

2015/2016 Regulatory Compliance Report

BAY OF PLENTY REGIONAL COUNCIL
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2015/2016

Regulatory Compliance Report

February 2017

Bay of Plenty Regional Council
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NEW ZEALAND

EXECUTIVE SUMMARY

The Bay of Plenty Regional Council uses a variety of regulatory and non-regulatory tools to manage the environmental impacts of activities throughout the region, including rules and resource consents made under the Resource Management Act 1991. Compliance with the requirements of these rules and resource consents provides an important measure of how we, as a regulatory authority, engage with the community to manage environmental impacts.

Attached to the agenda is a copy of the 2015/2016 Regulatory Compliance Report. The report provides an overview of findings from compliance monitoring, complaints response, and enforcement activity undertaken from 1 July 2015 to 30 June 2016, and discusses work undertaken by the Regulatory Compliance (formerly known as Regulatory Compliance) team to improve environmental management. Compliance results are presented both geographically by Water Management Area, and across five different subgroups:

- Land
- Water
- Coastal
- Industry
- Infrastructure

The report also compares the results with those presented in the 2014/2015 compliance report, and discusses some significant emerging compliance related issues.

REALIGNMENT OF THE REGULATORY COMPLIANCE TEAM

As the demands placed on the Regulatory Compliance team, and the expectations of the organisation and stakeholders, have continued to grow, a need emerged to revise the way we work, in order to ensure that we can continue to provide a high level of service to our customers.

In response, a new structure has been developed and is being implemented, with the intent to build a more agile regulatory compliance team that uses a more strategic risk-based compliance approach, but also supports the increasing demand for engagement externally and across our organisation. This focus on a strategic compliance approach to regulation is in line with reform across the Regional Sector (regional councils and unitary authorities) and Central Government, and adopts international best practice on how regulators focus their valuable and limited resources on high-risk activities.

COMPLIANCE RESULTS:

Throughout the 2015/2016 period, the Regulatory Compliance team undertook 2,284 compliance inspections on 1,421 individual resource consents. This is 15% less than the number of assessments recorded in the 2014/15 report. The lower number of compliance inspections was largely due to the significant increase in complaints received over the year.

Seventy-nine percent of all inspections were assessed as complying with their resource consent. Of those that were assessed to be non-compliant, 68% were considered to be low risk, 17% moderate risk, and the remaining 15% as significantly non-compliant. The overall results show that the severity of non-compliances appears to have increased compared to last year, with over double the amount of significant non-compliance reported.

2015/2016 MONITORING PERIOD

COMPLIANCE ACROSS THE REGION

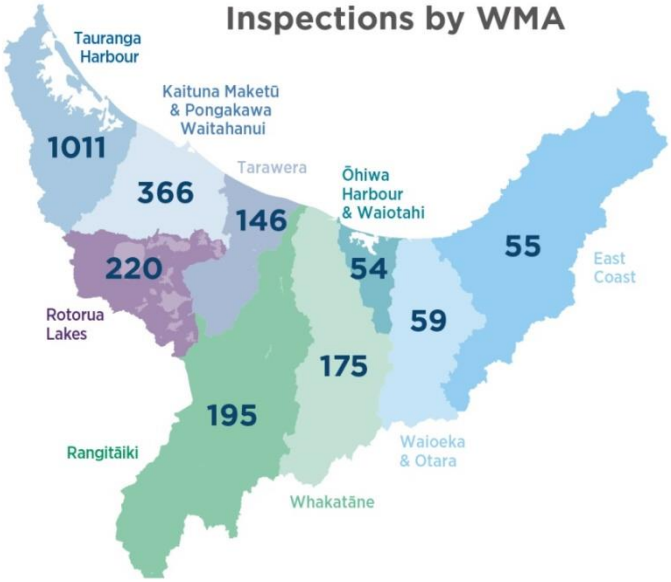
5721 Consents

26% consents assessed

2284 inspections



Inspections by WMA



Compliance by sector

Land (78%)	Coastal (81%)	Water (78%)	Industry (84%)	Infrastructure (78%)

COMPLAINTS RESPONSE:

Throughout the 2015/2016 reporting period, we received 2,360 complaints, which are the most complaints we have ever received for any twelve month period, and marks a 28% increase on the record set in the 2014/2015 reporting period.

The majority of complaints (57%) remain linked to air quality, particularly dust, smoke and other odours.

Complaints occur throughout the year, with only 8 days during the 12 month period where no complaints were received. Summer is generally the busiest period for the year, which is to be expected given the more likely presence of dust, and more people enjoying the outdoors; demonstrating this, the busiest month for 2015/2016 was January.

ENFORCEMENT

Throughout the 2015/2016 year, eighty three abatement notices were issued. Similar to complaints, the majority of abatements (64%) related to discharges to air, with the remainder relating to land use, discharges to water, or disturbance of a lake or riverbed.

Seventeen infringement notices were issued for a total of $11,850. Six of these infringements were the direct result of complaints, while nine were linked to the breach of resource consent.

Two significant prosecutions were sentenced relating to incidents from the previous reporting year:

- Mobil Oil New Zealand Limited was fined a total of $288,000 for the discharge of heavy fuel oil into Tauranga Harbour on 27 April 2015 (sentenced on 15 May 2016); and
- Fonterra Limited was fined a total of $174,150 for four failures of Fonterra's wastewater (whey) irrigation system at Edgecumbe, and two overflows of wastewater to the stormwater system at Fonterra's Edgecumbe plant (sentenced 27 July 2015).

A further six offences occurred throughout the 2015/2016, and have since been investigated and subsequently prosecuted, with a total of $136,395 in fines issued.

Five of these cases related to discharges into freshwater, while the other related to an unauthorised freshwater abstraction.

CHALLENGES AND OPPORTUNITIES

This report also identifies and discusses the challenges facing our compliance programme, and a number of opportunities to improve the way we carry out our core functions, including:

- The roll-out and implementation of our new compliance database system (Accela) since November 2015.
- The increasing number and complexity of resource consents, particularly those related to major industries or significant activities.
- Opportunities to improve how consistently we monitor compliance.
- Opportunities to improve how we manage and utilise compliance monitoring data.

