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## Coastal/Estuary Monitoring Run Guide

# WEST COAST

## STATE OF ENVIRONMENT (Monthly Sampling)

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## Job Hazard & Task Analysis










### Hazard Identification – tick all that apply, write additional hazards identified:

The yellow highlighted hazards are known hazards at the time of compiling this document. This **does not negate** the need to assess for and potentially eliminate or isolate any hazards at *each* sample location at *every* visit

Hazard	Yes	Hazard	Yes	Hazard	Yes
Confined space	<input type="checkbox"/>	Suspended loads	<input type="checkbox"/>	Noise – plant and equipment	<input type="checkbox"/>
Difficult entry/exit	<input checked="" type="checkbox"/>	Falling objects	<input type="checkbox"/>	Communication – means of	<input checked="" type="checkbox"/>
Oxygen deficiency/excess	<input type="checkbox"/>	Working near cranes and crane runways	<input type="checkbox"/>	Remote area	<input checked="" type="checkbox"/>
Poisonous fumes/gas	<input type="checkbox"/>	Live rails-gantry cranes	<input type="checkbox"/>	Temperature extremes	<input checked="" type="checkbox"/>
Explosive gas	<input type="checkbox"/>	Trip hazards	<input checked="" type="checkbox"/>	Reduced visibility	<input checked="" type="checkbox"/>
Flammable materials	<input type="checkbox"/>	Slippery surfaces	<input checked="" type="checkbox"/>	Unauthorized persons	<input type="checkbox"/>
Combustible materials	<input type="checkbox"/>	Manual handling	<input type="checkbox"/>	High pressure water	<input type="checkbox"/>
Hazardous substances	<input type="checkbox"/>	Sharp materials	<input type="checkbox"/>	Vacuum	<input type="checkbox"/>
Drowning	<input checked="" type="checkbox"/>	Line of fire	<input type="checkbox"/>	Air emissions – dust, fumes	<input type="checkbox"/>
Engulfment	<input checked="" type="checkbox"/>	Pressurized fluids	<input type="checkbox"/>	General waste	<input type="checkbox"/>
UV Radiation	<input checked="" type="checkbox"/>	Pressurized air/gas	<input type="checkbox"/>	Hazardous waste	<input type="checkbox"/>
Electrical – low /high voltage	<input type="checkbox"/>	Traffic / vehicle movements	<input checked="" type="checkbox"/>	Hydrocarbon / chemical spill	<input type="checkbox"/>
Multiple electrical feeds	<input type="checkbox"/>	Machinery – mobile plant	<input type="checkbox"/>	Soil disturbance/erosion	<input type="checkbox"/>
Working at height	<input type="checkbox"/>	Moving parts	<input type="checkbox"/>	Habitat disruption	<input type="checkbox"/>
Ladders	<input type="checkbox"/>	Chemical reaction (Pyrophoric iron)	<input type="checkbox"/>	Lighting	<input type="checkbox"/>
Elevated work platforms	<input type="checkbox"/>	Transport of hazardous substances	<input type="checkbox"/>	Weather extremes	<input checked="" type="checkbox"/>
Potential for difficult rescue	<input checked="" type="checkbox"/>	Stock/Farm Animals	<input type="checkbox"/>		

### Required PPE & Safety Equipment– tick all that apply, write additional PPE required:

The yellow highlighted PPE are known required PPE at the time of compiling this document. This **does not negate** the need to assess for the appropriate required PPE measures at each sample location per visit.

