



greater WELLINGTON
REGIONAL COUNCIL
Te Pane Matua Taiao

If calling please ask for: Democratic Services

3 May 2019

Environment Committee

Order Paper for the meeting of the Environment Committee to be held in the Council Chamber, Greater Wellington Regional Council, Level 2, 15 Walter Street, Te Aro, Wellington on:

Thursday, 9 May 2019 at 9.30am

Membership

Cr Kedgley (Chair)
Cr Brash (Deputy)

Cr Blakeley
Cr Gaylor
Cr Laidlaw
Cr McKinnon
Cr Ponter
Cr Swain

Cr Donaldson
Cr Laban
Cr Lamason
Cr Ogden
Cr Staples

Barbie Barton

Ihaia Puketapu

Recommendations in reports are not to be construed as Council policy until adopted by Council

Environment Committee

Order Paper for meeting to be held on Thursday, 9 May 2019 in the Council Chamber, Greater Wellington Regional Council, Level 2, 15 Walter Street, Te Aro, Wellington at 9.30am

Public Business

		Page No
1.	Apologies	
2.	Declarations of conflict of interest	
3.	Public participation	
4.	Confirmation of the minutes of 21 March 2019	Report 19.102 3
5.	Considering carbon neutrality	Report 19.98 6
6.	Coastal erosion plan for Queen Elizabeth Park	Report 19.171 15
7.	Update from Climate Change Working Group	Report 19.168 36
8.	General Managers' report to the Environment Committee meeting on 21 March 2019	Report 19.123 41



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Please note these minutes remain unconfirmed until the meeting of the Environment Committee on 9 May 2019.

Report 19.102

21/03/2019

File: CCAB-10-706

Minutes of the Environment Committee meeting held on Thursday 21 March 2019 in the Council Chamber, Greater Wellington Regional Council, Level 2, 15 Walter Street, Te Aro, Wellington at 09:30am.

Present

Councillors Kedgley (Chair), Blakeley, Brash (Deputy Chair), Donaldson, Gaylor, Laban, Lamason, Laidlaw, McKinnon, Ponter, Swain, Staples, and Barbie Barton.

Public Business

A minute of silence was observed as a mark of respect for those killed in, and impacted by, the act of terrorism in Christchurch on Friday, 15 March 2019.

1 Apologies

Moved (Cr Donaldson/ Cr Lamason)

That the Committee accepts the apologies for absence from Cr Ogden and Ihaia Pukeptapu.

The motion was **CARRIED**.

2 Declarations of conflict of interest

There were no declarations of conflict of interest.

3 Public Participation

There was no public participation.

4 **Confirmation of the public minutes of 14 February 2019**

Moved (Cr Lamason/ Cr McKinnon)

That the Committee confirms the public minutes of the meeting of 14 February 2019, Report 19.45.

The motion was **CARRIED**.

5 **Action items from previous meetings**

Report 19.69 File ref: CCAB-10-692

Moved (Cr Kedgley/ Cr Blakeley)

That the Committee:

1. *Receives the report.*
2. *Notes the content of the report.*

The motion was **CARRIED**.

6 **Whaitua quarterly update**

Report 19.97 File ref: CCAB-10-701

Moved (Cr Brash/ Cr Lamason)

That the Committee:

1. *Receives the report.*
2. *Notes the content of the report.*

The motion was **CARRIED**.

Noted: The Committee noted that the Whaitua Whanganui-a-Tara Committee has yet to determine whether facilitative support is required.

7 **Te Kāuru FMP – Proposed FMP endorsement and approval for public consultation**

Francie Morrow, Project Manager, Floodplain Management Plans and Graeme Campbell, Manager, Flood Protection spoke to the report.

Report 19.76 File ref: CCAB-10-694

Moved (Cr Donaldson/ Cr Staples)

That the Committee:

1. *Receives the report.*

2. *Notes the content of the report.*
3. *Endorses the proposed Te Kāuru Upper Ruamahanga Floodplain Management Plan.*
4. *Approves the communications and engagement strategy to seek feedback from the wider community.*

The motion was **CARRIED**.

8 **General Managers' report to the Environment Committee meeting on 21 March 2019**

Wayne O'Donnell, General Manager, Catchment Management, Al Cross, General Manager, Environment, and Grant Nalder, Manager Harbours (Harbourmaster) spoke to the report.

Report 19.43

File ref: CCAB-10-688

Moved

(Cr Gaylor/ Barbie Barton)

That the Committee:

1. *Receives the report.*
2. *Notes the content of the report.*

The motion was **CARRIED**.

The meeting closed at 10:26am

Cr S Kedgley
(Chair)

Date:



Report 19.98
Date 30 April 2019
File CCAB-10-703

Committee Environment
Author Jake Roos, Climate Change Advisor

Considering carbon neutrality

1. Purpose

To recommend a process of considering carbon neutrality for Greater Wellington, in particular an organisational boundary and target date. It also recommends a reporting regime for climate change related risks for Council.

2. Background and discussion

The Government has expressed an ambition for New Zealand to have net zero greenhouse gas emissions (or become 'carbon-neutral', as it is also known) by 2050, reflecting the goal of the 2015 Paris Agreement. It is about to introduce the Zero Carbon Bill, that will help give effect to this through putting a target of this kind in law and introducing a system of emissions budgets and national emissions reduction plans. The Intergovernmental Panel on Climate Change warned in their special report in October last year that unless global emissions drop steeply now, the opportunity to avoid the worst effects of climate change will be lost.

Some organisations have already acted to either set carbon neutrality goals, such as NZ Post and Christchurch City Council have for 2030, or achieved them, such as the Warehouse Group. This reflects their desire to demonstrate leadership on climate change and to reduce the related risks to their organisations (of regulation of emissions, to their reputation and from climate change itself).

Councillors discussed carbon trading and offsetting options within this context at an Environment Committee workshop in October 2018. Councillors expressed:

* A desire to further explore carbon neutrality of its corporate emissions footprint including offsetting, in full knowledge that this would present an opportunity cost (from the foregone sale of emissions units) and potentially an actual direct cost (to purchase additional units).

* A desire to explore increasing Greater Wellington’s supply of emissions units by planting forests on Greater Wellington owned land.

* Acknowledgement that Greater Wellington needs to work towards including their suppliers' (bus contracts in particular) and potentially CCO emissions in Greater Wellington’s corporate carbon footprint.

More recently, the GW Councillor Climate Change Working Group has discussed influencing and collaborating with CCOs (Wellington Water and WREDA), investments (e.g. CentrePort) and supplier contractors (bus and rail) to develop objectives relating to the measurement and reduction of greenhouse gas emissions.

A second councillor workshop on corporate carbon neutrality and reporting climate change related risks was held in March 2019. That workshop has informed this report.

GWRC’s emissions (taking a broad definition) in 2017-18 were:

Bus contracts	15,589 tCO ₂ e
Rail contract	5,191 tCO ₂ e
Centreport (77%)	2,928 tCO ₂ e
Wellington Water (20%)	2,459 tCO ₂ e
Corporate emissions	1,629 tCO ₂ e
Total	28,022 tCO ₂ e

Note this includes only GW’s shares of Wellington Water and CentrePort’s emissions. Figures are not available for WREDA and Wellington Stadium at this stage.

Becoming carbon neutral would entail:

1. Establishing a carbon zero target, and boundary for what is included

The target is a date from which Council starts offsetting its greenhouse gas (GHG) emissions. A date further out allows council time to reduce its emissions first, but means it will produce more net carbon pollution.

Note that given that Council has varying degrees of influence on its CCOs, investments and contracts not all of these emissions sources can necessarily be part of a neutrality goal, for example Wellington Water cannot without the agreement of four other councils. Also as carbon neutrality is a voluntary initiative, Council has discretion regarding whether certain sources are included, and on what schedule. Consideration of this is also part of the target setting process.

2. Measuring corporate GHG emissions accurately and independently verifying them

Greater Wellington's carbon footprint is measured on an annual basis, but this has not been independently verified, which is prudent if offsetting is to be undertaken. The organisation has already committed to joining the Certified Emissions Measurement and Reduction Scheme (CEMARS), a third party accreditation scheme which is widely used in New Zealand and follows the international standard for carbon footprinting, ISO-14064. The CEMARS process will help resolve what emissions sources are included in the inventory, and how they are reported.

3. Undertaking actions to reduce emissions at source

For Greater Wellington, improved efficiency, conservation and conversion away from fossil fuel energy sources to renewable electrical energy are the main means to reduce GHG emissions. The new office accommodation projects are a significant opportunity with respect to stationary energy use, business travel and staff commuting. Low carbon procurement and public transport contract negotiations and agreements are also critical, and a commitment to offsetting residual emissions would create an additional internal cost of carbon that would need to be factored into business cases. Strong technology and investment decision preferences enshrined in policy (similar to the current EV First Policy) could also be useful for driving change.

4. Influencing CCOs and companies

Greater Wellington is accountable to some degree for emissions from its investments (e.g. CentrePort, Wellington Water, WREDA, GW Rail Ltd, the Wellington Stadium Trust). Council could consider including emissions from these companies in the neutrality goal or (goals) as part of the process. This would require careful consultation and collaboration with each of the organisations involved.

5. Offsetting remaining emissions, for example by securing a greater proportion of renewable energy (electricity) supply and planting

To undertake offsetting, Greater Wellington needs an adequate supply of emissions units. As offsetting has a significant cost, ideally the activity would be done in a way to maximise other benefits and support other Greater Wellington objectives e.g. biodiversity, water quality, economy and sustainable land use.

Greater Wellington already has a supply of 67,000 emissions units from its 440 Ha of regenerating native forests that were entered in the Permanent Forests Scheme in 2012, for carbon they absorbed over the period 2008 to 2017. These forests are producing units at a rate that would offset approximately one quarter of emissions from the organisation and all its associated contracts, CCOs and companies on an ongoing basis (6,700 tonnes of CO₂ equivalent of credits

earned per year versus 28,000 tonnes per year of emissions). While gross emissions can be reduced, and the boundary for emission source-inclusion is likely to change, a greater supply of units may be required to meet a neutrality goal. However, if Council happens to generate more emissions units than it needs, they can be sold.

As part of the Parks Network Plan and subsequent master planning process, Greater Wellington land will be examined with respect to suitability for permanent native afforestation and potential eligibility to earn emissions units from the Government. An assessment of private land in the region would also be useful. Initial work on this is being done through the 1 Billion Trees project.

It should be noted that new forests cannot be relied upon indefinitely to maintain neutrality status, given that their net carbon absorption eventually slows to a stop as they mature. Greater Wellington would need to continue to reduce its gross emissions as low as possible to maintain its carbon neutral status in the long term.

6. Offsetting remaining emissions by cancelling an equivalent number of emissions units (from the date that neutrality is desired and thereafter).

The act of offsetting itself involves cancelling the number of emission units equal to the total gross emissions of GW for a given period, so the units may not be traded or used again. From an accounting perspective, the emissions units used for offsetting are assets that are written off. The details of who cancelled the units and why are recorded in the government-operated Emissions Unit Registry.

3. Comment

3.1 Carbon neutrality target

Significant work is needed to estimate the costs to Greater Wellington of becoming carbon neutral. Any estimates of overall cost will however have large uncertainties.

The future price of carbon will have a direct influence on the opportunity cost of using emissions units to offset rather than selling them, or the cost purchase of units from a third party. The number of units required for offsetting relies on both the level of reductions that can be achieved by the target date for neutrality and the organisational boundary.

Setting an earlier target date for carbon neutrality will mean incurring costs to reduce emissions, as well as the cost of earlier offsetting. This is not factored into current budgets.

Setting a later date for carbon neutrality allows GW to build up its own supplies of emissions units, reduce its emissions and influence its contractors and CCOs, and this would reduce short term costs. However, consideration needs to be given to the risk that a date too far in the future could lead to inaction and may not sufficiently demonstrate leadership. This could be partially addressed with interim targets to ensure the emissions trajectory is

downwards in the intervening time. It should also be noted that some actions to reduce emissions may reduce rather than increase costs and may have other benefits.

Given the uncertainty, there are essentially two ways the Council could approach setting a target for carbon neutrality:

- 1) Set a target based on the best information currently available and other considerations such as climate science, after which work would be done to develop the projects for achieving the target. The target would also then be a key consideration for decision making, for example regarding capital expenditure.
- 2) Undertake additional research to provide a better view of the likely costs and implications of pathways for possible target dates before the Council makes a decision. Decision-making would be guided by the Climate Change Strategy rather than a specific target in the interim, as is current practice.

If Council determines to set a clear target date for carbon neutrality, it is recommended that a workshop-type process is used involving the executive leadership team and other key staff as well as the elected members. A carbon neutrality target would have far reaching implications for the organisation and will require a significant change in thinking at all levels within it. By involving key staff in determining the target date, the understanding of the changes necessary for this shift will be improved. It is proposed that the participants are briefed by subject-matter experts and assisted by a professional facilitator. This style of process was used by NZ Post when they set their carbon neutrality target.

This process can be arranged and co-ordinated more easily and sooner if those entities where the Council's authority to direct their activities is limited are excluded from target setting at this stage.

3.2 Reporting

A number of reporting frameworks for climate change risks have been explored. The recommended option is to join CDP – formerly known as the Carbon Disclosure Project. It allows organisations to submit or describe all of their climate-related information and work through a standard questionnaire and receive an annual 'report card' back that provides scores for six different aspects of climate change risk, readiness and response, as well as an overall score. CDP allows organisations to compare their performance to others. For the purposes of the GW's own reporting, Improvement to CDP scores can be used for setting key performance indicators. [Attachment 1](#) is an example of a CDP scorecard.

