



The Chairman and Members

Tauranga Moana Advisory Group

NOTICE IS GIVEN that the next meeting of the **Tauranga Moana Advisory Group** will be held at the **Cruise Deck, Club Mount Maunganui, 45 Kawaka Street, Mount Maunganui** on:

Friday, 24 November 2017 commencing at 9:30 am





Tauranga Moana Advisory Group

Statement of Purpose

He aha ai? - *purpose*

Whanaungatanga and kaitiakitanga are the basis on which we want to move forward together. The purpose of Tauranga Moana Advisory Group is to continue building strong working relationships to support and enhance the health of our harbour and catchments.

Ahuatanga o te noho - *background*

The Tauranga Moana Iwi Collective Deed of Settlement, once passed into law, will require a Tauranga Moana Governance Group to be established. To prepare for the Governance Group, this Tauranga Moana Advisory Group has been established. The first Advisory Group meeting was held 17 November 2014 and it will continue to meet, share information and provide direction to staff of partner agencies until replaced by the Governance Group.

Whai wāhitanga - *participation*

Participants in Tauranga Moana Advisory Group will be representatives of the partners to Tauranga Moana Programme. At this stage, partners include Tauranga Moana iwi and hapū as represented by Ngāti Ranginui, Ngāi Te Rangī and Ngāti Pūkenga (Tauranga Moana Iwi Collective) as well as Western Bay of Plenty District Council, Tauranga City Council and Bay of Plenty Regional Council.

Ngā turanga - *roles*

The role of participants in the Advisory Group is to:

- **Whakataurite - *coordinate*:** oversee and contribute to the work that partners do in the harbour and catchments
- **Whakarongo - *listen*:** ensure the views of the hapū, iwi and wider community are represented in the work we do
- **Whakawhanaungatanga - *involve*:** promote and support hapū, iwi and the wider community participating in our work
- **Whakatohatoa - *share*:** provide regular updates to, and share information with partners
- **Whakakotahi - *integrate*:** promote the integration of our work so we can achieve our purpose together



Tauranga Moana Advisory Group Agenda

Friday, 24 November 2017, 9.30am – 12:30pm
Cruise Deck Room, Club Mount Maunganui,
45 Kawaka Street, Mount Maunganui

Chairman: Councillor N Bruning, Bay of Plenty Regional Council

Deputy Chairman: C Tawhiao, Ngāi Te Rangi

Members: Councillor P Thompson, Bay of Plenty Regional Council
Councillor A von Dadelszen, Bay of Plenty Regional Council
Councillor M McDonald, Bay of Plenty Regional Council
Councillor C Stewart, Tauranga City Council
Councillor K Clout, Tauranga City Council
Councillor P Mackay, Western Bay of Plenty District Council
Councillor M Dean, Western Bay of Plenty District Council
R Tuanau, Ngāi Te Rangi
T Kawe, Ngāti Ranginui
R Nelson, Ngāti Ranginui
R Smallman, Ngāti Pūkenga
K Tapsell, Ngāti Pūkenga

Committee Advisor: J Durham

Agenda

1 **Karakia/Mihi – Welcome**

2 **Apologies**

3 **Guest presentation**

Oranga Taiao Oranga Tangata Project: Integrated Spatial Planning Tool
Presented by Derrylea Hardy

4 **Declarations of Conflicts of Interest**

5 **Previous minutes**

5.1 Tauranga Moana Advisory Group – 24 August 2017

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6 **Update from partners**

6.1 Tauranga Moana iwi

6.2	Western Bay of Plenty District Council	
6.3	Tauranga City Council	
6.4	Bay of Plenty Regional Council	
7	Presentations	
7.1	TCC Environment Strategy <i>Presented by Tracy Plane (TCC)</i>	
8	Reports	
8.1	Ngai Te Rangi partnership arrangement <i>Presented by Kia Maia Ellis and Paora Stanley (Ngai te Rangi) and Peter Buell (BOPRC)</i>	7
8.2	Stormwater Management <i>Presented by Reece Irving (BOPRC), Radleigh Cairns (TCC) and Kelvin Hill (WBOPDC)</i>	11
8.3	National Policy Statement Freshwater Management <i>Presented by Namouta Poutasi and Santiago Bermeo (BOPRC)</i>	19
8.4	Kopurererua Stream water quality <i>Presented by Rebecca Lawton (BOPRC)</i>	27
8.5	Kaimai Mamaku Catchment Forum <i>Presented by Hamish Dean (BOPRC)</i>	35
8.6	Tauranga Moana Programme update	38
	APPENDIX 1 – 2016/17 Tauranga Moana Annual Report	43
	APPENDIX 2 – Tauranga Moana Programme Dashboard – November 2017	77
9	General Business	
10	Next meeting – to be confirmed	
11	Karakia / Close of meeting	



Objective ID: A2717569

Report To: Tauranga Moana Advisory Group

Meeting date: 24 November 2017

Report From: Peter Buell, BOP Harbourmaster, Bay of Plenty Regional Council and
Reon Tuanau, Te Runanga o Ngai Te Rangi Iwi Trust Resource
Management Unit Manager

Partnership with Ngāi Te Rangi to utilise Bay of Plenty Regional Council Vessel Taniwha

1 Purpose

The purpose of this report is to inform the Tauranga Moana Advisory Group of the partnership arrangement between the Bay of Plenty Regional Council (BOPRC) and Ngāi Te Rangi regarding the vessel “Taniwha”.

It is recommended that the Advisory Group:

- 1. Receive the report “Partnership with Ngāi Te Rangi to utilise Bay of Plenty Regional Council Vessel Taniwha”.**

2 Background

Ngāi Te Rangi is one of Tauranga Moana’s key iwi, with its rohe extending to Tūhua (Mayor Island) and Waihī Beach in the north, to the Kaimai range in the west, south of Te Puke and to Papamoa in the east. Ngāi Te Rangi hapū include; Ngāi Tamawhariua, Te Whānau a Tauwhao, Te Ngare, Ngāi Tukairangi, Ngāti Tauaiti, Ngāti Tapu, Ngāti He, Ngāi Tuwhiwhia and Ngāti Kuku. Ngā Pōtiki has a close relationship with Ngāi Te Rangi. The principle waka for Ngāi Te Rangi is Mataatua.

In late 2016 Council staff engaged with senior management of Ngāi Te Rangi to ensure there was good information flow between the parties about a range of environmental issues, in particular Tauranga Moana water quality issues.

One of the issues raised by Ngāi Te Rangi was potential access to a vessel for better connection by the iwi with Tauranga Harbour. While Ngāi Te Rangi do have a small vessel it is limited in terms of capacity and it is not suitable for use outside of the harbour, during windy conditions or the winter months.

Council staff committed to looking at which vessels we had coming up for tender out of our fleet that might be suitable.

We also undertook to explore the range of Council objectives that could be assisted by a partnership with Ngāi Te Rangi on the water and these are explored in greater detail below.

2.1 **Proposed Activities**

Ngāi Te Rangi have expressed deep concern about their lack of connectedness with the Tauranga Moana. Access to a larger vessel to access the wider harbour area in a range of conditions is seen as an opportunity to enhance their kaitiaki responsibilities.

Ngāi Te Rangi are keen to collaborate with Council staff in support of key management responsibilities. These include but are not limited to;

2.1.1 **The ongoing monitoring of Council's Navigation Safety Bylaw**

The Hearing Commissioners at the recent Navigation and Bylaw Hearings noted the lack of "hard" data to substantiate the issues of concern for iwi. The vessel (Taniwha) could provide a valuable extra resource to access areas during peak summer periods to undertake observations and provide valuable information into the Maritime team's patrol network.

2.1.2 **Water Safety and Navigation Safety Education**

Ngāi Te Rangi provide some education and training around safe boating. Taniwha will enhance training through opportunities for on-water training and information. This approach may assist with reducing the disproportionate water safety statistics for Māori.

Ngāi Te Rangi provide boat skipper training for several members through the Polytechnic. To complete the training people must obtain "sea" hours, which is impossible to complete without access to a suitable vessel.

2.1.3 **Tauranga Harbour Environmental Monitoring**

Taniwha will provide a conduit for environmental monitoring via a partnership with Professor Battershill and other programmes with a focus on Mātauranga Māori (Māori knowledge).

2.1.4 **Oil Spill Response**

Oil spill response work is already being undertaken in partnership with Ngāi Te Rangi staff and Taniwha in the hands of trained responders would provide a valuable extra resource to our capabilities in an emergency.

2.1.5 **Tauranga Harbour Rubbish Clean-Up**

Tauranga Harbour rubbish clean-up has been largely shore-based at easily accessible locations. We and the local councils rely very heavily on voluntary support from iwi, schools and estuary care groups for our current programme which is successful.

However some years ago Council were approached by The Waitemata Harbour Clean-up Trust (also known as Sea Cleaners) with a proposal to replicate the Auckland model in Tauranga Harbour. While enthusiastic about the concept, staff at the time recommended we concentrate our efforts with shore-based volunteer groups.

Ngāi Te Rangi are proposing to trial the use of Taniwha to get "near" those hard to reach places in Tauranga Moana, just as occurs in the Auckland case. Smaller craft are then launched that can get right into the shoreline deploying volunteers. The rubbish collected is ferried back to Taniwha for identification, weighing and ultimately recycling or disposal. The Auckland formula is tried and true and we can learn a lot from their approach. Ultimately rubbish that would not have been accessible can be removed to augment the shore-based system we already have.

3 **Lease agreement**

Staff are proposing that a formal lease agreement be drawn up with a nominal dollar value. The lease agreement would run for a period of three years unless terminated prior. At the conclusion of the lease period the vessel would be returned to the Council.

4 **Implications for Māori**

Under the Local Government Act, Council must consider ways to build hapū and iwi capacity and capability. In addition, Council must meet its Treaty responsibilities, particularly for those iwi that have settled Treaty claims.

The recent Tauranga Moana Iwi Management plan 2016-2026 identifies Ngāi Te Rangi, along with Ngāti Ranginui and Pūkenga as key iwi for Tauranga Moana.

This initiative provides an opportunity for Council to strengthen its relationship with, and support for, Ngāi Te Rangi and its hapū.

The partnership will enable Ngāi Te Rangi to navigate and affirm a presence on Tauranga Moana, and express their kaitiakitanga aspirations alongside relevant partners. Council has encouraged Ngāi Te Rangi to consider collaborating with other relevant Tauranga Moana iwi.

The partnership demonstrates a genuine willingness from Council to involve Māori in Council work, inform decision making processes and build enduring relationships.

Objective ID:

Report To: Tauranga Moana Advisory Group

Meeting date: 24 November 2017

Report From: Reece Irving, Senior Regulatory Project Officer; BoPRC; Radleigh Cairns, Pollution Prevention Officer, TCC; Kelvin Hill, Utilities Manager, WBoPDC.

Stormwater management in Tauranga Moana catchment area

1 Purpose

The purpose of this report is to inform the Tauranga Moana Advisory Group of the various actions undertaken by Bay of Plenty Regional Council, Tauranga City Council and Western Bay of Plenty District Council to manage stormwater quality. The three councils work collaboratively on many joint initiatives, as well as having individual council programs to ensure stormwater quality and flow rates entering the Tauranga harbour catchment are of the optimal quality that can be achieved. The report will outline some of the key initiatives being undertaken by the 3 councils' to improve the quality of stormwater discharges entering Te Awanui Tauranga harbour.

It is recommended that the Advisory Group:

- 1. Receive the report “Stormwater Management in the Tauranga Moana catchment area”.**

2 Background

Tauranga Harbour is the receiving environment for all surface water run-off occurring in the Tauranga Harbour Catchment. Urban stormwater is discharged with nil or minimum treatment where-as rural discharges occur via natural streams and man-made drains, again without a treatment train in place prior to discharge.

Bay of Plenty Regional Council harbour sediment sampling shows there are some areas of Tauranga Harbour, particularly near urban discharge points, where contaminants may accumulate in estuarine sediment having been discharged from industrial land-use sites. The expansion of mangrove colonies around the harbour margins and the build-up of sea-lettuce during certain times of the year are often blamed on sediment and nutrient run-off that enters the harbour as a result of stormwater run-off from agricultural land or development earthworks sites.

The 3 councils have differing roles in managing stormwater discharges to the harbour catchment. Territorial Authorities hold comprehensive stormwater discharge consents which require stormwater quality to be maintained. The Regional Council issues discharge consents to business, industry and the farming sector imposing limits on contaminant discharges and monitoring compliance with consent conditions.

3 **Key council projects that impact stormwater quality**

Councils' are involved in numerous activities and projects to ensure the quality of stormwater discharged into the receiving environment meets a quality level that has minimal impact. This is achieved through shared and individual projects the councils undertake and resource.

3.1 **BoPRC Regulatory Compliance Team stormwater quality focussed projects**

- Industrial Pollution Prevention Program (IP3). Carried out in conjunction with our TA's
- Service Requests – public complaint response
- Consent compliance monitoring
- Enforcement action in cases of non-compliance
- Education programs and stream clean-up's
- Water quality monitoring

Additionally:

- Issuing consents for land use and discharge activities
- Land management programs, wetland enhancement, riparian planting and fencing
- Nutrient management plans
- Ecology and habitat protection and enhancement / mangrove control
- Foreshore protection and enhancement, community group engagement
- Harbour sediment plates to monitor sediment quality
- Enviro-Schools
- Bathing water quality monitoring

4 **Tauranga City Council**

- 4.1 TCC holds three comprehensive stormwater discharge consents (CSC) authorising the discharge of stormwater from the Stormwater Network (pipes, open drains and ponds/wetlands).
- 4.2 The consents include the Papamoa CSC (63636), the Maranui/Mangatawa CSC (65714) and the Citywide CSC (66823).
- 4.3 As a requirement of consent, TCC must undertake monitoring of stormwater discharges (both baseline and storm event flows), and undertake investigations where contaminants exceed consent values. Options for mitigation of effects must be proposed and implemented.

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- 4.4 TCC is required to prepare a five-yearly monitoring report in accordance with conditions of the CSC's. The five yearly report for the period 2013-2017 would have been submitted in 2018 after completion of the 2017 monitoring and compilation of data. However, TCC compiles its Long Term Plan in 2017, requiring a forward programme of stormwater works to be prepared.
- 4.5 The CSC's require the development of catchment specific management plans which outline how specific stormwater management objectives will be met within individual catchments and incorporate specific details of required mitigation works proposed in the 5-yearly review report.
- 4.6 The report entitled Tauranga Stormwater and SoRE Monitoring Preliminary Monitoring Report (Boffa Miskell, dated 13 September 2017) has been completed utilising 4.5 years of monitoring data. Given the size of the report, a summary is provided as Attachment A.
- 4.7 The above report addresses the management of storm water quality only.