SAMPLING GLOVES	EAR PROTECTION	HARD HAT	SAFETY GLASSES / GOGGLES	WORK BOOTS / WADERS	PROTECTIVE GLOVES	PERSONAL FLOATATION DEVICE (PFD)
						
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
HI VIZ	SAFETY HARNESS	SUN BLOCK & HAND SANITISER	VHF RADIO	THROW BAG	PERSONAL LOCATOR BEACON	
						
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	

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Known Hazard	Significant		Can it be Eliminated		Can it be Isolated		Method of control
	Yes	No	Yes	No	Yes	No	
Drowning	✓			✓		✓	Staff should use a sample pole if access into the river/stream is unsafe. PFD's must be worn by staff. Always carry a throw bag when working around water and have a personal locator beacon on hand. It is always preferable to have someone else with you at all times when working around water [HMP 18]
UV Radiation	✓			✓	✓		Horizons provide sunscreen and hats. Staff are encouraged to make use of these. [HMP 17]
Engulfment	✓			✓		✓	Rivers/streams are prone to flash flooding creating the potential for engulfment. Staff must be alert and aware at all times of how the waterways are behaving around them, especially in areas where water is dammed or has structures such as intakes and aqueducts. PFD's must be worn by staff and staff must be trained for working around water. Vehicles must be driven a sensible distance from any river or pond edges. Always carry a throw bag when working around water and have a personal locator beacon on hand. It is always preferable to have someone else with you at all times when working around water [HMP18]
Difficult Entry/Exit	✓			✓	✓		Entry and exit into waterways poses many risks and should be treated with caution. Sampling must be done from stable level ground. Staff should use a sample pole if access into the river/stream is unsafe. PFD's must be worn by staff and staff must be trained for working around water. [HMP18]
Potential for Difficult Rescue	✓			✓		✓	Sampling must always be done from stable level ground. Staff should use a sample pole if access into the river/stream is unsafe. PFD's must be worn by staff and staff must be trained for working around water. Vehicles must be driven a sensible distance from any river or pond edges. Always carry a throw bag when working around water and have a personal locator beacon on hand. It is always preferable to have someone else with you at all times when working around water [HMP18]
Trip Hazards	✓			✓	✓		Prior to sampling, staff must check area is clear of items that pose a risk. Trip Hazards should only be moved if safe to do so. Sampling only to commence if the sampler is satisfied that any slip, trip or fall hazards are isolated.

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Known Hazard	Significant		Can it be Eliminated		Can it be Isolated		Method of control
	Yes	No	Yes	No	Yes	No	
Slippery Surfaces	✓			✓	✓		Sampling must be done from stable level. Vehicles must be driven a sensible distance from any river or pond edges. [HMP 18]. Staff driving four wheel drive vehicles must have adequate training [HMP 9]
Traffic Vehicle Movements							The designated driver of a vehicle is responsible for ensuring the safety and operational requirements and recommendations are met. All staff working within the road reserve must wear high visibility clothing to AS/NZS 1906.4:2010. This clothing must be fluorescent red orange in colour unless the individual is the site STMS then the garment must be fluorescent lime yellow. [HMP 9] [HMP 16] [HMP 20].
Communications-Means of							Cell phone coverage is not available at all sites. Staff must be capable of communicating via VHF radio in an equipped vehicle. [HMP 24]
Remote Area	✓			✓		✓	Most council vehicles are fitted with the E-Road vehicle locator system. Many vehicles are also fitted with a radio operating on the Horizons digital radio network providing communication and tracking coverages across a majority of the region. [HMP 24]
Temperature/ Weather Extremes	✓			✓		✓	During the duration of a sampling run varying types and degrees of weather may be experienced. All sampling staff are to have access within their HRC vehicle to additional and appropriate clothing. Staff must have access to suitable PPE and spare clothing within their vehicle. [HMP 18]
Reduced Visibility	✓			✓		✓	If you find you are driving in limited visibility slow your driving speed and turn your fog lights on and watch out for vehicles that aren't using their lights. When working in limited visibility if you cease to be able to make out your surrounding environment stop work immediately. If working at night it is advisable to traverse the property in daylight first to map out an action plan outlining walking tracks, vehicle tracks, fence lines, stock positions, ponds, waterways, houses, and sheds as well as other significant items of interest. [HMP12]

