



Tauranga Moana Programme

Annual Report 2018/2019






Tauranga Moana Programme Highlights

2018/19




 **140 pollution audits** of industrial business and sites 


 **8 pre-schools** participated in the new Pumps, Pipes and Wipes model


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

 **1178 consented activity inspections undertaken** and **2451 service requests** responded to 

 **17 km of wastewater pipelines** across the city were CCTV surveyed

 **1,674 traps registered** and **2,541 kills** recorded for Predator Free 

 **1 project undertaken** to repair and stabilise stream banks and reduce erosion risks

 **15 new Environmental Management Plans implemented** with landowners to improve water quality and biodiversity, with a total of **116 plans in place**

 **14 popular swimming sites monitored** for unsafe bacteria levels during summer

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

 **6 new harbour margins programmes** in place 

 **70,500 native coastal dune plants planted**, **5,000 volunteers donated 12,800 hours** to restore 64ha of dunes 

 **587 maritime call centre calls** received

 **1138 followers** of Coast Care's Facebook page

 **870,581,034 litres** of fuel transferred

 **Additional 25.7 km of river and stream margins** protected from stock

 **2 abandoned vessels** disposed of

 **7 commercial licences** issued

 **5,108m³ of beach sand renourishment** at Kulim Park and Whareoa beach

 Summer season saw **6,724 interactions**, **601 breaches issued** and **49 infringements issued** to boaties

 **42 aquatic events** managed


 **11 vessels** managed after coming loose

 **39 maritime signs** maintained

 **364 navigation aids** maintained

 **18 oil spill incidences** responded to

 **380 moorings** administered

 **3144 vessel hulls**, **100 km of pontoons**, **575 swing moorings** and associated concrete and **2,500 wharf/marina piles** were checked for marine pests

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 iwi and 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.

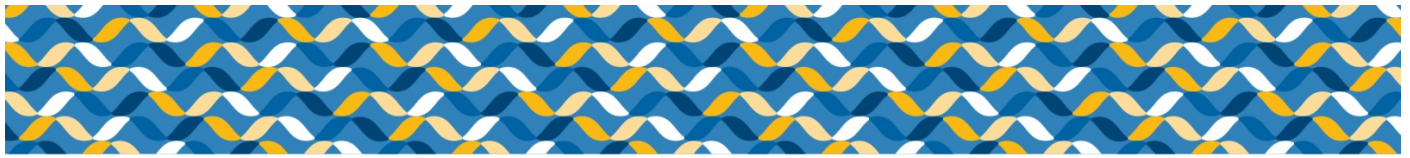
The Tauranga Moana Iwi Collective Deed of Settlement, once passed into law, will require a Tauranga Moana Governance Group to be established. To prepare for the Governance Group, an Advisory Group has been established which consists of iwi collective members as well as councillors from Tauranga City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



2018/19 project highlights

Infrastructure	<ul style="list-style-type: none">➤ Ongare wastewater scheme is complete and operational.➤ Resource consents granted and works completed on various seawalls in the Western Bay.➤ The 19 kilometre Ōmokoroa to Tauranga cycle trail is nearing completion with the final stage, Wairoa River Bridge clip-on expected to be completed by December 2019.➤ The Katikati Wastewater consent renewal was approved on 24 August 2018. Consent conditions require Council to look at alternative options for the long-term discharge.➤ The Thickening and Dewatering Plant at Te Maunga is operational and the wastewater plant no longer sends sludge to the oxidation pond.➤ The Southern Pipeline wastewater project is complete and fully operational.
Integrated planning and modelling	<ul style="list-style-type: none">➤ Tauranga Harbour Coastal Hazard Study project is complete and was released to the public in April 2019.➤ Integrated Stormwater Project has progressed with works completed at two locations in Matua.➤ 2018/19 forestry operations carried out within TCC's water supply catchment. The areas are being returned to native bush.➤ Uretara Stream flood management model has been built and is being calibrated.
Governance, tangata whenua engagement and involvement and programme management	<ul style="list-style-type: none">➤ He Korowai Matauranga Māori framework has been developed. This will help strengthen the use of iwi management tools throughout the organisation.➤ A project group has been established and planning has commenced for the 2020 Happy Harbour Fun Day being held at Memorial Park, 21 March.➤ Administrative and technical support provided to the Tauranga Moana Advisory Group.➤ 2017/18 Annual Report and 2018/19 Annual Work Plan presented to relevant committees.
Maritime	<ul style="list-style-type: none">➤ Sea legs vessel is fully operational.➤ Port and Harbour Safety Management systems audit completed September 2018.➤ 18 oil spill incidents have been reported to Maritime New Zealand during the reporting period.➤ Education programme delivered over the summer period, including filming of safety videos showing the importance of carrying two forms of



	<p>communication on the water.</p> <ul style="list-style-type: none">➤ Another busy summer season saw 6,724 interactions, 601 breaches issued and 49 infringements.
Science	<ul style="list-style-type: none">➤ Tauranga Moana State of the Environment report has been completed.➤ Manaaki Taha Moana subtidal survey of Tauranga Harbour report has been delivered.➤ Three new BOPRC funded PhD projects have commenced: The Hidden Garden, Hydrodynamics in Sea Grass Bed Patches and Horse Mussels and Biogenic Habitats.
Catchment, parks and recreation	<ul style="list-style-type: none">➤ The sale and purchase agreement for Tahataharoa has been signed.➤ Tauranga City Council's Beaches Bylaw came into effect 1 December 2018.➤ Four Estuary Care Leaders Forum meetings held to support Estuary Care Groups.➤ Four Environmental Programmes have been signed with partnership from the Freshwater Improvement Fund via Uretara Estuary Managers.➤ As a result of significantly lower volumes of sea lettuce washing up around the inner harbour beaches no sea lettuce clean-ups were required.➤ Predator Free BOP continues to grow in popularity with 1,674 traps registered and 2,541 kills recorded through the online portal.➤ Coast Care has planted 70,500 plants over the winter season. 5,000 volunteers donated 12,800 hours to restore 64 hectares of dunes. The Coast Care education programme was delivered to 3,000 students.➤ Coast Care was selected as a finalist for the Community Environmental initiative awards at the 2018 Beautiful Awards.➤ Stream works were undertaken in the Uretara to remove trees and other debris.➤ Six new Harbour Margin Programmes in place in Wainui, Tuapiro, Waitekohe and Te Puna Waipapa Catchments.➤ Three rounds of marine biosecurity surveillance undertaken. 3,144 boat hulls inspected; Mediterranean fanworm was found at 9 sites, Styela clava was found at 3 sites. After the initial Asian paddle crab incursion 200 crab traps were set with three Asian paddle crabs caught.➤ Additional water quality monitoring was undertaken at Kaiate to determine the load of E-coli coming from the beginning of the Otawera Stream, tributaries and the bush.➤ Source tracking was undertaken in the Uretara which shows a predominant avian signature in the lower catchment and some ruminant bacteria from the upper catchment.➤ As part of the TCC beach re-nourishment project, 4,500 m³/cu of sand was added at Kulim Park and 608 m³/cu of sand added to Whareroa beach.



