Background

- Waitetī Marae– Sediment accumulation becoming an issue for Waitetī Stream. Asked BOPRC to look at options to remove material
- There is interest in sediment removal as Utuhina and Awahou have similar concerns
- Undertaking sediment removal may have implications elsewhere
- Historically, sediment formation has come and gone
- Understanding significance of sediment will help to make decisions

- Sediment samples have been taken from Waitetī Stream mouth (as plotted in red) and have been analysed,
- Understand significance of nutrient content and shifting sediment,
- Look at what options there are to the remove sediment,
- Determine consent requirements and the viability of removing sediment vs the benefit.

2016


Egmont Road
Arnold Street
Waiteti Stream
Opariana Street
5
9
11
3
18
16
2
45
43
43
41
39
37
35
28

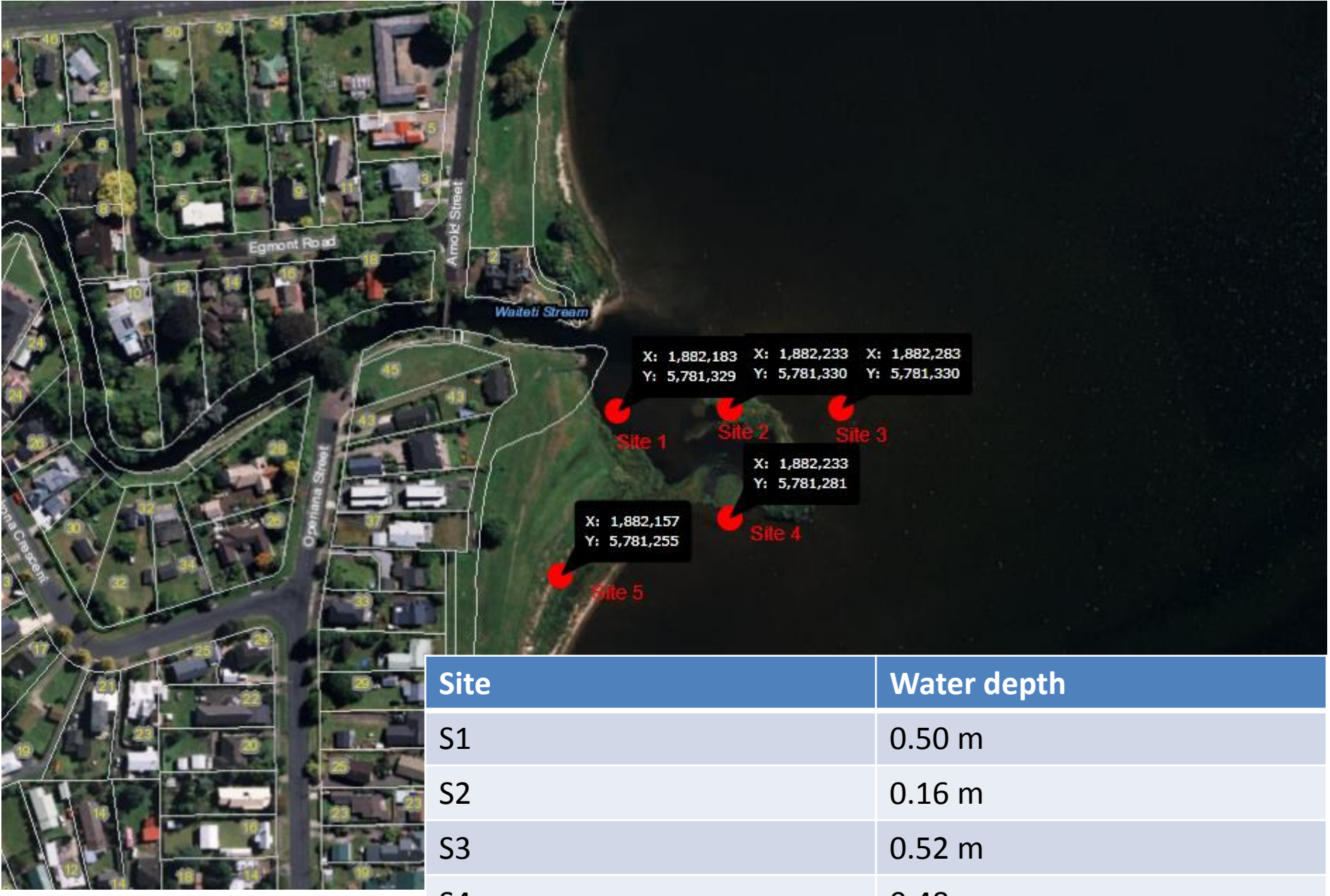
2011


Egmont Road
Arnold Street
Waiteti Stream
Opariana Street
9
11
8
3
18
16
2
45
43
43
41
39
37
35

2007


Arnold Street
Egmont Road
Waiteti Stream
Opunaia Street
9
11
5
3
16
18
2
45
43
41
39
37

2003



Site	Water depth
S1	0.50 m
S2	0.16 m
S3	0.52 m
S4	0.48 m
S5	0.20 m


SITE 5

- Drive pipe to 500 mm and mix core for each site
- Dry matter sample is composite sample from all sites

Sample Type: Sediment						
	Sample Name:	Waiteti 1 18-Sep-2017 9:30 am	Waiteti 2 18-Sep-2017 9:45 am	Waiteti 3 18-Sep-2017 10:00 am	Waiteti 4 18-Sep-2017 10:15 am	Waiteti 5 18-Sep-2017 10:30 am
	Lab Number:	1845257.1	1845257.2	1845257.3	1845257.4	1845257.5
Total Recoverable Phosphorus	mg/kg dry wt	198	138	104	176	155
Total Nitrogen*	g/100g dry wt	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05

	Sample Name:	Composite of Waiteti 1, Waiteti 2, Waiteti 3, Waiteti 4 & Waiteti 5				
	Lab Number:	1845257.6				
Dry Matter	g/100g as rcvd	71	-	-	-	-

Size and depth of the sediment slug has been mapped to determine how much material to removed (approximately 9,000 m2 in area and 3,350 m3),

Rough #’s

- Ave TRP = 154.2 mg/kg dry wt
- Wet density of sediment 0.96-1.5 (t/m3)???
- 71% dry weight, dry density 0.68-1.07 (t/m3)

<u>Weight dry material</u>

3350 m3 x (0.68-1.07) = 2278 – 3584 t

<u>Kg TRP in sediment slug</u>

351 – 553 kg TRP

Where to from here?