2360 complaints

The highest number EVER received

17 infringement notices issued for a total of **$11,850**

83 abatement notices issued

53 related to discarge to air

19 related to land use

9 related to restrictions to water

2 related to river or lake beds

Investigations relating to offences from the previous year were sentenced for a combined total of $462,150 in fines

6 offences from the 2015/2016 year have been prosecuted for a total of **$136,395**

TABLE OF CONTENTS

	Executive Summary	i
	Introduction	1
Results	Compliance Inspection Results	6
	Complaints	9
	Enforcement	10
	Discussion	11
Land	Earthworks	13
	Quarry	15
	Forestry	16
	Dairy Effluent Discharges	18
Water	Irrigation Water Takes	20
	Domestic Wastewater	22
	Small Scale Geothermal Use	24
	Lake and River Structures	28
	Coastal Activities	29
Infrastructure	Municipal Water Takes	31
	Wastewater	33
	Stormwater	35
	Port of Tauranga	36
Industrial	Industrial Discharges	37
	Hydro-Electricity Generation	40
	Geothermal Generation	40

INTRODUCTION

The Bay of Plenty Regional Council (BOPRC) works to support the sustainable development of the region through managing the effects of people's use of freshwater, geothermal, land, air and coastal resources. We also have a broader responsibility for the economic, social and cultural well-being of the regional community.

BOPRC uses a variety of regulatory and non-regulatory tools to manage the environmental impacts of activities throughout the region, including rules and resource consents made under the Resource Management Act 1991 (the RMA). Compliance with the requirements of these rules and resource consents provides an important measure of how we, as a regulatory authority, engage with the community to manage environmental impacts.

This is the second year that BOPRC has presented a comprehensive report which provides an overview of findings from compliance monitoring undertaken from 1 July 2015 to 30 June 2016, and discusses projects undertaken by the Regulatory Compliance team to improve environmental management across the region. The report also provides a discussion on some significant emerging issues relating to resource management across the region, and how they impact the community's ability to meet compliance requirements, and our approach to implementing compliance.

This report has allocated activities to 5 different subgroups:

1. **Land**: contaminated sites, earthworks, waste, quarry, forestry, dairy and domestic wastewater discharges
2. **Coastal**: coastal discharges, CMA works, dredging, mangrove management, coastal structures,
3. **Freshwater:** Ag/Hort Irrigation, Discharges to Water, Stormwater, Geothermal (Rotorua), Geothermal (Western Bay), Industrial Water Takes, Drinking Water (community), Dams and Diversions, Structures, Lake Structures (within this), Riverbed Works, Bore Installations, Pest management
4. **Infrastructure**[1]**:** Port of Tauranga, roads, Three Waters (municipal water, wastewater, stormwater)
5. **Industry**[1]**:** Industrial discharges to air, land and water, industrial water takes, timber treatment plants, hydroelectricity generation, and industrial geothermal use

This report provides a snapshot of compliance across these activity subgroups, as well as more detailed discussion of some of the more prominent or significant activities throughout the region.

Why Monitor Compliance?

Achieving regulatory compliance is often about meeting a minimum acceptable standard of resource use. Our goal is to promote behaviour change and achieve voluntary compliance and ultimately best practice.

[1] In the case of infrastructure and industry, a number of these activities are also represented in the other subgroups. In these instances, the results have been included in the overall statistics in order to give a complete picture; however, the discussion is left for a separate chapter.

We want the region's resource users to see resource management not just as compliance, but as adopting good practice, and taking ownership of resource management issues.

Monitoring consents, compliance and complaints:

- Raises awareness with consent holders and land users about the level of environmental management that is required.
- Allows early detection of activities that might be adversely affecting the environment, and allows action to be taken to remedy and mitigate those effects.
- Ensures any non-compliance with consent conditions is identified and appropriate action taken.
- Gives assurance to communities that the resource management framework they were consulted on is being upheld.
- Contributes to assessing long-term trends over time.
- Helps councils make informed decisions.
- Provides useful information about where policies and plans are not meeting the desired and anticipated environmental outcomes - feedback may lead to changes to policies and plans.

HOW WE MONITOR COMPLIANCE

Recorded compliance monitoring includes inspections which undertake an assessment of some or all active conditions within an individual resource consent.

The frequency of site inspections for each activity is dictated by the annual RMA charges policy, which outlines the costs associated with maintaining a resource consent. This frequency takes into account the type of activity and it's environmental risk profile; there may also be other factors taken into account for particular consents, such as the consent holders compliance history, or additional environmental risks associated with the activity's location. For example, the inspection regime for dairy effluent discharge consents is broken into three categories:

Compliance Grade	Explanation
Complying	Complying with all assessed consent conditions.
Low Risk Non-Compliance	Compliance with most consent conditions. Any non-compliance is of a low risk to the environment.
Moderate Non-compliance	Non-compliant with some consent conditions, where the environmental consequence of non-compliance is deemed to be minor to moderate risk, and/or has the potential to result in more serious environmental effects
Significant Non-Compliance	Failure to comply with a number of consent conditions and/or the environmental consequences of non-compliance was deemed to be significant.

Table 1: Explanation of Compliance Grades

- Low Risk – 3 yearly inspections: Adequate pond storage (lined in Rotorua lakes), appropriate irrigator technology for soil types and slopes, good compliance history
- Moderate Risk – 2 yearly inspections: All disposal systems that don't meet Low Risk or High Risk criteria, but have good compliance history and systems that can be managed in a way that ensures compliance
- High Risk – 1 yearly inspections: Any consent authorising a discharge to surface waters, or other High Risk dairy systems that don't meet the Low or Moderate risk criteria.

In addition to inspections, the team also undertakes desktop performance monitoring, which is the audit of incoming returns from consent holders, such as reports, records, or monitoring data.

Both compliance and performance monitoring results are assigned an overall compliance grade, which takes into account the risks associated with any non-compliances. These compliance grades are defined in Table 1.

STRATEGIC COMPLIANCE FRAMEWORK

In March 2016, the Regional Sector Compliance and Enforcement Special Interest Group (CESIG) finalised and endorsed the Regional Sector Strategic Compliance Framework (SCF). BOPRC was involved in the development of the SCF, and our Compliance Programme is designed to be consistent with the National Framework.