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## Site Information

Hilltop Site Name	Easting/Long (NZTM)	Northing/Lat (NZTM)	Comments
Kai Iwi Beach at Kai Iwi Stream Bridge	1762130	5583349	SmarTroll Reading, Water Samples
Whanganui Estuary at Wharf Street Boat Ramp	1770577	5576434	SmarTroll Reading, Water Samples
Himatangi Beach at Himatangi Surf Beach	1789158	5529150	SmarTroll Reading, Water Samples
Waitarere Beach at Waitarere Surf Beach	1785960	5509394	SmarTroll Reading, Water Samples

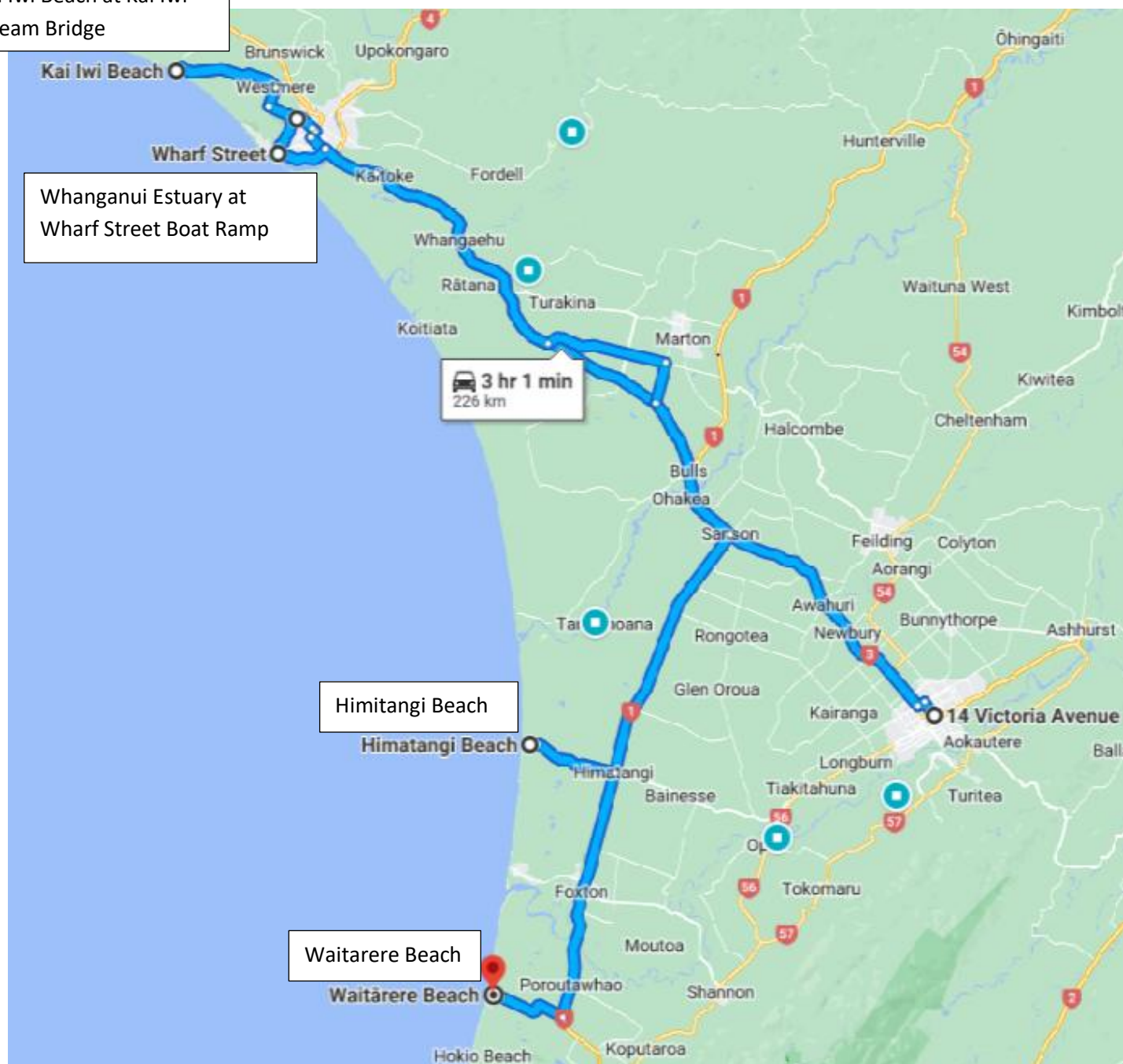
## Equipment Required

Sample Bottles	<b>FOUR (4) sample bottle sets - refer to</b> <a