Participating in CDP has free membership but will require completion of a questionnaire each year. To improve scores, GW will need to publish its best available information on climate change, such as risk assessments, greenhouse gas inventories and plans, on its own website and any address gaps in this information. As already mentioned, GW is joining CEMARS and this will

address disclosure of GW's own organisational greenhouse gas emissions inventory, and could also be used for annual reporting and performance measurement.

4. Communication

No external communication is proposed as an outcome of the consideration of this report.

5. Consideration of climate change

The matter requiring decision in this report has been considered by officers in accordance with the process set out in the GWRC Climate Change Consideration Guide.

The matter will naturally have implications for climate change mitigation for Council, given that is explicitly what the recommendation concerns. However, given the recommendation is regarding the process for deciding carbon neutrality, rather than a specific date for achieving it, there is no specific amount of greenhouse gas pollution at stake on the basis of acceptance or rejection of the recommendation.

Officers note that the matter does not directly affect the Council's interests in the Emissions Trading Scheme (ETS) and the Permanent Forest Sink Initiative (PFSI), although subsequent to a decision being taken regarding a neutrality date Council may then seek to increase the amount of forest land it has registered in the PFSI. Achieving carbon neutrality is a voluntary activity which does not affect or substitute for any mandatory obligations under the ETS.

6. The decision-making process and significance

The matter requiring decision in this report has been considered by officers against the requirements of Part 6 of the Local Government Act 2002 (the Act). Part 6 sets out the obligations of local authorities in relation to the making of decisions.

6.1 Significance of the decision

Part 6 requires Greater Wellington Regional Council to consider the significance of the decision. The term 'significance' has a statutory definition set out in the Act.

Officers have considered the significance of the matter, taking the Council's significance and engagement policy and decision-making guidelines into account. Due to the procedural nature of this decision officers recommend that the matter be considered to have low significance.

Officers do not consider that a formal record outlining consideration of the decision-making process is required in this instance.

6.2 Engagement

Due to its procedural nature and low significance, no engagement on this matter has been undertaken.

7. Recommendations

That the Committee:

1. **Receives** the report.
2. **Notes** the content of the report and the advised process.
3. **Agrees** to:

Either

- I. *Set a boundary and target date for carbon neutrality for Council as an organisation using a facilitated workshop-based process. The outcome of the workshop will form the basis of a report to Council, to agree the recommended target date.*

Or

- II. *Instruct the Chief Executive to undertake additional research to provide a better view of the likely costs and implications of pathways for possible target dates before the Council makes a decision.*
4. **Agrees** that Greater Wellington should join CDP (formerly known as the Carbon Disclosure Project) and seek to integrate this into its annual reporting.

Report prepared by:

Report approved by:

Jake Roos
Climate Change Advisor

Luke Troy
General Manager, Strategy

Attachment 1: 2018 CDP scorecard for New Plymouth District Council



New Plymouth District Council

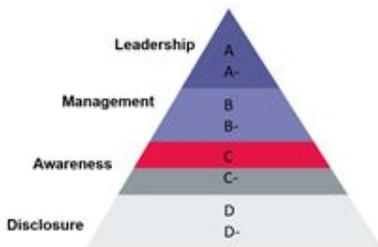
CDP Cities 2018

This snapshot report presents the score that New Plymouth District Council received for its response to CDP's 2018 questionnaire. CDP uses the scoring methodology to incentivize cities to measure and manage environmental impacts. Responses are scored by CDP and CDP's scoring partner ADEC, using the 2018 CDP Cities Scoring Methodology. Scores are private to cities although CDP will recognize and reward the highest scoring cities.

Scoring

Score	Scoring band	Regional Average Score	Global Average Score
C	Awareness		

Scoring measures progress towards environmental stewardship



The bar chart above shows the count of scores achieved by cities in Southeast Asia and Oceania. The score for New Plymouth District Council is shown in red.

The bar chart above shows the count of scores achieved by cities globally. The score for New Plymouth District Council is shown in red.

Scoring band explanation

A city in the Awareness scoring band is in the process of assessing the main risks and impacts of climate change. These cities have begun developing assessment and measuring impacts to get a holistic understanding of the main impact climate change has on their city but is not yet taking action to reduce the impact.

	Adaptation	City-wide emissions	City-wide emissions reductions	Climate & social risk	Opportunities	Water supply
New Plymouth District Council	C	C	D-	C	C	C
Southeast Asia and Oceania Average	D	C	D	C	C	D
Global Average	D	D	D	D	D	D

Find more about CDP Cities at <https://www.cdp.net/en/cities>.



Information reported

This panel indicates what information was provided by New Plymouth District Council in the CDP's 2018 questionnaire which was used to determine your score. It also highlights some key points disclosed by cities globally and within your region.

Information disclosed by New Plymouth District Council		% Southeast Asia and Oceania	% Globally
Risk/Vulnerability Assessment	<input checked="" type="checkbox"/>	76%	45%
Climate Adaptation Commitment	<input checked="" type="checkbox"/>	82%	58%
Climate Adaptation Plan	<input type="checkbox"/>	82%	33%
Climate Action Plan	<input type="checkbox"/>	71%	42%
City-wide GHG Emissions Inventory	<input type="checkbox"/>	82%	54%
City-wide Emissions Reduction Target	<input type="checkbox"/>	59%	46%
Renewable Energy Target	<input type="checkbox"/>	53%	31%



Your city is not yet committed to the Global Covenant of Mayors for Climate & Energy. For more information, contact us.



Is your city considering setting emission reduction targets?

Transparency
Your city disclosed publicly

How to improve your city's score

Sections Questionnaire	Next steps Awareness band
Introduction and governance	Consider addressing climate impacts within the city master plan. This action demonstrates a commitment to addressing and preparing for climate change. A city master plan integrating sustainability would contain key measurable climate targets of the city.
Hazards and Adaptation	Develop an integrated or standalone adaptation plan, which should be informed by a comprehensive risk assessment and is therefore designed to address specific identified hazards. An adaptation plan should be developed with stakeholders to ensure it meets the needs of as many people as possible.
Opportunities	Sustainability projects that address climate change can also bring socioeconomic co-benefits to the city through increased private investment and job growth.
City-wide Emissions	Once all sources of direct emissions have been included in the inventory, consider assessing Scope 3 (non-Scope 2 indirect) emissions as well as all 7 Kyoto Protocol gases (CO ₂ , CH ₄ , N ₂ O, HFCs, PFCs, SF ₆ , NF ₃). This process will ensure a thorough inventory including upstream emissions has been undertaken.
Energy and Emissions reduction	Consider developing a renewable energy target. Increasing renewable energy uptake within the city can drive emissions reduction whilst also increasing new business and economic opportunities within the city. Developing a city-wide climate action plan is key to ensuring a long-term strategy is in place for mitigating the effects of climate change.
Water	Identify and report on how your city will reduce water supply risks to ensure a sustainable, stable and clean supply of water for all.

[Click here](#) for a more detailed explanation of the score per band for each section of the questionnaire, along with CDP's recommendation for cities who receive a Awareness (C) band score.

Resources

Benchmark Against Your Peers	Explore Data	Connecting to Finance
To see how your city compares to other cities, check out Cities Analytics	Explore all public information by accessing our Open Data Portal	Showcase relevant projects through our Matchmaker Program
2018 New Plymouth District Council Response	Understanding the Questionnaire	Learn and Progress
Download your full 2018 response	Read more on the topics highlighted here in the Cities Guidance	Request a score feedback call, e-mail: cities@cdp.net

Find more about CDP Cities at <https://www.cdp.net/en/cities>



Report 19.171
Date 3 May 2019
File CCAB-10-716

Committee Environment
Author Amanda Cox, Manager, Parks

Coastal erosion plan for Queen Elizabeth Park

1. Purpose

To update the Committee with regard to public feedback and a proposed timeframe for consideration and approval of the draft Coastal Erosion Plan for Queen Elizabeth Park.

2. Background

Over recent years the coastline of Queen Elizabeth Park (QEP) has been subjected to numerous extreme weather events, causing significant issues with coastal erosion of not only sand dunes but also tracks, roadways and park infrastructure. This became most evident recently in the wake of ex-tropical cyclone Gita, which washed away half of the pedestrian bridge over the Wainui Stream.

These effects, while dramatic, have only borne out the predictions of a 2010 report which estimated that within 50 years up to 40 metres of fore-dunes would be lost, a single large storm event could result in 40 metres of erosion, and ongoing erosion is likely to occur along the toe of foredunes. Acknowledging that threat, the current Parks Network Plan projects that GW will “provide for managed shoreline retreat” over the life of the plan. GW Parks subsequently provided for a reasonable degree of retreat in our LTP budgets. Preparation of a draft Coastal Erosion Plan centred on the Wellington Road (Paekakariki) entrance area to QEP began in the latter part of 2018.

3. Comment

To date, development of the draft Coastal Erosion Plan ([Attachment 1](#)) has considered the 2010 report and impacts to date, expert advice from GW officers and external consultants, and the views of representatives of local iwi and the Paekakariki community.

GW Parks is well aware that the significant change proposed in the draft plan will affect the considerable use and enjoyment of this area of the park, by many thousands of visitors each year. This plan acknowledges the impact that is

clearly visible, and reflects a proactive approach, working in partnership with our mana whenua partners and the community. A plan was devised early in 2019 to publicise this initiative and invite the community to view the draft plan, and submit their views so these could be considered in finalising it.

Following the publicity in early April, two drop-in sessions were held on Saturday 13 April at QEP. A further session is planned at St Peters Hall in Paekakariki on 18 May. The public have been invited to [Have Your Say](#) via the GW website, and submissions close on 7 June. To date the main themes of public feedback have been:

- A lot of positive comment that action is being taken and it's good to see GW being proactive
- While people understand the need to rationalise the current track network, people are concerned around a pending loss of tracks and opportunity to recreate. The final plan needs to ensure a range of loops, with connections to the beach.
- Environmental restoration must reflect good planning to consider the increased impact of salt water
- There are mixed views around the proposed removal of Phoenix palms
- Significant Hapu interest in Budge House (the current ranger residence), possibly passing ownership to them and assistance to move it from the current site.

What has also become clearly evident over the last two months, is the level of interest in this project, from a broader perspective. While local authorities and communities around New Zealand are grappling with the implications of climate change, this project at QEP has drawn widespread attention and comment as one of the earliest examples of intentional withdrawal from the coastal zone.

To consider the plan in a wider context, GW Parks suggests that the engagement process also involves connecting with the Coastal Adaptation Strategy planning, being done in consultation with Kapiti Coast District Council, with that to occur prior to the final plan being considered by the Committee.

With that in mind, GW Parks, proposes the following steps after closure of the submission process:

- Consideration and analysis of public feedback
- Discussion with Coastal Adaptation Strategy Group
- Consultation with local iwi, hapu and the Community Board
- Update at Environment Committee on 9 August
- Development of finalised plan
- Presentation of final recommendations to the Environment Committee in September
- Adoption of the plan by Council on 2 October.

4. Communication

Given the high public profile of this initiative, and expected interest in the outcome, a detailed communications plan will be developed to support and publicise agreed steps in the process following closure of public submissions.

5. Consideration of climate change

The matters addressed in this report have been considered by officers in accordance with the process set out in the GWRC Climate Change Consideration Guide.

5.1 Mitigation assessment

Officers have considered the effect of the matter on the climate. Officers recommend that the matter will have an effect that is not considered significant.

Officers note that the matter does not affect the Council's interests in the Emissions Trading Scheme (ETS) or the Permanent Forest Sink Initiative (PFSI)

5.2 Adaptation assessment

Officers have considered the impacts of climate change in relation to the matter. Officers recommend that climate warrants the development of a Detailed Scenario Analysis, as attached ([Attachment 2](#)).

6. The decision-making process and significance

No decision is being sought in this report, which provides an update for information only.

6.1 Engagement

Due to its procedural nature and low significance, no engagement on this matter has been undertaken.