Regulatory Compliance

- 1,178 consented activity inspections carried out and 2,451 service requests (complaints) dealt with by Tauranga City Council and Bay of Plenty Regional Council during the reporting period.
- 140 HAIL audits were carried out in the industrial areas of Maleme Street and Waimapu catchment. No major non-compliance was found.
- A successful open day was held at the Oropi Water Treatment Plant and Chapel Street Wastewater Treatment Plant on 26/27 October 2018 with over 240 people attending.
- Two litter nets have been installed as a temporary trial at the stormwater outlet below Waitaha Road, Welcome Bay.
- Wet wipes awareness campaign 'Save our Pipes from Wipes' was launched. The campaign is raising awareness around the issue of wet wipes blocking the wastewater network and potentially causing environmental harm.
- Over 17 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 19 schools involving 2,500 students. The new Pumps, Pipes and Wipes model was delivered to pre-schools.
- Water restrictions were in force between January and March 2019. Council managed 130 customer calls.
- Eight stream and estuary clean-up events held around Tauranga City involving over 800 students from six schools. 1.25 tonnes of rubbish was cleared.

Tauranga Harbour and catchment environmental monitoring

Environmental health monitoring of Tauranga Harbour and its catchments have occurred since the 1990s, as part of the Natural Environment Regional Monitoring Network (NERMN). The Tauranga Moana State of the Environment Report 2019 (Lawton & Conroy, 2019¹) has recently been completed and released. The following is a summary of the key findings of the report, for further detail please see the published report¹.

¹ Lawton R, Conroy E (2019). Tauranga Moana State of the Environment Report 2019. Bay of Plenty Regional Council Environmental Publication 2019/04.



Air Quality

Air quality is vital to our wellbeing and to the functioning of our environment. To Māori it is a life-supporting taonga derived from Ranginui and Tawhirimatea and its mauri can be impacted by pollution.

Continuous air quality measures are collected at a number of sites predominantly located in the Mount Industrial Area, some of which include fine particulate matter (PM10), nuisance dust and sulphur dioxide gas. There are some issues with air quality in the Mount Industrial Area where some sites have exceeded guidance levels for fine particulate matter more than once. When certain weather conditions exist, dust levels in Mount Maunganui can exceed nuisance dust levels. Sulphur dioxide gas is within national guidelines at all sites over the last two years. An application has been submitted to the Minister for the Environment to specify the Mount Industrial Area as a separate air shed.

Land Quality

Land and soil resources contribute significantly to our economic, social, cultural and environmental wellbeing. Land is a fundamental part of the existence and identity of Tauranga Moana hapū and iwi. It is a source of identity, food and other resources that have sustained people for hundreds of years.

Based on limited data, soil quality across Tauranga Moana is generally good, including soil aeration, soil nutrients, trace elements and soil compaction. Some areas exist where soils are susceptible to erosion and some long-term use of phosphorus fertilizers is causing high levels of cadmium and/or copper. Due to our changing land use we have lost many of our indigenous forests and wetlands, and many wetlands remain under increasing risk of degradation.

Freshwater quality

Freshwater is taonga to everyone and it also holds practical, cultural and spiritual significance to Māori as it is an essential source of wellbeing and identity. Every iwi and hapū has associations with particular waterbodies that are reflected in their whakapapa, waiata, and whaikorero tuku iho (stories of the past). Freshwater quality varies widely across Tauranga Moana depending on location and which aspects of freshwater quality are under review. There are clear signs of degradation in some areas, and the way we use our land is having a clear impact on our waterways. The degradation of freshwater and wetlands and the resulting loss of biological diversity impacts te mana o te wai (the intrinsic value of water). This is of particular concern to tangata whenua.

Groundwater

Groundwater provides a large and reliable source of fresh water which is used for drinking, agriculture, and industry. Two of the most widespread contaminants which can affect groundwater quality are micro-organisms (bacteria) and nitrate. Saltwater intrusion into the groundwater can contaminate water supplies and make the water unsuitable for use.

The quality of our groundwater is generally very good. Groundwater quality of 9 of the 10 monitored sites were well below the maximum acceptable values specified in the Drinking Water Standards of New Zealand. One site exceeded the maximum acceptable level three out of 12 times (Kauri Point).

The risk of saltwater intrusion into groundwater aquifers appears to be low. Saltwater intrusion risk at 8 of the 10 monitored sites were graded as very low, with two sites graded as low saltwater intrusion risk.



River and stream ecology

Catchment land use is affecting the health of our streams. Stream health in catchments dominated by agriculture and urban developments is in a degraded state compared to catchments dominated by native forests.

One indicator of stream health is stream invertebrates (using the Macro-invertebrate Community Index; MCI). These animals are sensitive to many stressors (water quality, flow, and habitat) providing a holistic measure of stream health. Invertebrates are collected annually from 32 sites in Tauranga Moana. Of the examined sites, approximately a quarter of all sites (28%) were graded as very good. 19% of sites were graded as good, a third of all sites graded as fair (34%) and the remaining 19% of sites were graded as poor.

Freshwater fish are an important component of freshwater ecosystems and have high cultural, commercial, recreational, and intrinsic biodiversity value. Survey data was compiled from 82 sites across Tauranga Moana. Freshwater fish communities are healthy in some streams and not so healthy in others. Approximately half of the monitoring sites have healthy fish communities, and half the monitoring sites have degraded fish communities. One fifth of the sites were graded as excellent (21%), one third of the sites were graded as good (33%). One fifth of the sites were graded as moderate (20%) and one quarter of sites were graded as poor (26%). Healthy communities are more common in streams draining catchments dominated by native forests compared to streams draining catchments dominated by pasture and urban developments.

Concentrations of nitrogen in streams and rivers in Tauranga Moana are stable or improving and don't generally reach levels where they are toxic to aquatic life. Recent work² shows concentrations of nitrate and ammonia are stable or decreasing over the past 10 years. Nearly two thirds of the sites monitored for nitrogen toxicity (13 out of 18 sites) were graded as very good.

Periphyton describes the slime and algae found on the bed of gravel bottomed rivers or streams. Periphyton is an important indicator of changes in the water quality of a stream, as any increases in nutrients can result in blooms of periphyton. Four of the five streams we monitor for periphyton were graded as good. One site was graded as fair.

Benthic cyanobacteria live naturally in freshwater and marine habitats, however some species can produce toxins that may be harmful to humans and other animals. The risk of exposure to harmful benthic cyanobacteria is low for streams and rivers in Tauranga Moana. All five sites we monitor were graded as very good.