The SCF is intended to assist Regional and Unitary Authorities to develop a consistent approach to:

- monitoring compliance (i.e. what is the state of compliance)
- encourage compliance (i.e. achieving the highest levels of compliance)
- deal with non-compliance (i.e. use of enforcement tools to bring about behaviour change)
- reviewing each of these components (i.e. to gauge the effectiveness of the SCF).

The SCF encourages Regional and Unitary Authorities to implement a risk based approach to designing and implementing a compliance framework, and promotes the use of the 4Es Model to encourage compliance.

The "4 E's" are:

***"Engage** – consult with regulated parties, stakeholders and community on matters that may affect them. This will require maintaining relationships and communication until final outcomes have been reached. This will facilitate greater understanding of challenges and constraints, engender support and identify opportunities to work with others.*

***Educate** – alert regulated parties to what is required to be compliant and where the onus lies to be compliant. (i.e. with them!) Education should also be utilised to inform community and stakeholders about what regulations are in place around them, so that they will better understand what is compliant and what is not.*

***Enable** – provide opportunities for regulated parties to be exposed to industry best practise and regulatory requirements. Link regulated parties with appropriate industry advisors. Promote examples of best practice.*

***Enforce** – when breaches of regulation, or non-compliance, are identified then an array of enforcement tools are available to bring about positive behaviour change. Enforcement outcomes should be proportional to individual circumstances of the breach and culpability of the party."*

The SCF also encourages Regional and Unitary authorities to undertake robust data collection and reporting on its compliance and monitoring activities, in order to understand compliance and non-compliance within the region, and to continue to improve and tailor the compliance programme accordingly.

ENFORCEMENT

In most cases when non-compliance occurs, staff will work with the consent holder to bring them back into compliance without using enforcement. However, when this approach is unsuccessful or inappropriate, BOPRC can use a variety of enforcement tools, such as:

- Issuing field sheets or formal letters detailing works/actions that may be required to achieve compliance.

- Issuing an abatement notice to a party or parties formally requiring works/actions be undertaken, or ceased, to ensure that compliance is achieved.
- For more serious issues, Court ordered enforcement order can be applied for. These are rarely used as they can be very expensive and take considerable time to prepare and be heard by the Court. It is more common to apply to the Court for an enforcement order as part of a prosecution sentencing.

Punitive action includes:

- Issuing infringement notices. These are set fines ranging from $300 up to $1,000. They can be issued to individuals or organisations breaching the RMA.
- Taking a prosecution. Bay of Plenty Regional Council only takes prosecutions for the most serious of incidents, or where repeated non-compliance of a less serious nature has occurred. The maximum penalty can be up to two years imprisonment and a $300,000 fine for individuals, or a fine up to $600,000 for any other entity.

Who Monitors Compliance?

Compliance monitoring is largely driven through the BOPRC Regulatory Compliance Team, which is made up of Compliance Officers and Project Officers in Whakatāne, Rotorua and Tauranga.

Compliance Officers make up the bulk of the team and carry out the day to day compliance tasks, including scheduled inspections, complaint response and enforcement. The Project Officers focus on and lead a wide range of projects which are linked to wider compliance issues.

RESTRUCTURE OF THE REGULATORY COMPLIANCE TEAM

As the demands placed on the Pollution Prevention team (now the Regulatory Compliance team), and the expectations of the organisation and stakeholders, continue to grow, a need has emerged to revise the way we work, in order to ensure that we can continue to provide a high level of service to our customers.

Previously, the Pollution Prevention Team has been structured as a wider group of compliance focused and project based staff; although there are some natural areas of expertise amongst the staff, the workload is generally managed across the team in a reactive way.

A new structure has been developed with the intent to build an agile regulatory compliance team that uses a risk-based approach to compliance across the whole team, but also supports the increasing demand for engagement externally and across our organisation. This structure will form three distinct teams based on activity areas, as shown in Table 2, below.

Regulatory Compliance (Industry, Urban, Contaminated Land & Waste)	Regulatory Compliance (Primary Industry, Rural & Water)	Regulatory Compliance (Investigations, Complaints, Compliance Reporting & Review)
Industry and Urban • Proactive audits • Air and Dust • Stormwater • NPS for Urban Development • Tauranga Harbour • Port of Tauranga • Industrial Sites **Contaminated Land and Waste** • Contaminated land • Landfills and Transfer Stations • Dredging • Waste to Materials/Waste to Energy • Regional Waste and Resources Strategy • Regional Waste Fund	**Water** • Wastewater • Water Quality • Water Quantity • Hydro Schemes • NPS for Freshwater **Primary Industry and Rural** • Dairy • Forestry • Earthworks • Quarries • Catchments Compliance • Structures	**Major investigations, Enforcement and Complaints** • Major investigations • Complaints Response • Enforcement Decision Group coordination • Enforcement Training **Compliance Reporting and Review** • Implementing the SCF • Reporting • Review • Regulatory Admin Liaison • Internal Compliance Auditing • Education

Table 2: New Regulatory Compliance Team Structure

Part of the transition to this new structure will involve a significant number of consents being reallocated to new compliance officers. It is expected that the transition will be completed by early 2017.

RESULTS

COMPLIANCE INSPECTION RESULTS

Throughout the 2015/2016 period, the Regulatory Compliance team undertook 2284 compliance inspections on 1421 individual resource consents. This is 15% less than the number of assessments recorded in 2014/15 report. There are likely two reasons for that number:

- There has been a significant increase in complaints throughout the reporting period, which has pulled resources from the day-to-day compliance monitoring. This is discussed further in the sections below.
- The information extracted from

  Accela has given us a greater separation of the types of assessments, allowing us to identify active inspections, and eliminate linked consent activities which have been double-counted.