7. Recommendations

That the Committee:

- 1. Receives the report.*
- 2. Notes the content of the report.*

Report prepared by:

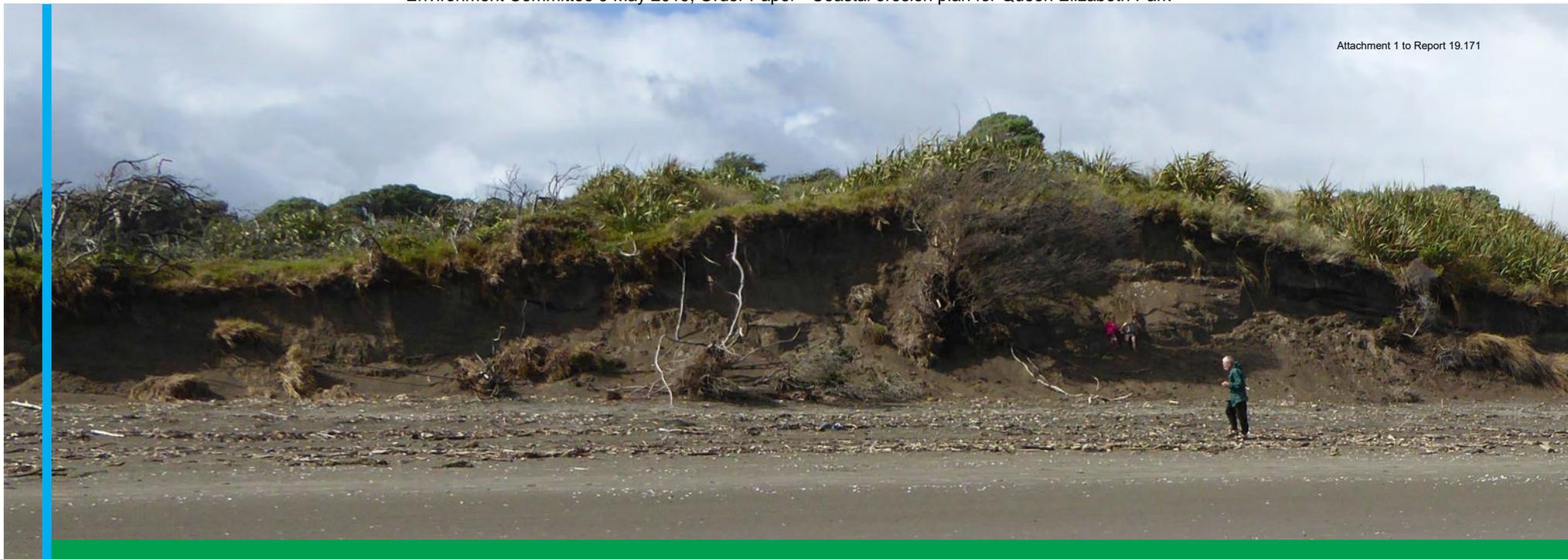
Report approved by:

Amanda Cox
Manager, Parks

Al Cross
General Manager,
Environment Management

Attachment 1: Draft Queen Elizabeth Park Coastal Erosion Plan

Attachment 2: Preliminary assessment of climate change impacts



Queen Elizabeth Park

DRAFT Coastal Erosion Plan

Prepared by PAOS[®]

for Greater Wellington Regional Council

March 2019



PAOS

Prepared by Cheryl Robilliard
NZILA Registered Landscape Architect



Contents

Introduction	5
Objectives	6
Analysis	7
Proposal	11
References	15



Figure 1 - Aerial view of the erosion zone covered by this plan showing designations



DRAFT Queen Elizabeth Park - Coastal Erosion Plan - March 2019

Queen Elizabeth Park is owned by the crown and managed by Greater Wellington Regional Council (GWRC). The park is classified as a Recreation Reserve under the Reserves Act, and is a Key Native Ecosystem with three ecosystem types - large dune system, wetlands and coastal remnant.

Ngāti Toa Rangatira and Ngāti Haumia have strong associations with the park. The park is included in the reserve established for Ngāti Toa Rangatira in 1847.⁶ The area covered by this plan includes urupa, kainga, koiwi and taonga such as middens and ovens are often found within the shifting dunes.

This plan focuses on the coastal edge from the park's southern entrance at Wellington Road in Paekakariki to approximately 900 metres to the north (see the location aerial map on this page). It includes dunelands, Paekakariki surf club, Budge House, Wainui Pā, Wainui Stream, and a network of green open spaces, picnic areas, roads, carparks, trails and beach access, but not the holiday park or urupa.

This area is rich in history and reflects natural geological and ecological processes, human occupation and changing land use. The value community places on this area is reflected in Kapiti Coast District Council's (KCDC) District Plan. The District Plan identifies the dunelands as an ecological site with Outstanding Natural Landscapes and Features. Budge House is designated historic heritage and Wainui Pā lies within a wāhi tapu site.

KEY

- WTS 0578 - Wāhi Tapu (Kapiti Coast District Council District Plan)
- Ngāti Toa Rangitira-owned lands

⁶ Ngāti Toa Rangatira Deed of Settlement Documents Schedule, 2.1 Statements of Association, p. 28.

Figure 2 - Diagram showing sediment movement



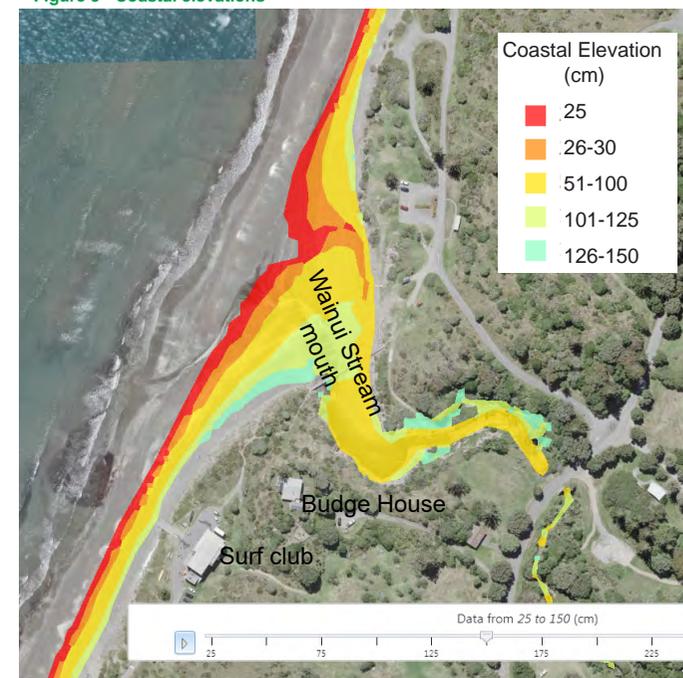
The issue

The coastal edge of the park is a dynamic landscape, vulnerable to erosion and the effects of climate change. These effects include sea level rise, more rainfall, more extreme rainfall events and increasing frequency and intensity of storm events.⁶ The low elevations of the coastal edge at Wainui Stream mouth shown in Figure 3 are particularly vulnerable to these effects.⁷ Probability analysis shows that hazardous events on the Kapiti Coast are likely to involve large waves coinciding with high storm tides.⁸ A 2001 study of the coastal edge of Queen Elizabeth Park estimated that within 50 years up to 40 metres of foredunes would be lost, a single large storm event could result in 40 metres of erosion, and ongoing erosion is likely to occur along the toe of foredunes.⁹

Effects within this 40 metre erosion zone are exacerbated by a lack of sediment to replenish sand eroded after storm events. Figure 2 shows the processes along this part of the Kapiti Coast that lead to a sediment deficit and reduced sand supply.

Two cyclones earlier last year show how vulnerable the park's coastal edge is to storms and erosion. The pedestrian bridge across the mouth of Wainui Stream was washed away and the toe of the foredunes eroded. Tracks along the beach edge and the coastal ring road were eroded and beach access is difficult (see pages 8 - 10 for images of effects).

Figure 3 - Coastal elevations



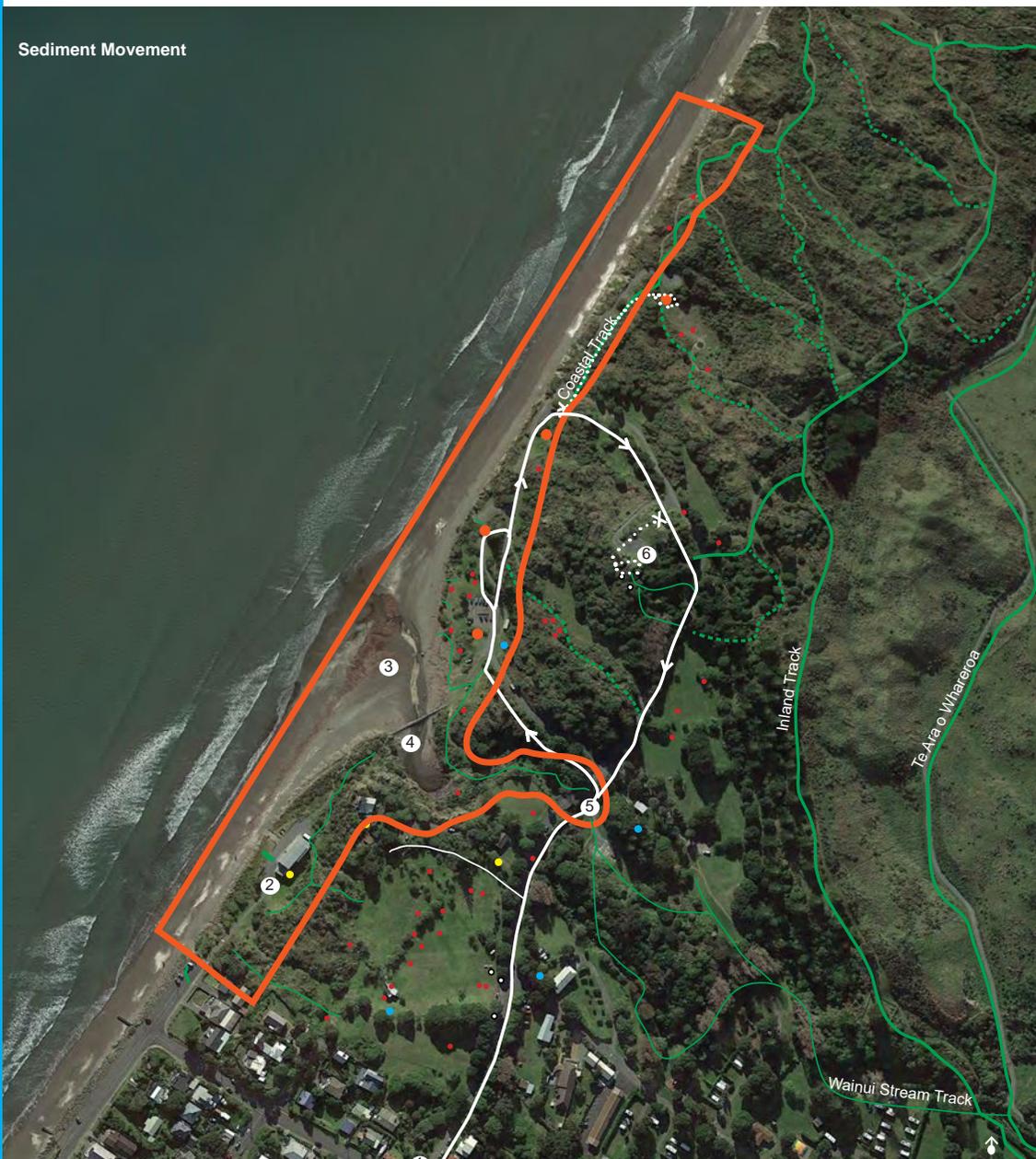
⁶ NIWA Taihoro Nukurangi, *Climate change and variability - Wellington Region*, June 2017.

⁷ This map is indicative of normal sea levels and does not indicate the extent of damage to landform that may occur from extreme events.

⁸ NIWA Taihoro Nukurangi, *Joint-probability of storm tide and waves on the open coast of Wellington*, July 2011.

⁹ *Queen Elizabeth Park Coastal Dunes Management Discussion Document*, Boffa Miskell June 2001.

Figure 4 - Aerial view showing existing trails, facilities and infrastructure



DRAFT Queen Elizabeth Park - Coastal Erosion Plan - March 2019

Response

The aerial view on this page shows visitor facilities that lie within the 40 metre erosion zone and are most at risk from storm damage, flooding and extreme winds. In order to protect them, reduce vulnerability to increasing impacts of climate change and develop resilience, a key objective of GWRC's Climate Change Strategy is adaption planning and actions.⁶ This draft coastal erosion plan is an example of adaption planning. It is a practical response to existing and potential risks from the impacts of coastal erosion and climate change.

Plan Objectives

Key objectives of this plan are to:

- Withdraw existing visitor facilities and infrastructure that lie within the 40 metre erosion zone and restore foredunes
- Relocate visitor facilities and infrastructure outside of the erosion zone
- Carry out foredune restoration
- Provide opportunities for people to access, enjoy and recreate in this part of the park
- Highlight and interpret park heritage and the natural environment.

The following pages illustrate how these objectives may be achieved. They identify and comment on the current situation and propose changes aimed at protecting the park and visitor enjoyment of it.

KEY

	40 metre erosion zone	1 Wellington Road entrance
	carparks	2 surf club
	toilets	3 Wainui Stream mouth
	buildings	4 footbridge washed away early 2018
	park furniture	5 vehicle/pedestrian bridge across Wainui Stream
	locked gates	6 Wainui Pā site
	structures	
	vehicle access	
	tracks	
	east-west track conntions	

⁶GWRC, *Climate Change Strategy - A strategy to guide the Wellington Regional Council's climate resilience activities*, October 2015.