Recreational Swimming Quality

The beaches of Tauranga Moana are generally a safe place to swim but there is a risk of getting sick if you swim in certain rivers. After heavy rain there is also a higher chance of getting sick no matter where you swim.

The swimmability indicator measures the amount of faecal bacteria in the water. For river sites we measure E. coli in the water and in marine waters we measure Enterococci. The concentrations of indicator bacteria measured over the last five years and catchment characteristics, such as land use, discharges and climate, are used to calculate a "Suitability for Recreation Grade" (SFRG) for each site. All 5 of our 5 monitored river swimming sites have been graded as poor (Uretara River, Kaiate Falls, Wairoa River (below McLaren Falls and State Highway 2) and Tuapiro Stream).

² Carter R et al. (2018). Freshwater in the Bay of Plenty – Comparison against the recommended water quality guidelines. Bay of Plenty Regional Council Environmental Publication 2018/10.



14 popular swimming harbour and beach sites are monitored for swimmability. Over half of our beach sites are graded as good or very good. Four of the beach sites we monitor were graded as very good (29%), five sites were graded as good (36%), four sites were graded as fair (29%) and one site was graded as poor (7%).

Coast Health

Te Awanui Tauranga Harbour and the open coast are highly valued by the community for their recreational, cultural and natural values. Tauranga Harbour is an important source of kaimoana, provides culturally important resources and is a symbol of identity for Māori. The state of our coastal environment varies widely. Some aspects seem to be acceptable for now, while other aspects are already showing signs of degradation.

Estuarine Water Quality

Good water quality sustains ecological processes that support fish populations, shellfish beds, marine plants such as seagrass and bird life. Sensitive marine plants and animals cannot live and thrive when water quality is poor.

Eight sites are measured monthly for a range of water quality parameters. Water quality is of average condition for a large estuary with mixed urban, agricultural and horticultural land use. On average, the median value for each parameter was comparable to, or lower than, median values for other similar sites in New Zealand estuaries in all the sites we monitor except Tilby Point. The poorer water quality is likely reflective of the influence of the Wairoa River.

To measure the safety of shellfish for gathering we use a faecal coliform indicator to denote the potential presence of pathogenic bacteria, viruses and protozoa, which can make you sick. Estuarine water quality requirements for shellfish were tested at four sites in Tauranga Moana over the 2018/19 summer period. Tilby Point and Anzac Bay exceeded the dual guideline levels for quality of shellfish gathering waters. Bowentown and Te Puna both exceeded the percentage of samples greater than 43 cfu/100 mL.

Harbour Ecology

The amount of nutrients in the estuary can have impacts on the plants and animals that live there. When an estuary receives too much nutrients, eutrophication can occur. This leads to poorer water quality, larger than normal blooms of sea lettuce, which can reduce oxygen levels in the water and sediment. The sediment nutrient content is measured at 65 intertidal sediment sites in Tauranga Harbour. Nutrients in the sediments of Tauranga Harbour are generally low: 85% of sites were graded as good. Only two sites were graded as poor, located in the upper Te Puna estuary and the Uretara estuary.

Seagrass is a vital component of a coastal ecosystem, providing habitat and a food source to many animals including fish, crabs, fish and other marine invertebrates. Seagrass beds also help trap sediments stabilising the sea bed and remove nutrients from the water. The extents of seagrass beds were last mapped in 2011 using aerial photography. Across the harbour there was 2,745 hectares of seagrass. Increases in nutrient levels and fine sediments have led to substantial decreases of seagrass beds over the last 50 years. Between 1959 and 2011 34% of seagrass beds were lost. Almost 90% of this loss occurred in the Southern Harbour. Another small loss occurred between 1996 and 2011 (6.5%). Other potential stressors to seagrass include physical disturbance, exotic species (black swan) and loss of habitat (reclamation of the sea bed).

Mangroves have been present in New Zealand for around 19 million years. Mangroves provide a range of ecosystem services to the harbour, including removing and trapping sediment particles from the water column, protection from



coastal surges and shoreline erosion, a sink for heavy metals and carbon (atmospheric CO₂) and also provide a habitat for fish, algae, terrestrial and aquatic invertebrates and birds. In Tauranga Harbour mangrove abundance has previously doubled between 1956 and 2004, and then due to consented mangrove removals, there has been a net loss from 2004 to 2014. The rapid expansion of mangroves in New Zealand is driven by increased sedimentation, nutrient inputs and changing climatic conditions.

Sea lettuce is a naturally occurring algae (*Ulva* spp.) that is native to New Zealand. It can be problematic at times in Tauranga Harbour when it blooms in large quantities, causing a public nuisance and having adverse ecological effects. The abundance of sea lettuce is highly variable from year to year, however there are correlations between blooms and periods of strong westerly winds associated with El Nino weather patterns, increasing the upwelling of cold, nutrient rich water into the harbour. Recent research³ has also identified large groundwater inputs to Tauranga Harbour, which is calculated to deliver reactive nutrients into shallow regions of the harbour where sea lettuce blooms are common.

Marine pests are organism that can have significant adverse effects on the Bay of Plenty regions marine environment, economy and people. A proactive marine pest surveillance programme is in place which includes dive surveys and hull inspections. Two key marine pests in the region – the clubbed tunicate and the Mediterranean fan form – have small scale management plans which allow rapid biosecurity action if these pests are detected in the region.

Harbour sediments and contaminants

Estuaries are natural collection points and toxic contaminants can accumulate in sediments and impact the harbour. Contaminants can include heavy metals from road and roofing runoff, pesticide residues from farm runoff, industrial discharges and wastewater. These can be accumulated into kaimoana (such as finfish and shellfish) and make them unsuitable for harvesting.

Heavy metals are measured at 65 intertidal sites in Tauranga Harbour. Levels of heavy metal contaminants are generally low, with almost two thirds of sites being graded as very good. Just over one third of sites were graded as good, and no sites were graded as fair or poor. All sites were well below the ANZECC 2000 interim sediment quality guidelines for the protection of aquatic life.

Fine sediments (mud) can create a less productive environment where mangroves and macroalgae can proliferate. Higher mud content can also compromise ecosystem resilience and make restoration difficult. Sediment mud content is reported on for 141 sites. Tauranga Harbour can be a muddy place in sheltered inner estuary areas. Less than half of the monitoring sites were graded as very good or good (46%). A third of all sites had a mud content that was graded as poor (33%).

Sedimentation is the process of sediment settlement and accumulation over time in our estuaries. The rate of sedimentation in Tauranga Harbour has increased over the years because of population growth, changing land use and soil disturbance related to development. Sedimentation rate sites are located at 65 sites across Tauranga Harbour. Sediment is accumulating at higher levels than background rates at 59% of the sites that we monitor. At 41% of sites sedimentation rate is graded as very good, 14% as good, 36% as fair and 10% as poor.