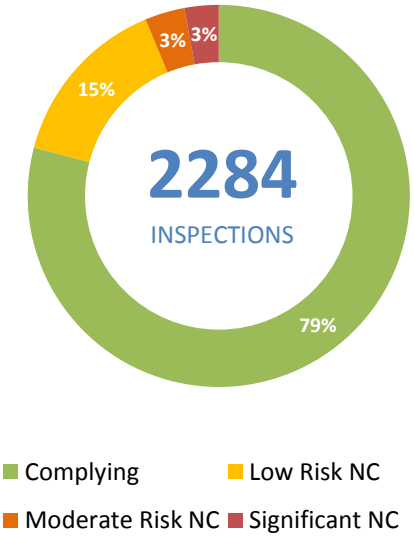
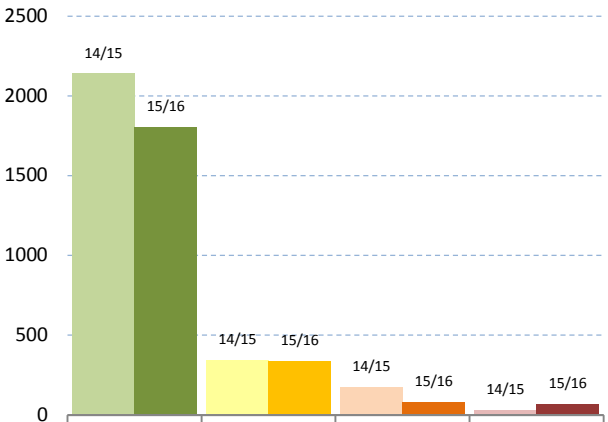


Figure 2: Region wide Compliance Performance 2015/2016



	Complying	Low Risk NC	Moderate Risk NC	Significant NC
14/15	2138	343	175	28
15/16	1806	335	77	66

Figure 1: Comparison of Compliance Results for 2014/2015 and 2015/2016 (by count)

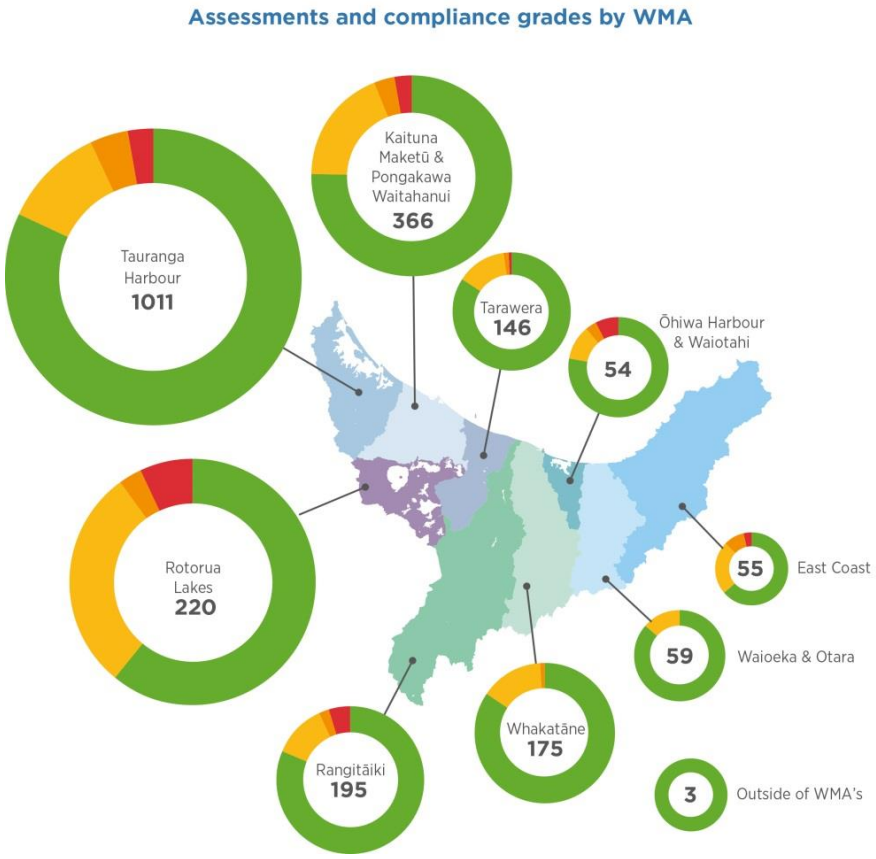
The results of the compliance inspections were generally positive, with 79% of all inspections being assessed as complying with their resource consent. Of those that were assessed to be non-compliant, 68% were considered to be low risk, 17% moderate risk, and the remaining 15% considered to be significant non-compliances. The overall results are largely similar to last year, although the severity of non-compliances appears to have increased, with over double the amount of significant non-compliances reported (refer to Figure 2 right)

In addition to compliance inspections, BOPRC logged 5477 performance monitoring returns. Of these returns, 83% were in compliance with consent conditions, with the majority of those in non-compliance to be considered low risk.

COMPLIANCE AROUND THE REGION

Although compliance around the region varied considerably, the majority of WMA's achieved greater than 75% compliance.

The best performing were the Waioeka, Whakatāne, Rangitāiki, Tarawera and Tauranga Harbour WMA's, which each had over 80% of all inspections assessed as compliant. This was a considerable improvement for all but the Tauranga Harbour WMA. In particular, both the Ōhiwa Harbour and Waioeka WMA's improved by more than 10%



At the other end of the spectrum, both the Rotorua Lakes and East Coast WMA's had a much lower proportion of inspections assessed to be compliant, with only 60.9% and 63.6%, respectively. In the case of the East Coast, this was still actually an improvement of 8.5%, while Rotorua Lakes was a drop of 18.8%, the single largest change seen in any of the WMA's.

Similar to the previous reporting period, the largest number of compliance inspections were carried out in the Tauranga Harbour and Kaituna WMA's. The most significant drop in inspections occurred in the Rotorua Lakes WMA, where there were only 220 inspections in the 2015/2016 reporting period, compared to 619 in the previous year (refer to Table 3, below). This drop in number of inspections is due to the frequency of inspections relating to particular activities; for example, lake structures require an inspection every 10 years. In 2014/2015, there were 380 compliance inspections for Rotorua lake structures, compared to 32 in 2015/2016.