Figure 3 - Aerial view showing the site



Current situation

Comments

- Erosion along the beach edge (see pages 8-10)
 ➤ Beach access is difficult and in some places the beach is inaccessible from the park.
- - - 40 metre Erosion zone
 ➤ Road, carparks, toilets and park furniture within the erosion zone are vulnerable to storm events and are proposed to be relocated.
- Three trails run North/South parallel to the coast - Te Ara o Whareroa, the Inland Track, and the Coastal Track/Te Araroa
 ➤ The Coastal Track is within the erosion zone and proposed to be closed
- ⋯ Trails through dunes link coastal and inland trails
 ➤ Once the coastal track is closed the linking tracks are no longer necessary.
- 1 Surf club access from The Parade
 ➤ The surf club lies within the erosion zone. A 2018 Erosion Hazard Assessment recommended retreat to a site east of the foredune.
- 2 Budge House (park ranger's house) on foredune with private driveway and storage shed
 ➤ Budge House is partly within the erosion zone and may have to be relocated in future.
- 3 Slightly elevated area at Wellington Road entrance with information
 ➤ This area has good surveillance of the park entrance and is a suitable location for a new park ranger's house.
- 4 Grassed open spaces of different sizes with picnic tables, toilets, shade, and open space for flexibility and choice for large and small groups.
 ➤ Flexible open spaces are important as they cater for a wide variety of visitor and community needs and can be developed for specific purposes as required.
- 5 Pedestrian bridge over Wainui Stream mouth destroyed during 2018 cyclones
 ➤ Pedestrian bridge was within the erosion zone and replacement is not recommended.
- 6 Track above the stream bank (see page 9)
 ➤ This track is within the erosion zone and ongoing maintenance is not recommended.
- 7 One way ring road through the foredune and along the coastal edge
 ➤ The coastal section of this ring road lies within the erosion zone and is proposed to be replaced by a low impact track.
- 8 Parking with beach access, picnic tables and toilets
 ➤ Facilities and infrastructure lie within the erosion zone and are proposed to be relocated behind the restored and naturalised foredune.
- 9 Pa site with views and lookout structure reached by the one-way ring road
 ➤ This plan proposes removing vehicle access and improving accessibility in partnership with iwi.
- 10 Locked gate controls vehicle access to a parking/turning area
 ➤ The asphalt turning/parking area lies within the foredune and is proposed to be removed and the area planted using indigenous sand binding species.
- 11 The dune landscape
 ➤ The duneland and sheltered picnic areas lack interpretation or information.
- 12 The sharp spines of Phoenix palms are a hazard and known to injure people and animals
 ➤ The proposal is to replace Phoenix palms with Nikau palms

Beach erosion

Erosion at toe of foredune below Budge House and surf club



Erosion at beach edge in front of surf club



Footbridge across Wainui Stream washed away



Footbridge during storm early 2018



Storm damage along Wainui Stream



Stream bank erosion and debris at mouth of Wainui Stream after a storm



Debris in stream after storm surge - viewed from bridge



Debris from footbridge scattered around Wainui Stream mouth



Clearing debris from the stream after storm 2018



Erosion north of Wainui Stream reducing beach access



Erosion along the Coastal Track and difficult beach access



Coastal ring road eroding after storm surges



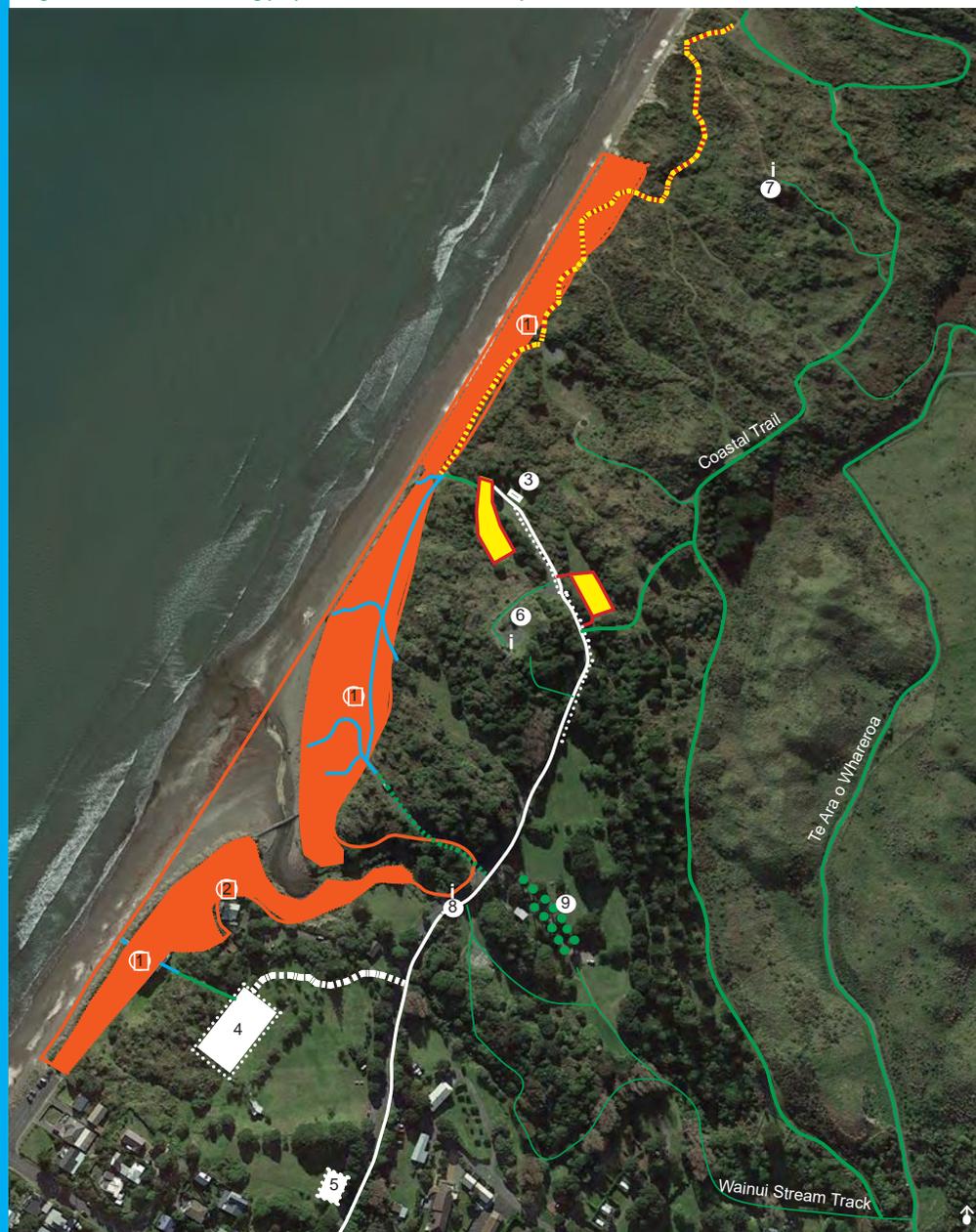
Beach access from the coastal ring road eroded



Dune blow out near the Coastal Track



Figure 4 - Aerial view showing proposed relocation and development



Proposal

Strategic retreat from the erosion zone

- ① Removal of structures on the seaward side of the foredune - toilet block, carparks, asphalt ring road, picnic tables, coastal trail and surf club. The storage shed next to Budge House driveway is also proposed to be removed.
- ② Dune restoration to enable natural coastal processes and dune renewal - removal of hard and fill material, reinstatement of toe of foredunes, planting using native sand binding species such as spinifex, pingao, sand coprosma, sand tussock etc (see page 14 for examples of foredune restoration).
- ③ Budge House may need to move in the future if threatened by coastal erosion.
- ④ Coastal Track decommissioned. Existing inland track becomes Coastal Trail/ Te Araroa with views to the sea. With decommissioning of the current coastal track there is no longer need for most connecting tracks across the dune system. Their removal will help protect the dune system.

Replacement facilities

- ③ Replacement toilet block location.
- ④ Replacement surf club building with parking, accessed at the driveway entrance to Budge House.
- ⑤ Future site for park ranger accommodation with good surveillance at the park entrance.

Trails and connections

- ⑥ Beach access via low impact tracks through restored toe of foredunes(see page 14).
- ⑦ Existing tracks.
- ⑧ Ring road becomes walking/cycle path.

Viewpoints and interpretation

- ⑥ Removal of vehicle access to Wainui Pā site with access for pedestrians only, removal of asphalt at the summit. Redevelopment of the lookout with interpretation of iwi settlement and use in partnership with iwi.
- ⑦ Existing highpoint and seat developed as lookout with interpretation of natural dune processes and ecology (see page 13).
- ⑧ Wainui Stream interpretation panel at existing bridge.

Vehicle access

- ⑨ Existing vehicle access (widened in places to become 2-way).
- ⑩ New vehicle access off Budge House driveway to new surf clubroom and parking.
- ⑪ New carparking for picnicking and access to Wainui Pā and Coastal Trail (current Inland Track).

Other enhancements

- ⑨ Phoenix palms replaced by Nikau palms.

One-way ring road through foredune to beach proposed to become a pedestrian and cycle path



Coastal carpark and toilets within the erosion zone removed and the coastal edge restored. The ring road becomes a pedestrian and cycle path



An example of foredune restoration near the surf club with low impact path access



Proposed location for replacement parking and toilets in a more protected site behind foredunes below Wainui Pā



Sheltered area below Wainui Pā proposed for parking and picnicking



Access to Wainui Pā to be improved for pedestrians



Wainui Pā site and lookout proposed to be improved



Looking towards the proposed site for parking, toilets, picnicking, and beach access below Wainui Pā



View south from Wainui Pā summit and lookout to site of relocated surf club and foredune restoration to replace current parking area



Location of lookout sites along Coastal Trail



View to northern lookout site proposed to be developed



View from northern lookout



Sites for coastal restoration

From this



↓
To this



Eastbourne Wellington Harbour



Island Bay

Improved beach access

From this



↓
To this



Piha



Island Bay

Proposed relocation of key facilities

New carpark location below Wainui Pā and entry to the Coastal Trail (former Inland Track)



View towards proposed surf club location on park side of foredune



Spines from Phoenix palms along the driveway can injure people and animals and are proposed to be replaced with Nikau palms





References

- ADarchitecture, *Paekakariki Surf Club Landscape Plan*, undated.
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- Lumin, *Paekakariki Surfguards Feasibility Study - Pavilion Redevelopment*, October 2011.
- Paekakariki Surf Lifeguards, *Lease Application – Queen Elizabeth Park*, prepared for Greater Wellington Regional Council, August 2017.
- Urbansolutions, *Erosion Hazard Assessment*, for Paekakariki SLSC, April 2018.

ADAP ASMNT FORM 2: Preliminary assessment of climate change impacts	
Characteristic	Comment
1. Location	<i>The Coastal Erosion Plan is focussed on the foredune area of the Paekakariki entrance to Queen Elizabeth Park, from the southern park boundary, to a point approximately 1km northwards.</i>
2. Current driver	<i>There is significant erosion of the foredune currently evident, which is projected to be further exacerbated by increased sea level rise combined with intense wind/ rain events.</i>
3. Duration	<i>The initiative is planned for implementation over approximately three years, starting from 2019/20. Its current legacy is anticipated at 50 years to reflect a long infrastructure replacement cycle.</i>
4. Extent	<i>The area under consideration stretches approximately 800m north of the southern park boundary with Paekakariki township. A 40m retreat inland is proposed. The park infrastructure includes a car park, toilets, a sealed loop road, together with associated services including power, sewerage and water supply. It is expected to involve removal of the current Park Ranger residence¹ and relocation of the Paekakariki Surf Club building².</i>
5. Future driver	<i>Coastal erosion is likely to be accelerated where it is already occurring and erosion may become a problem over time in coastal areas that are presently either stable or are advancing.</i>
6. Complexity	<i>The issue is of medium complexity. The draft Coastal Erosion Plan is based on professionally informed guidelines and reasonably foreseeable events. Should climate change-induced impacts become more severe, or differ markedly from those projections, park infrastructure may be needlessly or critically impacted, which would have a follow-on cost and reputational impact for GWRC</i>
7. Potential solutions	<i>The draft plan identifies solutions that GWRC expects to provide a pragmatic level of mitigation for the scale of impact forecasted. These include relocation of park infrastructure inland beyond the 40m coastal zone, and environmental restoration of the foredunes to increase their resilience to high-intensity storm events.</i>

¹ A replacement Park Ranger residence is not currently funded.

² The Paekakariki Surf Club is planning to relocate their club building



Report 19.168
Date May 1 2019
File CCAB-10-714

Committee Environment
Author Suze Keith, Climate Change Advisor

Update from the Climate Change Working Groups

1 Purpose

To update the Committee following the latest meetings of the Wellington Region Climate Change Working Group and the Greater Wellington Councillor Climate Change Working Group.

2 Background

2.1 Wellington Region Climate Change Working Group

Greater Wellington, along with the region's city and district councils, established a Wellington Region Climate Change Working Group (WRCCWG) in 2017. Greater Wellington convenes and chairs the group, which comprises a councillor from each council across the region and three iwi members nominated by Ara Tahi.

The WRCCWG provides a forum for councils and iwi to network, discuss issues, share information and, where appropriate, achieve a consistent approach across all jurisdictions on climate change mitigation (reducing greenhouse gas emissions) and adaptation (preparing for impacts such as sea level rise, drought and enhanced natural hazards effects). The WRCCWG is supported by two officer-level groups, the Low Carbon Transition Steering Group (mitigation) and the Natural Hazards Strategy Working Group. It also has formed a sub-group of both councillors and officers to develop a plan for community-led coastal adaptation planning.

2.2 Greater Wellington Councillor Climate Change Working Group

Greater Wellington has a Councillor Climate Change Working Group. This group meets every 6-8 weeks to discuss climate change matters.

The Environment Committee has requested regular updates of the activities of these two working groups.

3 Comment

3.1 Wellington Region Climate Change Working Group

Items at the WRCCWG meeting of 15 March 2019 included:

3.1.1 Subgroup on Community-led Coastal Adaptation - Vulnerability Assessment

Nicki Williams (Mitchell Daysh) presented the summary findings of the *Greater Wellington Preparing Coastal Communities for Climate Change: Assessing coastal vulnerability to climate change, sea level rise and natural hazards* report, on behalf of the coastal planning sub-committee.

The ensuing discussion included questions of the robustness of the data used and the methodology of the vulnerability assessment, the impact specific to the local authority areas, the process and timing for publicising the findings, the decision-making which led to prioritising two areas over any others, the prioritising of coastal areas over other vulnerable locations, and the importance of aligning other work streams, such as Wellington Water's rainfall hydrological modelling and Greater Wellington's flood management plans.

Actions agreed to were:

- For Greater Wellington to propose a governance structure to oversee a programme for community-led coastal adaptation implementation across the region;
- Hutt City Council and Kāpiti Coast District Council to recommend to their Councils that they develop their process for implementing the programme with their communities.

3.1.2 Wellington Region Electric Vehicle Support Strategy Update

Jake Roos presented the draft [Wellington Region Electric Vehicle Support Strategy](#), which was written by Jake in his capacity as a private consultant with input from the Regional EV Working Group. The Strategy was endorsed by the WRCCWG and it was agreed that staff would present it to their respective councils to seek endorsement and uptake of actions. The working group also agreed to encourage councils to adopt an 'EV First' vehicle procurement strategy.

