

Folder [Investigation into Island View pond and shoreline erosion]

[WRA Whangamata Rate Payers Association](#)[Folder \[WRSAG Stormwater Action Group \(2023\)\]](#)[Folder \[Island View Pond\]](#)

Island View Pond History:

The Island View pond was formed some time in the late 1970's at the same time as the Williamson Pond. According to TCDC engineer.

In the 1960's Rangi and later Pipi and Hinemoa were formed from land sales to raise money, roads were formed and had pipes installed.

One flowed to the Island View pond from Rangi and the other in from Pipi.

Actual design of old pond area hard to determine - if it had an overland flow path when full

In 2015 the adventure playground was formed and the pond side encroached to make way for the flying fox and bank to detention basin.

The walkway was original undated when boardwalk was installed.

Cyclone Cook 2017 overwhelmed the Pipi Rd/Island View cesspits, flowed down through the carpark, beside the toilets and formed a lake behind the sand dunes.

The Lake burst or the sand dunes were eroded and the ocean advanced through the sand dunes.

In 2023 the detention area was dug out and cleared of vegetation

Photos of the detention show water well above the inverts (covered the walkway) most of the winter 2023.

This demonstrates the water table height to be above the walkway - but by the detention device proximity to the sand dunes (washed away) it infiltrates quickly so lowers the water level

The only 'natural drainage' is soakage into the water table

Detention devices cannot permanently hold water or be beside playgrounds.

TCDC erected safety warning signs late 2023.

TCDC engaged Pinnacle to provide drawings of further excavation and filling with Cirtex and covering

TCDC engaged Metis to improve on this design'

Stakeholders presented and alternative design.

What's wrong:

The detention area does not comply with TCDC or WRC policy because it has no provision to drain when the water table is high.

When the detention device is retaining water it is an illegal structure by its proximity to a playground - safety concern

Heavy rain is channeled to two cesspits either side of Island View Rd and piped across to the Island View detention device. In heavy rain the cesspit design is inadequate to Marshall all the road surface water - some bypasses and travels down through the car park and out through a washout in the dunes.

Heavy rain also enters the cesspit and pipes to the detention area which fills to a level high enough to prevent further flow in the pipe. This is a factor of pipe size inadequate when the water level in the pond rises and stops hydraulic action. ie the detention device does not need to be full - just as the small diameter pipe from Island Rd cannot freely drain the flow rate drops and floods the cesspit compounding

the flow past it down to the Ocean.

The pond is never maintained, fills with dead organic matter so cannot infiltrate into the surrounding sand

The method of maintaining has been to dig out the base without refilling sand so each clean the base is lower and in the water table so algae blooms until the surrounding water table lowers below the detention base.

NB: this detention device is higher above MWS than Williamson which is currently below MWS so still has water.

What must happen:

1. Lift up the detention base to the inverts of Pipi Rd pipe (Rangi is higher) ie put 500mm of clean sand in the base
2. Enlarge the detention area to 3-4 times the size - with a higher base and more area stormwater will soak in better
3. Provide a managed overflow at the soffit height to the Ocean. This will clear the back pressure so stormwater if too much will overflow and not cause back pressure on the Pipi pipe.
4. Form a better Marshall area around both cesspits at Island View
5. Repair the sand dunes as this erosion is a direct result of poor maintenance and poor design
6. Form a proper outlet along the sand dunes for the 1:250 year events - to protect the toilets and further dune erosion - noting this is just so erosion repair is easier as the coastline will be affected in any event - if a device is constructed it will reduce the chances of a full wash out and repair cost.

Does this work add to community well-being:

Yes as it reduces the immediate chance of further dune erosion to Hinemoa and the toilets.



2013 Island View in TCDC Adventure playground submission.jpg

This 2013 satellite image is attached to the consultation document for the adventure playground.

Of note consultation occurred for a playground which sets the standard of significance for community engagement.

The 100m mark is scaled off the road separation between Island View and Hinemoa at 230m

The 100m mark is the edge of the then detention area.

The 138m plot is the track through the sand dunes that later had a boardwalk built.

It appears the green vegetation is the extent of the detention area.

