)**

ID	Sampling details			South Control- low sampler			South Control- high sampler			
	Event date	Total rainfall (mm)	Peak intensity (mm/hr)	Comments	pH_l	TSS (g/m3)_l	Turbidity (NTU)_l	pH_h	TSS (g/m3)_h	Turbidity (NTU)_h
				<b>Max</b>	<b>7.30</b>	<b>10400.00</b>	<b>4800.00</b>	<b>7.60</b>	<b>39000.00</b>	<b>18500.00</b>
				<b>Mean</b>	<b>6.89</b>	<b>3018.57</b>	<b>2014.86</b>	<b>6.90</b>	<b>6294.45</b>	<b>3403.91</b>
1	8/11/2017	25	11	Test round - 25mm rainfall measured at TRC station	6.60	2100	3300	6.70	3400	5000
2	5/01/2018	81	25	Both intakes blocked on both samplers while filling	7.30	2000	1070	7.60	119	75
3	18/01/2018	50	8		6.70	2300	1100	6.80	3300	2300
4	12/02/2018	23	6	Only low collected	7.10	1830	3100			
5	8/03/2018	170	38		6.70	10400	4800	6.80	39000	18500
6	9/04/2018	25	3		6.90	2100	560	7.00	1600	360
7	12/04/2018	47	15	no sample - leaked						
8	16/04/2018	53	23	only high tested				7.10	4500	2500
9	6/05/2018	26	11	only high tested				6.70	560	240
10	24/05/2018	31	9	no sample - leaked						
11	6/06/2018	18	15	only high tested				6.80	290	128
12	13/06/2018	34	8		6.90	400	174	7.00	1870	940
13	18/06/2018	61	11	only high tested				6.70	7300	3500
14	1/07/2018	53	12	only high tested				6.70	7300	3900

**TABLE 6: WQ5 SUMMARY (DOWNSTREAM SOUTH)**

ID	Sampling details			WQ5 South discharge - low sampler			WQ5 South discharge - high sampler			
	Event date	Total rainfall (mm)	Peak intensity (mm/hr)	Comments	pH_l	TSS (g/m3)_l	Turbidity (NTU)_l	pH_h	TSS (g/m3)_h	Turbidity (NTU)_h
				<b>Max</b>	<b>7.20</b>	<b>7000.00</b>	<b>2900.00</b>	<b>7.20</b>	<b>10200.00</b>	<b>7600.00</b>
				<b>Mean</b>	<b>6.94</b>	<b>1819.20</b>	<b>747.40</b>	<b>6.87</b>	<b>4073.64</b>	<b>2851.36</b>
1	8/11/2017	25	11	sampler not installed						
2	5/01/2018	81	25		7.00	1160	500	6.60	8100	4200
3	18/01/2018	50	8		7.00	220	94	6.70	4800	3400
4	12/02/2018	23	6		7.20	86	51	7.20	102	53
5	8/03/2018	170	38	low not collected				7.10	7100	6900
6	9/04/2018	25	3		6.70	630	192	6.80	138	53
7	12/04/2018	47	15	only high tested				6.90	7500	7600
8	16/04/2018	53	23	only high tested				7.10	3200	1540
9	6/05/2018	26	11	only high tested				7.00	3000	1760
10	24/05/2018	31	9	only high tested				6.70	10200	5500
11	6/06/2018	18	15	no sample - leaked						
12	13/06/2018	34	8	only high tested				6.70	260	149
13	18/06/2018	61	11	Only low collected	6.80	7000	2900			
14	1/07/2018	53	12	only high tested				6.80	410	210

**TABLE 7: Wider catchment grab sampling**

Date	Rainfall		Tongaporutu				Mimi		
	Total - prev 24hr (mm)		WQ1	WQ2	WQ11	WQ12	WQ5	WQ21	WQ22
			West Mangapepeke Stream	Mangapepeke Stream	Tongaporutu River	u/s of Tongaporutu estuary	Mimi Stream	Mimi River	u/s of Marine
27/04/2018	Dry weather sample	pH	7.2	7.3	7.7	8	7.6	7.5	7.4
		Turbidity	2.2	3.2	7	5.4	3.1	3.6	6.3
		TSS	<3	<3	7	9	<3	<3	8
30/04/2018	15.2	pH	7.4	7.2	7.8	8	7.7	7.6	7.5
		Turbidity	3.6	3.2	5.2	6.5	3.5	4.3	5.6
		TSS	<3	<3	4	12	<3	<3	7
3/05/2018	Dry weather sample	pH	7.3	7.2	7.9	8.1	7.7	7.3	8
		Turbidity	3.3	3	8.3	7.5	3.7	5.2	3.3
		TSS	<3	<3	7	15	<3	4	5
9/05/2018	Dry weather sample	pH	7.7	7.6	7.3	6.7	7.1	7.1	7
		Turbidity	4.8	4.6	16.7	57	4.5	10.4	39
		TSS	<3	4	15	52	3	6	34
16/05/2018	63.4	pH	7.2	7.2	6.5	6.7	6.5	6.7	6.7
		Turbidity	125	40	160	88	134	83	150
		TSS	200	54	290	141	199	119	250
7/06/2018	17.8	pH	7.5	7.4	7.3	8	7.3	7	7.2
		Turbidity	7.1	4.3	12.2	15	3.7	6.6	7.5
		TSS	8	4	12	32	<3	6	9
19/06/2018	49.6	pH	7	7.4	7.1	6.8	7	6.8	6.8
		Turbidity	56	25	71	50	14.2	27	117
		TSS	111	36	112	58	25	39	148
4/07/2018	Dry weather sample	pH	7.2	7	7	7.2	7	7.1	7
		Turbidity	16.6	8.3	13	9.2	4.4	5.9	17.3
		TSS	19	9	15	13	4	5	19