3.1.3 Wellington Region 2050 Emissions Calculator

Jake presented the Wellington Region 2050 Emissions Calculator, which is in its final stages of development. Discussion focused on how it could be best promoted, with general agreement that it is a useful tool with which to discuss 'big picture' pathways towards a regional carbon mitigation strategy.

<https://gwrc.2050calculator.nz/>

3.1.4 Personal Calculator – FutureFit

William Van Ausdal from Wellington City Council presented the final version of ‘FutureFit’, described as:

“a simple yet powerful and proactive way for you to engage with climate change. FutureFit provides a snapshot of your impact on the planet and helps you make some really positive changes in the way you live to help reduce your footprint.”

It is the result of collaboration between Wellington City and Auckland Councils, and, while directed at these cities, can be used by anyone around New Zealand.

It is the first ‘gamified’ carbon calculator, meaning that it engages you over time; features a competition function and generally encourages individual and household carbon reduction target setting and changing behaviours over time.

It was noted that the calculators are a way of describing climate change in a relatable fashion, empowering people to understand how their day to day practices relate to climate change and ways to reduce this impact.

<https://www.futurefit.nz/>

3.1.5 Carbon Disclosure Reporting

Tom Petitt from Wellington City Council presented on their experience of Carbon Disclosure Project (CDP) which the Council undertakes as part of the Global Covenant of Mayors for Climate and Energy. It produces an end of year ‘report card’ on members’ status with respect to climate change related risks, policies and actions. It provides visibility, accountability and inter-city comparability. Membership is free.

<https://www.cdp.net/en>

3.2 Greater Wellington Councillor Climate Change Working Group

3.2.1 Meeting of February 13, 2019

- Discussion about the content and format of the carbon neutral workshop held with Council on March 21.
- Consideration of how Council might start climate risk reporting with an exploration of case study private and public sector approaches. The standard questions are identification of the carbon footprint; independent verification of the footprint; identification of exposure to hazards and adaptation pathways explored. It was agreed that this would also be addressed at the carbon neutral workshop.

- Cr Laidlaw circulated a paper by VUW proposing a research project looking in to the options for developing a new policy framework for the funding of climate change adaptation. The Working Group agreed that a remit to the Local Government New Zealand (LGNZ) should be considered by Council.
- The Working Group also agreed to put forward a second LGNZ remit which encourages the uptake of EV First policies by local authorities.
- The work programme associated with the delivery of the Climate Change Strategy was tabled and acknowledged.

3.2.2 Meeting of April 8, 2019

- Further to the discussion about funding climate change adaptation, Jonathan Boston presented to the Working Group; discussed the aligned work going on around the country; and encouraged the LGNZ remit proposal. It was also discussed that a similar discussion should be on the agenda of the next meeting of Central and Local Government Forum.
- In response to the Council decision to inform CCOs and investments of the anticipated adoption of a carbon neutrality target, it was agreed that letters would be sent to each of the respective chairs ahead of initiating an in-house Greater Wellington process to discuss what the detail of the target might be.
- It was agreed that a paper proposing this process would be presented to the Environment Committee on May 9.
- Actions arising from the Wellington Region Climate Change Working Group meeting held March 15 were discussed, in particular focused on the Coastal Vulnerability Report prepared for the sub-group. A significant work programme associated with the response to the findings of the report is required, and particular consideration of the Kāpiti Coast and Petone / Seaview areas is currently underway.
- Under any other business, Cr Kedgley reported that she would like to have seen greater climate change recognition in the Performance Targets of the WRC Holdings Limited Group Statement of Intent. She proposed that she table an amendment referring to the identification, mitigation and reporting on climate change impacts at the April 10 Council meeting.

4 Communication

No external communication is proposed as an outcome of the consideration of this report.

5 Consideration of climate change

No decision is being sought in this report. The matters addressed in this report have been considered by officers in accordance with the process set out in the Greater

Wellington's Climate Change Consideration Guide. Because this report addresses the actions of Greater Wellington's Climate Change Strategy directly, climate change assessments are not required.

6 The decision-making process and significance

No decision is being sought in this report.

7 Recommendations

That the Committee:

1. *Receives the report.*
2. *Notes the content of the report.*

Report prepared by:

Report approved by:

Suze Keith
Climate Change Advisor

Luke Troy
General Manager, Strategy



Report 19.123
Date 3 May 2019
File CCAB-10-711

Committee Environment
Author Al Cross, General Manager, Environment Management
Wayne O'Donnell, General Manager, Catchment Management
Luke Troy, General Manager, Strategy

General Managers' Report to the Environment Committee meeting on 9 May 2019

1. Purpose

To inform the Environment Committee of Greater Wellington Regional Council (GWRC) activities relating to the Committee's areas of responsibility.

2. Key/Strategic issues

2.1 Introduction of National Planning Standards

The Government has introduced the first ever set of National Planning Standards (<http://www.mfe.govt.nz/node/24894/>). A Ministry for the Environment media release states:

“Plans will be easier to prepare, use and understand under the Resource Management Act (RMA) with the release of new National Planning Standards. The new Standards will address some of the undue complexity of RMA plans and will also help transition planning documents to electronic interactive plans, helping to make them more user friendly for the public and resource management practitioners.”

There has been some change in the standards following the engagement and consultation process with councils and the planning community. The structure and definitions standards remain the largest pieces of work for us. The Regional Policy Statement needs to be compliant within three years and the Natural Resources Plan within ten years.

The standards came into force on 3 May 2019. Officers are working through what the standards mean for us and how they can be phased in using existing processes to minimise compliance costs.

2.2 Wellington Regional Biodiversity Framework

Applications for the Collaborative Working Group for the Wellington Regional Biodiversity Framework closed on 3 April. A good number of high quality applications were received and the team is aiming to complete interviews for 8-10 places during April and hold the first meeting in May. In the meantime, preparation is underway for the information and support systems the group will need, including methods for collaboration.

2.3 Parks Network Plan development and QEP Coastal Retreat Plan

Work on the Parks Network Plan (led by the Parks Planning team) continues, with our Parks management team providing a good deal of input, alongside other inputs from across GWRC and from external stakeholders. A draft of the Plan is scheduled to go to Council for approval to consult around mid-year. Meanwhile, community engagement has commenced on the Queen Elizabeth Park Draft Coastal Retreat Plan, following a period of plan development with local iwi and the Paekakariki Community Board. An update of this process, timelines and decision points for Council are provided in Report 19.171 of this order paper.

3. Catchment Management

3.1 Land Management

3.1.1 Wellington Region Erosion Control Initiative (WRECI) Programme

A proposed contract for the WRECI programme 2019-2023 has been provided to the Ministry for Primary Industries (MPI). The scale of the programme and support from MPI is a significant increase over the previous four-year contract. The proposed amount of GWRC funding is within Long Term Plan budgets and programme growth is made possible by moving away from the funding policy of 30/30/40 (MPI/GW/landowner) to a new model of around 50/25/25.

GWRC is well into planning the winter programme and liaising with landowners on this year's erosion control plantings. Early indications that demand for work from landowners will be high.

3.1.2 Akura Nursery

Nursery operations are in preparation for providing winter pole supply to the WRECI programme.

The nursery tender process has been completed and the existing contractors have been successful and have signed a contract for the following three years.

Land Management officers have completed their respective poplar and willow survival audits for 2018 plantings. The results are extremely favourable – overall the survival rate is 94%. The information gathered has provided the nursery with the necessary data to support the decision to remove a number of poplar clones from the mix.

3.1.3 Farm Environment Plans (FEP) and contestable fund

A farm plan review process commenced during late 2018 with an aim to adapt and improve this service to better align with whitua catchment management objectives. Activities undertaken as part of this review during 2019 include the setting up of a steering group to prepare experiments and trials that test new methods and approaches to farm plan development and programme delivery. The first experiment has been set up in the Huangarua catchment, one of the top five catchments identified in the Ruamahanga WIP for sediment load. Other experiments still in development will look at cross-department interaction and opportunities that can arise through the use of farm plans.

During March, the remaining budget in the contestable fund is allocated to projects outside of non-priority catchments. This year the programme has supported farm system improvements with thirteen completed projects within the Ruamahanga Whitua area and one in the Hutt Valley. Projects typically support landowners to retire wetland areas from stock or reticulation of water to stock from fenced off streams. The remainder of the financial year will be focused on finalising projects that have been approved.

3.1.4 Riparian Programme

Recent work has focussed on ensuring pre-approved projects are completed by the end of the financial year. This is mainly completing fencing in time for winter planting to be done. New projects have recently been approved to make use of funding that is available due to projects either being completed under budget or unable to proceed due to the difficulty of getting fencing contractors.

We are waiting to hear whether MPI is prepared to support the Riparian programme through the One Billion Trees Partnerships Grant.

3.2 Flood Protection

3.2.1 Asset Management and Operations

a) Western Operations

Construction of the Te Awa Kairangi/Hutt River Gibbon Street / SH2 rock line protection works has progressed well and is now nearing completion.



Te Awa Kairangi/Hutt River bank protection works at Gibbons Street, Upper Hutt



Installing large fish habitat boulders into the Gibbons Street rock line

b) Wairarapa Operations



Waiohine River Scheme stopbank prior to clearing



Waiohine River Scheme stopbank following clearing works

The annual Wairarapa Rivers Schemes Chairs meeting was held at the Carterton Events Centre on 19 March 2019. Presentations included progress on Te Kauru and Waiohine Floodplain Management Plans (FMPs), Barrage Gates Resource Consent applications, Waitua Implementation Plan, National Policy Statements, Regional Plan, proposed Natural Resource Plan and communication opportunities. The Chairs also provided an update on the current status of their schemes. Planning for the annual River Scheme Committee meetings is underway with meetings proposed for May/June.

c) Resource Consent Projects

Seven statutory prehearing meetings for Te Awa Kairangi/Hutt, Wainuiomata, Otaki and Waikanae Rivers have now been completed. All but two of the submitters on the Te Awa Kairangi/Hutt, and Wainuiomata applications have withdrawn their right to be heard. The Code of Practice and associated conditions have undertaken some important refinements during this process and we have taken the opportunity to test out the Site Specific Environmental Monitoring Plan requirements through the Te Awa Kairangi/Hutt River Gibbons Street rock line bank protection project referred to above.

The Barrage Gates operational resource consent application was lodged on time with Environmental Regulation in March 2019. Discussions with Environmental Regulation (EREG) in relation to confirming the existing environment are ongoing and it is envisaged they will be resolved and the application publicly notified in due course.

Resource consents have been prepared for both gravel extraction and rock work in the Porirua Stream; both are awaiting further discussions with PCC around ongoing access and maintenance to the stream.

We are working with Environmental Policy on the Porirua City Council (PCC) district plan review, including possible designations in the Porirua Stream and we have engaged BECA consultants to look at some options for channel works in the Porirua Stream as part of this review.

d) Asset Management

Annual asset condition assessments of all the 6,400 flood protection assets have been completed in the field and the data verified by operational and asset engineers. Good progress has been made with data collection improvements and field staff training to ensure key standards were achieved.

3.2.2 Investigations, Strategy and Planning

The Investigations, Strategy, and Planning main focus areas is the two Wairarapa FMPs; the Waiohine and the Te Kāuru. Alongside these we are delivering survey, gravel analysis, hydraulic modelling and advisory services.

Floodplain Management Plans

Te Kāuru FMP

Progress to Date: In January 2019, the Waipoua Project Group and Te Kāuru Subcommittee supported the proposed approach for the Masterton urban area. This approach is a five stage implementation process, where first stage involves further investigation into the integrity of the stopbanks as well as detailed design of a stopbank and conveyance approach. This was presented to the community in February 2019. Following this all sections were combined into the 'proposed Te Kāuru Upper Ruamahanga River Floodplain Management Plan'.

The proposed FMP was supported by the Te Kāuru Subcommittee and Environment Committee in March 2019. Formal consultation on the proposed FMP is currently being undertaken. Formal submissions on the proposed plan are being sought, submissions close on 14 April 2019. A hearings process was carried out on 29/30 April 2019.

A number of successful consultation events have been undertaken, including a 'Bankside BBQ' on 30 and 31 March 2019. Approximately 85 people attended over the two days with the BBQ running and games for the kids whilst we discussed the proposed FMP with members of the community.

Looking forward: In the next quarter the Te Kāuru project is aiming to achieve sign-off of the final FMP by the Subcommittee and Environment Committee, and adoption by Council. This will involve stepping through the hearings process, updating the report and preparing the FMP for adoption by Council.

Waiohine FMP

Progress to date: The Waiohine Project Team has shifted focus onto river management in the new year. Subject matter experts from GWRC, Massey University and wider have been providing them with comments on the challenging problems in the river both currently and for the future. Key topics such as buffer management and gravel extraction have been the recent focus.

In parallel with the development of the FMP work has been advancing on the design of the structural option to protect Greytown. The project team initiated contact with landowners who may be impacted by these proposed works to describe the process and what is planned in the stopbank design.

Looking forward: Over the next quarter the project team will be finishing engaging with subject matter experts, deliberating and decision making ahead of producing a first draft of the plan.

Otaki FMP review

Progress to date: After a short pause in progress due to concerns from Nga Hapu o Otaki this project is again progressing. The team has discussed the major projects with Nga Hapu o Otaki and is establishing meetings with Kāpiti Coast District Council (KCDC) to discuss the planning control measures described in the FMP.

Next Steps: Following some internal refresher meetings the project team will be stepping into public engagement on the FMP and updated solutions.