5 **Stormwater and Environmental Monitoring results:**

- 5.1 The CSC monitoring report summary sets out the key findings and outlines proposed measures for further investigative monitoring and details plans for implementing measures to address water quality issues. Capital expenditure on mitigation has been prioritised early in the LTP in areas where significant water quality issues have been identified. These works include the installation of treatment devices such as filtration devices, raingardens, bioswales and wetland planting.
- 5.2 The five key actions proposed are:
- Modify the monitoring programme (add, remove, or move sites for monitoring discharge quality or receiving environment characteristics) to more closely pair State of the Receiving Environment (SoRE) monitoring points with discharge points or where there is no SoRE point, better represent the receiving environment, increase characterisation of stormwater discharges, or remove redundant sites.
 - Investigative sampling to identify more closely the specific areas of a sub-catchment or particular properties that are the source of contaminant exceedances.
 - In association with BOPRC, undertake pollution prevention audits or site investigations where a property is known or found to be discharging stormwater with elevated contaminants.
 - Where the issue is well understood and exceedances cannot be attributed to individual properties, investigate installation of or install devices to mitigate known effects.
 - Where there are open waterways that would benefit from riparian enhancement or re-naturalisation, this will be undertaken to produce improved ecological and/or cultural values, and to protect existing values.
- 5.3 The proposed actions will be incorporated into updates of catchment management plans as required.
- 5.4 Mitigation of the cultural effects from stormwater discharges is required as part of the CSC's and further work is to be undertaken with tangata whenua to discuss the results of the monitoring to date and progress the development of cultural monitoring and mitigation plans.

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- 5.5 The current 4.5-year report will be updated and provided to BOPRC and other stakeholders in early 2018. It is unlikely that there will be changes to the proposed actions for monitoring and mitigation of effects.

6 Western Bay of Plenty District Council

- 6.1 WBOPDC currently holds one comprehensive stormwater discharge consents (CSC) authorising the discharge of stormwater from the Stormwater Network (pipes, open drains and ponds/wetlands).
- 6.2 The consent covers the Omokoroa Peninsula CSC (61768)
- 6.3 As a requirement of consent, WBOPDC must undertake monitoring of stormwater discharges (both baseline and storm event flows), and undertake investigations where contaminants exceed consent values. Options for mitigation of effects must be proposed and implemented.
- 6.4 WBOPDC is required to prepare a five-yearly monitoring report in accordance with conditions of the CSC's. The five yearly report for the period 2013-2017 would have been submitted in 2018 after completion of the 2017 monitoring and compilation of data. However, WBOPDC compiles its Long Term Plan in 2017, requiring a forward programme of stormwater works to be prepared.
- 6.5 The CSC's require the development of catchment specific management plans which outline how specific stormwater management objectives will be met within individual catchments and incorporate specific details of required mitigation works proposed in the 5-yearly review report.
- 6.6 WBOPDC has three further comprehensive stormwater discharge consent applications that cover the district from Waihi Beach in the North to Pukehina Beach in South.
- 6.7 The western Comprehensive Stormwater Consent (CSC) was lodged in 2012 and covers the following areas – Waihi Beach, Katikati and small coastal communities. The CSC has been held up due to being unable to reach agreement with the one appellant for the Western Catchment Comprehensive Stormwater Consent. The consent will now go to through an Environment Court process scheduled for 2018.
- 6.8 The central Comprehensive Stormwater Consent (CSC), which includes Te Puna and Minden, has been lodged with Regional Council. The Regional Council is currently processing this consent and public notification is expected in early 2018. The central CSC excludes Omokoroa as a CSC was obtained for Omokoroa in 2007.
- 6.9 The eastern Comprehensive Stormwater Catchment (CSC) consent application for the Eastern Area catchments, includes Maketu, Pukehina, Te Puke and Paengaroa. The CSC consent application was lodged in April 2013 with additional supporting Cultural Impact Assessment (CIA) information prepared in June 2014. Further consultation is required for this consent and public open days will be held in 2018.

7 Stormwater and Environmental Monitoring results

- 7.1 In recognition of the consenting requirements and environmental monitoring with these new CSC's, two new roles have been created within the WBOPDC 3 Waters team. Appointments will be made in 2018.
- 7.2 Once consents have been granted it is expected further report monitoring will be undertaken and monitoring reports will be prepared. The CSC monitoring report summary will set out the key findings and outlines proposed measures for further investigative monitoring and details plans for implementing measures to address water quality issues. Capital expenditure on mitigation has been prioritised early in the LTP in areas where significant water quality issues have been identified. These works include the installation

of treatment devices such as filtration devices, raingardens, bioswales and wetland planting.

- 7.3 The five key actions proposed are similar to Tauranga City Council; these are listed above in item 5.2 and will also include items 5.3 and 5.4.

8 **Conclusion**

The councils have a legislated responsibility to maintain the quality of stormwater managed through the Territorial Authority's network of stormwater pipes, weirs and ponds. Stormwater discharges are monitored and the quality is required to be within limits set in the Regional Council's comprehensive stormwater discharge consents.

Additionally the Regional Council undertakes a wide variety of environmental monitoring, enhancement and mitigation projects to ensure key point source contaminant discharges are controlled and the impacts of stormwater on the harbour receiving environment are minimal.

Tauranga Stormwater Monitoring

Preliminary report summary

October 2017

Introduction:

Tauranga City Council (TCC) is required to prepare a five-yearly monitoring report in accordance with conditions of three comprehensive stormwater consents (66823, 63636 and 65714). The five yearly report for the period 2013-2017 would have been submitted in 2018 after completion of the 2017 monitoring and compilation of data. However, TCC compiles its Long Term Plan in 2017, requiring a forward programme of stormwater works to be prepared and costed.

Although the 2017 monitoring is not yet complete, a preliminary report has been prepared summarising the available monitoring and receiving environment data. The full 5-yearly monitoring report will be completed in early 2018.

Monitoring results summary:

Current stormwater discharge quality results have been poor for a number of areas across the city with 27 sites having one or more contaminant exceedances (above consent trigger values) over the 4.5 years of monitoring.

Environmental monitoring of freshwater and marine receiving environments is also conducted, recording macroinvertebrates, fish, sediment quality and habitat values. This monitoring aims to gather data to understand long-term trends in environments in relation to stormwater discharge quality. While initial monitoring indicates the majority of sites are not highly degraded (when comparing urban catchments), further monitoring is required to better understand long-term trends. Mitigation works proposed to address stormwater quality issues are likely to have a positive effect of ecological health of receiving environments.

Proposed actions:

The following actions are proposed to provide mitigation for treating contaminants in discharges, improve catchment health and improve our understanding of the effects of stormwater discharges on the environment:

- Installation of stormwater treatment devices such as filtration devices, raingardens, bioswales and wetland planting to provide stormwater treatment.
- Riparian planting to produce improved ecological and/or cultural values, and to protect existing values.
- Investigative sampling to identify more closely the specific areas of a sub-catchment or particular properties that are the source of contaminants.
- Undertake pollution prevention audits or site investigations to identify potential contaminant sources.

- Modify the monitoring programme (add, remove, or move sites for monitoring discharge quality or receiving environment characteristics) to provide greater depth of understanding around contaminant inputs and effects.

The following table provides a summary of proposed future stormwater management actions to address discharge quality issues and effects:

Table 1: Summary of proposed stormwater actions

Sub-catchment/s	Issue	Item
Central Business District	Contaminant trigger value exceeded	Modified Monitoring programme Investigative Sampling Install devices (Raingardens, Bioswales, Filtration Devices) in collaboration with Civic Heart Upgrades
Portside and Tukarako	Contaminant trigger value exceeded	Investigative Sampling Install Devices (Wetland planting)
Hull Road/Triton Ave/Te Maire/Hewlett	Contaminant trigger value exceeded	Modified Monitoring programme Investigative Sampling Drain Enhancement (riparian planting and habitat restoration)
Oropi/Maleme	Contaminant trigger value exceeded	Modified Monitoring programme Investigative Sampling Install devices (Establish Wetland)
Aerodrome Road	Contaminant trigger value exceeded	Modified Monitoring programme Investigative Sampling Install devices (Floating Wetland) Drain Enhancement (riparian planting and habitat restoration)
Judea	Contaminant trigger value exceeded	Modified Monitoring programme Investigative Sampling (Automated Sampling devices) Industrial PP Audits
Welcome Bay	Contaminant trigger value exceeded	Modified Monitoring programme Investigative Sampling Install devices (Gross Pollutant Trap) Drain Enhancement (riparian planting and habitat restoration)
Waikareao	Contaminant trigger value exceeded	Modified Monitoring programme Investigative Sampling
Maungatapu	Contaminant trigger value exceeded	Modified Monitoring programme Investigative Sampling

Sub-catchment/s	Issue	Item
East Waikareao/ Takitimu Drive	Future contaminant trigger value likely to be exceeded	Modified Monitoring programme Investigative Sampling Install devices in collaboration with NZTA upgrades
Greerton to CBD	Future contaminant trigger value likely to be exceeded	Modified Monitoring programme Investigative Sampling Install devices (Floating Wetlands and Gross Pollutant Trap)
Maranui/Mangatawa	Future contaminant trigger value likely to be exceeded	Investigative Sampling Install devices Drain Enhancement (riparian planting and habitat restoration)

Objective ID: A2668394

Report To: Tauranga Moana Advisory Group

Meeting date: 24 November 2017

Report From: Namouta Poutasi, Water Policy Manager

Freshwater management in the Tauranga Harbour Water Management Area

1 Purpose

The purpose of this paper is to set out Toi Moana's initial view, and seek the Advisory Group's feedback, on:

- giving effect to Te Mana o te Wai in the Tauranga Harbour Water Management Area by setting objectives, limits and methods for fresh water;
- working with Tauranga Moana iwi and local authorities at a governance and operational level to support this task; and
- joint approaches to information gathering and sharing.

It is recommended that the Advisory Group:

- 1. Receive the report "Freshwater management in the Tauranga Harbour Water Management Area".**

2 Background

The National Policy Statement for Freshwater Management (NPS-FM) requires regional councils to set objectives, limits and methods for freshwater quantity and quality for all freshwater bodies by the end of 2025 (or the end of 2030, if 2025 is not practicable). Under the current timetable, which reflects earlier Advisory Group feedback, the Tauranga Harbour Water Management Area (WMA) process commences in 2017/18. It is expected that the first 2 or 3 years of this process will involve mainly:

- establishing constructive working relationships for this process between Toi Moana, iwi, territorial authorities, as well as with communities and stakeholders; and
- building a suitable information base.

Later steps are developing a plan change, the formal statutory process under the Resource Management Act and implementation of the plan change. Under the current timetable, we expect that for the Tauranga Harbour WMA this will be complete by 2023/24.

The overall aim is to ensure that fresh water in the WMA provides, or continues to provide, primarily for environmental values (e.g. ecosystem health), as well as other values (e.g. mahinga kai, recreation, transport, irrigation, assimilative capacity, hydroelectricity, etc.).

3 Giving effect to Te Mana o te Wai

Previously, the Advisory Group recorded an action to hold a Te Mana o te Wai workshop with Freshwater Iwi Advisor Tina Porou. There is now considerable publically available material and guidance on Te Mana o te Wai (see Appendix 1), therefore the Advisory Group is encouraged to consider if a workshop is still required.

Key points of note from this material are that:

- it is up to iwi and communities, working with regional council, to determine what Te Mana o te Wai means in practical terms at a catchment level. This will occur as part of the process of setting objectives, limits and methods for fresh water in the Tauranga Harbour WMA;
- the concepts of ki uta ki tai (from the mountains to the sea) and integrated freshwater management are critical. Impacts from fresh water on the Harbour itself, as the ultimate receiving environment, will be key considerations in the process;
- Te Hauora o te Wai and Te Hauora o te Taiao (the health and wellbeing of the water and the environment) are the priority over Te Hauora o te Tangata (the health and wellbeing of people) and economic wellbeing; however, it is up to iwi and communities to decide where that balance should sit when setting freshwater objectives; and
- although it is expressed in the Te Reo Māori, Te Mana o te Wai is a concept of national significance and integral to the NPS-FM, applicable to all communities rather than just iwi.

4 Working together

Toi Moana seeks the Advisory Group's views on the best way of working together. Although regional councillors may seek to make final decisions on an eventual Tauranga Harbour WMA Plan Change, Toi Moana wants to work closely with Tauranga Moana iwi, Tauranga City Council (TCC) and Western Bay of Plenty District Council (WBOPDC), both at a co-governance level and at an operational level, in forming advice to regional councillors on such a Plan Change.

In addition to the Advisory Group, there are a number of other fora where Tauranga Moana iwi, TCC and WBOPDC are represented (e.g. SmartGrowth, Combined Tangata Whenua Forum, Kaitiaki Forum, Territorial Local Authority Freshwater Collaboration Group, etc.). We therefore welcome the Advisory Group's view on its role, relative to these other groups, in relation to freshwater management in the Tauranga Harbour WMA. If the Advisory Group believes new groups or sub-groups should be created, Toi Moana would welcome that feedback also. Likewise, Toi Moana is particularly interested in the Advisory Group's preference for engaging with the wider community and stakeholders (i.e. who does it, how, etc.).

5 Gathering information

Building an information base is an important initial step towards giving effect to Te Mana o te Wai as part of the NPS-FM implementation process. Over the next couple of years, Toi Moana wants to gather information in relation to:

- water quantity: flow monitoring, groundwater research, permitted and consented takes;
- water quality and ecosystem health: nutrient, sediment and bacteria monitoring, ecological indicator monitoring, discharge consents;
- wetlands;
- impacts on the Harbour/coastal receiving environment; and

-
- socio-economic and cultural data: land use, recreational values, cultural values, Mātauranga Māori (also applicable to all of the above bullet points), information on water-dependent industries, current and future land use practices, etc.

We are aware there is a large amount of data and information generated or collected by other parties, including Tauranga Harbour iwi and hapū, which would help improve freshwater management. The Oranga Taiao Oranga Tangata spatial tool being developed for the Tauranga Harbour is a significant example of this.

Toi Moana seeks the Advisory Group's feedback on the range of information it is aware of that could be of use in the Tauranga Harbour WMA process.

