



Tauranga Moana Programme

Annual Report 2017/2018



Tauranga Moana Programme Highlights

2017/18



Approximately **3000 people** attended the Happy Harbour Fun Day



45 kindergartens participated in the Great Waste Race



1000kg of rubbish collected during **7 clean-ups** involving **700 + students** from **8 schools**. **200kg** was recycled



24 harbour wardens supported to educate boaties and enforce bylaws



18.5 km of wastewater pipelines across the city were CCTV surveyed



217 rat traps given out for Predator Free



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



80 pollution audits of industrial business and sites



26 new Environmental Management Plans implemented with landowners to improve water quality and wildlife habitat, with a total of **119 plans in place**



Additional 35 km of river and stream margins protected from stock



1153 consented activity inspections undertaken and **1582 service requests** responded to



31,000 native coastal dune plants planted, using **4,200 volunteer hours**, including **3,200 hours** volunteered by school students



16 popular swimming sites monitored for unsafe bacteria levels during summer



4,149 users recorded at Kaiate Falls during May and June



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



635 maritime call centre calls received



340 tonnes of sea lettuce removed from Tauranga Harbour beaches



731 new followers in 3 months for Coast Care's new Facebook page



12 Media inquiries answered



9 commercial licences issued



2,940m³ of beach sand renourishment at Maxwell's Reserve and Pilot Bay beaches



6 abandoned vessels disposed of



56 aquatic events managed



Summer season saw **4161 interactions**, **203 breaches issued** and **55 infringements issued** to boaties



425 navigation aids maintained



20 oil spill incidences responded to



43 maritime signs maintained



3144 vessel hulls, **100 km of pontoons**, **560 swing moorings** and associated concrete and **2,500 wharf/marina piles** were checked for marine pests



365 moorings administered

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, pollution prevention, 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 Tauranga Moana 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.

This vision and outcomes were developed following community feedback received in a 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 Te Awanui Tauranga Harbour Advisory Group meeting was held on 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.

2017/2018 project highlights

Infrastructure	<ul style="list-style-type: none"> ➤ Te Puna West Wastewater Scheme is complete and operational. ➤ Opureora and Ōmokoroa boat ramps upgraded. ➤ Consents obtained for three cycleway bridges as part of WBOPDC's Ōmokoroa to Tauranga Cycle Trail project. ➤ TCC's five yearly comprehensive stormwater consents report completed.
Integrated planning and modelling	<ul style="list-style-type: none"> ➤ Vandalised emergency response and awareness signage replaced on stream crossings across the catchment. ➤ Forestry operations carried out. The areas are being returned to native bush. ➤ Tauranga Harbour Inundation and Coastal Erosion final report is due late August with an expected release date of September. ➤ Flood mitigation works at Nikau Crescent/Port of Tauranga are complete. ➤ Survey works for the Uretara Stream flood management model have been completed. ➤ Phase one of TCC's Environment Strategy has been completed. Phase two, development of the strategy, is well underway.
Governance, tangata whenua engagement and involvement and programme management	<ul style="list-style-type: none"> ➤ Te Mana o Te Wai workshop held with Tauranga Moana Advisory Group members. ➤ Successful Happy Harbour Fun Day event held 3 March with approximately 3,000 people attending. ➤ BOPRC's He Korowai Matauranga draft framework was approved by Komiti Māori. ➤ 2018 Perception Survey completed. ➤ Working in partnership with iwi and hapū on the State of the Environment Report. ➤ 2016/17 Tauranga Moana Programme Annual Report presented to relevant committees.
Maritime	<ul style="list-style-type: none"> ➤ Port and Harbour Safety Management systems audit completed August 2017. ➤ 20 spill incidents have been reported to Maritime New Zealand. 24/7 response to navigational incidents and maritime oil spills has been achieved to date. ➤ Jet ski owners are now required to register their vessels. ➤ Busy summer season saw 4,161 interactions, 203 breaches issued and 55 infringements.



Science

- Technical reports on the State of the Environment indicators for estuarine areas and Tauranga Harbour Catchment have been completed.
- Chair in Coastal Science Report received July 2017.
- Manaaki Taha Moana Subtidal Survey of Tauranga Harbour report has been completed.
- Approved funding for four more Tauranga Harbour student research projects looking at: benthic primary production and sediment nutrient fluxes, horse mussel habitats, effects of swan grazing on seagrass, dynamics of sediments and nutrients in low land river reaches.
- Progress reports for BOPRC funded research projects have been provided.

Catchment, parks and recreation

- Opureora Channel Dredging Project completed October 2017. Spit disposal sites have been successfully rehabilitated.
- One new Harbour Management Plan in place at Kauri Point.
- Five streambank repairs undertaken in the Waitekohe, Tuapiro, Uretara, Waiorohe and Tuapiro sub-catchments.
- Coast Care has planted more than 31,000 plants using more than 4,200 volunteer hours, including more than 3,200 hours volunteered by school students.
- Six sea lettuce clean-ups undertaken during the reporting period resulting in 340 tonnes of sea lettuce collected.
- Track counter at Kaiate Falls recorded 4,149 users over a two month period.
- Hovercraft's first operational season was completed July 2017. Four estuaries mown. Very sparse mangrove seedling growth during the season.
- Audit of mangrove distribution and associated issues for tangata whenua project has commenced with engagement being undertaken.
- Predator Free Bay of Plenty was launched in Matua and Merivale in March 2018. To date, 217 traps have been given out within Tauranga City.
- Intensive sampling is undertaken for the Kaiate Falls and the Uretara water quality investigation projects.
- Three Estuary Care Leaders Forums held to support Estuary Care Groups.
- Three rounds of marine biosecurity surveillance undertaken. 3,144 boat hulls inspected; Mediterranean fanworm was found at 18 sites, *Styela clava* was found at 46 sites. Under SSMP's, four vessels were hauled out of the water and pests removed, 200 crab traps set to detect Asian paddle crabs.
- Kaimai Mamaku Catchments Forum Workshop held on 6 October at ASB Arena and attended by 55 people. A Pest Control Plan for the Kaimai Mamaku has been developed and will be presented to the full forum.
- 35 kilometres of waterway margins protected, 108 ha of land use change and 26 new Environmental Programmes signed up with landowners to protect water quality and biodiversity.
- Omanawa Stream won an award for the most improved river at the New Zealand River Awards.