href="http://tgm.horizons.govt.nz/Hydrology/SOPs/cd_om_15.4_Appendix_4_ELS%20Bottle%20Guide.xlsx">http://tgm.horizons.govt.nz/Hydrology/SOPs/cd_om_15.4_Appendix_4_ELS%20Bottle%20Guide.xlsx</a>
Sample numbers	<b>Four (4)</b>
Equipment	<ul style="list-style-type: none"> <li>• SmarTroll (calibrated) with iPad</li> <li>• Sampling pole</li> <li>• Chilly bins and ice-packs</li> <li>• Field sampling books</li> <li>• Alcohol gel</li> <li>• Personal Locator Beacon</li> <li>• 4WD Vehicle equipped with VHF Radio</li> <li>• Throw Bag</li> </ul>

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Kai Iwi Beach at Kai Iwi  
stream Bridge

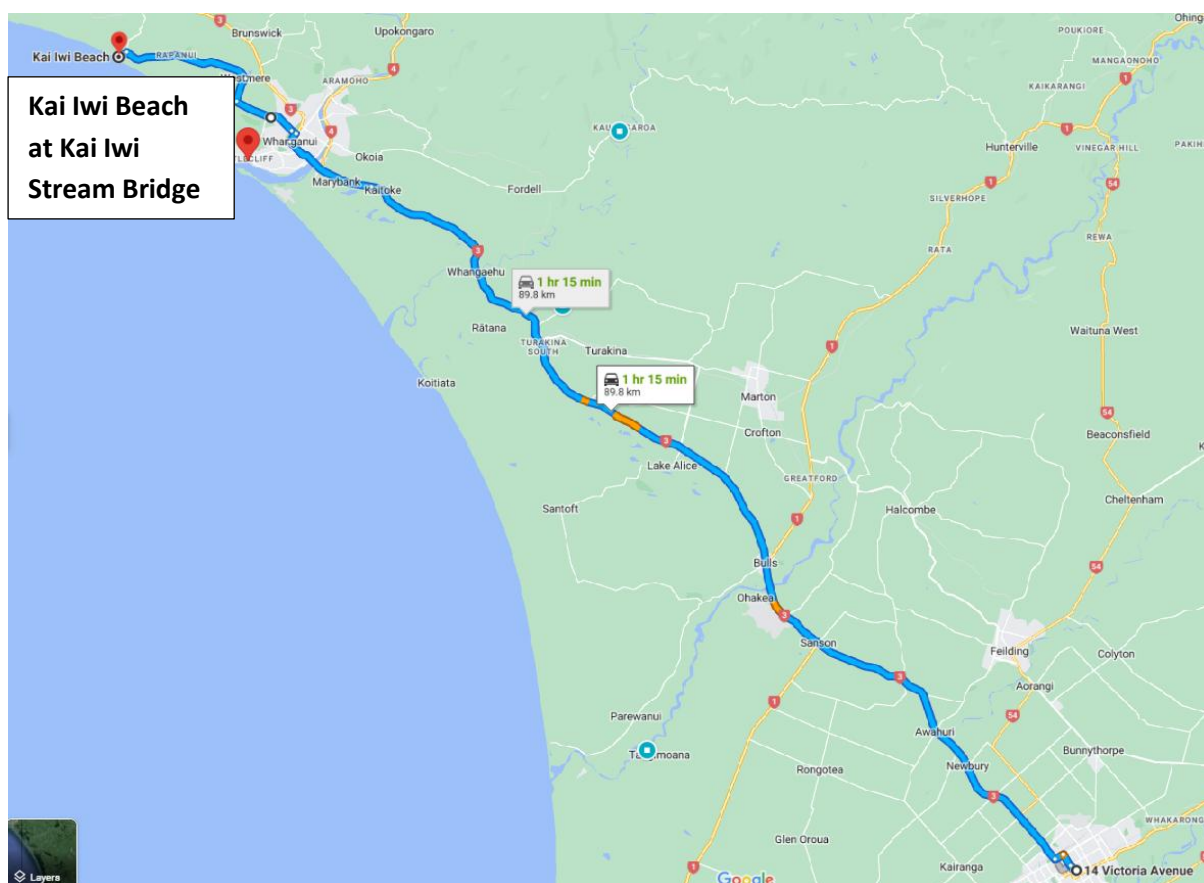
Whanganui Estuary at  
Wharf Street Boat Ramp