Other Investigations

Mangatarere Flood Hazard Assessment

First meeting held by the community led project team. This has established the group's operating model, and scope. The group has expressed an interest in developing a form of integrated catchment plan. Next steps of the team are to gather information on historic flood risk and establish a Steering Group.

Gravel analysis work and strategy

A Gravel Strategy for the region has been developed and distributed internal for review by key staff. The draft has been circulated to all key internal staff and comments are being collated. This strategy provides a framework for the management of gravel in the region's rivers.

Flood Warning review

Progress to Date: The flood warning review project is running multi-agency workshops throughout March and April to develop a strawman system that can then be piloted in 2019/20. The workshops are being facilitated by GNS and attended by Met-service, Hutt City Council, Wellington Water, Wellington Regional Emergency Management Office (WREMO) as well as representatives from the local community.

The students from Winchester College have completed their investigation and have concluded that the council should be aiming for a 'one-stop shop' location for issuing warnings to the public as well as developing tiered warnings. A preference was noted for earlier less certain warnings.

Looking Forward: The team will be completing the workshops and developing a strawman system. From this a pilot system will be developed for the Waiwhetu catchment for trialling next financial year.

3.2.3 Floodplain Management Plan Implementation

RiverLink

The key focus for this quarter has been to complete setting up the project structures necessary for acquiring of statutory approvals on behalf of the partner organisations. This has included:

- Establishment of project board and project office for consenting and design phase Completion of partner agreements GWRC and Hutt City Council (HCC), and inclusion of clauses that allow New Zealand Transport Agency (NZTA) to join as a project funding partner. Within the board, voting rights are currently held by officers of HCC and GWRC, and supporting roles are held by NZTA, Ngāti Toa Rangatira and Port Nicholson Block Settlement Trust.
- Agreed project procedures manual and cost sharing arrangements
- Identified preferred candidate for RiverLink project Director
- Initiated work to establish role of mana whenua partners on project board

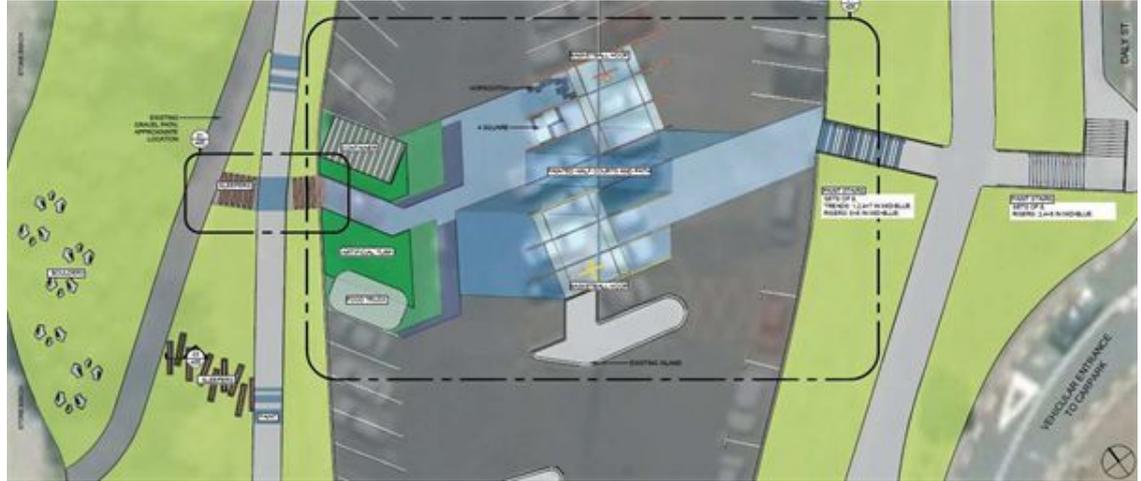
Alongside this project governance work, the tender process for engagement of professional services to deliver the consents and detail design work for the project has continued. Four tenders for this work were received, and the completion of the non-price attribute stage of their evaluation has been completed. It is anticipated that the appointment of the successful tendering party will be completed early in the 4th quarter.

GWRC has continued with its property acquisition requirements for the delivery of the flood protection upgrade works, completing sale and purchase agreements for 76 of the 118 required. HCC continue with their legal processes regarding the property acquisitions along Daly St. NZTA have yet to confirm further details of their future property requirements; these overlap GWRC's property interests and therefore will affect project net costs.

The three partner agencies are working closely together though the timing of the announcements from NZTA on the future of the Melling Transport Improvements is causing a delay. This ongoing delay continues to cause uncertainty about the timing of various stages of the work for both the consents and detail design phase, as well as the future construction phases of the work. The recent announcement from NZTA about the Melling project is very disappointing. GWRC and HCC have organised to meet with the Minister of Transport in early May.

Other aspects of work that are continuing are:

- Shift in focus of the RiverLink engagement to focus in the winter months on the business and retail community, this includes presence at the Hutt Business Expo and working with Hutt Chamber of Commerce. This will include extension of the space activation work complete in the riverbank carpark across the stopbank into Andrews Avenue through to the southern end of High Street (pictured below).
- Geotechnical investigations should commence in the fourth quarter following successful resolution of consenting issues that risked significant cost implications for the investigation works required.



New Layout in River Bank Carpark

Hutt River Environmental Strategy

Work has commenced to complete trail connections at the Halls Creek crossing, and Whakatiki River crossing (being investigated by Upper Hutt City Council (UHCC)).

Pinehaven FMP Implementation

Design and consent preparation for the Sunbrae Drive culvert replacement is underway; this is being carried out by Jacobs and managed by Wellington Water on behalf of UHCC and GWRC. Complications with impacts on overflow paths in the 1-in-100 year flood event are proving difficult to resolve in this location. UHCC is progressing through the appeal to PC42.

Lower Wairarapa Development Scheme Improvement works

The Pukio East Stopbank realignment work commenced this quarter. Land owners have completed construction of a new access track and relocated existing services. An earthwork contractor, PJ Warren was engaged by GWRC and subject to favourable weather; the first phase of the new stopbank construction will be completed by mid-April.



Week 3: Stopbank Construction outside Existing Stopbank



Consultant operating nuclear densitometer for compaction testing on the new stopbank

General

Work has commenced to revise the forecast costs of the Hutt Floodplain Management Plan. The current 30 year infrastructure/asset management plans includes estimates prepared in 2001 that have only been adjusted for inflation. There are cost risks for council in relation to fluctuations in transport and supply costs, new legislative requirements including the updated Natural Resources Plan (NRP). Much of the forecast cost work is taking advantage of work completed for RiverLink cost estimation

that has been prepared in the knowledge of the impacts of the proposed NRP requirements. Once the update for the Hutt Floodplain Management Plan has been completed work will commence to address the older Otaki FMP and Waikanae FMP.

3.3 Biosecurity

3.3.1 General

Biosecurity contributed 90 man days to the national Fruit Fly response in Auckland with some negative effect on BAU deliverables.

3.3.2 Regional Possum Predator Control Programme

Possum control has been completed in 12 projects and control is currently underway in a further seven projects. Two smaller projects are still to commence. Approximately 100,000ha of possum control has been completed to date.

3.3.3 Pest animals

The ungulate control programme continued, trailing thermal imaging equipment on an aerial control operation with great results. Remote parts of the Hutt Catchment were accessed by ground hunters, targeting traditional hot spots.

The reduction of wild animal recovery operations in the Tararua ranges over recent years seems to have caused significant increase in deer populations in this area.

The rabbit spring flush was the most prolific for a number of years across parts of the region, resulting in a lot of public requests for control. Staff have undertaken a large number of Pindone carrot bait cost recovery operations.

3.3.4 Predator Free Miramar:

Our three community engagement staff are busy, signing up residents, with positive responses in general. Line marking and cutting has started in preparation for the ground control operations. Twenty six new staff members are being employed to carry out the work. GWRC biosecurity staff will work on the airport (only available from 1-5am), and also the barrier work in conjunction with Zero Invasive Pests Ltd (ZIP) testing novel barrier designs and new traps.

3.4 Biodiversity

3.4.1 Wetland Programme

- 51 landowners with wetlands are now signed up to the Wetland Programme (a total of 73 wetlands as some have more than one on their property). 30 of these wetland sites have approved Wetland Restoration Management Plans

3.4.2 Biodiversity Advice

- Staff responded to a request from the Ministry of Foreign Affairs and Trade for comment on a draft national marine protected areas target (being 30% of marine area by 2030). The advice emphasised the importance of protected areas but cautioned that they should be selected systematically and in light of pressures on biodiversity values, not on the basis of arbitrary percentage targets
- Staff contributed to a GWRC submission on Wellington City Council's (WCC) draft Outer Green Belt Management Plan 2019. These comments were supportive of the principles and management actions being proposed to protect and enhance biodiversity

3.4.3 Biodiversity Advocacy

- A series of Restoration Workshops are being delivered by Restoration Day partners, including GWRC and the Department of Conservation. The purpose of these events is to upskill and facilitate networking between community restoration groups. On 30 March, a tour of the Kotukutuku Ecological Restoration Project was held for community restoration groups. This project is part of the Waterfall Road Bush KNE site, near Paekākāriki, and is focused on pest control and biological monitoring. Participants said they came away from the event inspired



Figure 1 Guided tour of the Kotukutuku Ecological Restoration Project held for community restoration groups

3.4.4 Collaborative Restoration Projects

- The first of the two planned snorkel events at Whitireia Park went ahead as part of Seaweeek, with the second cancelled due to unsuitable marine conditions. The additional family-friendly activities trialled for the first time this year went well, and the event had the highest number of snorkel participants on record. Feedback showed that a quarter of participants had never snorkelled before and 74% had never snorkelled at Whitireia Park before, showing that this event is still reaching new people after four years. All participants valued the event highly and felt safe, and many learned new information about species, habitats and issues affecting the marine environment



Figure 2 Participants enjoying the Whitireia Park Seaweeek snorkelling event

4. Environment Management

4.1 Environmental Policy

4.1.1 Whaitua update

Te Awarua-o-Porirua Whaitua

Te Awarua-o-Porirua Whaitua Implementation Programme (WIP) and a Statement from Ngati Toa Rangitira on Te Awarua-o-Porirua Whaitua Implementation Programme were received by Council on 10 April 2019. This was a key milestone for all involved following over four years of work.

Officers are now reviewing the two documents to determine the various tasks for implementation. The regulatory recommendations will be referred to Te Upoko Taiao – Natural Resources Plan Committee for incorporation into the

Proposed Natural Resources Plan through a plan change/variation process. The non-regulatory recommendations will be further developed by GWRC in conjunction with relevant external organisations.

Officers are discussing with PCC, WCC and Wellington Water how the two documents will be received, given many of the recommendations reference their organisations.

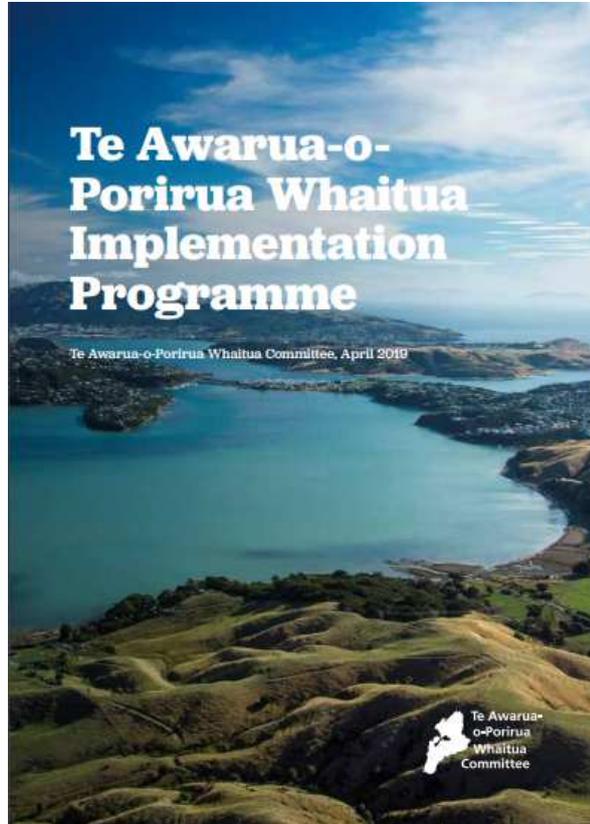


Figure 3. Te Awarua-o-Porirua WIP



Figure 4. Ngati Toa Statement

Whaitua Te Whanganui-a-Tara

Whaitua Te Whanganui-a-Tara Committee has now held three meetings. The focus to date has been on getting to know one another and understanding the diverse communities they are connected to, the various organisations involved, and understanding their task under the National Policy Statement for Freshwater Management.



Figure 5. Whaitua Te Whanganui-a-Tara Committee held its first meeting on Matiu/Somes Island in February 2019.

Two Committee members have been elected as co-Chairs, one mana whenua (Kara Puketapu-Dentice) and one community representative (Louise Askin). The co-Chairs will have a more active role than in previous whaitua processes to assist in completion of the process in a truncated timeframe of two years.

The Committee is in the final stages of confirming its strategic framework based on kawa and tikanga principles. This will provide a platform for the Committee to build on and refer back to.

The Committee has established subgroups for various tasks including how they will communicate and engage with their networks and the community. It is likely that subgroups will be used regularly to triage the workload.

At its third meeting, held at Wellington Water, the Committee learned about Wellington Water's role, structure and funding, current priorities, and how the Committee may be able to influence infrastructure management and investment decisions. The Committee then visited the Wainuiomata water intake and treatment plant followed by a stop at a managed wastewater overflow site on Black Creek in Wainuiomata.