Building on this information base, the NPS-FM requires Toi Moana to develop a Plan Change addressing management settings which would be required to provide, or continue to provide, for people's freshwater values. It is our view that this Plan Change would give practical effect to Te Mana o te Wai.

6 Next steps

Toi Moana would like to keep the Advisory Group regularly updated with progress from now on. Our immediate tasks (and particular matters for reporting) include:

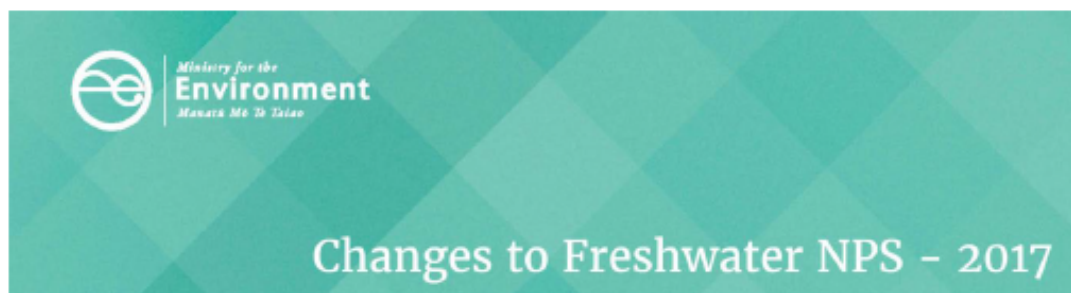
- confirming the approach for working together across the various fora;
- identifying the sort of information held by the different parties; and
- developing a project plan for building a Tauranga Harbour WMA information base, including how best to manage and access information that iwi, hapū, TCC and WBOPDC hold or are aware of.

We welcome feedback from, and discussion with, Advisory Group members any time.

Santiago Bermeo
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on behalf of Water Policy Manager

- Ministry for the Environment factsheet on Te Mana o te Wai



Te Mana o te Wai

In August 2017 the Government announced a set of changes to the National Policy Statement for Freshwater Management 2014 (Freshwater NPS). This fact sheet provides information about the changes to Te Mana o te Wai.

What does Te Mana o te Wai mean?

Each community will decide what Te Mana o te Wai means to them at a freshwater management unit scale, based on their unique relationship with fresh water in their area or rohe. The Statement of National Significance in the Freshwater NPS describes the concept of Te Mana o te Wai as the integrated and holistic well-being of the water. It is up to communities and councils to consider and recognise Te Mana o te Wai in their regions.

What's changed?

The changes clarify what Te Mana o te Wai means in the Freshwater NPS and how the concept applies in freshwater management. This is achieved through three changes.

Statement of national significance

The statement of national significance is expanded to better describe Te Mana o te Wai and how it relates to freshwater management. The statement is now in the body of the Freshwater NPS rather than in the Preamble.

The rewritten statement of national significance explains that regional councils and their communities, including tangata whenua, should work together to understand what values are held for fresh water in their area or rohe. All decisions about freshwater management should be made by putting the health and well-being of the water at the forefront of their discussions.

New objective and policy

There is a new objective and a new policy for Te Mana o te Wai. The new objective requires councils to consider and recognise Te Mana o te Wai in freshwater management. The new policy requires councils to make or change plans to achieve the objective, noting the connection between fresh water and the broader environment; and the role of community values when setting freshwater objectives and limits.

Amendments to existing objectives and policies

- A change to Policy CA2 clarifies that the national objectives framework process is underpinned by community engagement.

- A change to Policy C1 so that freshwater management recognises the interactions *ki uta ki tai* (from the mountains to the sea) between land use and water throughout a catchment.
- Amendments to two value descriptions. 'Human health for recreation' provides a clearer explanation of what a healthy water body means for human health and 'natural form and character' better aligns with *Te Mana o te Wai*.

Why has it changed?

Te Mana o te Wai was introduced to the Freshwater NPS in 2014. *Te Mana o te Wai* is a concept for fresh water that encompasses several different aspects of the integrated and holistic health and well-being of a water body. When *Te Mana o te Wai* is given effect, the water body will sustain the full range of environmental, social, cultural and economic values held by *iwi* and the community. The concept is expressed in *te reo Maori*, but applies to freshwater management for and on behalf of the whole community.

Following the 2014 amendments, councils, *iwi/hapū*, and interested stakeholders all felt that the meaning of and status of the statement about *Te Mana o te Wai* was unclear, and the direction provided to councils through the Freshwater NPS was uncertain.

What it means for communities

To meet the new obligations imposed by the changes for *Te Mana o te Wai*, councils and communities – including *tangata whenua* – will get together to discuss what values they hold for the freshwater bodies in their *rohe*, to set freshwater objectives and limits.

In upholding *Te Mana o te Wai*, these discussions should explore all values the community holds for fresh water; however, the health and well-being of fresh water should come first. This will ensure that when freshwater objectives and limits are set, the three healths of *Te Mana o te Wai* – *Te Hauora o te Wai* (the health and well-being of the water), *Te Hauora o te Tangata* (the health and well-being of people), and *Te Hauora o te Taiao* (the health and well-being of the environment) – are provided for.

Giving priority to the health and well-being of fresh water will help councils manage for the compulsory values of Appendix 1; supporting a healthy ecosystem that allows people to connect with the water through a range of activities.

Communities and councils will together decide what *Te Mana o te Wai* means in their *rohe* and how freshwater values will be balanced to provide for the health and well-being of the water.

For councils, it means the setting freshwater objectives and limits will be guided by this common understanding and by the values held by the community. The making and changing of regional policy statements and plans will consider and recognise *Te Mana o te Wai*.

Further information

How does *Te Mana o te Wai* relate to Part D: *Tangata whenua* roles and interests of the Freshwater NPS?

Part D requires councils to involve *iwi/hapū* in the management of fresh water, work with them to identify their values and interests, and reflect those values and interests in decision-making. The community engagement that councils will undertake to provide for *Te Mana o te Wai* in freshwater management will help councils meet these requirements of Part D of the Freshwater NPS.

Fact sheets in this series

This is one of a series of seven fact sheets providing an overview of the recent changes to National Policy Statement for Freshwater Management.

The full set of fact sheets is available on our website: www.mfe.govt.nz/publications/fresh-water/fact-sheets-changes-freshwater-nps-2017.

Find out more

Contact the Ministry for the Environment by emailing watercomments@mfe.govt.nz, or visit www.mfe.govt.nz/fresh-water.

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*Making Aotearoa New Zealand
the most liveable place in the world*
Aotearoa – he whānau mānau kaitiaki me te taiao

New Zealand Government

-
- **Tina Porou's keynote address and presentation on Te Mana o te Wai at the 2017 New Zealand Planning Institute Conference**

Please refer to the following website: <https://vimeo.com/220564114>

Objective ID:

Report To: Tauranga Moana Advisory Group

Meeting date: 24 November 2017

Report From: Rebecca Lawton, Kathy Thiel-Lardon, Paul Greenshields, Rochelle Carter

Kopurererua water quality and remedial actions

1 Purpose

The purpose of this report is to provide an overview on the water quality in the Kopurererua Catchment and describe the remedial actions being taken.

It is recommended that the Advisory Group:

- 1. Receive the report “Kopurererua water quality and remedial actions”.**

2 Background

The Kopurererua sub-catchment is long and narrow and covers an area of 7,405 hectares. The stream extends north to south and emerges at the southern end of the Waikareo estuary. Its soil types have poor physical structure and are vulnerable to erosion under poor vegetation cover or intensive land-use. There are 27 major rivers and streams, and an additional 46 minor streams named in the Tauranga Harbour catchment.

Bay of Plenty Regional Council (BOPRC)'s Science Team has a monitoring programme set up to routinely monitor the natural resources in the region. This Natural Environment Regional Monitoring Network (NERMN) includes (among many things) monthly water quality monitoring and annual ecology monitoring in the region's major rivers and tributaries. The NERMN programme provides robust, long-term scientific data about the state of our natural resources in the region and supports regional decision-making. Results from the NERMN programme are available on www.lawa.org.nz.

To complement the NERMN programme, short-term catchment-specific monitoring programmes are often initiated to address specific localised issues. In the Kopurererua Stream, BOPRC have installed an instrument to continuously measure turbidity (how clear or murky water looks) and another instrument to take water samples during rain events so we can measure the amount of suspended solids in the river.

3 Water quality and ecology

There are two NERMN water quality monitoring sites on the Kopurererua Stream, they are located at SH29 and SH2. There is also one NERMN ecology monitoring site on a tributary of the Kopurererua Stream near SH29.

Water quality is best described by both 'state' (what was the quality at a point in time) and 'trend' (is it getting better or worse over time). Water quality 'state' is compared to

guidelines, such as the National Policy Statement for Freshwater Management (NPSFM)¹. The NPS-FM lists nitrate and ammonia as key attributes for ecosystem health. Nitrate is one form of nitrogen that is highly soluble in water and is an important nutrient for plant growth. Non-natural sources of nitrate in the environment include fertilisers, leaking sewage systems, and animal wastes. At high concentrations, nitrate is also toxic to aquatic organisms and humans. In 2016, the nitrate toxicity state at both the SH2 and SH29 sites was graded 'A' band as per the NPS-FM. At this level, nitrate is unlikely to have any negative effects on even the most sensitive fish and invertebrate species living in the stream. It is important to note however, that the amount of nitrate in a river needed for it to become toxic to fish and invertebrates, is much higher than the amount needed to cause problem weed or algal growth. This is especially important for the estuaries that rivers and streams drain into. There is also a trend of nitrate getting worse at the SH29 site (meaning that nitrate levels are increasing over time), which is a trend seen at many sites across the Bay of Plenty (and even around New Zealand).

Like nitrate, ammonia is another form of nitrogen that is important nutrient for plant growth. At high concentrations, it is also toxic to aquatic organisms and humans. Non-natural sources of ammonia in the environment include point source discharges (e.g. domestic, agricultural and industrial wastewater). In 2016, the ammonia toxicity state at SH29 was graded 'A' band and SH2 was 'B' band. The 'A' band provides protection for 99% of species in the stream and 'B' band 95% protection. There were no trends found at either site for ammonia.

Macroinvertebrates (the bugs that live in the stream) provide an indication of stream condition based on the number of different species present, via the Macroinvertebrate Community Index (MCI). The MCI has four categories ranging from "excellent" stream condition, to "Poor" condition in highly degraded streams. The Kopurererua tributary at SH29 is graded "Poor" condition. This could be from a combination of: slow-flowing stream, water quality, sedimentation, urban stormwater inputs, surrounding land use, and habitat reduction.

4 **Suspended solids**

The Kopurererua Stream is characterised by relatively high turbidity and suspended solids, even at base flow. Turbidity state (how clear or murky the water looks) at both the SH2 and SH29 monitoring sites is in the worst 25% of similar sites around New Zealand. However, there are also improving trends for turbidity at both sites, meaning that turbidity levels are showing a decrease over time.

As expected, the turbidity levels in the Kopurererua Stream fluctuate in response to flow events. As stream flow increases after rainfall, the turbidity also increases as sediment is washed off the land during rainfall events. This relationship is shown in Figure 1, which presents some of the data from the instruments BOPRC has installed to monitor turbidity and suspended solids. In this figure, you can see that the green line indicating turbidity follows the same patterns as the blue line indicating stream flow (discharge). The red dots shown when a sample was taken for suspended solids.

¹ Ministry for the Environment. 2017. National Policy Statement for Freshwater Management 2014. Ministry for the Environment, Wellington.

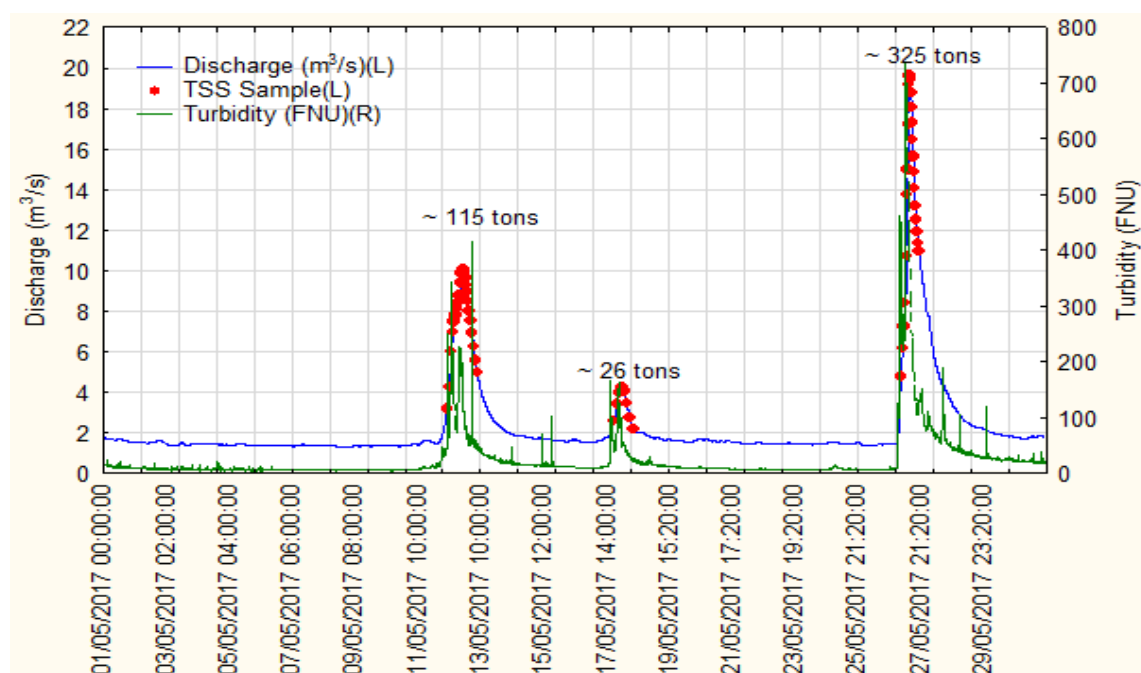


Figure 1: Turbidity, stream flow (discharge) and total suspended solids (TSS) samples for the Kopurererua Stream at SH29 during May 2017.

The information collected from this monitoring will help us to understand the amount of suspended solids being discharged into the harbour, assist with prioritising land management activities and calibrating any future catchment or harbour models.