Regulatory Compliance

- Maleme Street drain discharge water quality study completed. The sampling shows degraded water quality is apparent as the water flows towards the Waimapu Stream.
- HAIL audits carried out in the industrial areas of Greerton and Judea. 80 business premises fully audited. As a result, four businesses were issued immediate notices to either cease an activity, instigate immediate behaviour change or alter the layout of their site.
- 1,153 consented activity inspections were carried out and 1,582 service requests (complaints) were dealt with by TCC and BOPRC during the reporting period.
- The UV Plant at Te Maunga has been online since September 2017 but has experienced a number of technical issues requiring maintenance and repairs.
- The Southern Pipeline Wastewater Project has experienced challenges and is tracking behind schedule.
- 18.5 km of wastewater pipeline across the city were CCTV surveyed for maintenance, renewal and condition assessments.
- Waterline Programme delivered educational lessons on the Three Waters to 15 schools involving 1,850 students. The Great Waste Race was delivered to 45 kindergarten classes.
- 16 schools attended TCC activities at the Hands on Water Expo.
- Water restrictions in the city were enforced during December to February. During this time, 79 people were spoken to.
- 400 plus 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.
- As part of the TCC beach re-nourishment project, 2,300 m³ of sand was added to Maxwell’s Road Reserve and 640 m³ of sand added to Pilot Bay beaches.
- 85 m of sea walls were repaired at Eighteenth Avenue and Shaw Place.
- Seven litter clean-up events held around Tauranga City involving over 700 school students from eight schools. 100 kg of rubbish was cleared with 200 kg diverted for recycling.

Tauranga Harbour and catchment environmental monitoring

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



Freshwater quality

Water quality data was collected at 18 freshwater stream sites in 2017 within the Tauranga Harbour Catchment. Trends for the last 10 years of data 2008 - 2017 have been analysed and compared to the National Objectives Framework (NOF) set out in the National Policy Statement for Freshwater Management (NPSFW). This defines thresholds for water quality attributes, ranked into four bands (A/good – D/poor) which effectively set national bottom lines for water quality.

All of the 18 sites monitored for nutrients were graded 'A' or 'B' band for nitrate and ammoniacal-nitrogen. Improving trends in nitrate-nitrogen were observed at two sites (Waiau at Road Ford and Wairoa at SH 2 Bridge), and ammoniacal-nitrogen at two sites (Omanawa at SH 29, Te Mania at SH 2). No significant declining trends were detected over this period.

Temperature influences water composition, such as DO and nitrogen, and also causes thermal stress to aquatic organisms. Three sites were graded using continuous water quality data over the summer period and compared to the NPS-FW NOF attribute. Two sites were graded 'B' (Wairoa River above Ruahihi and Kaiate Stream) for water temperature, and the Te Mania at SH 2 was graded 'C' band.

Recreational water Quality

Six popular river swimming spots were monitored over the 2017/2018 bathing season. Tuapiro Stream at McMillan Road, McLarens Falls, and Wairoa at SH 2 all rated a 'B' band based on the NPSFW E.coli attribute. 'B' indicates the waters are suitable for recreational use most of the time with a lower risk of infection from faecal derived pathogens. The Kopererua Stream at McCords is provisionally graded as 'C' band.

Swimming water quality of streams continues to be poor for two river sites; Kaiate Falls and the Uretara at Henry Road Ford. Both rated a 'D' band based on the NPSFW's E.coli attribute. 'D' band indicates a higher risk of infection from faecal derived pathogens and may not be appropriate for full emersion recreational activities. Both catchments have had surveys undertaken to identify sources of faecal contamination, with results indicating a variety of sources.

Swimming water quality was generally good for 10 marine swimming sites in Tauranga Harbour, with sites safe for swimming most of the time. Indicator bacteria levels never reached red alert mode threshold for any of the sites. Orange alert levels were reached at a number of sites with the most being at Waimapu Bridge (13% of samples), followed by Pahoia Beach (9% of samples).

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 sites, but generally stable over time.

Of the 32 sites that were examined, 25% (or nine sites) were rated as excellent for stream health as measured using invertebrates, around 15% of sites were rated as either good or fair, and 44% (14 sites) were rated as poor. Of 231 sites where historic fish surveys had been done, only 16% (or 36 sites) were assessed as having fish communities in "excellent" condition, while 25% (58 sites) were good, 28% (65 sites) moderate and 31% (71 sites) in poor condition.