2 DRAFT WHANGAMATA RESERVE MANAGEMENT PLAN: Document 2

Island View Reserve

Reserve Classification	Recreation	Area	4.5784 ha
Location	302 Rangitangi Avenue, Whangamata	ID Number	0497503400
Current State	Category C: Neighbourhood Open Space	Legal Description	Lot 704 DPS 5197
Future Use	Category B: Neighbourhood Open Space		NZ Gazette 1962 / 561

Asset Registry	Leases and Licences
Toilet	Picnic facilities

Background

- This reserve includes only the area known as Island View, excluding the parts of this Lot that extend to either side along the beach.
- The large open area of Island View Reserve (Rangitangi Avenue) was originally used as a hockey field. The beach side of this reserve provides a rare example of how the dunes along this coastline appeared before being developed for housing. There are good profiles of front and rear dunes and a range of dune plant species, plus many introduced weed species. A walkway was developed through the back dunes to provide access for visitors to experience this area.
- A children's playground has been promoted in the past for the Island View reserve.
- At the end of Island View Road, a beachfront carpark provides access for many beach visitors. Public toilets are also located in this area.
- Island View Reserve is a popular place for informal sporting activities, family gatherings, picnics and dog exercising.
- The coastal beach reserves are very popular during the summer period, for visitors and holiday makers day activities.
- Part of the southern dune area acts as a stormwater collection area during periods of high rainfall.

Reserve Issues

- The coastal beach reserves are suffering from coastal erosion. Walkways have been constructed in several areas to encourage people's use and to try to minimise human impact on the dunes.
- There are a variety of weed species in the dunes, in particular honeysuckle and agapanthus.
- In some areas of the dunes, extension of private gardens and dumping of garden waste occurs.
- The reserve access at the end of Island View Road has been used in the past for the launching and retrieval of boats. Access has been restricted to minimise disturbance to beach users and the impacts on vehicles crossing the dunes. Access will continue only for the launching of hand carried small watercraft and dinghies.



Prepared for Whangamata Community Board

Page 35

2013 part A TCDC reserves projects.jpg

This is from the TCDC Draft Management Plan Reserves

States full knowledge of existing stormwater collection area during periods of high rainfall

Note the detention/basin is visible but covered in vegetation

le the adventure park application acknowledged the detention area.The vegetation indicates that its not being maintained.

3 DRAFT WHANGAMATA RESERVE MANAGEMENT PLAN: Document 2

Reserve Management Policy

- Undertake the development of the reserve:
 - Provide for an 'adventure' style play area within the unused grassed area behind the dune.
 - Public picnic tables
 - Formation of carpark
 - Formalise and improve walkways
- Allow for the open grass area to be used for Council approved events.
-
- Monitor the use of the walkway through the central area of Island View reserve and close tracks not required.
- Maintain beachfront reserves where possible in a natural state.
- Promote 'beach care' programmes to encourage support for dune protection plantings and education on the role of dunes.
- Prohibit encroachment from adjoining properties onto the recreation reserves.
- Maintain access for launching and retrieval of small watercraft from defined area.
- Review locations of trees to provide shade for reserve users.
- Undertake weed control programmes.
- Encourage and provide for active recreation on open grass area.
- Off leash dog exercise area
- Provide for overnight camping of certified self-contained vehicles in carpark.
- Reserve objectives and policies as outlined in Document 1 apply.

Proposed Development	Priority
Picnic facilities	Short term
Children's playground	Short term
Carpark formation	Long term

2013 Part B adventure park.jpg

Reserve management policy is to maintain beachfront reserves where possible in a natural state and support dune protection plantings and education on the role of dunes etc

4

2015-2025 LONG TERM PLAN – Consultation Document for Thames-Coromandel District Council MARCH 2015

Attachment E

About our services and activities...

The Council manages a wide range of services and assets on behalf of the community. Many residents and ratepayers have a better understanding of our services after they have had some specific contact with us over them. The following information shows you the breadth of the services we offer and the activities/assets we manage.

We maintain ...

- 445 km of sealed roads and 230km of unsealed roads
- 150 bridges
- 9 water treatment plants and 48 reservoirs
- 538 km of water pipeline
- 10 wastewater treatment plants
- 128 wastewater pump stations and 6,382 wastewater manholes
- 13 community halls and centres
- 2 airfields
- 1 swimming pool

In the past 12 months we ...