³ Stewart BT, Bryan KR, Pilditch CA, & Santos IR (2017). Submarine groundwater discharge estimates using radium isotopes and related nutrient inputs into Tauranga Harbour (New Zealand). *Estuaries and Coasts*.



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 2018 - June 2019 against actions proposed in the Tauranga Moana Annual Work Plan 2018/19. 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	<p>Tauranga Moana Programme 2017/18 Annual Report and Highlights summary.</p> <p><i>Present the 2017/18 Annual Report to relevant council committees for approval in September 2018.</i></p> <p><i>BOPRC, TCC, WBOPDC</i></p>	2017/18 annual report presented to relevant committee meetings.	
SHARED	<p>Tauranga Moana Programme Annual Work Plan 2018/2019.</p> <p><i>Present the 2018/19 Annual Work Plan to relevant council committees for approval in August 2018.</i></p> <p><i>BOPRC, TCC, WBOPDC</i></p>	2018/2019 Annual Work Plan presented to relevant committee meetings.	
SHARED	<p>State of the Moana Programme – Phase one.</p> <p><i>Scope project.</i></p>	This project will be scoped in 2019/20 now the State of the Environment Project has been completed.	
SHARED	<p>Tangata whenua involvement and capacity building.</p> <p><i>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 easily established.</i></p>	<p>Partnered with iwi and hapū to produce the State of the Environment Report (SoE).</p> <p>Focused on tangata whenua relationships in relation to management of the three waters areas.</p>	





	What we said we would do	What we achieved	Project status
SHARED	<p>Happy Harbour Fun Day 2020</p> <p><i>Project group established. Planning commenced by early 2019.</i></p> <p><i>BOPRC, TCC, WBOPDC</i></p>	<p>A project group has been established and an event manager contracted. The Happy Harbour Fun Day is taking place Saturday 21 March 2020, at Memorial Park, Tauranga.</p>	●
WBOPDC	<p>Tauranga Moana Te Arawa ki Takutai Partnership Forum</p> <p>Ensure that the Forum is kept up to date with key progress on the implementation of the Tauranga Moana Programme actions and outputs for 2018/19.</p>	<p>Updates are provided to the Tauranga Moana Te Arawa ki Takutai Partnership Forum on a bi-monthly basis.</p>	●
BOPRC	<p>Support Tauranga Moana Advisory Group (or subsequent co-governance group).</p> <p><i>Provide reports and advice to Tauranga Moana Advisory Group as necessary.</i></p>	<p>Administrative and technical support provided through meeting management, reports, guest speakers, presentations and workshops.</p>	●
BOPRC	<p>Communications Strategy implementation 2018/2019:</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>Communications support provided to the development of the State of the Environment Report.</p> <p>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> <p>Five videos were commissioned to showcase the work care groups are doing in the catchment.</p>	●






	What we said we would do	What we achieved	Project status
BOPRC	<p>Build capacity for the use of Mātauranga Māori for Tauranga Moana.</p> <p><i>Ongoing work through 2018/19.</i></p>	<p>He Korowai Mātauranga internal staff framework has been developed. The document will assist Toi Moana working together with tangata whenua, and vice versa.</p> <p>The organisation have two new positions in Science and Planning that are key to developing best practice in recognising Mātauranga Māori in councils work.</p>	
BOPRC	<p>Tauranga Moana iwi Management Plan. Socialisation and implementation.</p> <p><i>Ongoing work to support hapū/iwi throughout 2018/19.</i></p>	<p>He Korowai Mātauranga Māori framework and other strategies are currently in development which will strengthen the use of Iwi management tools throughout the organisation.</p>	




Integrated planning and modelling

	What we said we would do	What we achieved	Project status
SHARED	<p>Water supply catchment management</p> <p><i>Ongoing work through 2018/19.</i></p> <p>TCC, BOPRC</p>	<p>Ongoing works in the catchment have been completed including the following:</p> <ul style="list-style-type: none"> • Strategic planning has commenced for Integrated Management of the 7,000ha Waiari Drinking Water Supply Catchment. • Monitoring undertaken to manage acute, chronic and potential sources of pollution/contamination. • Pest plant control. • 2018/19 forestry harvest operations were carried out. The area are being returned to native bush. 	
SHARED	<p>Tauranga Harbour Inundation and Coastal Erosion</p> <p><i>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.</i></p> <p>BOPRC, TCC, WBOPDC</p>	<p>The Tauranga Harbour Coastal Hazard Study is complete. The coastal erosion mapping was released to the public in April 2019. Public information days were held in May to help the community understand the information.</p> <p>The coastal inundation mapping is due for release at the end of August 2019. Public information days are planned for September to help the community understand the information.</p>	






	What we said we would do	What we achieved	Project status
BOPRC	<p>Tauranga Harbour Tsunami Inundation Assessment</p> <p><i>Tsunami inundation maps showing the extent of inland inundation along with depth and velocity for Tauranga Harbour.</i></p>	<p>eCoast Ltd have been commissioned to complete the tsunami modelling and expect to produce draft results in September 2019.</p>	
BOPRC	<p>Begin work on a co-governance document for Tauranga Moana – subject to resolution of Treaty Settlement processes</p> <p><i>Begin development work on a co-governance document.</i></p>	<p>The resolution of the Tauranga Moana Framework has been delayed. Consequently work has not begun on a co-governance document.</p>	
BOPRC	<p>Region wide planning projects</p> <p><i>Ongoing work throughout 2018/19.</i></p> <p><i>Updates to be provided on key planning projects that affect Tauranga Harbour and catchment.</i></p>	<p>The majority of the Regional Coastal Environment Plan (RCEP) plan is considered operative. Two remaining appeals are awaiting Court decisions.</p> <p>Plan Change 9 (Water Allocation) – Appeals have been received, and mediation has begun.</p> <p>Plan Change 11 (Geothermal) – The Tauranga Geothermal Reservoir Model is being reviewed by GNS. Engagement with iwi and the community will be undertaken later in 2019.</p> <p>Plan Change 13 (Air) – the fumigants rule is now considered operative. Appeals are progressing through mediation.</p> <p>Plan Change 14 (OSET) – Draft Plan Change 14 has gone through public consultation and work is progressing to develop the proposed plan change.</p>	