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-estuarywater-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.
- An updated analysis of estuarine water quality and trends will be undertaken in the next year.
- Water quality requirements for shellfish were tested at four sites over the 2017/18 summer period in the harbour and none exceeded the dual guideline levels for quality of shellfish gathering waters. However Anzac Bay water exceeded the median threshold. High counts often occurring after heavy rain events, which highlights that shellfish gathering should be avoided at these times.

Harbour ecology

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

Between 1959 and 2011, seagrass beds have decreased over the whole harbour by 38%, with the greatest decrease observed in the sub-estuaries and southern harbour. Sediment inflows are likely to be the main stressor.

Mangroves have increased in extent in Tauranga Harbour as a natural response to climate warming and sedimentation. Between 1943 and 2011, mangrove extents increased from 240 - 811 ha.

Sea lettuce (*Ulva* spp.) has caused ecologically damaging blooms in Tauranga Harbour. Abundance is highly variable with strong correlation between blooms and periods of strong westerly winds, inducing coastal upwelling with associated nutrients and cooler waters. Since 2010, abundance of sea lettuce has been close to or below average with none of the large blooms seen in the 1990s.

Harbour sediment and contaminant trends

Estuaries are very sensitive to sediment and contaminant inputs. In Tauranga Harbour, contaminant levels (PAHs and metals) are often in a Moderate to Poor state where there are localised impacts at point source discharges of stormwater.



However, outside these localised discharge points, levels tend to be low with 65 sites monitored for metals being in a Very Good to Good state with levels below the ANZECC low guideline values.

Many of the sheltered sub-estuaries around Tauranga Harbour have high sediment loads, causing a decline in health of harbour ecology. This is shown by 65 sites that are predominantly located in the sub-estuaries and at which the mud content is measured.

Of these sites, 1.5% (1) are in very good condition, 11 (17%) are in good condition, 26 (40%) are in a fair condition and 27 (42%) are in a poor state. In the open areas of Tauranga Harbour, sediments are generally in a healthy sandy (very good) state.

Groundwater and geothermal resources

An updated TOUGH2 model was developed in 2017 for the Tauranga Geothermal System, this model is currently under external review to assess its suitability to provide direction for the management of geothermal groundwater.

An updated MOFDFLOW model is needed to understand the groundwater systems in the Tauranga WMA and to understand the interaction of the warm waters in the system. This model is likely scheduled for development in 2019.



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 sections provide a report on achievements for the period July 2017–June 2018 against actions proposed in the Tauranga Moana Annual Work Plan 2017/2018. The programme is broken into four areas of focus:

- 1 Governance, tangata whenua engagement and involvement and programme management.
- 2 Integrated planning and modelling.
- 3 Science.
- 4 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, tangata whenua engagement and involvement and programme management

	What we said we would do	What we achieved	Project status
SHARED	Tauranga Moana Programme 2016/2017 Annual Report and Highlights summary. BOPRC, TCC, WBOPDC.	2016/2017 annual report presented to relevant committee meetings.	
SHARED	Tauranga Moana Programme Annual Work Plan 2018/2019. BOPRC, TCC, WBOPDC.	2018/2019 Annual Work Plan will be presented to relevant committee meetings.	
SHARED	State of the Moana Programme – Phase one.	This project is being integrated with the State of the Environment Project.	
SHARED	Tangata whenua involvement and capacity building. BOPRC, TCC, WBOPDC.	Working with Iwi and hapū as a partnership on the State of the Environment Report (SoE). Focusing on tangata whenua relationships in relation to management of the three waters areas.	
BOPRC	Support Tauranga Moana Advisory Group (or subsequent co-governance group).	Administrative and technical support provided through meeting management, reports, guest speakers, presentations and workshops. Te Mana o Te Wai Workshop held with Advisory Group members with guest presenter Tina Porou.	






	What we said we would do	What we achieved	Project status
BOPRC	<p>Communications Strategy implementation 2017/2018:</p> <p>Deliver targeted communications material throughout the year as per the Communications Strategy and Plan.</p> <p>Respond to media and communications opportunities and issues as they arise.</p>	<p>A communications strategy was created and implemented, delivering targeted content in the form of digital content (website/videos), dialogue through social media channels and also through proactive and responsive media opportunities.</p> <p>Website visits: 6,646.</p> <p>Most popular page: bar cams and crossings.</p> <p>Average time: on harbour related pages, 1:25 minutes.</p> <p>Insight: Website overall traffic continues to sit at the same number of views as previous years even though we now rely more on social media to share information. Bar cams and crossings are still the most popular pages.</p> <p>The average time on the website dropped from 2:05 to 1:25 minutes, this could be due to simplifying the content and making it easier to find information.</p> <p>Media coverage: There is a lot of interest in Tauranga Moana related stories with issues such as Asian Paddle Crabs picking up national interest.</p> <p>The most media interest was around the dead crabs and wildlife washing up after the storms in February/March and Asian Paddle Crabs. The least popular were Coast Care with media releases rarely being picked up.</p> <p>Facebook: Facebook is now our main channel for engaging with our community. Boosting posts has allowed us to better target posts to the desired audience. As a result we are reaching more people and fostering more positive interactions.</p>	