- Approved 297 resource consents
- Produced 4,833,973 m³ of treated water
- Reduced the amount of waste going to landfill from 516kg to 463kg per rating unit
- Processed 1285 LIM requests
- Completed an adventure style playground at **Island View Reserve**
- Issued 256,958 library items
- Completed a new pontoon and boat ramp extensions at Whitianga and Whangamata
- Operated the Hahei to Ferry Landing shuttle for 32 days
- Carried out 358 inspections on the 286 registered food premises

2015 TCDC consultation Island View completed.jpg

TCDC 2015 Consultation document stating Island View adventure playground was completed as at 2015.

5



2017 after cyclone Cook.jpg

Taken from Hinemoa and before lake burst/erosion - note sand dunes along right - all washed away.

The Norfolk Tree in the background is used in a later reference from the toilet end.

Note Cyclone Cook was the first cyclone since the adventure park was built.



2017 arial showing adventure playground.jpg

Attempted plot of current detention edges is now 110m from Island View Rd.

Resident feedback is they claim about 1/3 of the pond length was filled for the flying fox. This could be true if the old detention area ran along the flying fox line - with a bend.

It is likely the flying fox bed required raising the surface which means the slope will be steeper or the detention base moved further towards the path.

Note the boardwalk is not yet installed. This construction could well have caused the detention area width to be reduced to save building piles.

Note sand dunes still in tact BUT their is a scarf on the dotted line - this could be erosion from previous storm events meaning this stormwater system has never worked at all.



2023 boat ramp washed out after winter storms.jpeg

Natural erosion at boat ramp.

NB: the area of sand dunes on the right was the recent (2022 I think) dune restoration which was all but eroded away during the winter storms - not in Gabrielle but the ongoing spring and king tides in heavy seas.



2023 erosion and debris beside toilet.jpeg

With the loss of the sand dunes in 2017 storm surges have continued the erosion.

The foreground valley in this image is one of the overland flow paths from Pipi Rd/Island View Rds when the cesspits become overwhelmed - when pond is full.



2023 erosion behind Hinemoa winter.jpeg

Last properties at end of Himemoa

This owner put large 1Ton bags filled with sand to protect further erosion and to protect the Pohutukawa Tree and was ordered to remove them.



[20230307_084914.jpg](#)

Compare dunes now - the Norfolk Pine is now in danger of erosion with the sand dunes lost to the left.

[20230618_093121.jpg](#)

18 June 2023

Island View pond water level above the boardwalk and both Rangī and Pipi discharge pipes



[20230624_103549.jpg](#)

Erosion beside toilets - overflow from Pipi/Island View Rds washes down and cut this valley - part goes here and part continues on. The earlier photos do depict this so is not new.

The Norfolk Pine on the right is the same tree sighted from Hinemoa behind the lake pre sand dune erosion/wash out.

[20230713_082522.jpg](#)

Shows pond in relation to flying fox.

Residents claim this area was built up to create the fall of the flying fox by filling 1/3 of the pond along the flying fox.

The walkway is shown in the end of the pond - reference used in location.

[20231102_084521.jpg](#)

2 November 2023

Water all but gone - 3 days after 200mm rain event



320231029 TCDC SmartMaps Island View stormwater assets.jpg

From 3 Waters Smart Maps looks like the playground entry is Pipi Rd and the other is an unmarked extension from Rangitikei Rd.

Be useful to check that the Pipi one is clear as the carpark often gets flooded from Pipi and Island View Rd.

The circled sumps were filled with sand after last weekend's big blow. Sumps cannot be installed within the sand dune areas. They fill with sand and then cannot function so causes low-lying nearby properties to flood. This is why Hinemoa and Pipi properties flood. The sand dunes build up when lighter sand is blown up the coastal boundary and drops on venturi effect. This raises the barriers around the coastline and protects against sea surges. Roads like Hinemoa should NOT be extended into the sand dunes as this stops the natural defence to coastal erosion. Stormwater assets cannot function during events because the natural event brings sand with it. These need moving back out of range of the sand.

Likewise properties - another story.