A range of studies have investigated suspended solids loads in the Kopurererua Stream. Key findings from these studies about the likely source of suspended solids are as follows:

- The bulk of sediment entering the stream occurs during heavy rain events.
- Downstream sites closer to the estuary tend to have lower suspended solid loads compared to sites further up the catchment during heavy rain events. This is mainly due to differences in current velocity (water speed). Heavy (larger) sediment particles drop out of suspension at downstream sites as current velocities are lower in this part of the stream compared to upstream sites (based on 2008/09 heavy rain event monitoring data²).
- There is a fairly even loading of suspended solid contributions across the catchment - at peak stream flows the maximum recorded suspended solid loads from the upper catchment were not much lower than that recorded at the SH29 monitoring site (based on 2008/09 heavy rain event monitoring data²).
- Just as much sediment appears to come from above the major earthworks site at Tauriko as from this site or from downstream sites below (based on 2008/09 heavy rain event monitoring data²).
- Stream bank erosion is a significant source of sediment in the Kopurererua stream, and likely to have a greater contribution to sediment loads than hillslope erosion (surface derived sediment, e.g., from grazed pasture and forested land)³.
- Large amounts of sediment are being delivered from the upper reaches of both the Kopurererua Stream and the Tautau Stream (a major tributary). Slips and bank erosion have been identified as significant sources of sediment along the middle and upper reaches of the Kopurererua Stream. Stream bank erosion is minor along the lower reaches of the Kopurererua Stream³.

² Park, S. 2009. Investigation of sediment loads in the Kopurereroa Stream catchment. Internal BOPRC Memo to Rob Donald, 30 April 2009. Objective reference A1718599.

³ Hughes, A. & Hoyle, J. (2014). The importance of bank erosion as a source of suspended sediment within the Kopurererua catchment. NIWA Client Report No: HAM2014-064 prepared for the Bay of Plenty Regional Council.

-
- Erosion from bare earth associated with urban development is mostly protected by sediment detention ponds. However when the capacity of these ponds is exceeded (e.g., in prolonged heavy rain events) then fine sediment could be discharged into the stream³.

In combination, these findings indicate that stream bank erosion and slips in the upper and middle catchment are likely to be primary contributors to sediment loads in the Kopurererua Stream. However, sediment from earthworks associated with urban development could be discharged into the stream during prolonged heavy rain events.

5 **Challenges for catchment management**

The Kopurererua catchment is highly affected by population growth and associated land-use changes. This puts stresses onto the catchment including increasing demand for water, development in marginal land, changing topography, landform and hydrology. This in return will create increased runoff and concentrated flow, which may result in aggregated erosion and sedimentation.

Large scale projects potentially effecting flooding and erosion are the Tauriko Northern Link (filling of floodplain, increased stormwater) and the Keenan Road development (high erosion potential due to meandering at grade change). In addition, due to the high number of smaller projects, the cumulative effects of earthworks and stormwater are considerable.

Furthermore the effects of climate change (sea level rise - higher harbour inundation level, higher groundwater table, higher rain intensity and frequency) are not yet fully understood and pose additional stresses on the catchment.

The NPS-FM sets out environmental objectives and policies that direct Regional Councils (and other Local Government Authorities) to sustainably manage fresh water in an integrated way that provides for use and development (take, use, damming, diversion, discharge of contaminants, land use and development) within water quality and quantity limits. Currently, BOPRC is implementing the NPS-FM in the Kaituna and Rangitāiki Water Management Areas (WMAs), with Tauranga Moana and Rotorua WMAs up next. Knowledge of the contaminant levels and sources will be important to assist with setting limits to provide for the desired values and objectives.

6 **Flood risk management**

The Kopurererua Stream is not part of a BOPRC operated river scheme. As such we do not have a flood model for this catchment.

Various models have been prepared by private developers and Tauranga City Council (TCC) as part of the impact assessment of individual development. BOPRC's Engineering Team voiced a lack of confidence in some aspects of the TCC flood model, particularly the way the rural hydrology is represented. Also these models are largely outdated as they refer to the landform prior to development.

However, as part of the Flood Risk Project we are working together with TCC and Western Bay of Plenty District Council (WBOPDC) on three pilot studies (Waimapu, Waihi Beach and Kopurererua) to develop a Regional Flood Risk Management Framework, which then can be rolled out over the remainder of the non-scheme catchments across the region, with the intent to prioritise the mitigation effort in these catchments based on the risk to the communities.

In 2014/15 the decision was made by all project partners to progress the Waimapu catchment and the Waihi Beach catchment first due to resourcing constraints. These pilot studies have progressed to a point where we have developed catchment models, established the current and future flooding risk and tested the current stormwater level of

service. The next step involves optioneering to identify the most sustainable options to mitigate the risk, including engineering solutions as well as planning provisions.

While the Kopurererua Stream catchment study was placed on hold, we have had valuable discussions with TCC around the need for an upgraded detailed model and a detailed catchment management plan. As a result, a Model Review Group was established in February 2017 to ensure there is full agreement on the catchment hydrology and hydraulic parameters. This project is led by TCC. The modelling working group agreed on the hydrology in September 2017 and TCC is in the process of running a new hydraulic model. We are in agreement that this model can be used for the Flood Risk Project next financial year.

These catchment studies mainly look at the bigger events (2%, 1% and 0.2% Annual Exceedance Probability (AEP)). Mitigation options are targeted around reduction of flood consequence and therefore flood risk. There will be some benefit on reducing sediment load, but this will be marginal in these big events.

7 Resource consents and compliance

Both, Engineering and Science Teams review consent applications and provide technical advice on the scale of effects of the proposed activity (e.g. earthworks, stormwater and instream structures), on the appropriateness of mitigation measures and propose conditions of consents. We also provide pre-application advice and general advice to third parties.

There are 42 active earthwork consents within the Kopurereroa Stream catchment. BOPRC's Compliance Team undertake inspections to check controls and compliance with consent conditions.

Due to unseasonal and extreme rainfall events in April, we have regularly monitored all 'at risk' sites. Sediment and erosion controls are designed to treat sediment run-off and are engineered to cope with a 1 in 20 year event.

Leading up to cyclones Donna and Cook, all earthwork sites were required to check their controls and undertake any maintenance to ensure they were operating effectively and as designed. The majority of spillways and decants did manage to hold up to the extreme volumes of stormwater generated, however with saturated ground there were some sites where breaches of sediment controls were detected. Almost all these sites had staff monitoring the sediment controls and undertaking repairs as soon as it was safe to do so.

Inspections upstream of the consented sites indicate that the stream is already discoloured possibly from stream bank erosion or slips further up the catchment, so not all sediment discharges are attributable to current earthworks in Tauriko and the Lakes development areas.

TCC also holds a Comprehensive Stormwater Consent, which was established to better manage the effects of urban stormwater (water quantity and water quality) on the receiving environment. The consent provides for a generic catchment management plan for the Kopurererua. However, no specific detailed catchment management plan is currently available.

8 Land management and catchment action plans

The Kopurererua has had the most intense urban expansion of any catchment within Tauranga Harbour over recent times and will continue to have future city expansion pressures placed on it. This pressure has been focused on lower parts of the catchment. In the upper catchment BOPRC's Land Management Team has been working with rural landowners on a number of best practice initiatives, including:

- promoting riparian retirement for the protection of water quality;
- supporting the retirement of steep erodible land for soil conservation purposes; and
- protection of existing biodiversity and wetlands.

The catchment has four very distinctive land forms which each require different management:

- Upper Catchment
 - No flowing streams.
 - Deep long ephemeral gullies.
 - Managing storm water over short intense timeframes. These events can cause erosion and input sediment and nutrients into the system.
 - Land Management is working with these upper catchment landowners to reduce the impact caused by these events, through assistance with storm water control measures.
- Mid Catchment
 - Deep incised gorges.
 - This is the steepest part of the catchment, water flow is fast through this part.
 - High biodiversity in the gorges.
 - Land Management is working with these landowners to protect the gorges from stock access and the loss of biodiversity. If these gorges were to start eroding, large amounts of sediment would be lost into the catchment with very little that could be done once erosion started.
- Lower Catchment
 - Large meanders in the Kopurererua Stream start as a natural buffer to reduce stream velocity.
 - These meanders are vulnerable to stream bank erosion and can contribute large amounts of sediment into the stream.
 - Land Management is working closely with a number of land owners to remove stock from stream edges and plant the margins to stabilise the banks to reduce sediment input.
- Urban Areas
 - The impact of urban expansion changes the flow of storm water and the Kopurererua Stream.
 - Land Management works closely with the regional council's engineering, policy and planning teams to feed into the growth and expansion of the urban area within the catchment.

9 Future work

Event-based sampling is highly resource intensive. To reduce this resourcing, BOPRC's Science Team are looking to use turbidity as a surrogate indicator, which will help us to estimate the annual suspended solids load entering Tauranga Harbour from the Kopurererua Stream more efficiently. This information can help us to understand the scope of the problem, prioritise on-ground activities and assist with limit-setting under the NPS-FM.

There is also significant research currently underway nationally to develop thresholds for a national sediment attribute for potential inclusion in the NPS-FM. This research includes the use of sites from the Bay of Plenty. Sediment is an important attribute for ecosystem health in freshwater and coastal water, and should be part of a comprehensive water

quality management framework. Results from this national research will be included in any future recommendations for sediment management.

BOPRC's Land Management Team will continue to support land owners with best practice advice and initiatives within the catchment. The focus being on the larger properties in those areas where there is medium to high risk of sediment entering streams. Land Management will also be looking for opportunities to work with land owners to restore the natural function of the river and its flood plains with a view to sediment reduction.

We are also looking at installing detention dams in the upper and mid catchment as part of sustainable land management options aimed to minimise erosion risk. This is targeted at the smaller events (>10% AEP). To make the processes more streamlined and easily implemented by the Land Management Officers, the Engineering Team is currently reviewing our Guidelines for the Design, Construction, Maintenance and Safety of Small Flood Detention Dams.

We are also currently reviewing other Technical Guidelines (Erosion and Sediment Control Guidelines for Land Disturbing Activities and Stormwater Management Guidelines for the Bay of Plenty region) to reflect knowledge gained over the last 5 years.

The Engineering Team will continue the dialog with TCC and WBOPDC to address flood risk as part of the Flood Risk Project as well as through the Natural Hazard Forum.

The Comprehensive Stormwater Consent is due for review in 2017, but has not been received at the time of completion of this report. The need for a specific detailed catchment management plan has been identified and communicated to TCC and will form part of the consent review. BOPRC's Engineering Team is committed to help TCC to establish this plan.

Science, Engineering, Land Management, Consents and Compliance teams are committed to working together and sharing knowledge in order to reduce the sediment load in the Kopurererua catchment.

Objective ID: A2733447

Report To: Tauranga Moana Advisory Group

Meeting date: 24 November 2017

Report From: Hamish Dean – Land Management Officer

Kaimai Mamaku Catchments Forum - Update

1 Purpose

This report provides a brief update on recent activities of the Kaimai Mamaku Catchments Forum.

It is recommended that the Advisory Group:

- 1. Receive the report “Kaimai Mamaku Catchments Forum - Update”.**

2 Background

The Kaimai Mamaku Catchments Forum was started in 2009 through collaboration between the Department of Conservation, Bay of Plenty Regional Council, Waikato Regional Council and the New Zealand Landcare Trust. The Kaimai Mamaku Catchment Forum (‘Forum’) represents the collective voice for the Kaimai Mamaku Ranges and its catchments. The Forum brings together the multiple kaitiaki, agencies, stakeholders and interest groups, connected by the Kaimai Mamaku Ranges. A forum bringing together a wealth of knowledge, skills and experience. People who care for and value the forests, farms and waters flowing into the Waihou River and Te Awanui / Tauranga Harbour.

The Forum released a Strategic Plan in 2014 which included 21 objectives and 67 actions relating to the three outcome areas of biodiversity, water, and people. After the Strategic Plan was released the forum stalled somewhat but the members remain committed to improving the health of the Kaimai Mamaku and its catchments.

3 Re-invigorating the Forum

An effort has been made over the last year to re-invigorate the forum and address some of the issues around its structure and function and lack of on-the-ground action. Elva Conroy from Conroy & Donald Consultants was engaged to undertake two pieces of work to assist this process: The first was a sustainability report which outlined the steps required to re-instate a fully functioning forum and the second was an Operational Plan for the forum. To be able to write these Elva canvassed the forum members for information through informal meetings, workshops and an online survey. The resulting sustainability report recommended that the forum should continue and presented options on how the forum could be more effective, influential and sustainable. The draft Operational Plan identified three projects and four enabling actions that the Forum should focus on in order to make meaningful gains.

Project 1 is to develop a Kaimai Mamaku Pest Management Strategy. The three agencies (DOC, BOPRC & WRC) have jointly engaged Cam Speedy of Wildlife Management Associates to develop this plan. Cam has already begun consultation with iwi and community groups and will deliver an operational plan mid-2018.

4 Forum Event – October 2017

An event to discuss the Operational Plan and make some decisions on the future of the forum was held on October 6th at the ASB Arena. A brief summary of the discussion points and decisions is outlined below:

Decision 1: Should the Forum continue?

There was overwhelming support for the forum to continue although comments were made about the lack of progress.

There was also discussion about the urgent need to employ a coordinator to run the forum.

Decision 2: Do we want to commit to the Operational Plan in principle?

There was overwhelming support for the Operational Plan although some members commented that water issues should have been more prominent and that the Operational Plan should be integrated into counsels' LTPs.

Decision 3: Geographical Scope of Operational Plan

The forum sustainability report suggested that the geographical scope of the forum be more focussed. This was workshopped and various options were suggested.

Decision 4: Steering Group

The sustainability report for the forum recommended that a steering group be formed and given the task of implementing the operational plan. The merits of this were discussed and options for composition of the group were workshopped.

Decision 5: Project Group/s details

Another recommendation from the sustainability report was that project groups be formed to take on individual projects in the Operational Plan. These would be directed by the Steering Group. A workshop session was held to discuss the purpose, composition and terms of reference for these groups.

Decision 6: Operational Plan Projects and Actions

The Operational Plan outlines three projects and four enabling actions for the forum to focus on in the coming years. Each of these projects and enabling actions was discussed and were generally agreed on.

Decision 7: Kaimai Mamaku Catchments Forum details

One issue that has plagued the forum from the beginning is a lack of clarity around the purpose of the forum itself. This was discussed again in group sessions although no definitive decisions were made.

Future of the Forum

The Kaimai Mamaku Catchments Forum will continue to operate and it is likely that a steering group and project groups will also be set up. As evidenced by the number of community-driven conservation and catchment management projects there is continued passion in the wider community for protection and enhancement of the Kaimai Mamaku but the role of the forum and its ability to affect changes is something that the forum itself will need to continue to work on.