BOPRC	<p>Perception Survey:</p> <p>Present the results of the Perceptions Study to Council by 30 June 2018.</p>	<p>Perception survey has been completed and finding presented to relevant groups.</p>	
BOPRC	<p>Happy Harbour Fun Day:</p> <p>Deliver a successful Tauranga Harbour event.</p>	<p>Successful Happy Harbour Fun Day event held 3 March with approximately 3000 people attending.</p>	
BOPRC	<p>Build capacity for the use of Matauranga Māori for Tauranga Moana</p>	<p>He Korowai Matauranga draft framework was approved by Komiti Māori in February. Implementation planning is being worked through and is expected the implementation phase will take approximately 12 months.</p>	
BOPRC	<p>Tauranga Moana Iwi Management Plan:</p> <p>Socialisation.</p> <p>Implementation.</p>	<p>A key focus has been supporting iwi with their State of the Moana actions from their management plan.</p>	





Integrated planning and modelling

	What we said we would do	What we achieved	Project status
SHARED	<p>Water supply catchment management:</p> <p>Ongoing work through 2016/2017.</p> <p>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. Monitoring undertaken to manage acute, chronic and potential sources of pollution/contamination. 2017/2018 harvest operations carried out. The areas are being returned to native bush. Vandalised emergency response and awareness signage replaced on stream crossings. 	
SHARED	<p>Tauranga Harbour Inundation and Coastal Erosion:</p> <p>The outcome will be 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.</p> <p>BOPRC, TCC, WBOPDC.</p>	<p>The final report is due late August with an expected release date in September. A joint communications plan has been completed to have consistent and aligned messaging amongst the three councils.</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.</p>	








	What we said we would do	What we achieved	Project status
BOPRC	Region wide planning projects.	<p>The majority of the Regional Coastal Environment Plan (RCEP) plan is operational with final appeals to be resolved through the Court.</p> <p>Plan Change 9 (Water Allocation) - hearings have been held. Decisions are due August 2018.</p> <p>Plan Change 11 (Geothermal) – development is progressing.</p> <p>Plan Change 13 (Air) – the proposed Plan Change has been notified and submissions received.</p> <p>Plan Change 14 (OSET) – a Draft Plan Change is being released for community consultation in July.</p>	
BOPRC	Freshwater Futures – Tauranga Harbour Water Management Area.	<p>Building an information base for the Water Management Area including community/iwi/hapū freshwater issues and values, social profile, resource use statistics, economic value of water dependent industries and current water quality and quantity state.</p> <p>Workshop held in May with the Tauranga Moana Advisory Group members on Te Mana o te Wai and Māori rights and interests in fresh water.</p>	
BOPRC	<p>Flood management on Uretara Stream, Katikati:</p> <p>Updated flood hazard maps and design levels for the Uretara Stream.</p>	Field work has been completed and the data sent to the modelling company.	






	What we said we would do	What we achieved	Project status
TCC	<p>Integrated Stormwater Project:</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).</p> <p>Works are complete in Matua at two locations with one further project underway, each involving the purchase of residential land to open up constrained overland flow paths.</p> <p>Depth x velocity flood mitigation scoping studies are also underway at 20 locations in the Waimapu, Kopurererua, Central Business District, Greerton, Welcome Bay and Kaitemako Catchments.</p> <p>Outlet and pipeline upgrade works at Nikau Crescent/Port of Tauranga for flood mitigation of Mount North Catchments are complete.</p>	
TCC	<p>Environment Strategy</p>	<p>The Project has four main phases. Phase one of the project is complete. As an output, a document titled "Background Information for the Tauranga Environment Strategy" was publically released.</p> <p>Phase two, developing the strategy is well underway with a vision and outcomes developed along with targets and measures.</p>	

Science

	What we said we would do	What we achieved	Project status
BOPRC	<p>State of the Environment Report:</p> <p>Deliver a technical report on selection and calculation of SoE indicators for estuarine areas by 31 July 2017. Deliver a technical report on selection and calculation of SoE indicators for Tauranga Harbour Catchment areas by 30 November 2017. Deliver SoE report by 30 June 2018.</p>	<p>Technical reports on State of the Environment indicators for estuarine areas and Tauranga Harbour Catchment have been completed.</p> <p>Undertaking a reviewing of the document to improve the readability and create a narrative that weaves the cultural and scientific aspects together in an engaging and understandable way.</p>	
BOPRC	<p>Relationships with research providers:</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 2018 on relevant items or issues associated with the chair. 	<p>This report has been requested and is being prepared for 2018.</p> <p>Report provided July 2017.</p>	
BOPRC	<p>University of Waikato PhD student funding:</p> <p>Deliver a progress report on all BOPRC funded research projects by 30 April 2018.</p>	<p>Progress reports provided by University of Waikato PhD students.</p> <ul style="list-style-type: none"> Sediment connectivity in Tauranga Harbour (Peter de Ruiter). Submarine groundwater discharge (Ben Stewart). Macroalgal Mats and Benthic Communities in Tauranga Harbour (Clarisse Neimand) PhD thesis submitted for examination. 	
BOPRC	<p>Manaaki Taha Moana-MTM 2 subtidal survey of Tauranga Harbour:</p> <p>Deliver a full peer reviewed report and habitat map on completion.</p>	<p>Report has been completed. Waiting for sign off prior to final delivery.</p>	
BOPRC	<p>Manaaki Te Awanui – MTM Coastal Cultural Health Index:</p> <p>Deliver report and Coastal Cultural Health Index 2020, progress reports yearly (June 2018).</p>	<p>Progress report has been prepared and next due in June 2019.</p>	