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## SITE LOCATION MAP – Kai Iwi Beach at Kai Iwi Stream Bridge



**POSSIBLE SITE HAZARDS** (this does not negate undertaking a hazard review prior to sampling on the day):

Drowning	UV Radiation	Slippery surfaces	Trip hazards
Difficult entry/exit	Potential for difficult rescue	Weather/Temperature Extremes	Traffic / Vehicle Movements
Engulfment	Remote Area	Communication- means of	

**REQUIRED PPE** (in accordance with above hazards – this does not negate undertaking a hazard review prior to sampling on the day and/or using additional PPE if deemed necessary):

WORK BOOTS / WADERS (Optional)	PFD (Optional)	SUNSCREEN & HAND SANITISER	PERSONAL LOCATOR BEACON	THROW BAG	VHF RADIO	HI-VIS	
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### DIRECTIONS:

- From the Palmerston North office head north through Sanson and Bulls towards Whanganui.
- Stay on State highway 3 into Whanganui.
- Turn left onto Grey Street after you pass the public swimming pool on your left.
- Continue straight at the first roundabout as Grey St turns into Springvale Rd
- Turn right onto Tayforth Rd and follow it as it turns into Francis Rd

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- At Westmere School turn left onto Rapanui Rd
- Turn left onto Mowhanau Drive. Follow this road up and around a right corner then stay left along Sunset Parade.
- When you come to the end of this road (a few hundred meters) park your car here. There is a path that leads down from here and across a bridge over Kai Iwi stream. Head across this bridge and North up the coast for approximately 100 meters then sample the coast here.





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## SITE LOCATION MAP – Whanganui Estuary at Wharf Street Boat Ramp



**POSSIBLE SITE HAZARDS** (this does not negate undertaking a hazard review prior to sampling on the day):

Drowning	UV Radiation	Slippery surfaces	Trip hazards
Difficult entry/exit	Potential for difficult rescue	Weather/Temperature Extremes	Traffic / Vehicle Movements
Engulfment	Remote Area	Communication- means of	

**REQUIRED PPE** (in accordance with above hazards – this does not negate undertaking a hazard review prior to sampling on the day and/or using additional PPE if deemed necessary):

WORK BOOTS / WADERS	PFD	SUNSCREEN & HAND SANITISER	PERSONAL LOCATOR BEACON	THROW BAG	VHF RADIO	HI-VIS	SAMPLE POLE
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### DIRECTIONS:

- From the Kai Iwi Beach site head back the way you came out of Moawhanau and onto Rapanui Road. Turn right onto Rapanui Road and follow for approximately 8km until you reach the Westmere School on your right- turn right immediately after it onto Francis Road.
- Follow Francis Road until it turns sharply to the left, and turns into Tayforth Road. Stay on this road until you get to the end at a T Junction. Turn right onto Mosston Road.
- Follow Mosston Road until you get to the intersection with Heads Road. This is the first intersection where you will have to give way. Go straight through this intersection onto Wharf Street. Follow this street around and you will see the boat ramp on your right.