For the three agency partners the forum provides a valuable link with the community and aligns closely with our existing work. Accordingly, agency support for the forum will continue.

Objective ID:

Report To: Tauranga Moana Advisory Group

Meeting date: 24 November 2017

Report From: Sarah Omundsen, Tauranga Catchments Manager

Tauranga Moana Programme update

1 Purpose

To provide the Tauranga Moana Advisory Group with the 2016/17 Annual Report for the programme, and update on programme progress for September - October 2017.

It is recommended that the Advisory Group:

- 1. Receive the report “Tauranga Moana Programme update”.**

2 Background

The Tauranga Moana Programme was established in 2013 to deliver on the community’s expectations for the health of the Tauranga Harbour. The programme coordinates, prioritises and delivers on all the work related to the harbour and catchment that is undertaken by Tauranga City Council, Western Bay of Plenty District Council and the Regional Council. It allows an adaptive and collaborative management approach.

Originally called Te Awanui Tauranga Harbour Programme, the name was changed to Tauranga Moana in the 2016/17 year. This change better reflects the management area which includes the inland catchment as well as Te Awanui / Tauranga Harbour. It also aligns with the Tauranga Moana Iwi Management Plan 2016 – 2026 and the area of interest defined in that Plan.

This Tauranga Moana Advisory Group oversees the Programme. Staff provide regular programme updates and reports to the Group including:

- Annual work plans
- Annual and six monthly reports
- Regular dashboard reports summarising project progress

3 2016/17 Annual Report

The Annual Report 2016/17 is provided at Appendix 1 and measures performance against the 2016/17 Annual Work Plan. Programme highlights are illustrated on page 2 of the report and key successes include:

- Worked with iwi and hapū on a number of initiatives including a Mātauranga Māori case study, tangata whenua and kaitiaki forums, and restoration projects across the harbour and catchments

- Stormwater and wastewater modelling, monitoring, upgrades and reticulation schemes progressed well through the City and Western Bay
- New science reports have been published on the Harbour, including an information gaps analysis, contaminant levels in oysters, and the effects of the Mobil oil spill
- A project has been initiated to develop a set of harbour inundation and erosion design levels that include climate change allowances and can be applied consistently by the three councils
- 17 oil spill incidents were responded to and the new maritime oil spill vessel Awanui is now operational
- Intensive marina surveillance was carried out within the harbour. 11,524 vessel hulls, 100 km of pontoons, 560 swing moorings and 2,500 wharf/marina piles were checked
- Stormwater pollution prevention audits were undertaken in the Mount Maunganui industrial catchment. Over 350 sites were assessed with 150 sites formally audited. 69 sites were given recommendations that required follow-up
- The first operational (fully certified) season for the hovercraft commenced in the first quarter of 2017
- 2235 tonnes of sea lettuce removed, all from the Fergusson Park to Kulim Park / Harbour Drive foreshore.

4

Programme dashboard for November 2017

The programme dashboard for November 2017 is provided at Appendix 2.

The dashboard shows progress against all projects listed in the 2017/18 Annual Work Plan, highlights over the last two months and upcoming activities. The programme and projects are on track in terms of scope, budget and schedule at this stage.

Appendix One

Tauranga Moana Programme 2016/2017 Annual Report



Tauranga Moana Programme

Annual Report 2016/2017

Tauranga Moana Programme Highlights

2016/17



11 Estuary Care groups supported to help care for the harbour margins and estuaries



Additional 50 km of river and stream margins protected from stock



65 sites actively managed to protect and restore our biodiversity



13km of wastewater pipelines, in 5 catchments across the city were CCTV surveyed



28 kindergartens participated in the Great Waste Race



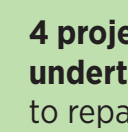
27 new Environmental Management Plans implemented with landowners to improve water quality and wildlife habitat, **with a total of 149 plans in place**



1700kg of rubbish collected during 8 clean-ups involving 1000 students from 11 schools.



18 popular swimming sites monitored for unsafe bacteria levels during summer



4 projects undertaken to repair and stabilise stream banks and reduce erosion risks



21 catchment care groups supported to help care for our land and waterways



42,767 native coastal dune plants planted by school groups, volunteers and Corrections crews



43 maritime signs maintained



389 navigation aids maintained



28 aquatic events managed



6 commercial licences issued



2 abandoned vessels disposed of



148 pollution audits of business and industrial sites



16 harbour wardens supported to educate boaties and enforce bylaws



252 safety warnings issued to boaties



385 moorings administered



17 oil spill incidences responded to



4,028 vessel hulls, 41.2 km of pontoons, 166 swing moorings and associated concrete and 840 wharf/marina piles were checked for marine pests



2235 tonnes of sea lettuce removed from Tauranga Harbour beaches



90 navigation hazards reported

Key: Councils working in partnership.



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Purpose

The purpose of the Tauranga Moana Programme is to coordinate the work of councils in Tauranga Harbour and its catchment, and deliver on community expectations. This work includes policy and planning, science, regulatory compliance, maritime services as well as all operational activities such as biosecurity, biodiversity protection and sustainable land management.

The programme covers all significant activities (both projects and ongoing work) in the harbour catchment carried out by Tauranga City Council (TCC), Western Bay of Plenty District Council (WBOPDC) and Bay of Plenty Regional Council (BOPRC), providing an overall picture of the things we do in the area.

Background

The vision for Te Awanui Tauranga Harbour is: *“A healthy and thriving harbour that contributes to our wellbeing today and in generations to come.”* Outcomes sought for the harbour and its catchment are:

- **Ecological Health:** The natural environment is healthy and resilient, supporting thriving native wildlife and kaimoana.
- **Amenity:** The harbour and catchments are able to be used and appreciated.
- **Cultural:** Mana whenua and Mana moana is recognised, kaitiakitanga is enabled and cultural values are protected.
- **Sustainable Land Management:** Land and water use is managed to maintain and/or improve the health of the harbour and catchment.
- **Recognising Economic Importance:** The economic value of access and use is retained for the harbour and catchment.
- **Community:** Local communities have easy access to information about the harbour and catchment values and issues, and are actively supported to care for values that are important to them.

The vision and outcomes were developed following community feedback received in a public perceptions survey conducted in April 2013. They are considered interim, until a formal process is undertaken to identify a vision and outcomes through the development of a co-governance document.

The programme was formally established by Regional Council in 2013 in order to coordinate, prioritise and deliver on all work related to the harbour and its catchment. Western Bay of Plenty District Council and Tauranga City Council have been participating in the programme since 2015. The intent is that the programme will develop to include all partners (iwi and the three councils) to enable a collaborative and adaptive management approach.

The Tauranga Moana Iwi Collective Deed of Settlement, once passed into law, will require a Tauranga Moana Governance Group to be established. To prepare for the Governance Group, an Advisory Group has been established which consists of iwi collective members as well as councillors from Tauranga City Council, Western Bay of Plenty District Council and Bay of Plenty Regional Council.

The first Tauranga Moana Advisory Group meeting was held 17 November 2014. The Advisory Group will continue to meet, share information and provide direction to staff of partner agencies until replaced by the governance group.



Project highlights

Infrastructure	<ul style="list-style-type: none"> ➤ The five yearly wastewater review report and tangata whenua cultural paper has been completed. ➤ The 2016 annual monitoring report for the Comprehensive Stormwater Consents has been completed and submitted to BOPRC. ➤ Flow modelling was carried for all of the critical wastewater pump stations within TCC's network. Inflow source detection work has been completed in Ngatai Road, Meadowland, Palm Beach and Solomon Street catchments and rehabilitation works are being carried out. ➤ 13 km of wastewater pipelines, in five catchments across the city were CCTV surveyed. 150 wastewater manholes in Welcome Bay and Meadowland and Judea catchments were inspected to assess for potential stormwater infiltration. ➤ Land secured for Ongare wastewater treatment plant site. ➤ Resource consent application submitted to BOPRC for Ongare wastewater treatment plant. ➤ Resource consent application submitted to BOPRC for the Katikati wastewater pipeline.
Integrated planning and modelling	<ul style="list-style-type: none"> ➤ Stormwater Catchment Management Plan – Wairakei and Wairakei West stormwater models have been completed. ➤ Aurecon has been engaged to assess the flood and erosion risk to properties adjacent the Uretara Stream caused by gravel, bridges and other structures and to determine the effects of the bridges and structures on the stream. ➤ The Uretara Stream Flood Management Gap Analysis Report has identified several key data gaps for managing flood risk in the Uretara Stream. ➤ Navigation and Safety Bylaw became operative 1 July 2017. ➤ Discovery Marine Ltd have completed a Tauranga Moana bathymetry surface model based on existing information. NIWA has completed the extreme sea level analysis for Tauranga Moana. Tauranga Moana Inundation and Coastal Erosion Project awarded to Tonkin + Taylor and NIWA as a joint bid.
Tangata whenua engagement and involvement	<ul style="list-style-type: none"> ➤ Socialisation of the Tauranga Moana Iwi Management Plan completed with the three councils. ➤ Developing a Cultural and Environmental Monitoring Plan for the Te Maunga Wastewater Facility.
Governance and programme management	<ul style="list-style-type: none"> ➤ 2015/2016 Annual Report and Highlights summary and 2017/2018 Annual Work Plan presented to the relevant committee meetings. ➤ Three Tauranga Moana Advisory Group meetings held. ➤ Six E-Newsletters published.



Maritime	<ul style="list-style-type: none"> ➤ 24/7 response maintained for navigation and safety oil spills. 17 incidences responded to. ➤ New Maritime oil spill response vessel is operational. ➤ Audit on Port and Harbour Safety Management systems completed.
Science	<ul style="list-style-type: none"> ➤ Tauranga Harbour gaps analysis was published June 2017. ➤ Field work has been completed for the Manaaki Taha Moana-MTM 2 subtidal survey of Tauranga Harbour. ➤ Report from the Chair in Coastal Science was received December 2016. Progress report on student research projects received April 2017. ➤ Final field sampling for Mobil oil spill took place in February and a report completed.
Catchment, parks and recreation	<ul style="list-style-type: none"> ➤ Sea wall renewal work at Maxwell's Road and Memorial Park completed. ➤ Consent granted to allow for beach nourishment to raise sand levels in the following areas – Memorial Park, Fergusson Park to Kulim Park and Maxwell's Road. ➤ 2,235 tonnes of sea lettuce removed, all from the Fergusson Park to Kulim Park/Harbour Drive foreshore, Tauranga. ➤ 42,767 coastal plants were planted during the 2016/2017 season. 350 volunteers donated more than 660 hours. ➤ Coast Care provided educational opportunities to approximately 3,000 students from 26 schools throughout the Western Bay. ➤ Tauranga Correction Department provided 7,400 hours of site preparation for coast care planting. ➤ Intensive marina surveillance carried out within Tauranga Harbour. 11,524 vessel hulls, 100 km of pontoons, 560 swing moorings and associated concrete and 2,500 wharf/marina piles were checked. ➤ Opureora Channel dredging works are underway. ➤ Hovercraft for mangrove seedling control is operational. ➤ 60 m² of mature mangroves removed from Te Puna Estuary. ➤ Task force established to look at options for making Kaiate Falls swimmable again. ➤ 50 additional kilometres of waterway margin protected in 2016/2017. ➤ One additional High Value Ecological Site and six additional community led sites actively managed. ➤ Four projects undertaken to repair and stabilise stream banks and reduce erosion risks around Tauranga Catchment. ➤ Two new Harbour Management Plans in place, in the Aongatete and Kopurererua sub-catchments. ➤ The Johnson Reserve Care Group came second in the Heritage and Environment category in the 2016 annual TrustPower Community Awards. ➤ Waitao Landcare Group won the 2016 NZ River Story Award.



Regulatory compliance

- Urgent complaints responded to within 12 hours, and all complaints within three days. 2,744 complaints were registered over the reporting period.
- Eight clean-ups undertaken involving 1,000 students from 11 schools collected 1,700 kg of rubbish.
- Waterline Programme delivered educational lessons on the Three Waters to 60 classes in 13 schools. The Great Waste Race has been delivered 28 times to kindergarten classes.
- 500 entries were received in the October “Don’t Paint the Drain” competition held throughout Tauranga and the Western Bay in participating paint stores. Winners received paint vouchers and swim with the dolphin passes.
- TCC responded to 92 pollution incidents during the reporting period.
- 377 business sites in Mount industrial area were assessed, 148 sites were formally audited, 84 sites were identified as have potential pollution discharges to stormwater, with 69 sites requiring further inspection.



Tauranga Harbour and catchment environmental monitoring

Monitoring of the health of Tauranga Harbour and catchments has occurred since the 1990's, as part of the Natural Environment Regional Monitoring Network. The following is a summary of recent trend information.

Water quality

Water quality information is collected from 18 swimming water quality sites, 18 stream water quality sites and eight harbour water quality sites across Tauranga Harbour.

Estuarine water quality

Sampling of estuarine water quality has now been increased to monthly at eight sites. The last analysis of data was up to 2013 and was reported in 2015 (<http://www.boprc.govt.nz/media/433844/nermn-estuary-water-quality-report-2014.pdf>). Key findings from that report are as follows:

- A decreasing trend was observed in total phosphorus concentrations at five sites in the southern harbour and in dissolved phosphorus at three sites in the northern harbour.
- Increased chlorophyll-a concentration (an indicator of phytoplankton production) was found at three northern harbour sites.
- Overall water clarity is good in Tauranga Harbour. Pahoia, Otumoetai and Te Puna had the highest suspended solids and turbidity measurements.

Recreational water quality

Swimming water quality of streams flowing into the Tauranga Harbour over the 2016/2017 bathing season was variable. Kaiate Stream had the poorest water quality, with indicator bacteria counts being above safe levels 75% of the time. Swimming water quality was also poor in the Uretara Stream, with indicator bacteria counts being above safe levels 50% of the time. For the remaining three streams, indicator bacteria counts were within safe levels at least 85% of the time, indicating that these rivers were generally safe for swimming over most of the summer period. Swimming water quality was generally good for marine swimming sites in Tauranga Harbour, with sites safe for swimming most of the time. Indicator bacteria counts were within safe levels 95% of the time at nine of the 13 sites, and at least 80% of the time at the remaining four sites.