Operations

	What we said we would do	What we achieved	Project status
SHARED	<p>Tauranga Harbour Margins Project:</p> <p>An additional five new Harbour Management Plans in place.</p> <p>BOPRC, TCC, WBOPDC.</p>	<p>One new Harbour Management Plan in place at Kauri Point.</p>	
SHARED	<p>Tauranga Harbour Stream Works:</p> <p>Stream bank repair and stabilisation of eroding banks undertaken as and when required within budget.</p> <p>BOPRC, WBOPDC.</p>	<p>Five stream bank repairs undertaken in the Waitekohe, Tuapiro, Uretara, Waioerohe and Tuapiro sub-catchments.</p>	
SHARED	<p>Coast care:</p> <p>Identified priority areas are actively managed and maintained with support from Coast Care partners and community volunteers.</p> <p>BOPRC, TCC, WBOPDC.</p>	<p>In the Tauranga Catchments, Coast Care planted more than 31,000 plants using more than 4,200 volunteer hours. This included more than 3,200 hours volunteered by school students. Coast Care has featured in media articles recently and has had Facebook growth of around 100 likes per month.</p>	





SHARED	<p>Sea lettuce management:</p> <p>Level of response depends on the severity of the 2017/2018 bloom.</p> <p>Ensure contracts with clean-up contractor and receiving site operators are finalised by 30 October 2017.</p> <p>BOPRC, TCC WBOPDC.</p>	<p>Agreements with clean-up contractor and receiving site operator finalised in November 2017.</p> <p>A total of six separate clean-ups were carried out in the period resulting in 340 tonnes collected. Three of these were at Pahoia, one at Ongare Point and two on the Kulim Park – Fergusson Park foreshore, Matua.</p> <p>Tauranga Harbour water temperatures were several degrees warmer than usual right through winter, spring and summer 2017/2018. While we cannot directly attribute cause and effect, these warmer temperatures most likely caused the patterns in sea lettuce growth recorded over the past year. The bloom “season” occurred several months earlier than usual before water temperatures continued to increase and likely got too warm for sea lettuce in mid-late December, causing growth to taper off in late December–early January. The warmer winter water temperatures were also the likely cause of an extensive bloom through the Matahui to Ōmokoroa reach of the harbour during winter and for the first time since Council organised clean-ups began in 2009 we needed to do a winter clean-up (in August), at Pahoia.</p> <p>Work is currently underway with the University of Waikato to explore the concept of collecting free floating sea lettuce using a specialised collection barge, the aim of which would be to reduce the volumes of material that ends up washing up on shore.</p>	●
SHARED	<p>Litter clean-ups:</p> <p>Ongoing work throughout the year.</p> <p>BOPRC, TCC.</p>	<p>Seven stream and estuary clean-up events were held around Tauranga City with over 700 students from eight schools clearing over 1000 kg of rubbish and diverting over 200 kg of recycling from landfill. Areas included Sulphur Point, Waimapu Estuary, Matapihi and Wairakei Reserve.</p>	●
SHARED	<p>IP3 Hazardous Activities and Industries List (HAIL) activity audits:</p> <p>Ongoing work through 2017/2018.</p> <p>BOPRC, TCC, WBOPDC.</p>	<p>HAIL audits were carried out at in the industrial areas of Greerton and Judea. Every business was visited with 80 business premises being fully audited. As a result of the audits, four businesses were issued immediate notices to either cease an activity, instigate immediate behaviour change or alter the layout of their site.</p>	●






<p style="writing-mode: vertical-rl; transform: rotate(180deg);">SHARED</p>	<p>Regional Wastewater Overflow Forum:</p> <p>Preparation of a region specific best practice guide to encompass wastewater overflow mitigation strategies, response and reporting procedures.</p> <p>BOPRC, TCC, WBOPDC.</p>	<p>This group did not meet during 2017/2018.</p>	
<p style="writing-mode: vertical-rl; transform: rotate(180deg);">BOPRC</p>	<p>Catchment Action Plan implementation:</p> <p>Fifty 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>Development and roll out of story maps to replace existing catchment actions plans.</p>	<p>35 km of waterway margins have been protected, 108 ha of land use change implemented and 26 new Environmental Programmes signed up with landowners to protect water quality and biodiversity.</p> <p>Two new Environmental Programmes to protect a High Value Ecological Site at Work Road and Willoughby Road. 10 new biodiversity sites managed (non-High Value Ecological Sites).</p> <p>Story map content is complete, working with GIS to develop the online applications.</p> <p>Omanawa Stream won the rivers award for the most improved river at the New Zealand River Awards. The award acknowledges a significant reduction in E-Coli bacteria levels which are a key indicator of swimmability in waterways.</p>	
<p style="writing-mode: vertical-rl; transform: rotate(180deg);">BOPRC</p>	<p>Uretara water quality investigation project:</p> <p>Develop monitoring plan and commence collection.</p>	<p>Monitoring plan was developed and collection carried out during summer. Preliminary results show consistent elevated E.coli results from certain tributaries of the Uretara system. Faecal sourcing tracking carried out on a selection of preserved samples have come back as avian dominance and low ruminant influence.</p>	