WMA	% of inspections Complying			Total number of inspections carried out		
	2015/2016	2014/2015	Δ%	2015/2016	2014/2015	Δ total
Tauranga Harbour	82.3	85.6	-3.3	1011	870	141
Kaituna Maketu	76.2	79.1	-2.9	366	407	-41
Rotorua Lakes	60.9	79.7	-18.8	220	619	-399
Tarawera	84.2	77.4	6.8	146	137	9
Rangitaiki	81.5	73.9	7.6	195	222	-27
Whakatāne	84.6	79.2	5.4	175	192	-17
Ōhiwa Harbour	77.8	64.1	13.7	54	103	-49
Waioeka	86.4	74.1	12.3	59	85	-26
East Coast	63.6	55.1	8.5	55	49	6
REGIONWIDE	**79.1**	**79.7**	**-0.6**	2284[2]	2684	**-400**

Table 3: Changes in compliance figures across WMA's

INSPECTIONS BY ACTIVITY GROUPING

The top five industries receiving inspections throughout the year all related to activities in the Land and Freshwater Subgroups, particularly:

- Earthworks (453)
- Dairy Effluent Discharge (370)
- Lake and River Structures (178)
- Irrigation Water Takes (140)
- Discharges to Water (131)

This is similar to last year, and reflects either the risks associated with activities such as earthworks and discharges to water, or the sheer number of consents for activities such as lake and river structures.

	Land	Coastal	Water	Industry	Infrastructure
Complying	981	124	546	215	119
Low risk Non-Compliance	198	16	83	35	30
Moderate Non-compliance	52	4	11	14	9
Significant non-compliance	41	3	13	5	17

The levels of compliance by subgroup were consistent, except for infrastructure which was 78% compliant for inspections. Infrastructure activities also had the highest percentage of significant non-compliances, which were exclusively related to wastewater and stormwater discharges.

The further breakdown of results within these subgroups is discussed in more detail within the chapters below.

[2] Note: This includes 3 additional inspections carried out for activities outside of the WMA's (offshore)

COMPLAINTS

BOPRC provides a pollution hotline service, with a 24 hour response service. Throughout the 2015/2016 reporting period, we received 2360 complaints, which are the most complaints we have ever received for any 12 month period, and marks a 27.7% increase on the record set in the 2014/2015 reporting period (see Figure 3, below).

Investigating and responding to the increasing number of complaints has continued to place significant pressure on the team and pulled resources from the day-to-day compliance inspection tasks. In order to assist with this, a compliance officer has been dedicated to dealing with complaints.

The majority of complaints (57%) remain linked to air quality, particularly dust, smoke and other odours; this is discussed further in the Chapter related to Air, below.

Complaints occur throughout the year, with only 8 days where no complaints were received. Summer is generally the busiest period for the year, which is to be expected given the more likely presence of dust, and more people enjoying the outdoors.

The busiest month for 2015/2016 was January, where we received 254 complaints, and most complaints received in a single day was 22 complaints on 26 January 2016 (with a handful of other days where we received 21 complaints).

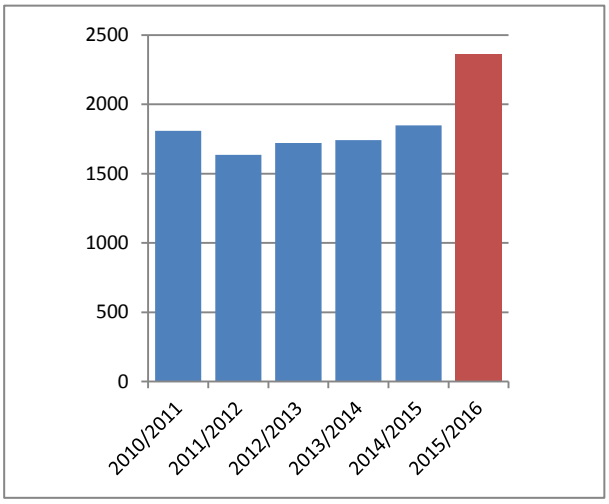


Figure 3: Total Number of complaints received for last 6 years

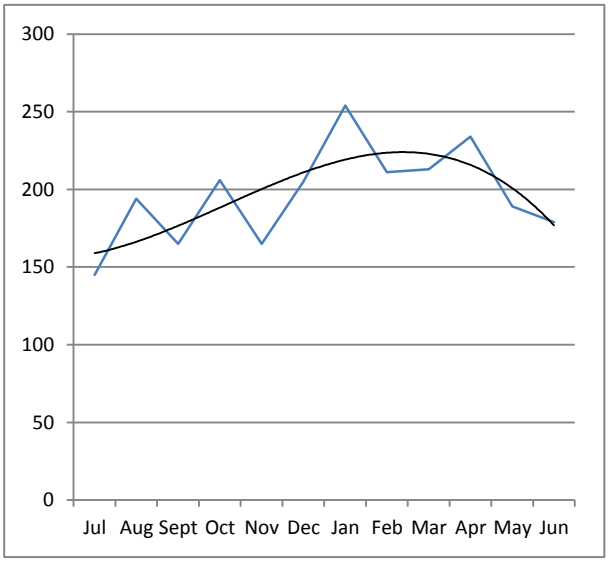


Figure 4: Spread of complaints throughout the year

ENFORCEMENT

ABATEMENT AND INFRINGEMENT NOTICES:

Abatement and infringement notices are tools under the RMA for responding to non-compliances.

Abatement notices are formal instructions, which may be a direction to either cease doing something, take action to address an environmental effect, or to comply with consent conditions.



Infringement notices are issued for serious non-compliance offences which don't warrant further action, such as prosecution. The fines are set by the Government and range from $300-$1000, depending on the offence.



Throughout the 2015/2016 year, 83 abatement notices were issued. Similar to complaints, the majority of abatements (64%) related to discharges to air, with the remainder relating to land use, discharges to water, or disturbance of a lake or riverbed.

Seventeen Infringement notices issued for a total of $11850. Six of these infringements were the direct result of complaints, while nine were linked to the breach of a resource consent.

PROSECUTIONS

Prosecutions are generally reserved for more serious offences where significant environmental effects have occurred, or where there has been repeated serious non-compliance. The maximum penalties under the RMA are up to two years imprisonment and up to $300,000 fine for individuals, or up to $600,000 for a company.