4.1.2 Proposed Natural Resource Plan update

All public hearings for the proposed Natural Resources Plan have now been completed and the public hearings formally closed by the Hearing Panel on 1 April 2019. The hearing panel is now completing its deliberations and drafting the decisions on submissions. Decisions must be publicly notified by 31 July 2019. Officers are assisting the Panel in completing this process.

4.1.3 Progress with Plan Variation 1

Draft issues statements and explanations, draft objectives and associated s32 evaluation, and a draft Communication and Engagement Plan were taken to the Ruamāhanga Whaitua Committee on 22 February 2019. Feedback from the Whaitua Committee was considered and incorporated into papers for Te Upoko Taiao – Natural Resource Management Committee 26 March meeting. However, this meeting was cancelled due to lack of a quorum.

The next meeting of the Ruamāhanga Whaitua Committee is scheduled for 6 May; where policy options will be discussed – ahead of the June Te Upoko Taiao meeting.

4.1.4 Porirua urban development and the streamlined planning process

Porirua City Council has agreed to the use of the streamlined planning process where timelines are set by the Minister and the decisions made by the Minister for a plan change to enable residential development on the Plimmerton Farms land to the north of Porirua Harbour (a green-field site). The plan change would be aligned to the direction in the district plan review but allow some development to start ahead of the plan review and RMA Schedule 1 process. The Council is willing to take this step as they consider that they have a shortfall in land for residential development to meet projected population increases. The Minister’s decision on the plan change cannot be appealed to the Environment Court.

The new district plan will be provided as a full draft in September, rather than a proposed plan as was originally timetabled, to allow the community to engage on the complete plan at a draft stage.

4.1.5 City and District Council plan changes and resource consents

Territorial Authority	Status of Document	Name of Document	Main topics commented on	Action
Wellington City Council	Proposed plan change	Proposed District Plan Change 83 – Kiwi Point Quarry	Effects of proposed quarry extension for gravel extraction activities on biodiversity	Recommendation to approve the plan change is going to Council for approval on 1 May.
Hutt City Council	Draft plan change	Draft district plan change significant natural areas	Identification and protection of significant biodiversity provisions	The Environment Court has directed that a previous plan change removing blanket protection for urban trees must be resolved prior to any further direction on the Forest and Bird legal action on the decision not to proceed with the plan change.

Territorial Authority	Status of Document	Name of Document	Main topics commented on	Action
Upper Hutt City Council	Proposed plan change	Proposed plan change 42 Mangaroa and Pinehaven Flood Hazard Extents	Flood hazard and policy provisions	Expert conferencing to refine the areas of agreement and disagreement has been completed but the appellant withdrew his expert witness. The appellant continues to query the directions from the Environment Court Judge and the court processes.
Porirua City Council	Preparation for Draft District Plan	District Plan Review	Alignment with policy and operational matters	Notice of requirements for existing designations have been lodged with the council.
Kāpiti Coast District Council	Decision version	Proposed District Plan Decisions version 2017	Joined as S274 party to appeals on matters in submission	Issues on traffic and city centre provisions continue to be unresolved. The Coastal Ratepayers United appeal and consent order has been finalised.

4.1.6 Coastal erosion in action

Policy managers across the regional sector met in Napier to discuss upcoming government direction and the key challenges for the sector. As part of this meeting, we viewed several coastal locations and heard about community and council initiatives to adapt to Mother Nature at the coast, including:

- Waitangi Estuary & Regional Park
- Haumoana ‘H21’ (top two pictures below – at low tide)
- Clifton revetment works (bottom two pictures below, again at low tide).



The model for community engagement used for this stretch of coastline in the Hawke's Bay is something we are looking at repeating in the Wellington Region. A pilot has been undertaken at Makara with mixed success. This is a model we will continue to refine as we work closely with Kāpiti Coast District Council and Hutt City Council in the first instance.

4.2 Environmental Science

4.2.1 Rifleman Translocation Success

A massive effort involving more than 60 people from Greater Wellington Regional Council, Wellington City Council, Taranaki Whānui, Department of Conservation and Ngāti Toa Rangatira helped last month with the translocation of 59 rifleman from Wainuiomata Mainland Island to Zealandia Ecosanctuary. The little bird's return to the city was an important step in the conservation and increased understanding of this endemic species.

It is a testament to the hard work that has been completed at Wainuiomata Mainland Island over the past 15 years that there are now enough of these birds to allow the translocation. Biosecurity teams fill bait stations every few months, volunteers help with monitoring rat numbers and ESci staff (and contractors) monitors the health of the fantastic forest ecosystem. Biodiversity

have been sourcing extra funding to complete extra pest control this spring to keep the rats down.



The rifleman, also called titipounamu, is considered NZ's smallest bird and is a member of the ancient endemic NZ wren family. They are forest-dwelling insectivores, and are constantly on the move.

4.2.2 Native Fish Found Beneath Our Feet

ESci's Evan Harrison and EOS Ecology scientist Alex James spoke with One News reporter Kate Nicol-Williams recently about what's living in the piped streams beneath Wellington City. The work involved climbing into stormwater pipes under Miramar Park and Island Bay, working in confined spaces and walking bent over for much of the time while sampling for fish, invertebrates, and insects.

The team found native fish such as banded kokōpu, young inanga and eels, as well as insects and invertebrates including snails and flies. This confirms that the city's piped streams have high ecological value. This has implications for how we design storm-water pipes to provide passage and habitat for fish moving upstream, and is also a timely reminder that we need to constantly re-educate the public about what not to put down the storm-water drain. Check out the interview with Evan and Alex on the One News Now website <https://www.tvnz.co.nz/one-news/new-zealand/whitebait-eels-found-in-wellingtons-stormwater-system>.



L: Evan Harrison shows Miramar kindergarten the pipes; R top: contractors entering the pipe; R bottom: adult banded kokopu at back and young inanga in jar.

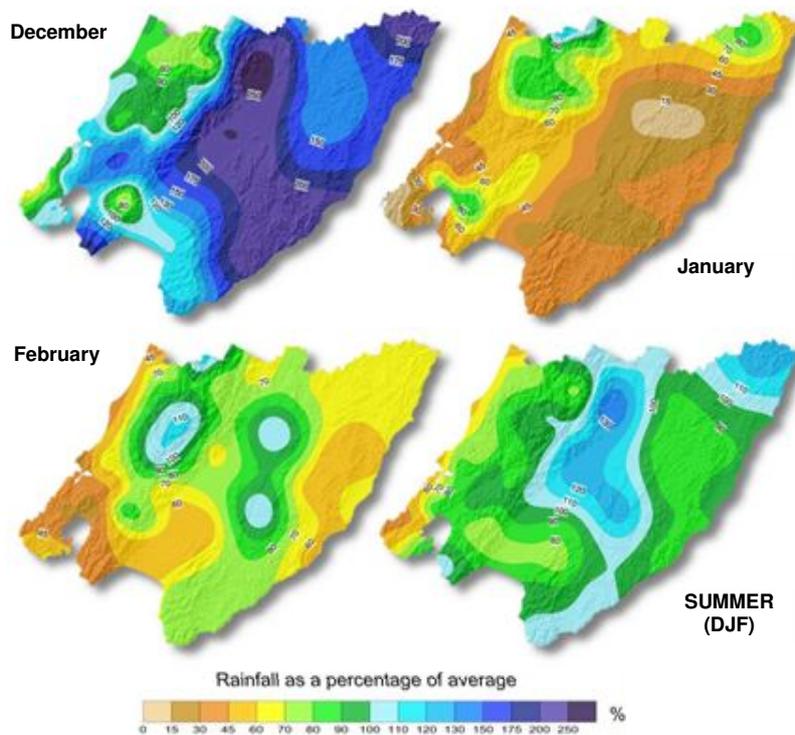
4.2.3 Summer Climate Highlights

The next seasonal [climate and water report](#), summarising summer 2018/19 and providing an outlook for autumn 2019, is now available on the GW website. Here are some highlights from our summer just gone:

- The summer was much warmer than average, in fact the fourth hottest summer on record since 1927
- The rainfall in December was almost three times the average, savings us from drought
- A record low rainfall in January with extremely dry conditions in the Wairarapa; over 40 'hot' days and only 6 mm of rain in Masterton January
- A significant marine heatwave occurred, similar to last year, with warmer sea surface temperatures around New Zealand.

4.2.4 And the Outlook for Autumn

There is a weak El Niño in place, with winds expected to alternate between an easterly/westerly pattern, and a good chance of extreme heavy rainfall events with possible flooding, due to warm sea surface temperatures.



Rainfall totals as a percentage of the long-term average

4.2.5 Wellington Water Rain Gauge Network

New rain gauges have been installed at the Ngaio Reservoir and the Seaview Wastewater Treatment Plant. These are the latest additions to the monitoring network that our hydrology team is implementing and maintaining for Wellington Water (WWL). This network is used by WWL to better manage their storm water networks in real-time and respond to flooding issues, as well as gain a better understanding of the distribution of the rainfall across the four cities.

4.2.6 Urban Stream Flow Monitoring – Owhiro Stream

A new stream flow monitoring site has been established in the lower reaches of the Owhiro Stream. Water level and flow are measured continuously and the data is available in real-time in the GWRC telemetry system and on the GWRC web page. This is the first urban stream hydrology site we have installed for many years with another planned in the Kaiwharawhara Stream later this year.



Left: Rain gauge installation at Ngaio Reservoir. Right: Hydrological monitoring site at Owhiro Stream.

4.2.7 Predator-free Wellington

The third and final rodent survey of Miramar peninsula was completed in March prior to the planned eradication phase starting in July. Chew cards were put out on a 200 x 20m grid across the peninsula by volunteers from Conservation Volunteers NZ and BECA. The number of rats recorded this year had fallen in relation to previous years thanks to the trapping efforts of the Miramar volunteer groups and back-yard trappers.

4.2.8 Te Ore Ore Groundwater Quality Investigation

A groundwater quality investigation is underway in the Te Ore Ore area of Masterton. High nitrate concentrations have been recorded in groundwater at Te Ore Ore for many years. The investigation has focussed on sampling bores across the landscape and using isotopes to determine the cause of the nitrate contamination. Initial results show that the nitrate is coming from an animal or human source, rather than from fertiliser. Further sampling will be completed in June to obtain a picture of groundwater quality during different seasons.

4.3 Environment Regulation

4.3.1 National Monitoring system (NMS)

How do our regulatory functions stack up nationally?

Recently the Ministry for the Environment released their statistics for various regulatory activities that are recorded in the National Monitoring System under the Resource Management Act. So how do we fare on a national scale?

With **consent processing**, 99% of our applications were processed within statutory timeframes, compared to 86% nationally. This highlights the dedication and commitment of our team to ensure we meet RMA timeframes.

With **compliance monitoring**, 94% of our scheduled compliance monitoring was completed, compared to 74% nationally. Our rate of compliance was 74% compared to 88% nationally. Comparatively we are keeping on top of our monitoring programmes very well, although our rates of compliance here in Wellington are below the national average.

With **enforcement actions**, we completed 30 formal enforcement actions (infringement notices, abatement notices, enforcement orders, and prosecutions)

4.3.2 Lodgement of the Eastern Bays Shared Pathway consent

Hutt City Council has lodged its consent application to construct a 4.4km shared pathway (walking and cycling) along Marine Drive in Eastbourne, between Point Howard and Days Bay. This project involves the upgrade of existing seawalls and construction of new seawalls to support the path. It will also improve the resilience of the road and underground services to the Eastern Bays suburbs. Consents are sought for reclamation of the foreshore and seabed; removal and construction of seawalls, boat ramps and steps; deposition of sand to combat erosion; and discharges during construction.

The application will be publically notified, and will go to a joint hearing where both regional and district consents will be determined. Eastern Bays residents have been consulted on the project over a number of years, but there are likely to be submissions both for and against the project. The key concerns are likely to be loss of natural character and amenity due to the new path; loss of privacy due to the increase in foot/cycle traffic; loss of already limited beach in certain bays; and effects on intertidal and terrestrial ecology (namely penguins and native birds). Traffic management of Marine Drive during the construction is likely to be raised – but this matter falls under the control of Hutt City Council.

4.3.3 Featherston Wastewater re-consenting

As previously reported, the GWRC officers report was filed on 1 March 2019 and the recommendation is to decline. South Wairarapa District Council has now lodged evidence and submitters' evidence is due on 2 May 2019. The matter has been scheduled for a one to two week long hearing, commencing 27 May.

4.3.4 Barrage Gates re-consenting

The GWRC Flood Protection Department (the applicant) lodged an application on 1 March 2019 to renew their existing consent; to dam and divert water to and from Lake Wairarapa. There are complex legal and planning issues, particularly around the assessment of the existing environment and the non-complying activity status, which are currently being worked through. The next step is for legal representatives to provide advice on the best pathway forward. This is due to occur late April. A notification decision is yet to be made for this application and is largely dependent on the aforementioned legal advice.

4.3.5 NCI Packaging Ltd re-consenting

NCIs existing consent expires in August 2019 and they have submitted a consent application to continue to discharge contaminants to air associated with manufacturing metal packaging in Upper Hutt. The application is being technically reviewed by PDP and it is anticipated that the consent process will be limited notified as per the last consent process.

4.3.6 Withdrawal of Airport runway extension resource consent application

In December 2018 the Environment Court granted Wellington International Airport Ltd (WIAL) a further adjournment of its resource consent application for a runway extension until 31 May 2019. This date was based on the time the Civil Aviation Authority (CAA) indicated would be required for it to make a decision on WIAL's proposed runway end safety area.