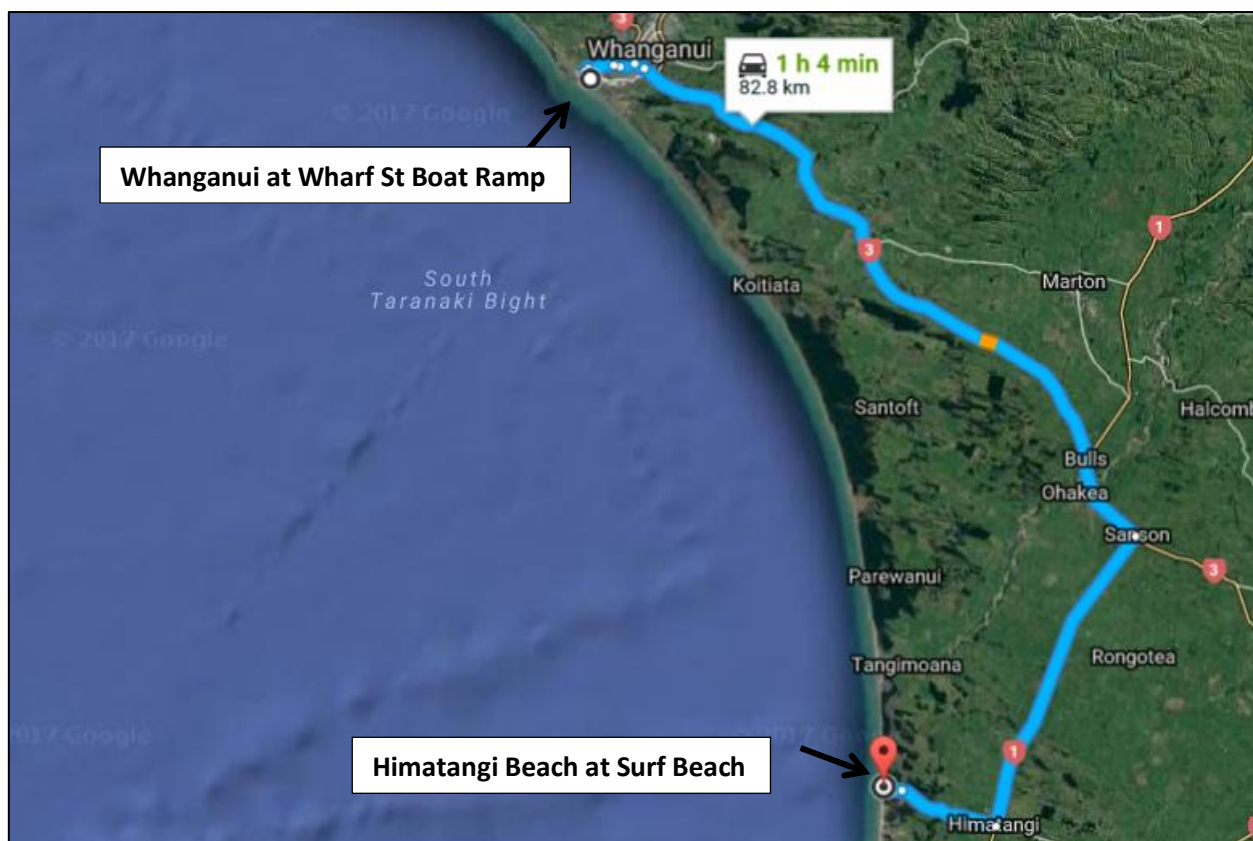
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- Park in the parking area and take your samples from the river at the end of the wharf. Make sure to hold the Smartroll off the bottom of the estuary as otherwise the results will be skewed. Take a SmarTroll reading and water samples.