BOPRC considers any serious non-compliance matters through an Enforcement Decision Group (EDG). The EDG are made up of senior staff within the Regulatory Compliance Team and is designed to provide a robust assessment of each case. Not all cases taken to the EDG level result in a recommendation to proceed with prosecution; many result in other forms of enforcement, such as issuing formal warnings or notices.



Throughout the reporting period, two significant prosecutions were sentenced relating to incidents which occurred in the previous reporting year:

- Mobil Oil New Zealand Limited was fined a total of $288,000 for the discharge of heavy fuel oil into Tauranga Harbour on 27 April 2015 (sentenced on 15 May 2016)
- Fonterra Limited was fined a total of $174,150 for four failures of Fonterra's wastewater (whey) irrigation system at Edgecumbe, and two overflows of wastewater to the stormwater system at Fonterra's Edgecumbe plant (sentenced 27 July 2015)



A further six offences occurred throughout the 2015/2016, and have since been investigated and subsequently prosecuted, with a total of $136395 in fines issued.

Five of these cases related to discharges into freshwater, while the other related to an unauthorised freshwater abstraction. These cases are discussed further as case studies within the relevant sections, below.

DISCUSSION

NON-CONSENTED COMPLIANCE

Regional plans and legislation can provide for a range of permitted activities; the majority of these are subject to strict conditions, similar to what might be in a resource consent. The majority of permitted activities generally do not require any notification from the public to BOPRC, making it difficult to track and monitor compliance with the permitted activity conditions of the plans.

As such, this side of compliance is often reactive, and the nature of complaints reflects this, with the majority related to non-consented activities. However, throughout this year, we have seen good results out of targeted and proactive projects which seek to identify and improve non-compliance through the plans, particularly in the area of water takes and small scale industrial discharges. These projects are discussed further in the relevant sections, below.

INCREASING COMPLEXITY AND "VIP" CONSENTS

Since the introduction of the Resource Management Act 1991, and beyond, the attitude towards environmental responsibility has changed significantly. The nature of resource consents has reflected this, with the requirements imposed on consent holders becoming more and more complex. This is particularly true for consents relating to major industries, large scale earthworks, and major infrastructure. These consents are often referred to as VIP Consents, and can include either a single comprehensive consent, or a suite of consents.

The complexity of these consents generally reflects the potential environmental impacts associated with the activities, and the risks posed if controls are not adequate. Subsequently, in addition to imposing clear restrictions on behaviour, they also tend to include a significant amount of reporting to regional council. Some examples of VIP Consents include Trustpower's Matahina Hydro Scheme, the Ballance Agrinutrients Superphos Plant in Mt Maunganui, and the Kaituna Rediversion Scheme.

Also reflecting the type of activity, these consents are often more technical, which requires greater engagement on behalf of the consent holders, and a greater compliance monitoring commitment for BOPRC.

The restructure to the new Regulatory Compliance Team has been undertaken to better manage compliance for those consents, amongst the wider programme.

INTRODUCTION AND ONGOING ROLLOUT OF ACCELA

In November 2015, BOPRC rolled out the first stage of a new compliance and consents data management system called Accela. Accela will provide a significant improvement to our reporting capacity when compared to the previous compliance database, and includes other significant features such as mobile support for compliance inspections.

In order to get the most value out of the programme, the Regulatory Compliance team is continuing to refine our processes and put practices in place to improve consistency in the way we use it.

The rollout of complaints and enforcement modules for Accela is on track to be completed in May 2017, which will bring the three principle strands of our core business into one system.

AVAILABILITY AND ANALYSIS OF COMPLIANCE DATA

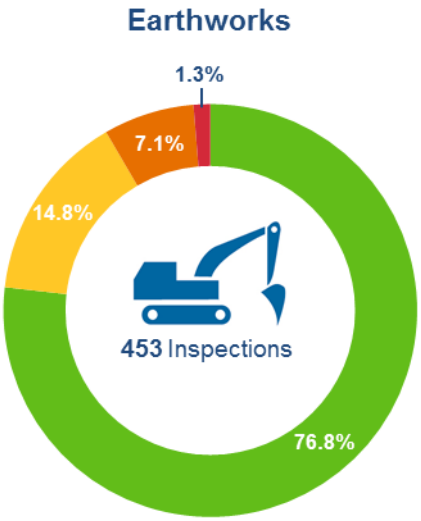
The reporting requirements for resource consents vary depending on a number of specific factors relating to the activity. Where monitoring and reporting is required, it is generally submitted via a customised spreadsheet for review by the compliance officer. The totality of this data would potentially provide significant insight into cumulative impacts associated with consents either within an area and/or across an industry.

Due to the format of reporting, the uniqueness of reporting requirements, and the sheer volume of data we receive, it is difficult to collate monitoring data at a meta level across an industry or geographic area. As part of the restructure to the Regulatory Compliance team, we are bolstering our reporting and review functions, and will better manage, and make use of, our various streams of data.

LAND

EARTHWORKS

Earthworks consents authorise a range of soil disturbing activities; the most visible of these throughout the year has been in the development of large urban subdivisions, however they also include a number of rural activities such as recontouring farmland to change land use, or smaller scale earthworks in areas of higher risk (e.g. steep gradient or proximity to waterways).



Earthworks have the potential for significant impacts, such as undesirable erosion, disturbance of flora and fauna, discharge of sediments and dust, or disturbance or damage to historic heritage and sites of significance to tangata whenua (whether previously known or not).

Without careful earthworks management, mobilised sediment can make waterways murky, smother wildlife, silt up harbour channels and encourage algae or mangrove growth. In order to minimise the risks, consented earthworks are generally only allowed to be active from spring to autumn (15 September to 1 May), as this is when ground and weather conditions are most favourable.

In addition to restricting the time of works, consent conditions generally require certain controls to be in place, such as sediment retention ponds, bunds and silt fences, stabilisation works and dust management infrastructure.

Earthworks consents are monitored at various stages while the works are active. At a minimum, this generally involves a pre-construction meeting, regular inspections during the works, and a further site meeting at the completion of the works. The frequency of these inspections will also be dictated by the scale and risks associated with a particular site.