	What we said we would do	What we achieved	Project status
BOPRC	<p>Freshwater Futures – Tauranga Harbour Water Management Area</p> <p><i>Continue to build the information base, and relationships with tangata whenua, the community and stakeholders.</i></p>	<p>Completed a draft baseline document summarising a range of information to inform a future Plan Change.</p> <p>Commissioned the development of a groundwater model for the Tauranga Moana WMA (led by BOPRC Science Team).</p> <p>Commissioned a review of catchment models and similar decision-support tools to inform the future choice of one for the Tauranga Moana WMA (led by BOPRC Science Team).</p> <p>Commissioned a characterisation of stormwater discharge consent monitoring data and mitigation requirements in the Tauranga Moana WMA.</p> <p>Started some engagement with iwi/hapū and the Smartgrowth Combined Tangata Whenua Forum which led to scoping of the Tauranga Moana Wai Māori Kaupapa Project, working mainly with Ngāi Te Rangi and Ngāti Ranginui. BOPRC decision on funding for the project remains on hold until there is more clarity on central government changes to the NPS-FM.</p> <p>In late August, central government will be proposing significant changes to the NPS-FM, a new NES on Freshwater Management and regulations. Once these proposals are out for consultation, BOPRC will review its current approach to implementing the NPS-FM throughout the region to confirm it will still meet the proposed new requirements. In the meantime, the current focus remains unchanged.</p>	



	What we said we would do	What we achieved	Project status
BOPRC	<p>Flood management on Uretara Stream, Katikati</p> <p><i>Updated flood hazard maps and design levels for the Uretara Stream.</i></p>	<p>A model has been built and is being calibrated. Calibration of the model has been challenging due to limited amount of event data being available for the mid to upper reaches.</p>	
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>The focus has moved to two locations at Welcome Bay to alleviate flooding of 14 residential properties and mitigate flooding of approximately 40 properties.</p> <p>Depth x velocity flood mitigation scoping studies are also underway at 28 locations in the city to inform the future years capital works programme.</p>	
TCC	<p>Environment Strategy</p> <p><i>A set of SMART objectives and targets will be developed through the strategy.</i></p>	<p>The environment Strategy has been put on hold pending further engagement.</p>	

Science

	What we said we would do	What we achieved	Project status
BOPRC	<p>NERMN Monitoring</p> <p><i>Complete monitoring of sties in Tauranga Moana within each NERMN module as scheduled. Note that monitoring frequency varies between the different modules.</i></p>	NERMN monitoring completed covering the Tauranga Moana region.	
BOPRC	<p>Relationships with research providers</p> <p><i>In accordance with the Chair in Coastal Science Memorandum of Agreement, the University of Waikato will:</i></p> <ul style="list-style-type: none"> <i>Report to BOPRC in June 2019 on relevant items or issues associated with the chair.</i> 	Report received in December 2018 and presented to Regional Direction and Delivery Committee in February 2019. Bi-monthly updates reports are being produced on collaborative research projects. Awaiting delivery of Coastal Chair report 2019.	
BOPRC	<p>State of the environment.</p> <p><i>Draft complete by July 2018 that reflects a Māori view of the state of the harbour. To be completed by August 2018. Hardcover book. Factsheet breakdowns or particular issues/sites. Social media videos.</i></p>	The State of the Environment Report was presented to Regional Direction and Delivery Committee in July 2019. The document was released and published in August 2019. The document was presented to relevant committees.	






	What we said we would do	What we achieved	Project status
BOPRC	<p>University of Waikato PhD student funding</p> <p><i>Deliver a progress report on all BOPRC funded research projects by 30 April 2019.</i></p>	<p>Progress reports by new University of Waikato PhD students due September-October 2019.</p> <ul style="list-style-type: none"> • Presentations by the new PhD students were given to council and the public on research plans, progress and results. • Two PhD project are due for completion this year: <ul style="list-style-type: none"> ○ Sediment connectivity in Tauranga Harbour (Peter de Ruiter). ○ Submarine groundwater discharge in Tauranga Harbour (Ben Stewart). • Three new PhD projects begun this funding cycle: <ul style="list-style-type: none"> ○ The hidden garden – seagrass and microphytobenthos nutrient cycling (Georgina Flowers). ○ Hydrodynamics in seagrass bed patches (Tiago Dutra de Silva). ○ Horse mussels and biogenic habitats (Caine Tiapa). 	●
BOPRC	<p>Manaaki Taha Moana-MTM 2 subtidal survey of Tauranga Harbour</p> <p><i>Deliver a full peer reviewed report and habitat map on completion.</i></p>	<p>The subtidal survey of Tauranga Harbour report has been delivered.</p>	●
BOPRC	<p>Manaaki Te Awanui – MTM Coastal Cultural Health Tools</p> <p><i>Deliver report and Coastal Cultural Health Tools 2020, progress reports yearly (June 2019).</i></p>	<p>The coastal cultural health index is currently focusing on developing an online tool to allow hapū identify tools to disseminate their cultural values in relation to the marine environment, utilizing the cultural health index.</p>	●







Operations

	What we said we would do	What we achieved	Project status
SHARED	<p>Tauranga Harbour Margins Project</p> <p><i>An additional three new Harbour Management Plans in place.</i></p> <p><i>BOPRC, TCC, WBOPDC</i></p>	<p>Six new Harbour Margin Programmes in Wainui, Tuapiro, Waitekohe and Te Puna Waipapa catchments. These protect under-represented salt marsh habitat as well as providing buffers between the harbour and farmland.</p>	
SHARED	<p>Tauranga Harbour Stream Works</p> <p><i>Stream bank repair and stabilisation of eroding banks undertaken as and when required within budget.</i></p> <p><i>BOPRC, TCC, WBOPDC</i></p>	<p>Stream works undertaken in the Uretara to remove trees and other debris.</p>	
SHARED	<p>Coast care</p> <p><i>Identified priority areas are actively managed and maintained with support from Coast Care partners and community volunteers.</i></p> <p><i>BOPRC, TCC, WBOPDC</i></p>	<p>Coast Care has had another successful year with 70,500 dune plants planted along the coastline. 5,000 volunteers donated 12,800 hours to restore 64 hectares of dunes. The Coast Care education programme was delivered to 3,000 students.</p> <p>Coast Care was selected as a finalist for the Community Environmental initiative awards at the 2018 Beautiful Awards.</p> <p>Contracts were awarded to three companies to carry out programme and plant delivery over the next three years.</p>	