The CAA recently advised WIAL of an updated modelling tool for calculating the size of a runway end safety area. Using this tool, and getting a decision from the CAA on the proposed safety area will not proceed in a timeframe to meet the Environment Court deadline of 31 May. As such WIAL has withdrawn its current resource consent application. WIAL has signalled its intention to make an updated resource consent application as soon as possible (anticipated in early 2020).

4.3.7 Roads of National Significance (RoNS) projects

CPB HEB JV has confirmed that the Transmission Gully project (TG) is still targeting completion in April 2020. Further consent applications have been lodged for additional earthworks (500,000m³ plus) associated with TG, and further applications for earthworks and other works are expected over the next quarter. Refer below for compliance and enforcement activities on TG and the Porirua Link Road projects.

A consent application associated with raising of the Crystals Bend stopbank associated with the Peka Peka to Otaki project is being processed. Other applications associated with changes to the Winstones Aggregates storm-water treatment ponds are being prepared and processed.

4.3.8 Pre-application meetings

Plimmerton Farms: a proposal for residential development of the land west of SH1 at Taupo Swamp is being refined with input from EReg, EPol and ESci, Wellington Water (WWL) and Porirua City Council (PCC). The area is identified in the PCC growth strategy, but changes to the District Plan are needed before subdivision can occur. The developer is discussing the timing of plan changes and consent lodgement with PCC and GWRC to best sequence these processes.

Cross-Harbour pipeline: WWL has been engaging with EReg and ESci in preparation for consenting the Cross-Harbour pipeline – a major project to improve water supply resilience to metropolitan Wellington. The pipeline will carry water from the Waiwhetu Aquifer in Lower Hutt, through a high-density polyethylene pipe nestled into the harbour floor, coming ashore in Evans Bay.

4.3.9 Compliance, Investigations and Enforcement

Charge laid against Wellington Water Limited

On 2 April 2019 we laid charges against Wellington Water in relation to an unauthorised discharge of effluent in the vicinity of Titahi Bay. The discharge of 5000 cubic metres of partially treated effluent originated from the Porirua Wastewater Treatment Plant, which is owned by Porirua City Council but has been managed since 2015 by Wellington Water.

We have some operational history with the plant. In 2014 we prosecuted Porirua City Council in relation to a discharge. The outcome of that case was a fine of \$40,000, which was directed to environmental restoration projects in the area.

Discharge consents for the wastewater treatment plant will expire in 2020 and need to be renewed, and some capacity and performance upgrades to the plant are proposed. It should be noted that Wellington Water is prioritising improvements to the wastewater network over the treatment plant to reduce overflows and leaks, and help improve the health of Porirua Harbour and its coastal environment. It has worked collaboratively with Porirua City Council, Ngāti Toa, Greater Wellington Regional Council, Wellington City Council, the Whaitua Committee and other stakeholders in developing a proposed wastewater improvement programme.

Charges laid against 4WD Clubs

On 17 April 2019 we laid charges against the National Four Wheel Drive Association and the Valley 4WD Club for the disturbance of the bed of a tributary of the Mangaroa River and the discharge of sediment. These are contraventions of section 13 and Section 15 of the Resource Management Act 1991. These charges relate to the Deadwood Safari event held on 9 November 2018.

Transmission Gully and Porirua Link Roads non-compliance

In February an infringement notice and associated fine was issued to CPB HEB JV (the contractor constructing the Transmission Gully (TG) and Porirua Link Roads (PLR) projects for NZTA and PCC respectively) in relation to non-

compliant discharges from the PLR project. This infringement was issued following previous formal warnings to CPB HEB JV for incidents of a similar nature on the projects. A total number of 8 infringement notices/fines, 2 abatement notices and a number of formal warnings have been issued to CPB HEB JV over the life of the projects. In response to repeated incidents on the projects, and to encourage prevention of further incidents, GWRC has also initiated the requirement for CPB HEB JV to temporarily pause works in the catchments of erosion and sediment controls when failures of controls occur.

Harbours

Navigation Aids

Work is underway on repainting Point Jerningham lighthouse (the white one out from the western point of Evans Bay). As well as a repaint we are taking the opportunity to remove disused equipment and steelwork to tidy up the structure and reduce on-going maintenance.



Maintenance work on Point Jerningham lighthouse

In early April, wind damaged some of the solar panels on the Rear Leading light. This occurred around the time that we re-install the wind generators to supplement the solar panels over winter. The two wind generators were installed and are keeping the batteries in good health. The remaining solar panels are due for replacement (new panels are in stock) these panels are almost 25 years old and are still producing power.

Recreation

On Saturday March 23rd we held our final 'No Excuses' day for the season. There was 100% compliance on lifejackets and are following up four Bylaw breaches around dive flags and vessel speed. These days, working with Maritime NZ and the Wellington Police Maritime Unit, have gone well over summer.

Oil Spill Response

One of our Harbour Rangers attended a two day National Response Team (NRT) training course in Auckland. The NRT is a Maritime NZ initiative that can mobilise to respond Tier 3 spills anywhere around the country. All costs associated with training and response for NRT members are met by Maritime NZ.

Safety

In late March a log carrier arrived about 36 hours early at Wellington entrance. They were asked to wait clear of the entrance and the agent arranged for them to anchor in Tasman Bay. They chose instead to anchor in Palliser Bay. This was fine while the weather was a gale force northerly however the forecast was due to change to the south. This would have left them with land downwind (known as a 'lee shore') and poor anchor holding. After repeated suggestions they move elsewhere, the Harbourmaster spoke to the agent and, via the agent gave a direction under the Maritime Transport Act to raise their anchor and keep at least 5 nautical miles of the coast until they were due to pick up a pilot, which they duly did. It was noted by Beacon Hill that a poor command of English made communication with the ship challenging.

At the beginning of April the Harbourmaster travelled to the Smartship full mission shipping simulator in Brisbane along with some senior CenterPort staff and an independent, experienced, ships master. The simulator is used for training for ship handling and pilotage as well as port development purposes.

As part of their post-earthquake planning work CentrePort are considering how their berths are used and for what types of shipping. With increasing shipping sizes any significant operational changes need to have the feasibility tested in a simulator environment. The results from this will provide information for any future planning process.

Under the Port and Harbour Marine Safety Code a possible change such as was tested would require a navigation risk assessment and Harbourmaster's approval to happen. Being involved at this early stage and seeing the process allows a better understanding of what is being considered and will assist the conversations further down the track. It gave me an opportunity to see some of the interaction between a ships's Master and the Pilot and insight into how the Pilots work a ship in the harbour.

The trip has left me reassured with CenterPort's approach. It was cautious and prudent. Using the simulator and external expertise at this early stage is a valuable step in the planning process.

While CentrePort were concentrating on the ship handling aspects of the exercise I was free to "look out the window" and consider any implications for other harbour users and general harbour management impacts that changes may bring.



Approaching Lambton Harbour

Simulator heeling to wind effect

The simulator provides a high degree of realism, and the models move according to the pressure of external forces. Assimilating these movements causes one to respond by moving as if you were in an actual ship's bridge, the room however does not move.

This was a valuable experience and I appreciate CentrePort extending the invitation to allow me to participate.

General

In late March the Harbour Rangers assisted E-Sci with an Inanga spawning survey in the Ruamahunga over two days. While there, they also took the opportunity to educate other boaties about the need for lifejackets.



The system upgrade is progressing well at Beacon Hill; the new software is installed in the old station for testing.

All the radio aerials were replaced at Beacon Hill, they have withstood the exposed site very well; however we did discover water had made its way into the cabling. We are altering the installation to make any future problems easier to detect.

In early April, Centreport and ourselves completed our Safety Management System self-assessment, there is on-going documentation review work

happening, however overall this went well and we believe we are in a good position for the external review in late May.

4.4 Parks

4.4.1 Battle Hill Farm Forest Park

The Wellington RDA Arena is been completed and is now operational. The official opening is scheduled for 27 April and will be undertaken by the Governor General. The national RDA office are investigating the possibility of relocating the head office of the organisation to the Battle Hill homestead and have commissioned an architect to look at concepts for how this may work.



Completed RDA Arena

Transmission Gully mitigation planting preparation has been undertaken in the Eastern Horokiri tributary ahead of winter planting. This was undertaken using a large aerial spray drone that carried 20 litres of mixed spray mix. The drone was programmed with GIS data to ensure accuracy with all flights mapped via the GPS unit. We are discussing with the operators of the drone to undertake some work at Queen Elizabeth Park as a trial around small confined areas that otherwise would have been undertaken with a helicopter.



Drone Spraying in Horokiri Catchment

4.4.2 Queen Elizabeth Park

The winter restoration programme has been confirmed and the publicity material is being developed to allow promotional activities underway. Mulching of sites has been completed and a final weed spray is due to be completed as weather allows.



Arbor Day planting site at QEP following mulching, 18 months ago was covered in 1.5mt high gorse and weeds.

Wasps have been active over the last two months, 12 large nests destroyed by pest contractors, many of these have been discovered close to tracks by visitors and contractors.

Eventing Wellington's equestrian activity licence is due to expire and they wish to apply for a 10 year licence covering their activities. The Wellington Tramway Museum have begun the process of applying for a new licence for their operation, the current licence they operate on was issued prior to GWRC becoming manager of the park, it has been in place for 33 years and was typed on a typewriter. They will apply for a 30 year period which will require a public notification process.

A bomb projectile was discovered by staff while on a summer programme event, once the event was over Police were notified and the bomb squad attended to identify what if any threat this posed. In this case it was a training projectile that posed no ongoing risk and it was removed from the park.





Bomb projectile as found and exposed prior to removal

We have begun the consultation process for the draft coastal erosion plan for the Wellington Road entrance to the park. The concept plan has been developed over the last 12 months in conjunction with Iwi, internal departments and local community boards. The outcome of the process will allow a response plan to be finalised to allow time to make changes to infrastructure location to combat the effects of projected climate change. Two workshops have been completed to date with a further drop in session in Paekakariki planned for 18 May. Further information at:

<https://haveyoursay.gw.govt.nz/QEPcoastalerosionplan>

4.4.3 Belmont Regional Park

Considerable time has been spent working with the TG project around getting designation boundary fences in place, confirming additional mitigation planting areas and formalising an access agreement to allow access through the park for the restoration contractors. Discussions have begun around the process to reconnect recreation tracks, fencing, signage and relocating the Takapu Road entrance to the park.



Bridge 20 across Cannons Creek starting its journey

Camping at Dry Creek continues to be popular with many international tourists. This year has seen a greater diversity in European visitors along with an increase in Kiwi's camping.

A new multi access barrier has been installed at the Hill Road entrance to the park, the old "A" frame barrier removed with the new design allowing a greater range of access, this is increasingly important as the design in buggies and bikes continues to evolve.



Hill Road barrier

A further release of dung beetles has been released at Belmont Regional Park, Battle Hill Farm Forest Park and Queen Elizabeth Park, this being the third species to be released, the Mexican dung beetle being the species best suited to the autumn conditions, one further winter species will be released once they supplied.

4.4.4 Whitireia Park

Four-wheel dive training companies have concessions to operate in the park, they are all operating in a good manner. They have informed us they have discovered nudibranchs (sea slugs), they had never seen these in this location before.



Whitireia sea slug

4.4.5 Kaitoke Regional Park

The camping season has continued into the spring with good warm weather helping keep the numbers up. To date camping receipts for the 2018-2019 season are at \$128,700.00. With two months to go it looks to be a great revenue season for Kaitoke.

The resealing of the Gorge Road (under Wellington Water) commenced in April and has stretched into May for completion due to weather. Parks has worked closely with Fulton Hogan to minimise disruption to visitors and particularly our Lord of the Rings concessioners, who visit Rivendell on a daily basis.

Rangers also ran 7 tours of the Swing-bridge track for the Japanese exchange students; they are always a polite and fun group to guide. There were a total of 113 on these trips.



Nathan Wickens with Japanese exchange students at Kaitoke

4.4.6 East Harbour Regional Park

Parks is working closely with Wellington Mountain Bike Club (WMTBC), which includes Wainuiomata locals, on the Rata Ridge Track to look at sustainable work to minimise damage. The club will also obtain plants from MIRO to place on retired sections of track and guide users to walk and ride on the right alignments. Parks is also using WMTBC's social media presence/influence to drive behaviour changes on the track.



Rata Ridge Reccie with Wellington Mountain Bike Club

4.4.7 Wainuiomata Recreation Area

Ricky Clarkson has worked hard along with others to bring the water, conservation and parks story to life in the new mini museum located at the Rangers Office, Lower Dam site. The quality of the displays and information is of Te Papa standard we think, so go check it out.



Wainuiomata Lower Dam, Mini Museum displays

4.4.8 Pakuratahi Forest

Harvesting is completed and the Rail Trail (Tunnel Drive) has been restored to NZCT standards with grading, metalling and rolling done to produce a great

riding surface. Parks worked closely with PF Olsen to ensure the road was returned to a high recreational standard.



Cyclists enjoying the newly surfaced Tunnel Drive, Maymorn Forest

4.4.9 Regional Park Ranger Hui, QEP March 2019

GWRC Parks led and organised, in conjunction with Wellington City Council a regional park ranger hui in March. Over 30 park rangers from GWRC, WCC, DOC, HCC, KCDC, and PCC attended the event at QEP.

Attendees discussed health and safety procedures at councils for engaging with volunteers, topical issues in parks (e.g. illegal access, user conflicts) and did a tour of the QEP nursery and Marines Wetland, focused on restoration projects and working in wetlands under the new PNRP.



Park Rangers from Wellington Region at QEP Nursery during the Ranger Hui.

5. The decision-making process and significance

No decision is being sought in this report.

5.1 Engagement

Engagement on this matter is unnecessary.

6. Recommendations

That the Committee:

- 1. Receives the report.*
- 2. Notes the content of the report.*

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