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## SITE LOCATION MAP – Himatangi Beach at Himatangi Surf Beach



<b>POSSIBLE SITE HAZARDS</b> (this does not negate undertaking a hazard review prior to sampling on the day):						
Drowning	UV Radiation		Slippery surfaces		Trip hazards	
Difficult entry/exit	Potential for difficult rescue		Weather/Temperature Extremes		Traffic / Vehicle Movements	
Engulfment	Remote Area		Communication- means of			
<b>REQUIRED PPE</b> (in accordance with above hazards – this does not negate undertaking a hazard review prior to sampling on the day and/or using additional PPE if deemed necessary):						
WORK BOOTS / WADERS (Optional)	PFD (Optional)	SUNSCREEN & HAND SANITISER	PERSONAL LOCATOR BEACON	THROW BAG	VHF RADIO	HI-VIS
<b>DIRECTIONS:</b>						
<ul style="list-style-type: none"><li>From the Wanganui Estuary head back the way you came up Wharf St and then turn right onto Heads Road.</li><li>Follow this road until you get to the roundabout, here take the third exit onto SH3 towards Palmerston North.</li><li>Follow SH3 for about 50 km to Sanson. There is a right hand turn onto SH1 towards Wellington (this is well sign posted). Turn here.</li><li>Carry on along SH1 for approximately 15 minutes then turn right onto Himitanqi Beach Rd.</li></ul>						



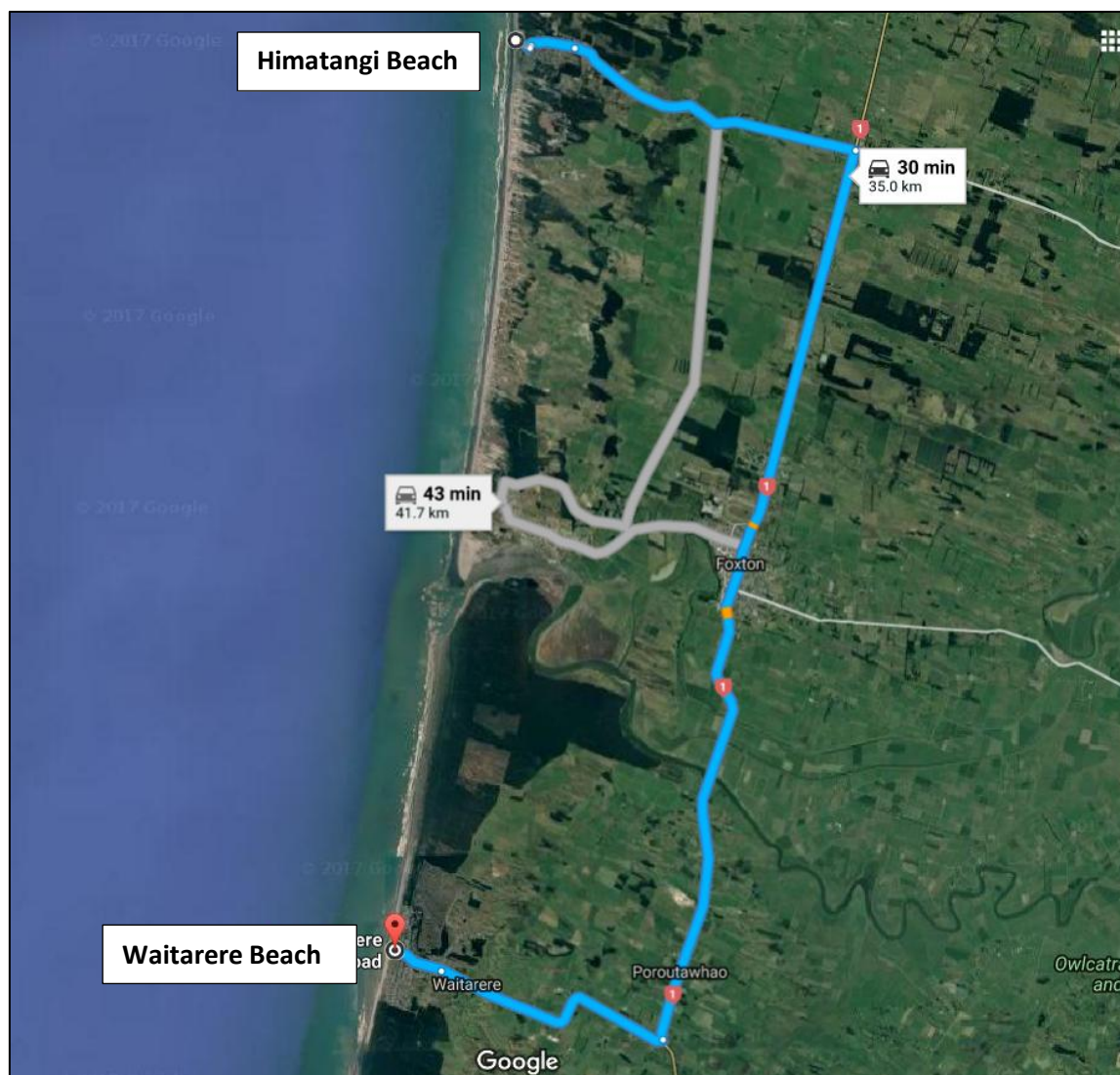
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- Carry on straight along Himatangi Beach Road. You will drive past the campground and come to a bulbous (strange looking) statue by the shop. Turn right here towards the beach.
- Drive onto the beach if it is safe, otherwise park up somewhere out of the way of traffic. On your right will be the Kaikokopu Stream. Cross this stream and drive north up the beach (note it is best to cross the stream close to the beach where it is shallow, however it is a good idea to walk across it first if you have any doubts about the depth).
- Travel a few hundred meters north along the coast from the stream and sample the coast here. Take a SmarTroll reading and water samples.