RESULTS

Earthworks remain one of the most common consented activities in the Bay of Plenty, and is particularly visible throughout the western bay, where significant urban development is continuing. This is reflected in the number of inspections for earthworks consents (453), which is more than any other activities during this reporting period, and 109 more than were undertaken in 2014/2015. Ninety percent of all inspections were located in the Western Bay of Plenty (Tauranga Harbour and Kaituna Maketū & Pongakawa Waitahanui).

During the 2015/2016 season, 120 consented earthworks sites were active. As indicated by the inspections, almost three quarters of all active sites were located in the western bay of plenty. Compliance was generally high, with 79% of all sites found to be compliant (and a total rating of 76% for all inspections). Of those which were non-compliant, the majority were found to be of low or moderate risk, with only six significant non-compliances identified throughout the year. Although these results were relatively average compared to other activities, they were down on the previous reporting period where compliance was 86%, with no significant non-compliances.

The top issues identified with Earthworks sites were:

1) Erosion and Sediment controls not installed correctly, as per Guidelines and/or consent conditions
2) Site not stabilised within the timeframe stipulated in the consents
3) Bulk earthworks being undertaken within the winter exclusion period
4) Miscellaneous breaches
5) Dust leaving the boundary of the site
6) Poorly treated stormwater leaving the site

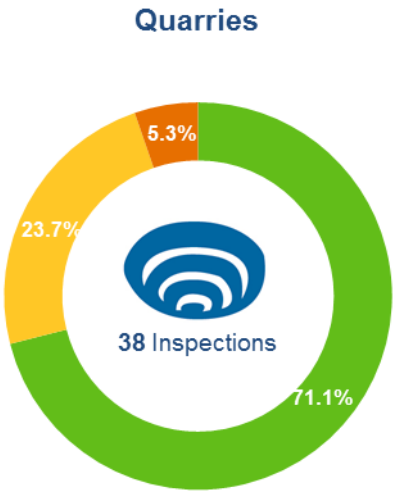
As a result of the inspections, twelve abatement notices and three infringement notices were issued, with no prosecutions undertaken.

Earthworks Inspection Results: 2015/2016 Monitoring Period	Total Inspections	Complying	Low Risk NC	Moderate Risk NC	Significant NC
Tauranga Harbour	327	253	40	28	6
Kaituna	84	61	19	4	0
Rotorua Lakes	16	12	4	0	0
Tarawera	6	6	0	0	0
Rangitāiki	6	3	3	0	0
Whakatāne	9	9	0	0	0
Ōhiwa Harbour	2	2	0	0	0
Waioeka	3	2	1	0	0
East Coast	0	0	0	0	0
TOTAL	453	348	67	32	6

QUARRY

Similar to earthworks and forestry, quarrying operations have the potential for a number of significant environmental impacts, particularly through erosion, dust, and the discharge of sediment into wastewaters. Unlike earthworks, however, quarries often operate permanently and throughout the year. As such, site controls such as sediment ponds and silt fences mush be installed and maintained to a high degree.

Often the nature of soils encountered during quarrying activities means the runoff can be difficult to treat to an acceptable standard with basic treatment. In these cases, some quarries utilise chemical treatment.



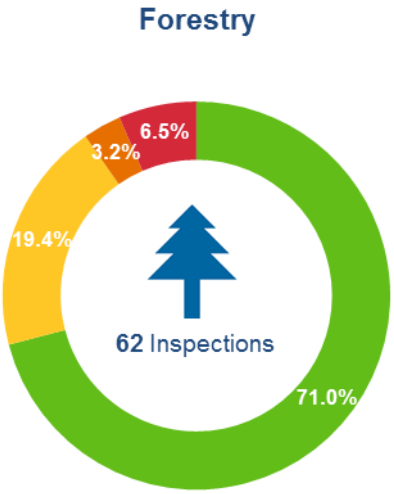
RESULTS

Thirty-eight inspections were carried out on quarries throughout the 2015/2016 reporting period. Compliance was good, with 71% of inspections assessed to be compliant, and no significant non-compliances. This is a significant improvement on the previous year, where only 59% of sites were deemed to be compliant, and 3% were in significant non-compliance.

Quarry Inspection Results: 2015/2016 Monitoring Period	Total Inspections	Complying	Low Risk NC	Moderate Risk NC	Significant NC
Tauranga Harbour	1	1	0	0	0
Kaituna	3	2	1	0	0
Rotorua Lakes	7	3	4	0	0
Tarawera	0	0	0	0	0
Rangitāiki	6	5	1	0	0
Whakatāne	10	9	1	0	0
Ōhiwa Harbour	11	7	2	2	0
Waioeka	0	0	0	0	0
East Coast	0	0	0	0	0
TOTAL	38	27	9	2	0

FORESTRY

The forestry industry continues to play a significant role in the Bay of Plenty environment, with approximately 195,891ha (16%) of land in the region being plantation forest. This is particularly visible in the Rangitāiki, Rotorua Lakes and Tarawera WMA's, where large tracts of the Kaingaroa forestry plantations account for a significant portion of the land use cover.



Although the forestry industry has generally been in decline, there has been some growth with new plantations around the East Coast (East Coast WMA), Pukehina (Kaituna Maketū & Pongakawa Waitahanui WMA), Mimiha and Herepuru (Tarawera WMA). The majority of these plantings are on steeper terrain with erodible soils.

The majority of forestry activities can be undertaken as a permitted activity; however, resource consent is required when the plantation is on slopes >35° or when trees are within 5 meters of a waterway. As such, recorded inspections of forestry operations are largely associated with higher risk operations.

Resource consents may also be required for associated works, such as earthworks and culverts associated with roading.

RESULTS

There has been a steady improvement in the environmental awareness of forestry operators, who have been proactive in seeking advice. Of the 62 compliance inspections carried out in 2015/2016, 71% were compliant. One instance of significant non-compliance resulted in prosecution (see case study, below).

Note: Bay of Plenty Regional Council does not monitor or regulate the health and safety aspects of forestry operations; this is managed by Worksafe NZ in cooperation with industry bodies.