<p style="writing-mode: vertical-rl; transform: rotate(180deg);">SHARED</p>	<p>Predator Free BOP</p> <p><i>Active participation across the whole project area by 2024.</i></p>	<p>Predator Free BOP continues to grow in popularity and expand in urban back yards through Tauranga and Western Bay of Plenty. Workshops were held in November at the Historic Village to teach people how to get a Predator Free Group started in their suburbs. As a result of these workshops, there are now 22 suburbs with community groups currently backyard trapping in Tauranga City and 24 in the Western Bay of Plenty district. Rotorua is now showing some interest with three new groups registered to the PFBOP website. To date, 1,674 traps have been registered and 2,541 kills recorded in Tauranga Catchments through the online portal.</p>	
<p style="writing-mode: vertical-rl; transform: rotate(180deg);">SHARED</p>	<p>Sea lettuce management</p> <p><i>Level of response depends on the severity of the 2018/19 bloom.</i></p> <p><i>Ensure contracts with clean-up contractor and receiving site operators are finalised by 30 October 2018.</i></p> <p><i>BOPRC, TCC, WBOPDC</i></p>	<p>Agreements with clean-up contractor and receiving site operator finalised in October 2018.</p> <p>Over the 2018/19 summer period there were significantly lower volumes of sea lettuce washing up around the inner harbour beaches. There were almost no complaints in relation to sea lettuce and no clean-ups have been required.</p>	
<p style="writing-mode: vertical-rl; transform: rotate(180deg);">SHARED</p>	<p>Litter clean-ups</p> <p><i>Ongoing work throughout the year.</i></p> <p><i>TCC, BOPRC, WBOPDC</i></p>	<p>During the 2018/19 financial year eight stream and estuary clean-up events were held where 800 students from six schools across Tauranga cleared 1.25 tonnes of rubbish from the following locations: Kopurererua Valley; Waimapu Estuary; Mount Maunganui Beaches; Maungatapu, Welcome Bay, and Pāpāmoa.</p>	





SHARED	<p>Recreation Users Forum</p> <p><i>Re-establishment of the recreation users forum / or equivalent. Explore option of undertaking a recreation user's survey.</i></p> <p><i>BOPRC, TCC</i></p>	No meeting were held during the reporting period.	
SHARED	<p>Katikati Hills to the Ocean – H2O Improvement Project</p> <p><i>Delivery of a standard SLUI tools as part of a targeted approach to improve water quality in the Te Mania, Te Rereatukahia, Uretara and Tahawai catchments.</i></p> <p><i>Community, BOPRC</i></p>	Four Environmental Programmes have been signed with partnership from the Freshwater Improvement Fund via Uretara Estuary Managers.	
SHARED	<p>Project Parore</p> <p><i>Ongoing work throughout the year.</i></p> <p><i>Uretara Estuary Managers, BOPRC</i></p>	<p>Community workshops held to develop the draft Engagement Plan which includes overarching objectives and project structure.</p> <p>Project Parore aims to implement good management practice principles to agricultural practices in the catchment by delivery farm plans to mitigate farm impacts.</p> <p>A Memorandum of Understanding was signed with industry partners to cement ongoing working relationships.</p>	
SHARED	<p>IP3 Hazardous Activities and Industries List (HAIL) activity audits</p> <p><i>Ongoing work through 2018/19.</i></p> <p><i>BOPRC, TCC</i></p>	140 HAIL audits were carried out at the industrial areas of Maleme Street and Waimapu Catchment. No major non-compliance was found but some businesses have been directed that site upgrade works or change to their business practice is required. Reports with recommendations will be sent to each business, which will be followed up in three months.	





<p style="text-align: center; background-color: #0070C0; color: white; padding: 5px;">SHARED</p>	<p>Regional Wastewater Overflow Forum</p> <p><i>Preparation of a region specific best practice guide to encompass wastewater overflow mitigation strategies, response and reporting procedures.</i></p> <p><i>BOPRC, TCC, WBOPDC.</i></p>	<p>A number of meetings have been held to develop a best practice guideline for wastewater overflow management. A draft document is expected to be produced by December 2019.</p>	<p style="text-align: center;"></p>
<p style="text-align: center; background-color: #0070C0; color: white; padding: 5px;">SHARED</p>	<p>Water craft and General Harbour Access Survey and Demand Analysis</p> <p><i>Undertake a survey and analysis.</i></p> <p><i>WBOPDC, TCC, BOPRC</i></p>	<p>A literature review of studies and reports relating to harbour access is currently being undertaken to identify gaps and to provide a picture of current and future demand across the sub-region.</p>	<p style="text-align: center;"></p>
<p style="text-align: center; background-color: #005696; color: white; padding: 5px;">BOPRC</p>	<p>Catchment Management Implementation</p> <p><i>The two highest priority catchments for swimmability improvements have detailed catchment plans in place.</i></p> <p><i>Two additional Priority One or two Biodiversity sites where biodiversity is actively managed within the Tauranga Harbour catchment.</i></p>	<p>This year the focus shifted to a Focus Catchments approach. The Uretara, Te Mania, Kopurererua and Waitao catchments are the focus catchments in Tauranga Moana and catchment planning is underway for all four of these catchments. This work is running parallel to existing work in these catchments to protect riparian habitats, wetlands and other natural values.</p> <p>Work is underway to protect and enhance at least three Priority 1 and 2 biodiversity sites but these did not get finalised in the 2018/19 year and are expected to be ready during the 2019/20 year.</p>	<p style="text-align: center;"></p>







BOPRC	Kaiate Taskforce <i>Ongoing work throughout 2018/19.</i>	<p>Ongoing negotiations are taking place with a landowner above the Kaiate Falls. A property was found to be in breach of their Kawenata agreement by allowing stock to access the bush. This is being worked through.</p> <p>Additional water quality monitoring was undertaken to determine the load of E-coli coming from the beginning of the Otawera Stream, tributaries and the bush which showed very high loads coming from the bush and one of the neighbouring properties.</p>	
BOPRC	Uretara Water Quality Investigation <i>Develop monitoring plan and commence collection.</i> <i>Ongoing work throughout 2018/19.</i>	<p>Source tracking was undertaken in the Uretara which shows a predominant avian signature in the lower catchment and some ruminant bacteria from the upper catchment. Investigations are ongoing into the use of chicken manure fertiliser on properties, including developing a collaborative approach with Zespri.</p> <p>Action and monitoring plans have been developed which will be implemented in the 2019/20 financial year.</p>	







<p style="writing-mode: vertical-rl; transform: rotate(180deg);">BOPRC</p>	<p>Marine Biosecurity</p> <p><i>Continued delivery of an intensive surveillance programme through 2018/19.</i></p> <p><i>Implementation of response plans where required.</i></p> <p><i>Implementation of the SSMP for fanworm and tunicates.</i></p> <p><i>Implementation of an incursion response plan for Asian paddle crab.</i></p>	<p>Marine Biosecurity staff ran a workshop as part of the Tauranga Moana Biosecurity Capital. A vessel was lifted out of the sea and inspected for marine pests and highlighted parts of the vessel which can be missed during cleaning and antifouling.</p> <p>Three rounds of surveillance of the Marinas undertaken including 100 km of pontoons, 2,500 wharf/marina piles 575 swing moorings, bridges and benthic habitat. With regular surveillance and removal, Mediterranean fanworm and <i>Styela clava</i> have been kept to very low levels.</p> <p>3,144 boat hulls inspected for marine pests with five vessels found with Mediterranean fanworm and or <i>Styela clava</i>. All pests were removed.</p> <p>Mediterranean fanworm was found at nine sites during 2018/19 compared with 18 sites in 2017/18. <i>Styela clava</i> was found at three sites compared to 46 sites the previous year.</p> <p>After an initial incursion of Asian paddle crabs, 200 traps were set with three Asian paddle crabs caught.</p> <p>Marine Biosecurity awareness has been raised through working with stakeholders, attending public event 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><i>Continued participation in the joint agency project.</i></p> <p><i>Continued support of the Forum.</i></p>	<p>A Steering Group and three projects were established covering biodiversity, water and people. The biodiversity project group are developing a pest animal management plan for the Kaimai Mamaku.</p>	