BOPRC	<p><i>Katikati Hills to the Ocean – H2O Improvement Project:</i></p> <p>Delivery of standard SLUI tools as part of a targeted approach to improve water quality in the Te Mania, Te Rereatukahia, Uretara and Tahawai catchments.</p>	<p>Successful in securing \$250,000 funding from the Ministry for the Environment.</p> <p>The group are involved in a number of environmental programmes in various capacities and targeting of new priority work under the MFE Programme has resulted in one additional Environmental Programme so far.</p>	
BOPRC	<p><i>Kaiate Taskforce:</i></p> <p>Options paper prepared by October 2017.</p> <p>Plan of action prepared by December 2017.</p>	<p>Options and action plan paper went to Council in March.</p> <p>Two information session meetings held with upstream landowners.</p> <p>Individual negotiations now taking place with upstream landowners to sign up to Environmental Programmes and Farm Quality Action Plans. Aim is to have stock excluded from all main waterways by December 2018. Working alongside NIWA regarding monitoring results, the community through the Waitao Landcare Group and Million Meters Streams Project to secure crowd funding for riparian planting of the largest property.</p> <p>Track counter was installed during May 2018 and has recorded 4,149 users.</p>	







<p style="writing-mode: vertical-rl; transform: rotate(180deg);">BOPRC</p>	<p>Marine Biosecurity:</p> <p>Continued delivery of an intensive surveillance programme through 2017/2018.</p> <p>Implementation of response plans where required.</p> <p>Implementation of the SSMP for fanworm and tunicates.</p>	<p>Three rounds of surveillance of the Marinas undertaken including 100 km of pontoons, 560 swing moorings and associated concrete and 2,500 wharf/marina piles. With regular surveillance and removal, Mediterranean fanworm and <i>Styela clava</i> have been kept to very low levels.</p> <p>3144 boat hulls Inspected for marine pests.</p> <p>Mediterranean fanworm was found at 18 sites; <i>Styela clava</i> was found at 46 sites.</p> <p>12 vessels were found with Mediterranean fanworm and or <i>Styela clava</i>. All pests were removed.</p> <p>University of Waikato undertook a delimiting surveillance around Matapihi and the wider harbour. 200 crab traps were set around the incursion site and no Asian Paddle Crabs were detected.</p> <p>Awareness of Marine Biosecurity raised through working with stakeholders, attending public events and working with the Top of the North partnership.</p>	
<p style="writing-mode: vertical-rl; transform: rotate(180deg);">BOPRC</p>	<p>Ongoing support of the Kaimai Mamaku catchments Forum:</p> <p>Continued participation in the joint agency project.</p> <p>Continued support of the Forum.</p>	<p>Kaimai Mamaku Catchments Forum Workshop held 6 October at ASB Arena and attended by 55 people.</p> <p>A Kaimai Mamaku Catchments Forum Coordinator was appointed and is based at the Department of Conservation. The Pest Animal Discussion Document was presented the Forum.</p>	
<p style="writing-mode: vertical-rl; transform: rotate(180deg);">BOPRC</p>	<p>Predator Free projects.</p>	<p>Predator Free was launched in late March in Merivale and Matua. Funding was secured for a part time coordinator based at Envirohub. 217 traps have been given out within Tauranga City along with another 200 in the Te Puke–Maketū–Paengaroa area. A Predator Free initiative is also starting in Katikati.</p>	






BOPRC	<p><i>Audit of mangrove distribution and associated issues for tangata whenua.</i></p>	<p>Audit of mangrove distribution and associated issues for tangata whenua project has commenced. Engagement is being undertaken with kaitiaki throughout Tauranga Moana on mangrove concerns and aspirations.</p>	
BOPRC	<p>Ongoing estuary care group support:</p> <p>Estuary Care groups are satisfied with the level of service they receive from Council.</p>	<p>Eleven Estuary Care Groups have been supported through Leader's Forums, working bee support, collaborating on new projects, resolving estuary related queries, pest plant control, communication of information, and providing resources such as funding, equipment and pest control materials.</p> <p>Compliance support also provided including commissioning PDP to complete a planning assessment of how the new Coastal Plan rules affect Estuary Care Group activities in each estuary.</p> <p>Groups generally satisfied with level of support and have positive relationships with BOPRC.</p> <p>Three Estuary Care Leaders Forum Meetings held.</p>	
BOPRC	<p>Seedling mangrove management:</p> <p>Up to 600 ha per annum of mechanical mangrove seedling maintenance.</p>	<p>First operational (fully certified) season completed in July 2017. Four estuaries mown with the balance not visited by the hovercraft due to very sparse mangrove seedling growth. Seven estuaries have been managed by other means such as working bees and contractors. Project de-brief held. Seeking an additional pilot for the project ahead of next season. Hovercraft refit is being undertaken to improve performance.</p>	
BOPRC	<p>Mature mangrove management:</p> <p>Mature mechanical mangrove management as required.</p>	<p>No significant mature removal undertaken during this reporting period.</p>	





BOPRC	<p>Opureora Channel dredging:</p> <p>Complete dredging by 31 August 2017.</p>	<p>Dredging project was completed in October as allowed by consent works window extensions. Opureora Spit disposal sites have been rehabilitated successfully.</p>	
BOPRC	<p>Twenty four seven oil spill response and navigation safety:</p> <p>Long Term Plan KPI: Percentage of time to maintain 24/7 response to navigational incidents and maritime oil spills is in place.</p>	<p>24/7 navigation safety coverage and oil spill response was achieved. Twenty spill incidents have been reported to Maritime New Zealand during the reporting period.</p>	
BOPRC	<p>Audit on Port and Harbour Safety Management systems:</p> <p>Audit to be completed between October-November 2017.</p>	<p>Audit completed in August 2017.</p>	
BOPRC	<p>Navigation and Safety Bylaw:</p> <p>Ongoing education throughout 2017/2018.</p> <p>Signage updated by November 2017.</p>	<p>As part of the new Navigation and Safety Bylaw, jet ski owners are now required to register their vessels.</p> <p>Busy summer season saw 4161 interactions, 203 breaches issued and 55 infringements.</p> <p>Signage has been updated around the harbour.</p>	