Guideline levels for quality of shellfish gathering waters were exceeded at Tilby Point over the 2016/2017 summer period, but were within safe levels at Te Puna and Waihi Beach, based on the median value faecal coliform bacterial count. High counts often occurring after heavy rain events, which highlights that shellfish gathering should be avoided at these times.

National Objectives Framework comparison

The National Objectives Framework in the National Policy Statement for Freshwater Management defines thresholds for water quality attributes, ranked into four bands (A-D) which effectively set national bottom lines for water quality.

Water quality data collected in 2016 for sites in Tauranga Harbour was compared to the National Objectives Framework bands.



Compared to the these bands, water quality at sites in Tauranga Harbour in 2016 was generally very good for nitrate, ammonia, and secondary contact recreation, but poor and below minimum acceptable state for primary contact recreation. Detailed results were:

- 17 of the 18 sites were ranked in “A” band for nitrate and ammonia; all other sites were ranked in “B” band.
- 15 of the 18 sites were ranked in “A” band for secondary contact recreation; all other sites were ranked in “B” band.
- Aongatete River was ranked in “B” band for primary contact recreation; all other sites were below minimum acceptable state for primary contact recreation.

Groundwater and geothermal resources

A conceptual model was developed in 2009 to understand the groundwater systems of the Tauranga area. In 2013, a numeric model of the Tauranga Geothermal System was also developed to provide direction for the management of geothermal groundwater. The model suggested that some areas could cool if the volume of take is not better managed. A review of this model revealed that it needed to be updated and rerun with additional data sets. The field work to obtain this data has been completed and work to update the model is currently in progress. Once this is complete, a decision can be made on the direction of model for this resource.

River and stream ecology

Sampling of stream invertebrates has occurred in Tauranga Harbour catchment at 32 sites. Invertebrate communities indicate that stream health is variable between sties, but generally stable over time. Of the 32 sites that were examined, nine sites were rated as excellent, five were rated as good, four were rated as fair and 14 were rated as poor. Fish communities show similar patterns to invertebrate communities, indicating that stream health is variable across the harbour catchment.

Harbour ecology

Overall estuarine health in Tauranga Harbour is under pressure from a range of stressors, particularly sediment and nutrients. The main harbour basin is reasonably stable but decreasing ecological health trends are evident in the upper estuaries, where habitats are more sensitive to sediment inflows and nutrients from the catchments than open harbour areas.

- Between 1959 and 2011, seagrass beds have decreased over the whole harbour by 38%, with the greatest decreases observed in the sub-estuaries and southern harbour.
- Surveys of shellfish distribution and abundance have shown a decline in the upper estuaries. In the lower more exposed eastern harbour areas, shellfish beds have shown much less change.
- Monitoring of benthic macrofauna indicates declining habitat quality in the western sub-estuaries. No significant changes have been found in the lower eastern open harbour areas.
- Mapping mangroves indicates that canopy cover of mangroves has increased significantly from 200 ha in the 1940's to 811 ha in 2011. Mangrove expansion in the harbour is a natural response to increased sedimentation, nutrients and less frequent frosts.
- Monitoring of sea lettuce shows abundance is highly variable with a strong correlation between blooms and periods of strong westerly winds, inducing coastal upwelling. Research is currently being conducted to better understand the drivers of sea lettuce growth.



Sediment and contaminant trends

Estuaries are very sensitive to sediment and contaminants inputs. In Tauranga Harbour, contaminant levels tend to be low and meet guidelines. However, contaminants increase substantially in industrial areas, and Council is targeting these areas through pollution audits.

High sedimentation rates are caused by high loads settling in sheltered sub-estuaries, causing a decline in health of harbour ecology. In the open areas of Tauranga Harbour, sediments are generally in a healthy sandy state. Additional monitoring has been setup at 60 sites across the harbour to provide more accurate sedimentation information.



Our approach to delivering the Programme

As we work on and in the Programme we'll use the following approaches for success:



Kotahitanga Relationships

Iwi and hapū have a special relationship with Tauranga Moana. We will work with iwi and hapū in planning and delivery of the programme in a mutually constructive way.



Mana whenua, Mana Moana Mountains to the sea

We recognise the interconnected relationships between land, sea and our communities. Catchments feeding the harbour need to be sustainably managed, hence the maunga to moana approach.



Whanaungatanga Community participation

We encourage local communities to participate and lead in doing the right thing.



Whakaaro tahi Communication

We regularly share our understanding of the harbour and its catchment. This is a collaborative programme and requires good communication with all involved.



Pūtaiao Scientific integrity

We rely on scientific research and accurate data to help us make wise decisions. Scientific research complements the decision-making of Council management and kaitiakitanga.



Mātauranga Māori Knowledge

We will work with iwi and hapū to include mātauranga Māori alongside our scientific research and data collection to maintain the mauri of the harbour.







Annual Work Plan

The following tables provide a report on achievements for the period July 2016 – June 2017 against actions proposed in the Tauranga Moana Annual Work Plan 2016/2017. The programme is broken into five areas of focus:

- 1 Governance and programme management.
- 2 Integrated planning and modelling.
- 3 Science.
- 4 Tangata whenua engagement and involvement.
- 5 Operations (includes maritime, infrastructure, catchment, parks and recreation, and pollution prevention).






Each section shows work underway by individual agencies, but also identifies those collaborative activities where two or more agencies are working together.

The project status column shows progress status indicators as follows:

-  Achieved.
-  Not complete, in progress, a risk but not an issue yet.
-  Not applicable/no data available.
-  Not achieved.







Governance and programme management


	What we said we would do	What we achieved	Project Status
SHARED	Tauranga Moana Programme annual planning and reporting to council committees. BOPRC, TCC, WBOPDC.	2015/2016 annual report presented to relevant committee meetings. 2016/2017 six month report presented to relevant committee meetings. 2017/2018 annual work plan presented to relevant committee meetings.	
BOPRC	Support Tauranga Moana Advisory Group, including administering quarterly meetings (or subsequent co-governance group).	Administrative and technical support provided through meeting management, reports, guest speakers and presentations.	
BOPRC	<i>Communications Strategy implementation 2016/2017:</i> Deliver targeted communications material throughout the year as per the Communications Strategy and Plan. Respond to media and communications opportunities and issues as they arise.	All media issues and inquiries were responded to in a timely manner. The communications plan for the year was delivered and planning for the 2017/2018 year has commenced. Six E-Newsletters published.	
BOPRC	<i>Perception Survey:</i> Present the results of the Perceptions Study to Council by 30 June 2017.	The perceptions survey was not conducted this year and has been postponed until late 2017.	
BOPRC	<i>Happy Harbour Fun Day:</i> Deliver a successful Tauranga Harbour event in March 2017.	Happy Harbour Fun Day event scheduled for March was cancelled due to the weather. Looking at holding it later in 2017.	





Integrated planning and modelling

	What we said we would do	What we achieved	Project Status
SHARED	<p><i>Water supply catchment management:</i></p> <p>Ongoing work through 2016/2017. BOPRC, TCC.</p>	<p>Ongoing works in the catchment have been completed including the following:</p> <ul style="list-style-type: none"> ➤ Fencing and planting riparian margins in association with BOPRC and WBOPDC. ➤ Storm event monitoring to identify sources of high turbidity. ➤ Pest plant and animal control. ➤ No dumping areas under surveillance signage posted around particular “hot spots”. ➤ Exotic forest felling undertaken. 	
	<p><i>Tauranga Moana Inundation and Coastal Erosion:</i></p> <p>Develop a robust, peer reviewed set of harbour inundation and erosion design levels that include climate change allowances. The design levels can then be consistently applied around the harbour by all agencies. BOPRC, TCC, WBOPDC.</p>	<p>A co-funding agreement was signed by TCC, WBOPDC and BOPRC to undertake the Project.</p> <p>Discovery Marine Ltd have completed a Tauranga Moana bathymetry surface model based on existing information. This was required as key input data for the project.</p> <p>NIWA has completed the extreme sea level analysis for Tauranga Moana. This was required as key input data for the project.</p> <p>Tauranga Moana Inundation and Coastal Erosion Project awarded to Tonkin & Taylor and NIWA as a joint bid.</p> <p>An independent peer review panel has been established including experts from both the University of Waikato and the University of Auckland.</p>	
BOPRC	<p>Begin work on a co-governance document for Tauranga Moana - subject to resolution of the Tauranga Moana Framework.</p>	<p>The resolution of the Tauranga Moana Framework has been delayed. Consequently work has not begun on a co-governance document (Ngā Tai ki Mauao).</p>	
BOPRC	<p><i>Navigation Bylaw review:</i></p> <p>Review will be completed by October 2016.</p>	<p>The review was delayed as the Independent Hearing Commissioners asked for further information before completing their deliberations. The Bylaw became operative 1 July 2017.</p>	








	What we said we would do	What we achieved	Project Status
BOPRC	<p><i>Flood management on Uretara Stream, Katikati:</i></p> <p>Updated flood hazard maps and design levels for the Uretara Stream.</p>	<p>Aurecon has been engaged to assess the flood and erosion risk to properties adjacent the Uretara Stream caused by gravel, bridges and other structures and to determine the effects of the bridges and structures on the stream. Have asked Aurecon to relook at the costings to allow for some additional survey work on the newly built up area upstream of State Highway 2.</p> <p>The Gap Analysis Report has identified several key data gaps. These data gaps are:</p> <ul style="list-style-type: none"> ➤ Flow data: there is no flow gauge in the catchment. ➤ Rainfall data: there is no rainfall gauge in the catchment. ➤ Stopbank survey: some data is available but it lacks information and age is unknown. ➤ River cross section survey: some is available but it lacks information and bed has likely moved since survey was done. ➤ Survey of pond next to Rawaka Drive Bridge: not completed. ➤ River cross section survey upstream of existing survey limits: not completed. ➤ Drone survey: not completed. ➤ Outfall/outlet survey: not completed. <p>Business case for flow and rainfall gauging is currently being prepared.</p>	





	What we said we would do	What we achieved	Project Status
TCC	<p><i>Integrated Stormwater Project:</i></p> <p>Implement 'safety to persons' focussed level of service.</p>	<p>Continuation of various projects around the city to implement the 'safety to persons' focussed level of service (depth x velocity flood risk). Works are complete in Matua at one location with two further projects underway, each involving the purchase of residential land to open up constrained overland flowpaths. An outfall is under construction within the Port of Tauranga which has the potential to service three sub-catchments within the Mount North area of Mount Maunganui. To complement this, Council is working to confirm an approach for flood risk mitigation in the CBD/high density Mount north sub-catchment. Scoping studies to mitigate dxv risk are underway within priority catchments of Waimapu and Kopurererua. These studies will be completed by late 2017 and will inform the 2018/2019 financial year capital works programme. Council is also about to commence a review of the Level of Service as part of its 2018-2028 LTP process.</p>	
TCC	<p><i>Stormwater Catchment Management Plan preparation, implementation, consultation, cultural input and five yearly reviews:</i></p> <p>Finalise the draft Papamoa CMP and provide to stakeholders and BOPRC.</p> <p>Complete the Wairakei East and Wairakei West stormwater models.</p>	<p>The Wairakei East and Wairakei West stormwater models are complete and the Papamoa CMP is being finalised.</p>	

Science



	What we said we would do	What we achieved	Project Status
BOPRC	<p><i>National Environment Regional Monitoring Network (NERMN) monitoring and Tauranga Harbour Long Term Science Plan 2016/2019 delivery:</i></p> <p>All NERMN monitoring and reporting will be carried out in accordance with the current NERMN monitoring programme. Projects identified in the Tauranga Harbour Long Term Science Plan 2016/2019 will be delivered.</p>	<p>All NERMN monitoring and reporting is on track.</p> <p>Report on contaminant levels in oysters in Tauranga Harbour in 1990 and 2016 was published in August 2016.</p> <p>Final field sampling for Mobil oil spill took place in February 2017 and a report completed.</p> <p>Gaps analysis for Tauranga Harbour was published in June 2017.</p>	
BOPRC	<p><i>Relationships with research providers:</i></p> <p>In accordance with the Chair in Coastal Science Memorandum of Agreement, the University of Waikato will:</p> <ul style="list-style-type: none"> Report to BOPRC in June 2016 and June 2017 on relevant items or issues associated with the Chair, and Report in April 2017 on student research projects. 	<p>Report from Chair in Coastal Science received December 2016.</p> <p>Workshop held with key University of Waikato research staff in November 2016 to identify linkages in their research with BOPRC priorities and interests.</p>	
BOPRC	<p><i>University of Waikato PhD student funding:</i></p> <p>Deliver a progress report on all BOPRC funded research projects by 30 April 2017.</p>	<p>Two students (Alex Port and Julien Huteau) have completed their PhDs. Other students (Ben Stewart, Peter de Ruiter) are on track undertaking fieldwork in harbour. Clarrisse Niemand is still working on her thesis which is due to be completed by December 2017.</p> <p>Draft paper on submarine groundwater discharge into Tauranga Harbour received from Ben Stewart for review.</p> <p>Progress report on student research projects received April 2017.</p>	
BOPRC	<p><i>Science to support mangrove consent applications and monitoring:</i></p> <p>Ongoing work through 2016/2017.</p>	<p>Working with the Estuary Care Officer and consents team when requested to provide scientific support.</p>	
BOPRC	<p><i>Manaaki Taha Moana-MTM 2 subtidal survey of Tauranga Harbour:</i></p> <p>Deliver report and habitat map August 2017.</p>	<p>Field work has been completed. Additional survey of sub-tidal region completed in Northern Harbour with Rereatukahia and Otawhiwhi Marae. Taxonomic analysis of samples is complete. Project is on track.</p>	





	What we said we would do	What we achieved	Project Status
BOPRC	<i>Manaaki Taha Moana - MTM 2 Coastal Cultural Health Index:</i> Deliver report and Coastal Cultural Health Index 2020, progress reports yearly (first report due June 2016).	Over the past year Manaaki Te Awanui have been collaborating with various hapu to develop frameworks that emphasise Mātauranga through hapu tikanga, using the traditional concept of wananga as a method to reclaim and reframe traditional knowledge. Frameworks and processes to capture, store and disseminate traditional knowledge of the environment are in the process of being developed. Project on track.	
BOPRC	<i>State of the Environment Report and Gap Analysis for Tauranga Moana:</i> Deliver State of the Environment Report December 2017.	Tauranga Harbour Gap Analysis published June 2017. State of the Environment report currently in preparation.	