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## SITE LOCATION MAP – Waitarere Beach at Waitarere Surf Beach



<b>POSSIBLE SITE HAZARDS</b> (this does not negate undertaking a hazard review prior to sampling on the day):							
Drowning		UV Radiation		Slippery surfaces		Trip hazards	
Difficult entry/exit		Potential for difficult rescue		Weather/Temperature Extremes		Traffic / Vehicle Movements	
Engulfment							
<b>REQUIRED PPE</b> (in accordance with above hazards – this does not negate undertaking a hazard review prior to sampling on the day and/or using additional PPE if deemed necessary):							
WORK BOOTS /	PFD (Optional)	SUNSCREEN & HAND	PERSONAL LOCATOR BEACON	THROW BAG	VHF RADIO	HI-VIS	



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WADERS (Optional)		SANITISER					
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### DIRECTIONS:

- From Himatangi Beach head back the way you came up Himatangi Beach Rd towards SH1.
- Turn right onto SH1 and follow for approximately 20km. On your right there will be a road branching off called Waitarere Beach Road, turn right here.
- Stay on Waitarere Beach Road for approximately 7km. You will come into the Waitarere Beach Township. Keep heading straight along this road and this will take you down to the beach. If you don't have a 4WD Vehicle then it may be a good idea to park in the Carpark on the left, otherwise drive down to the beach.
- Once on the beach head North until you reach the Wairarawa Stream, which is approximately 100m away. **Note: Care MUST be taken in crossing this stream. If there is high flows in Wairarawa Stream or if the tide is high it may not be possible to cross. If in any doubt, walk from this point.**
- Continue up the beach approximately 200 meters beyond the stream mouth and sample there.