<p style="writing-mode: vertical-rl; transform: rotate(180deg);">BOPRC</p>	<p>Ongoing Regulatory Compliance work:</p> <p>Compliance and impact monitoring of sites/consents to be in accordance with Council Policy.</p> <p>Report on compliance air discharges on consented industrial sites.</p> <p>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 urgent and non-urgent complaints.</p> <p>1153 consented activity inspections were carried out during the reporting period.</p> <p>1505 service requests (complaints) were dealt with during the reporting period.</p>	
<p style="writing-mode: vertical-rl; transform: rotate(180deg);">BOPRC</p>	<p>Maleme Street drain discharge water quality study:</p> <p>Twelve different sampling locations four times in Maleme Street drain to get a longitudinal idea of where the majority of Copper, Lead and Zinc are coming from prior to entering the Waimapu Estuary.</p> <p>Deliver a report at the end of the study.</p>	<p>Project has been completed and report delivered. The sampling shows degraded water quality is apparent as the water flows towards the Waimapu Stream.</p>	
<p style="writing-mode: vertical-rl; transform: rotate(180deg);">BOPRC</p>	<p>Identification of discharge points phase two:</p> <p>Recording discharge points around the harbour margin in Western Bay.</p> <p>Complete identification of illegal structures.</p> <p>Identify fish passage.</p> <p>Phase two of this project will only be viable once it has been determined the information collected in Phase one has scientific validity and is worthy data to be collecting.</p>	<p>Due to other priority projects, the identification of discharges points phase two project has been put on hold.</p>	






<p style="writing-mode: vertical-rl; transform: rotate(180deg);">TCC</p>	<p>Stormwater Management:</p> <p>Long-term stormwater and receiving environment monitoring data for stormwater catchment across the city.</p> <p>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 first five yearly report has been completed and submitted to BOPRC.</p> <p>A number of projects looking at source investigation and potential treatment options have been included in the 2018-2028 Long Term Plan.</p>	
<p style="writing-mode: vertical-rl; transform: rotate(180deg);">TCC</p>	<p>Wastewater Management:</p> <p>Complete review of the Environmental Mitigation and Enhancement Fund.</p> <p>Review of Wastewater Overflow prevention and response procedures.</p> <p>Ancillary works for the Southern Pipeline to be completed in the Paper Road by end of August.</p> <p>Complete Memorial Park Pump Station “wet” commissions.</p> <p>Harbour crossing for the Southern Pipeline to be completed by December 2017.</p>	<p>The review of the Environmental Mitigation and Enhancement Fund is ongoing with a series of workshops planned to enable feedback on draft guidelines and the draft Cultural and Environmental Monitoring Programme.</p> <p>Southern Pipeline</p> <ul style="list-style-type: none"> • Drilling for the pipe crossing has experienced some challenges that led to delays. Works have started to progress but commissioning of the pipeline isn’t expected until early 2019. <p>The UV Plant at Te Maunga has been online since September 2017 but has experienced a number of technical issues requiring maintenance and repairs. The variation to consent to allow a maintenance stand down period was successful.</p> <p>18.5 km of wastewater pipeline across the city were CCTV surveyed for maintenance, renewal and condition assessments.</p>	






TCC	<p>Three Waters Education Programme:</p> <p>Ongoing work through 2017/2018.</p>	<p>The Waterline schools programme has been presented to approximately 15 schools involving 1850 students. The Great Waste Race was delivered to approximately 45 kindergarten classes.</p> <p>Toi Ohomai engineering students were presented to on water management and pollution prevention.</p> <p>Sixteen Schools attended Tauranga City Council activities at the Hands on Water Expo. Students participated in the Great Drain Game and storm water pollution protection activity.</p> <p>Waterline in home advisory service continues to be promoted and utilised by Tauranga residents.</p> <p>Development of new water educational billboards – “Wet Wipes Block Pipes” and “Bin Your Butts”. Four billboards will be located at the Mount, Bureta and Greerton.</p> <p>Water restrictions came into force during December and lasted until February. During the time, 79 people were spoken to.</p>	
TCC	<p>Pollution Prevention Programme:</p> <p>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.</p> <p>Urgent Pollution Incidents must be attended within one hour (Maintenance contractors KPI).</p>	<p>Octobers “Don’t Paint the Drain” competition held throughout Tauranga and the Western Bay in participating paint stores was a success with over 400 entries. Winners received paint vouchers and swim with the dolphin passes.</p> <p>Tauranga City Council referred one site in Maleme Street to BOPRC for a new stormwater discharge consent.</p> <p>In collaboration with BOPRC officers attended incidents of industrial stormwater discharges.</p> <p>77 service requests were received, 48 regarding potential pollution incidents, 16 regarding dumping, two requesting removal of carcasses and 11 regarding sediment issues.</p>	