Tangata whenua engagement and involvement

	What we said we would do	What we achieved	Project Status
SHARED	<p><i>Tangata whenua involvement and capacity building:</i></p> <p>All three councils will need to ensure their relationships with tangata whenua are strong and robust so that dual roles in caring for the environment become clearly established.</p> <p>BOPRC, TCC, WBOPDC.</p>	<p>In light of the TMIC settlement not yet being settled we can only rely on the Tauranga Moana Iwi Management Plan to give us guidance on how we should be moving forward with Iwi and hapū into the post treaty landscape space.</p> <p>The development of a Cultural and Environmental Monitoring Plan for the Te Maunga Wastewater Facility is underway. This has involved input from tangata whenua and will include opportunities for capacity building and upskilling of tangata whenua in relation to monitoring (TCC).</p>	
BOPRC	<p><i>Build capacity for the use of Matauranga Maori for Tauranga Harbour:</i></p> <p>Ongoing work through 2016/2017.</p>	<p>This is still work in progress until the Matauranga Maori project is completed. The Matauranga Maori case study being done by Manaaki Te Awanui will be forerunner to build capacity here.</p>	








	What we said we would do	What we achieved	Project Status
BOPRC	<p><i>Tauranga Moana Iwi Management Plan:</i></p> <ul style="list-style-type: none"> ➤ Socialisation. ➤ Implementation. ➤ Ongoing work to support hapū/iwi through 2016/2017. 	<p>Socialisation with the three councils has been done. Unfortunately there is no further funding to socialise the plan with the individual hapū. This may have to be looked at during the implementation phase which will have to be built into our work programmes to assist this phase of the plan.</p> <p>Work with hapū/iwi is ongoing and includes:</p> <ul style="list-style-type: none"> ➤ Working with hapū on Maturanga Māori case study. ➤ Māori Policy is providing funding to Ngāi Te Rangi to implement kaitiaki roles via their Kaitiaki Forum. ➤ Support Ngā Potiki with wetland restoration in Rangataua Estuary. ➤ Support Ngāi Tamarawaho with restoration of Motuopae Island. ➤ Support seven individual Trusts to improve the land and water across the Tauranga catchments. ➤ Support SmartGrowth Combined Tangata Whenua Forum in the freshwater space and submissions. <p>Discussions have begun on aligning the 2018/2019 Tauranga Moana Annual Work Plan with the Iwi Management Plan.</p> <p>Discussions are underway with a number of marae on environmental restoration projects.</p>	
WBOPDC	<p><i>Tauranga Moana Partnership Forum:</i></p> <p>Ensure that the Tauranga Moana Partnership Forum is kept up to date with progress on the implementation of the Tauranga Harbour Programme actions and outputs for 2016/2017.</p>	<p>The new Council are reviewing options on how to best engage and involve tangata whenua in decision-making processes and to provide updates on Council activities.</p>	



	What we said we would do	What we achieved	Project Status
TCC	<p><i>Wastewater Review Committee (WWMRC):</i></p> <p>Complete review of the WWMRC structure, Environmental Mitigation and Enhancement Fund quantum and management.</p>	<p>The WWMRC have been presented options for a staged approach to biosolids management. A thickening and dewatering plant is to be constructed at Te Maunga so that waste activated sludge no longer enters Pond 1 as part of Stage 1. Stage 2 (end use of biosolids) has been put on hold due to potential legislative changes; biosolids markets changes and financial considerations. Stage 3 is being progressed. A review of the Wastewater Mitigation and Enhancement Fund quantum has been completed with \$400,000+ now available in the fund. A review of the Policy is currently underway, including the development of a Cultural and Environmental Monitoring Plan for the Te Maunga Wastewater Facility. Once the policy has been approved new funding applications will be able to be made.</p>	





Operations

	What we said we would do	What we achieved	Project Status
SHARED	<p><i>Tauranga Harbour Margins Project:</i> An additional five new Harbour Management Plans in place. BOPRC, TCC, WBOPDC.</p>	Two new Harbour Management Plans in place, in the Aongatete and Kopurererua sub-catchments.	
	<p><i>Tauranga Harbour stream works:</i> Stream bank repair and stabilisation of eroding banks undertaken as and when required within budget. BOPRC, WBOPDC.</p>	Four projects undertaken to repair and stabilise stream banks and reduce erosion risks, in the Uretara, Te Mania, Waiau and Aongatete sub-catchments.	
	<p><i>Coast care:</i> Identified priority areas are actively managed and maintained with support from coast care partners and community volunteers. BOPRC, TCC, WBOPDC.</p>	<p>The bi-annual Rapid Coastal Inventory was completed. Report on the data presented to coast care partners.</p> <p>42,767 plants were planted during the 2016/2017 season. This was achieved through 15 work bees attended by more than 350 volunteers who donated more than 660 hours to get plants in the ground. Coast care provided educational opportunities to approximately 3,000 students from 26 schools throughout the Western Bay. Tauranga Correction Department provided 7,400 hours of site preparation of planting.</p>	
	<p><i>Implement Tauranga Harbour Recreation Strategy:</i> Ongoing work throughout the year. BOPRC, TCC, WBOPDC.</p>	No meetings of the Tauranga Harbour Recreational Users Forum held.	
	<p><i>Sea lettuce management:</i> Level of response depends on the severity of the 2016/2017 bloom. Ensure contracts with clean-up contractor and receiving site operators are finalised by 30 October 2016. BOPRC, TCC WBOPDC.</p>	<p>Agreements with clean-up contractor and receiving site operator finalised on 2 November 2016.</p> <p>The 2016/2017 season saw a total of 2,235 tonnes of sea lettuce removed, all from the Fergusson Park to Kulim Park/Harbour Drive foreshore, Tauranga. Due to the large bloom in the southern harbour, budget was slightly exceeded.</p>	






	What we said we would do	What we achieved	Project Status
SHARED	<p><i>Litter clean-ups:</i> Ongoing work throughout the year. BOPRC, TCC.</p>	<p>Eight clean-ups in 2016/2017 involving 1,000 students from 11 schools collected 1,700 kg of rubbish, and diverted a further 400 kg to recycling. Events were held in: Matua, Park Vale, Maungatapu, Gate Pa, Welcome Bay, Matapihi, Mount Maunganui and Papamoa.</p>	
	<p><i>IP3 Hazardous Activities and Industries List (HAIL) activity audits:</i> Ongoing work through 2016/2017. BOPRC, TCC, WBOPDC.</p>	<p>The audits of industrial sites in the Mount industrial area were completed by summer students from BOPRC and TCC in February 2017. A total of 377 business sites were assessed, 148 sites were formally audited, 84 sites were identified as having potential pollution discharges to stormwater, with 69 sites noted for further inspection once they have made the site upgrades required to ensure there are no contaminant discharges off site. BOPRC and TCC are currently working through follow-up inspections on these 69 sites with the intention of confirming all sites have met the requirements outlined following the audits by the end of July.</p>	
	<p><i>Regional Wastewater Overflow Forum:</i> Preparation of a region specific best practice guide to encompass wastewater overflow mitigation strategies, response and reporting procedures. BOPRC, TCC, WBOPDC.</p>	<p>Members of the forum have been tasked with developing initial draft content for various sections of the best practice guide. This group did not meeting during the 2016/2017 year and needs to reconvene to review current status and future goals in order to make progress.</p>	









	What we said we would do	What we achieved	Project Status
BOPRC	<p><i>Catchment Action Plan implementation:</i></p> <p>50 additional kilometres of waterway margin in the Tauranga Harbour catchments protected to reduce sediment, nutrient and/or bacterial contamination of water.</p> <p>Two additional High Value Ecological Sites and four community led sites where biodiversity actively managed within the Tauranga Harbour Catchment.</p> <p>Review of catchment action plans complete.</p>	<p>50 additional kilometres of waterway margin protected during 2016/2017.</p> <p>One additional High Value Ecological Site and six additional community led sites actively managed.</p> <p>Review of catchment action plans has been completed. Report card on progress published: http://www.boprc.govt.nz/media/564321/3763-tga-hbr-caps-report-4-page-webv2.pdf</p> <p>Revised catchment action plans are currently being prepared.</p> <p>Care group successes include:</p> <ul style="list-style-type: none"> ➤ Waitao Landcare Group won the 2016 NZ River Story Award. The Award recognises inspirational river stories – examples of a community or an individual working hard to restore the health of their local river. ➤ The Ongare Point Waterway Restoration Group has been established and have recently planted 1,300 native plants along 800 metres of stream banks that drain into the Tauranga Harbour. It's the beginning of a project led by orchardists to improve water quality and wildlife habitat in their catchment. ➤ The Johnson Reserve Care Group came second in the Heritage and Environment category in the 2016 annual TrustPower Community Awards. 	
BOPRC	<p><i>Marine biosecurity:</i></p> <p>Continued delivery of an intensive surveillance programme through 2016/2017.</p> <p>Implementation of response plans where required.</p> <p>Implementation of the SSMP for fanworm and tunicates.</p>	<p>Intensive marina surveillance has been carried out within Tauranga Harbour. 11,524 vessel hulls, 100 km of pontoons, 560 swing moorings and associated concrete and 2,500 wharf/marina piles were checked.</p> <p>There has been an increase in the number of <i>Styela clava</i> locations being found within the harbour.</p>	





	What we said we would do	What we achieved	Project Status
BOPRC	<i>Ongoing support of the Kaimai Mamaku Catchments Forum:</i> Continued participation in the joint agency project. Continued support of the Forum.	Engaged Conroy and Donald Consultants to undertake a sustainability review of the Forum, and prepare an Operational Plan. Four workshops were held as part of this work – one with tangata whenua, two with the full forum and one specifically targeted on pest management in the Kaimais. An online survey was also undertaken to support this, and the three agencies have been working closely together to support the consultants. The work is due to be completed in July 2017 to support decisions on the way forward for the forum.	
BOPRC	<i>Ongoing estuary care group support:</i> Estuary care groups are satisfied with the level of service they receive from Council.	11 estuary care groups have been supported through leaders' forum, training, working bee support, establishing new projects, resolving estuary related queries, pest plant control, communication of information, and providing resources such as funding, equipment and pest control materials. Compliance support also provided including replacement resource consents lodged on behalf of the groups. Groups generally satisfied with level of support and have positive relationships with BOPRC. Three Estuary Care Leaders Forums held.	
BOPRC	<i>Seedling mangrove management:</i> Up to 600 ha per annum of mechanical mangrove seedling maintenance.	Hovercraft independent safety audit passed, Safe Operational Plan document (and substantial JSA) developed and approved, and Certificate of Compliance issued from Maritime New Zealand. All certification now in place for operation. BOPRC took possession of hovercraft from the manufacturers. First operational (fully certified) season commenced in the first quarter of 2017 but has been hampered by very sparse mangrove seedling growth. As a result, over half the estuaries that we had planned to mow with the hovercraft were not mown, and are being managed by other means such as working bees and contractors. The machine itself has had its share of teething problems and has required significant maintenance work. As the first operational season draws to a close a project de-brief will take place to determine next steps for the mechanical seedling maintenance project.	






	What we said we would do	What we achieved	Project Status
BOPRC	<i>Mature mangrove management:</i> Mature mechanical mangrove management as required.	Approximately 60 m ² of mature mangroves removed from Te Puna estuary. Undertaken using motorised hand held equipment.	
BOPRC	<i>Kaiate Task Force:</i> Identify and implement options to reduce bacterial contamination of the Kaiate Stream and improve the water quality to swimmable.	Task Force established to make Kaiate Falls and stream swimmable again. Scoping several potential projects.	
BOPRC	<i>Opureora Channel dredging:</i> Complete dredging by 30 June 2017.	The dredging project was delayed from starting at the originally scheduled start time. Budget money for the project was carried over into the 2017/2018 year and work is now scheduled to begin in late July 2017. Applications to extend the “works end” date in each of the two consents have been lodged to allow an extra 15 days to complete works.	
BOPRC	<i>24/7 Oil spill response and navigation safety:</i> Long Term Plan KPI: Percentage of time to maintain 24/7 response to navigational incidents and maritime oil spills is in place.	24/7 navigation safety coverage and oil spill response was achieved. 17 oil spill incidences responded to.	
BOPRC	Boat acquisition.	New Maritime oil spill vessel Awanui is operational and a blessing was held.	
BOPRC	<i>Audit on port and harbour safety management systems:</i> Audit to be completed between November 2016 - February 2017.	Successful audit conducted in December 2016.	



	What we said we would do	What we achieved	Project Status
BOPRC	<p><i>Ongoing pollution prevention work:</i> Compliance monitoring, complaint response and enforcement. Compliance and impact monitoring of sites/consents to be in accordance with the 2015/2016 Council Charges Policy. Long Term Plan KPI: All urgent complaints to the Pollution Hotline are responded to within 12 hours and all non-urgent complaints are responded to within three working days.</p>	<p>Meeting KPI requirements with consent and compliance monitoring and complaint response.</p> <p>1 July 2016 – 30 June 2017 a total of 2,744 complaints were registered over the reporting period. Of these, 1,649 were air complaints, with the remaining 1,095 being a variety of non-air complaints.</p>	
BOPRC	<p><i>Identification of discharge points proposal:</i> Recording discharge points around the harbour margin in Western Bay. Complete identification of illegal structures. Identify fish passage.</p>	<p>This project was undertaken by two summer students. The goal was to inspect every rural property bordering Tauranga Harbour from Ōmokoroa to Katikati. Due to the vast geographical area to be covered and the limited resource, the survey did not make it to Katikati. Almost all properties from Pahoia to Walker Road East (Aongatete) were visited. In total 77 previously unrecorded private drainage outlets on the harbour margins were identified and GIS plotted. Drains were measured, structures were identified and logged and fish passage was identified. After an assessment by the science team, whilst it was considered valuable information to identify the number of private drains discharging to the harbour, it was decided we need to concentrate on evaluating discharge volumes from natural waterways before assessing the impacts of discharges from man-made drains.</p>	