BOPRC	<p>Audit of mangrove distribution and associated issues for tangata whenua</p> <p><i>Report produced.</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><i>Estuary Care groups are satisfied with the level of service they receive from Council.</i></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 and animal control, restoration planting, communication of information, and providing resources such as funding, equipment and pest control materials.</p> <p>Estuary Care Groups are generally satisfied with level of support and have positive relationships with BOPRC.</p> <p>Four Estuary Care Leaders Forum meetings held.</p>	
BOPRC	<p>Seedling mangrove management</p> <p><i>Up to 600 ha per annum of mechanical mangrove seedling maintenance.</i></p>	<p>Assessments were carried out in priority management areas and manual seedling management has subsequently been undertaken in all of the 11 estuary care group work areas either through volunteer efforts or paid contractors.</p>	
BOPRC	<p>Mature mangrove management</p> <p><i>Mature mechanical mangrove management as required.</i></p>	<p>No mature mangrove removal was undertaken during this reporting period as this is no longer a permitted activity.</p>	





BOPRC	<p>Twenty four seven oil spill response and navigation safety</p> <p><i>Long Term Plan KPI: Spills in Tauranga are responded to within 30 minutes and all others are responded to within two hours.</i></p>	<p>24/7 navigation safety coverage and oil spill response was achieved. Eighteen 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><i>Audit to be completed between July and September 2018.</i></p>	<p>Audit completed in September 2018.</p>	
BOPRC	<p>Navigation and Safety</p> <p><i>Long Term Plan KPI: Percentage of navigation aids rated as 'good' quality or higher.</i></p> <p><i>Purchase and installation of navigation aids.</i></p>	<p>Navigational aids audits and maintenance completed. The majority of the maintenance was undertaken by BOPRC staff using Awanui.</p>	
BOPRC	<p>Vessel Acquisition</p> <p><i>A Sea Legs vessel will be able to support work during times when the Harbour provides challenges with shallow or dry areas and will be a valuable research and rescue asset.</i></p>	<p>Sea legs vessel 'Kaha' is fully operational.</p>	




<p style="writing-mode: vertical-rl; transform: rotate(180deg);">BOPRC</p>	<p>Education Programme</p> <p><i>Ongoing work throughout 2018/19.</i></p>	<p>Full time patrols commenced on 10 December 2018 to end of April 2019.</p> <p>1382 boat ramp surveys were undertaken by summer students.</p> <p>Another busy summer season saw 6,724 interactions, 601 breaches issued and 49 infringements.</p> <p>Safety videos filmed in partnership with the Waikato Regional Council showing the importance of carrying two forms of communication on the water.</p> <p>Staff attended the Boat Show, 3,800 interactions.</p>	
<p style="writing-mode: vertical-rl; transform: rotate(180deg);">BOPRC</p>	<p>Ongoing Regulatory Compliance Work; Compliance Monitoring, Complaint Response and Enforcement</p> <p><i>Compliance and impact monitoring of sites/consents to be in accordance with Council Charges Policy.</i></p> <p><i>Report on compliance air discharges on consented industrial sites.</i></p> <p>Long Term Plan KPI: <i>95% of urgent complaints made to the pollution hotline are responded to within 12 hours.</i></p> <p><i>80% of compliance monitoring inspections that occur as per the frequency specified in the Resource Management Act and Building Act Charges Policy.</i></p>	<p>Meeting KPI requirements with urgent and non-urgent complaints.</p> <p>1,178 consented activity inspections were carried out during the reporting period.</p> <p>2,362 service requests (complaints) were dealt with during the reporting period. 1,837 related to air, 70 to coastal, 448 water and land and 7 to OSET.</p>	





<p style="writing-mode: vertical-rl; transform: rotate(180deg);">BOPRC</p>	<p>Matakana Island Sawmill Assessment</p> <p><i>Present assessment of costs to Komiti Māori and report to the Matakana Island Trust.</i></p>	<p>This project is on hold until all shareholders give their permission to access the site in order to plan and undertaken an assessment of costs to undertake a full detailed site investigation.</p>	
<p style="writing-mode: vertical-rl; transform: rotate(180deg);">TCC</p>	<p>Stormwater Management</p> <p><i>Long-term stormwater and receiving environment monitoring data for stormwater catchment across the city.</i></p> <p><i>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.</i></p>	<p>As a result of the five yearly report the following works have been undertaken or are underway:</p> <ul style="list-style-type: none"> • Additional monitoring of high priority sub catchments and investigative sampling to identify potential sources for contaminant loads. • A number of rain gardens have been incorporated into the upgraded Durham Street streetscape to help improve stormwater discharge quality from the CBD. Water sensitive design has also been incorporated into the design for the upgrade to the Elizabeth Street streetscape. • Sediment Forebays in the Te Maire sub catchment in the Mount Industrial area have been improved and stormwater that previously bypassed the Tukorako stormwater pond diverted to the forebay. Planting improvements are also planned. • A number of in catchpit gross pollutant traps have been installed to trial improvements in rubbish removal and at source sediment retention. • Two litter nets have been installed as a temporary trial at the stormwater outlet below Waitaha Road, Welcome Bay. • Annual Comprehensive Stormwater report presented to BoPRC. 	