TCC	<p>Harbour margin parks ecological restoration:</p> <p>Plant and animal pest control and native planting to improve ecological integrity.</p> <p>Beach sand nourishment.</p> <p>Sea walls.</p> <p>Boardwalks.</p> <p>Compliance and impact monitoring of sites/activity to be in accordance with City Plan and restoration plans for each site.</p>	<p>Planting of native plants is being carried out as per the planting plans for Matua saltmarsh, Waikareao and Waimapu Fraser Street to Yatton Park, lower Matahoroa Gulley, McCardles Bush and Taipari Street Reserve. Weed control was undertaken.</p> <p>2300 m/cu of sand was added to Maxwells Road Reserve beach and 640 m/cu of sand added onto Pilot Bay.</p> <p>Timber sea walls totalling 85 m was repaired at Eighteenth Avenue and Shaw Place, Matua.</p>	
TCC	<p>Beaches Bylaw Review:</p> <p>Review of the Bylaw is to be carried out in the 2017/2018 financial year.</p>	<p>The Bylaw has been reviewed. 145 submissions were received on the proposed changes. Adoption by Council is likely to happen October 2018.</p>	
WBOPDC	<p>District wide natural environment support:</p> <p>Key community groups are encouraged to continue to be viable in the future.</p>	<p>Community groups continue to be supported. Allocated as per guidelines, including Oropi Primary School kokako garden and native planting project and Wild about New Zealand.</p>	



WBOPDC	<p>Ongare Wastewater Scheme: Reticulated community system by 2017.</p>	<p>Construction on the reticulation scheme started early April. The wastewater main has been installed on Ongare Point Road and Harbour View Road with Potu Road and Harbour View road remaining.</p> <p>Construction has started on the treatment plant. Treatment plant commissioning is expected mid to late July with the scheme due to be complete in August/September 2018.</p>	
WBOPDC	<p>Te Puna West Wastewater Scheme: Reticulated community system by 2017.</p>	<p>The wastewater scheme is complete and operational.</p>	
WBOPDC	<p>Katikati wastewater treatment investigations: Re-consenting of the pipeline and outfall by November 2016.</p>	<p>Resource consent application was lodged May 2016. Draft consent conditions submitted with the application requires Council to look at alternative options for the long-term discharge of the treated wastewater from the Treatment Plant.</p> <p>A working group consisting of tangata whenua, councillors and community board representative has been established to assess various options available for the long term discharge of the treated wastewater from the treatment plant.</p>	
WBOPDC	<p>District-wide fencing subsidies: Ongoing work through 2017/2018.</p>	<p>Funds allocated as per the five signed management plans.</p>	



WBOPDC	<p>Seawalls:</p> <p>Obtain required consents from Regional Council.</p>	<p>The adjoining residents operating under WBOPDC's Coastal Erosion Responses Policy have engaged Tonkin and Taylor to prepare a modified design to manage the erosion issue that are occurring along the esplanade reserve. The modified design does not include hard structures such as rock rip rap, but primarily deals with the management of groundwater which is cause failures along the embankment.</p>	
WBOPDC	<p>Ōmokoroa slips:</p> <p>Monitor slips.</p> <p>Update public on any progress.</p>	<p>The Coastal Erosion Responses Policy was adopted September 2017.</p> <p>Council invested in landslide research to be undertaken by the University of Waikato.</p> <p>Ongoing works continue around Ōmokoroa caused by several storm events.</p>	
WBOPDC	<p>Cycleway:</p> <p>Required consents obtained.</p>	<p>Tinopai to Lynley Park section of the cycleway has been completed and was formally opened by the Minister of Transport on 11 July 2017.</p> <p>Consents have been granted for the three bridges and works commenced. The cycleway route is expected to be completed by the end of 2018.</p> <p>For the period between 26 June 2017 and 26 June 2018 there were 40,654 pedestrians (75%) and 13,404 cyclists (25%) that used the new boardwalk. These numbers are expected to increase once the cycleway is fully operational with the percentage split between pedestrians vs cyclists to balance out.</p>	
WBOPDC	<p>Boat ramps:</p> <p>Consents obtained.</p> <p>Physical works completed by 1 October 2017.</p>	<p>Opureora and Ōmokoroa boat ramp works have been completed.</p> <p>Consideration is being given in the Long Term Plan for new boat ramps in the northern and southern basin of the harbour.</p>	

Financials

Bay of Plenty Regional Council budget	2017/2018 budget	2017/2018 actuals
Maritime	\$847,570	\$847,000
Tauranga Catchments	\$2,814,000	\$3,808,530
Integrated planning	\$340,000	\$148,960
Regulatory Compliance	\$500,000	\$453,004
Science	\$402,271	\$368,097
Marine Biosecurity	\$171,360	\$183,808
Total	\$5,265,201	\$5,809,399

Tauranga City Council budget	2017/2018 budget	2017/2018 actuals
Recreation and Natural Environmental	\$995,471	\$995,000
Stormwater Pollution Prevention	\$570,000	\$640,000
Wastewater Effects Mitigation	\$18,678,600	\$17,350,000
Integrated Stormwater Project	\$7,700,000	\$7,700,000
Tauranga Harbour Inundation and Coastal Erosion	\$100,000	\$100,000
Total	\$28,044,071	\$26,785,000

Western Bay of Plenty District Council budget	2017/2018 budget	2017/2018 actuals
District wide fencing subsidies and district wide natural environmental support	\$72,500	\$0
Tauranga Catchments contribution (Coast Care, HMP's, Stream Works and Inundation and Coastal Erosion)	\$80,000	\$60,555
Te Puna West Wastewater Scheme	\$2,600,000	\$2,222,103
Ongare Wastewater Scheme	\$1,700,000	1,687,810
Total	\$4,452,500	\$3,970,468