	What we said we would do	What we achieved	Project Status
TCC	<p><i>Wastewater consents implementation and monitoring:</i> Ongoing work through 2016/2017.</p>	<p>Wastewater consents are generally being implemented effectively.</p> <p>A requirement in the Te Maunga odour discharge consent to decommission the sludge pond within seven years of grant date (2005) has not been met. Processes are in place to address the sludge pond decommissioning through TCC's biosolids strategy. Odours are not an issue from the sludge pond itself.</p> <p>The consent condition requiring UV treatment from both plants within nine years of consent grant date (2005) has not been met. There have been delays in commissioning the Te Maunga UV plant and the plant is currently not running due to technical issues actions are being taken to resolve these issues and get the plant operational. Combined treated effluent quality discharge limits have not been exceeded.</p> <p>The five yearly wastewater review report Tangata Whenua cultural paper has been completed. Actions to resolves issues raised have been taken including the biosolids strategy and review of the wastewater enhancement fund.</p>	
TCC	<p><i>Stormwater CSC implementation and monitoring:</i> Long-term stormwater and receiving environment monitoring data for stormwater catchments across the city. Annual or five yearly monitoring reports presented to stakeholders and consenting authority from which to determine the requirement for further catchment management plans or stormwater treatment.</p>	<p>The 2016 annual monitoring report for the Comprehensive Stormwater Consents has been completed and submitted to BOPRC. An updated monitoring plan is currently being developed - this will encompass monitoring requirements for the three CSC's.</p>	
TCC	<p><i>Wastewater inflow and infiltration mitigation:</i> Ongoing work through 2016/2017.</p>	<p>Flow modelling was carried for all of the critical wastewater pump stations within TCC's network. This was completed for one year events to assess the level of inflow and infiltration within the catchments.</p> <p>Inflow source detection work has been completed in Ngatai Road, Meadowland, Palm Beach and Solomon Street catchments and rehabilitation works are being carried out. 13 kms of wastewater pipelines, in five catchments across the city were CCTV surveyed. 150 wastewater manholes in Welcome Bay and Meadowland and Judea catchments were inspected to assess for potential stormwater infiltration.</p>	





	What we said we would do	What we achieved	Project Status
TCC	<p><i>Wastewater overflow mitigation planning:</i> Ongoing work through 2016/2017.</p>	<p>Overflow mitigation planning is ongoing through identification of problem areas, network inspections, network upgrades, jetting, root removal and relining. Fats accumulating in lines continues to be an issue. Educational signage on 'what not to flush' is in place in three locations around the city. The Te Maunga receiving chamber upgrade and aeration ditch aeration capacity upgrade are complete ahead of Southern Pipeline commissioning in late 2017. The harbour crossing and the paper road sections of the pipeline remain to be completed.</p>	
TCC	<p><i>Three Waters Education Programme:</i> Ongoing work through 2016/2017.</p>	<p>The Waterline schools programme has been presented to approximately 60 classes in 13 schools for 2017. There are a further 11 schools scheduled for the remainder of 2017. The Great Waste Race will be delivered to approximately 28 kindergarten classes for 2017.</p>	
TCC	<p><i>Pollution Prevention Programme:</i> Completion of industry or area specific audit reports summarising the outcome of audits, issues identified and sites for referral to BOPRC for consent consideration and/or enforcement. Urgent pollution incidents must be attended within 1 hour (Maintenance contractors KPI).</p>	<p>TCC and BOPRC undertook stormwater pollution prevention audits in the Mount Maunganui industrial catchment over January/ February 2017. Over 350 sites were assessed with 150 sites formally audited. 69 sites were given recommendations that required follow-up. That review is currently underway.</p> <p>The Great Waste Race visited 35 kindergartens and early childhood centres during 2016/2017. The GWR teaches children about the best way to reuse and recycle various common waste products as well as the difference between stormwater and wastewater drains.</p> <p>500 entries were received in the Octobers "Don't Paint the Drain" competition held throughout Tauranga and the Western Bay in participating paint stores. Winners received paint vouchers and swim with the dolphin passes.</p> <p>TCC responded to 92 pollution incidents between the beginning of July 2016 and the end of June 2017. Issues included: dumping, vehicle washing, discharges of concrete slurry and paint, as well as tracking and spills from vehicles.</p>	



	What we said we would do	What we achieved	Project Status
TCC	<p><i>Harbour margin parks ecological restoration:</i> Harbour reserve development.</p> <p>Compliance and impact monitoring of sites/activity to be in accordance with City Plan and restoration plans for each site.</p>	<p>Sea wall renewal work at Maxwell's Road and Memorial Park completed. Planting of native plants is being carried out as per the planting plans for the following areas: Matua saltmarsh, Waikareao West, McArdle's Bush, Waimapu Fraser Street to Yatton Park.</p> <p>Compliance monitoring is ongoing. There are currently no significant non-compliance issues being addressed.</p>	
TCC	<p><i>Beach sand nourishment:</i> Compliance and impact monitoring of sites/activity to be in accordance with consent.</p>	<p>TCC has been granted consent to allow for beach nourishment to raise sand levels in the following areas – Memorial Park, Fergusson Park to Kulim Park and Maxwell's Road.</p>	
WBOPDC	<p><i>Ongare wastewater scheme:</i> Reticulated community system by 2017.</p>	<p>Land secured for treatment plant site. PDP Consultants have been engaged to undertake final design review and resource consent application. The resource consent has been lodged with the Regional Council.</p> <p>A public meeting was held late July to update the community and to receive any feedback. Queries relating to costings have been raised and will be clarified by staff.</p>	
WBOPDC	<p><i>Te Puna West wastewater scheme:</i> Reticulated community system by 2017.</p>	<p>A public meeting was held with the landowners in early May.</p> <p>The sewer main is effectively completed and the next stage of entering into private property to install grinder pump chambers and connection to the sewer main is underway. Work will also commence on connecting the sewer main to the Omokoroa to Tauranga transfer pipe.</p>	
WBOPDC	<p><i>Katikati wastewater treatment investigations:</i> Re-consenting of the pipeline and outfall by November 2016.</p>	<p>Resource consent application lodged with BOPRC. We have one potential party that has lodged an appeal to the resource consent application. Utilities Manager has met with the party, tried to reach conciliation, unfortunately party has linked the resource consent application with his own land ownership. Potential development has been restricted through the planning process. The matter is unresolved and it likely that this party will attend the hearing. A working group has been formed which includes tangata whenua, councillors and community board representatives. The group will meet on a regular basis to assess the various long term options available.</p>	



	What we said we would do	What we achieved	Project Status
WBOPDC	<i>District-wide fencing subsidies:</i> Ongoing work through 2016/2017.	Funds allocated as per signed management plans.	
WBOPDC	<i>District wide natural environment support (care groups etc.):</i> Ongoing work through 2016/2017.	Care groups continue to be supported. Allocated as per guidelines, includes minor sponsorship for Sustainable Backyards and Trust set up costs for Bay Conservation.	



Financials

Bay of Plenty Regional Council Budget	2016/17 Budget	2016/17 Actual
Maritime	\$847,569	\$774,495
Tauranga Catchments	\$2,470,000	\$2,852,800
Integrated planning and Tangata Whenua engagement and involvement	\$140,000	\$39,090
Engineering	\$120,000	\$57,139
Pollution Prevention	\$490,000	\$286,830
Science	\$454,070	\$372,567
Marine Biosecurity	\$109,459	\$177,003
Total	\$4,631,098	\$4,559,922

Tauranga City Council Budget	2016/17 Budget	2016/17 Actual
Recreation and Natural Environmental	\$247,060	\$195,137
Stormwater Pollution Prevention	\$725,848	\$889,713
Wastewater Effects Mitigation	\$25,537,237	\$18,543,482
Integrated Stormwater Project	\$8,200,000	\$6,600,000
Tauranga Harbour Inundation and Coastal Erosion	\$100,000	\$200,000
Total	\$34,810,145	\$26,428,332

Western Bay of Plenty District Council Budget	2016/17 Budget	2016/17 Actual
District Wide Fencing Subsidies and District Wide Natural Environmental Support	\$90,500	\$96,104
Tauranga Catchments Contribution (Coast Care, HMP's, Stream Works and Inundation and Coastal Erosion)	\$365,000	\$139,082
Te Puna West Wastewater Scheme	\$2,600,000	\$250,454
Ongare Wastewater Scheme	\$50,000	\$140,386
Total	\$3,150,500	\$626,026

Appendix Two

Tauranga Moana Programme Programme Dashboard November 2017



Tauranga Moana Dashboard November 2017

Programme Manager		Sarah Omundsen		As of meeting	Nov-17	Green		
Project Sponsor		Chris Ingle		Previous RAG status	Aug-17	Green		
Category	Previous RAG Status	RAG Status Current	Comment on any RAG where status is not Green.					<ul style="list-style-type: none">9km of waterway margins protected, 30 hectares of steep land retired and 11 new Environmental Programmes signed up with landowners to protect water quality and biodiversity to date.Deployment of five pressure sensors in to collect calibration data for the harbour inundation modelling.Kaimai Mamaku Catchment Forum "next steps" workshop took place 6 October at ASB Arena with 55 people attending.Opureora Channel maintenance dredging is complete. Monitoring will continue.Annual Review of the hovercraft safe operational plan completed.Approximately 400 entries received for the Don't Paint the Drain competition. Prizes included paint vouchers from Resene and Dulux along with passes to swim with the dolphins.
Overall	Green	Green						
Schedule	Green	Green						
Scope	Green	Green						
Resources	Green	Green						
Budget	Green	Green						
No. Annual Work Plan Projects 2017/18							Programme Progress	
SHARED					Scope	Budget	Schedule	<ul style="list-style-type: none">Te Runganga o Ngāi Te Rangi Iwi Trust Rangatahi Wānanga (youth conference) took place. The wananga is focused on encouraging young maori to connect with their environment.Estuary Care Leaders Forum held.The Flaxroots Inter-agency Environmental Care Group Forum have expanded to include Landcare Trust, Bay Conservation Alliance DOC, BOPRC, TCC, WBOPDC, Volunteers BOP, Envirohub.All large scale earthworks are back in action after the winter shut down, full time compliance is being given to all sites.Work on the Southern Pipeline is entering the final stage. It is expected the pipeline will be fully operational by December 2017. During the reaming phase a piece of totara wood was discovered and carbon dated approximately 51,000 years old.Coast Care planting has wrapped up for the season. The season saw 39,000 plants planted, 3,200 volunteers donated their time equating to 9,200 hours.A university student undertook a water quality study on industrial discharge on Maleme Street drains. Report is due mid NovemberTwo sea lettuce clean-ups undertaken outside of the official sea lettuce season. Contract negotiations have started for 2017/18 season.Removal of two vessels undertaken in Pilot Bay. Both vessels were disposed of; 182 maritime service requests received. 283 calls received to the Harbourmaster hotline.Project brief prepared for the cross section and structures survey for Uretara Stream project.WBOPDC are contributing \$10,000 annually over the next three years towards a University of Waikato Doctoral Research Project on Omokoroa's geology centred on soil stabilisation.July to October 2017 has seen 352,747,729 litres of oil transferred at the port.Estuary litter clean-ups undertaken at Waimapu and Welcome Bay involving over 350 students, parents and teachers from Welcome Bay and Bellevue school. Collectively over 350kg of rubbish and recycling was removed.24 dairy inspections undertaken in the Tauranga Catchments.
1	Katikati Hills to the Ocean – H2O Improvement Project				Green	Green	Green	
2	Tauranga Moana Annual Work Plan 2018/19				Green	Green	Green	
3	Tauranga Harbour Inundation and Coastal Erosion				Green	Green	Green	
4	Tauranga Harbour Margins Project				Green	Green	Green	
5	Sea Lettuce Management				Green	Green	Green	
6	Litter Clean-ups				Green	Green	Green	
7	IP3 HAIL Audits				Green	Green	Green	
BAY OF PLENTY REGIONAL COUNCIL					Scope	Budget	Schedule	<ul style="list-style-type: none">Happy Harbour Fun day preparations for 3 March 2018 event.Continued monitoring of discharges to the harbour resulting from shipping activity and on-port activity will be increased due to recent discharge incidents.Preparing a detailed Annual Work Plan for H2O Improvement Project to confirm funding from MfE.Cycleway construction continues.Te Puna Estuary Managers working bee (Jess Road inlet) talking place mid November. Significant progress as this group has been dormant.Hovercraft annual and 100 hour servicing to be undertaken. Specialist is flying up from Christchurch to carry out the works.Variation to hovercraft resource consent being sought. This is to improve operational efficiency.Summer maritime patrol commence.Management options recommended by the Kaiate Task Force go to the Executive Leadership team.Preparing a business case for flow and rainfall gauging for the Uretara Stream project.Litter clean up events taking place at Memorial Park and Jones and Wylie Street.
1	Matauranga Māori for Tauranga Harbour capacity building				Green	Green	Green	
2	Manaaki Taha Moana MTM 2 sub tidal survey of Tauranga Harbour				Green	Green	Green	
3	Manaaki Taha Moana MTM 2 Coastal Cultural Health Index				Green	Green	Amber	
4	State of the Environment Report				Green	Green	Green	
5	Kaiate Task Force				Green	Green	Green	
6	Kaimai Mamaku Catchments Forum				Green	Green	Green	
7	Seedling mangrove management				Green	Green	Green	
8	Opureora Channel Dredging				Please select	Please select	Please select	
9	Audit of mangrove distribution/associated issue for tangata whenua				Green	Green	Green	
10	Audit on Port and Harbour Safety Management systems				Green	Green	Green	
11	Flood modelling Uretara Stream, Katikati				Green	Green	Green	
TAURANGA CITY COUNCIL					Scope	Budget	Schedule	<ul style="list-style-type: none">Happy Harbour Fun day preparations for 3 March 2018 event.Continued monitoring of discharges to the harbour resulting from shipping activity and on-port activity will be increased due to recent discharge incidents.Preparing a detailed Annual Work Plan for H2O Improvement Project to confirm funding from MfE.Cycleway construction continues.Te Puna Estuary Managers working bee (Jess Road inlet) talking place mid November. Significant progress as this group has been dormant.Hovercraft annual and 100 hour servicing to be undertaken. Specialist is flying up from Christchurch to carry out the works.Variation to hovercraft resource consent being sought. This is to improve operational efficiency.Summer maritime patrol commence.Management options recommended by the Kaiate Task Force go to the Executive Leadership team.Preparing a business case for flow and rainfall gauging for the Uretara Stream project.Litter clean up events taking place at Memorial Park and Jones and Wylie Street.
1	Integrated Stormwater Project				Green	Green	Green	
2	Environmental Strategy				Green	Green	Green	
3	Wastewater Management				Green	Green	Green	
4	Stormwater Management				Green	Green	Green	
5	Beaches Bylaw Review				Green	Green	Green	
WESTERN BAY OF PLENTY DISTRICT COUNCIL					Scope	Budget	Schedule	
1	Ongare Wastewater Scheme				Green	Green	Green	
2	Te Puna West Wastewater Scheme				Green	Green	Green	
3	Cycleway				Green	Green	Green	