TCC	<p>Wastewater Management</p> <p><i>Complete review of the Environmental Mitigation and Enhancement Fund.</i></p> <p><i>Complete construction of Te Maunga dewatering and sludge thickening plant.</i></p> <p><i>Te Maunga Bypass line construction.</i></p> <p><i>Harbour crossing for the Southern pipeline to be completed by December 2018.</i></p>	<p>The Wastewater Management Review Committee agreed to review the guidelines used for administering the Environmental Mitigation and Enhancement Fund with the tāngata whenua members of the committee preparing a draft document for the committee to review in August 2019.</p> <p>The UV Plant at Te Maunga has experienced a number of electrical faults. A new control system is being built which will allow banks of lights to be run independently improving the resilience of the plant.</p> <p>The Thickening and Dewatering Plan at Te Maunga is operational and the sending of sludge from the wastewater treatment plant to the sludge pond ceased in April 2019.</p> <p>Over 17 kilometres of wastewater pipeline across the city were CCTV surveyed for maintenance, renewal and condition assessments.</p> <p>The Southern Pipeline is fully operational.</p> <p>14 wastewater overflows that may potentially have impacted on Tauranga Harbour during the reporting period. Four related to third party damage, six due to wet wipes / rags, one private overflow to the stormwater system and two caused by fat blockages.</p>	
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<p style="text-align: center;">TCC</p>	<p>Three Waters Education Programme</p> <p><i>Ongoing work through 2018/19.</i></p> <p><i>Key focus for 2018/19 is the development of a targeted wet wipe campaign to prevent/minimise the amount of wet wipes entering the wastewater network.</i></p>	<p>Wet wipes awareness campaign ‘Save our Pipes from Wipes’ was launched. The campaign has raised awareness around the issue of wet wipes blocking the wastewater network and potentially causing environmental harm.</p> <p>The Waterline schools programme has been presented to 19 schools involving approximately 2,500 students.</p> <p>Other community education sessions have included the Hands on Water Expo, Tauranga Home Show exhibit, eight pre-school sessions with the new Pumps, Pipes and Wipes model, and four community group presentations.</p> <p>A successful open day was held at the Oropi Water Treatment Plant and Chapel Street Wastewater Treatment Plant on 26/27 October 2018 with over 240 people attending.</p> <p>Waterline in-home advisory service continues to be promoted and utilised by Tauranga residents.</p> <p>Water restrictions came into force during January and lasted until March. During the time, council managed 130 customer calls.</p>	
<p style="text-align: center;">TCC</p>	<p>Pollution Prevention Programme</p> <p><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.</i></p> <p><i>Urgent Pollution Incidents must be attended within one hour (Maintenance contractors KPI).</i></p>	<p>Tauranga City Council referred a number of sites within the Mount Industrial and Maleme Street catchments to BOPRC for new stormwater discharge consents.</p> <p>Tauranga City Council and Bay of Plenty Regional Council continue to collaborate on a number of pollution incidents.</p> <p>89 service requests were received, with 80% regarding minor pollution incidents, 8% regarding wildlife 5% regarding dumping, and the rest a mixture of odour, sediment and false call outs.</p>	



TCC	<p>Harbour margin parks ecological restoration</p> <p><i>Compliance and impact monitoring of sties/activity to be in accordance with City Plan and restoration plans for each site.</i></p> <p><i>Kulim Park to receive 4,500m³ of sand.</i></p>	<p>Pest animal and plant control has been undertaken around a number of harbour margin sites within the catchment.</p> <p>4,500 m³ of sand was added at Kulim Park and 680 m³ at Whareroa Beach.</p> <p>Timber seawalls have replaced rock walls at Kulim Park, Forrester Drive and Tye Park.</p> <p>Winter native plantings was successfully completed at the Waikareo Estuary by the Judea Sportsfield, expansion plantings in the Matahoroa Gully, and the Fantail Reserve SEA.</p> <p>Large area of grazing has been retired in the Kopurererua Valley to be restored to natural wetland.</p>	●
TCC	<p>Beaches Bylaw Review</p> <p><i>Submission hearing to take place July 2018.</i></p> <p><i>Final revised bylaw for adoption by Council October 2018.</i></p>	<p>The Beaches Bylaw came into effect 1 December 2018.</p>	●
WBOPDC	<p>Tahataharoa Land Purchase and Restoration Project</p> <p><i>Complete purchase and transfer of land into public reserve over the next two years.</i></p>	<p>A sale and purchase agreement has been signed.</p> <p>Funding has been received towards the restoration of the saltmarsh and development of pathways.</p> <p>Work continues on a land ownership and management model.</p>	●
WBOPDC	<p>District wide natural environment support</p> <p><i>Key community groups are encouraged to continue to be viable in the future.</i></p>	<p>Community groups continue to be supported. Allocated as per guidelines, including Friends of Puketoki Reserve, Aongatete Forest Project and Aongatete Outdoor Education Centre.</p>	●



WBOPDC	<p>Ongare Wastewater Scheme</p> <p><i>Reticulated community system.</i></p>	<p>The Ongare wastewater scheme is largely complete with some minor reinstatement works still be to undertaken.</p>	●
WBOPDC	<p>Katikati wastewater treatment investigations</p> <p><i>Re-consenting of the pipeline and outfall.</i></p>	<p>The Katikati wastewater consent renewal was approved on 24 August 2018 and the consent conditions require Council to look at alternative options for the long-term discharge of the treated wastewater from the Katikati Wastewater Treatment Plant.</p> <p>A working group has been formed that includes Tangata Whenua, Councillors and Community Board representatives. The group has been meeting on a regular basis to assess the various options available; including, reuse of wastewater. Potential sites have been narrowed down and these sites are undergoing in-depth engineering assessments.</p>	●
WBOPDC	<p>Seawalls</p> <p><i>Obtain required consents from Regional Council.</i></p>	<p>Resource consent has been granted and works are complete.</p>	●
WBOPDC	<p>Ōmokoroa slips</p> <p><i>Monitor slips.</i></p> <p><i>Update public on any progress.</i></p>	<p>The drainage system installed in 2018 to help remove excess groundwater from the soil responded well to the high rainfall event in late December 2018.</p> <p>Monitoring continues on a regular basis.</p>	●
WBOPDC	<p>Cycleway</p> <p><i>Ongoing work throughout 2018/19.</i></p>	<p>The 19 km Ōmokoroa to Tauranga cycle trail is nearing completion with the final stage, Wairoa River Bridge clip-on expected to be completed by December 2019.</p>	●

Financials

Bay of Plenty Regional Council budget	2018/19 budget (\$000)	2018/19 actuals (\$000)
Maritime	\$1,100	\$1,100
Tauranga Catchments	\$1,900	\$1,766,
Science	\$460	\$347
Marine Biosecurity	\$171	\$160
Total	\$3,631	\$3,373

Tauranga City Council budget	2018/19 budget (\$000)	2018/19 actuals (\$000)
Recreation and Natural Environmental	\$880	\$800
Stormwater Pollution Prevention	\$880	\$700
Wastewater Effects Mitigation	\$27,730	\$26,000
Integrated Stormwater Project	\$6,500	\$6,200
Tauranga Harbour Inundation and Coastal Erosion	\$100	\$100
Total	\$36,090	\$33,800

Western Bay of Plenty District Council budget	2018/19 budget (\$000)	2018/19 actuals (\$000)
Tauranga Catchments Contribution (Coast Care, HMP's, Stream Works and Inundation and Coastal Erosion)	\$286	\$453
Ongare Wastewater Scheme	\$873	\$979
Tahataharoa Land Purchase and Restoration	\$200	\$14
Total	\$1,359	\$1,446