Forestry Inspection Results: 2015/2016 Monitoring Period	Total Inspections	Complying	Low Risk NC	Moderate Risk NC	Significant NC
Tauranga Harbour	7	7	0	0	1
Kaituna	12	7	2	3	6
Rotorua Lakes	0	0	0	0	0
Tarawera	2	2	0	0	1
Rangitāiki	12	9	1	0	3
Whakatāne	9	7	2	1	0
Ōhiwa Harbour	1	1	0	0	2
Waioeka	7	5	2	0	0
East Coast	12	6	5	2	2
TOTAL	62	44	12	6	15

CASE STUDY: DISCHARGE OF FORESTRY SLASH AND SEDIMENT

In August and October 2015, Forest Owner Marketing Services and two of its contractors were fined for allowing unlawful discharge of sediment into streams during harvesting operations south east of Opotiki.

The discharges occurred between October 23, 2014 and May 28, 2015, when the companies were undertaking harvesting and earthworks in a pine forest in Tirohanga.

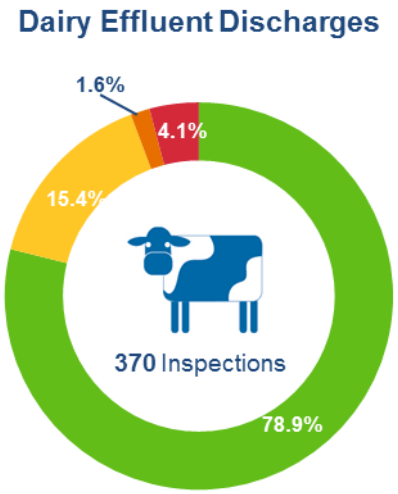
BOPRC was first made aware of the incident by a member of the public who spotted sediment in the stream south of the forestry block. A subsequent investigation revealed that poor environmental management during the harvesting had left the site prone to erosion and sediment discharges.

The site holds a resource consent for its operations, which includes a number of conditions designed to avoid any discharges into the streams. The concerns were initially raised with the company; however, several months later a large landslide of sediment and forestry debris occurred at the forest

BOPRC engaged an independent contractor to carry out remedial work in the forest at the end of 2015 at a cost of approximately $17,000, which Forest Owners Marketing Services has subsequently reimbursed.

DAIRY EFFLUENT DISCHARGES

Dairy farming remains one of the most significant contributors to the New Zealand economy, and a key part of the life and landscape of the Bay of Plenty Region. There are roughly 700 consented dairy sheds across the region.



The effluent collected from dairy milking sheds, which is largely cow faeces and urine but may also contain traces of milk and detergents, can have significant impacts if not properly managed. The effluent is rich in nutrients and bacteria, which can result in high loading rates on land, or contamination of waterways.

Many farms use a combination of methods to manage their effluent; most commonly the effluent is either treated through a pond system and irrigated to pasture, or discharges via pond soakage. Dairy effluent cannot be discharged into a waterway, and irrigation be carefully managed through the winter months to minimise the risk of effluent runoff resulting in a direct discharge to waterways.

Dairy sheds are inspected at different frequencies according to the risk associated with the particular activity, taking into account the type of treatment, the point of discharge and the compliance history of the consent holder. Those farms determined to be high risk are inspected annually, while medium and low risk farms are inspected every two or three years respectively.

Given the number of dairy farms spread around all reaches of the region, the inspections are undertaken annually as a co-ordinated exercise across the whole team throughout spring. In order to minimise the impact on farmers, this is undertaken after the calving season, and farmers are notified prior to the compliance officer arriving.

RESULTS

There were 370 inspections undertaken in the 2015/2016 monitoring period, with compliance officers each undertaking 5-10 inspections per day. The most recent dairy season was also used to trial the Accela AMO (mobile) trial, which will minimise the amount of office based follow-up work required.

Seventy-nine percent of all inspections were determined to be complying, which is an 8% improvement over last year's results. However, there were over double the number of significant non-compliances compared to last year, one of which resulted in a prosecution (see case study, below).

Dairy Effluent Inspection Results: 2015/2016 Monitoring Period	Total Inspections	Complying	Low Risk NC	Moderate Risk NC	Significant NC
Tauranga Harbour	38	32	5	0	1
Kaituna	99	72	18	3	6
Rotorua Lakes	31	24	7	0	0
Tarawera	38	34	3	0	1
Rangitaiki	67	57	7	0	3
Whakatāne	43	35	7	1	0
Ōhiwa Harbour	19	16	1	0	2
Waioeka	21	16	5	0	0
East Coast	14	6	4	2	2
TOTAL	370	292	57	6	15

CASE STUDY: DISCHARGE OF DAIRY EFFLUENT TO A WATERWAY

In July 2016, a consent holder was prosecuted for the discharge of treated effluent into a watercourse, which flowed to the Kaituna River.

This case highlighted the difficulties for managing effluent on intensive dairy farms on the low land peat soils in the area, and the importance of careful management and infrastructure planning in order to limit the risk of discharging effluent into sensitive areas

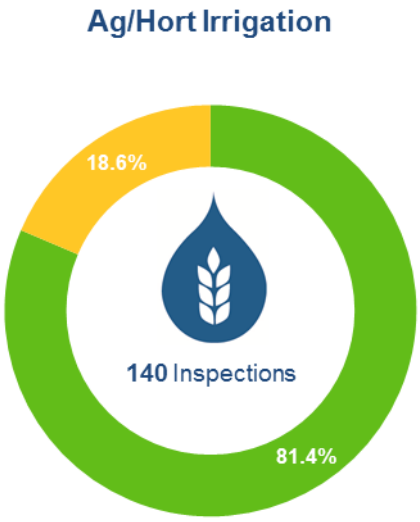
In this specific case, there had been a number of issues which had been identified in the past, which had led the property to be classed as a high risk site, largely due to inadequate storage capacity and highly sensitive nature of the environment in which the farm is located.

As a result of the prosecution, the consent holder agreed to set aside a 2ha area of land to be covenanted for use by BOPRC for Inanga habitat, to undertake significant investment to improve the onsite storage infrastructure, and was issued a discounted fine of $16,500.

WATER

IRRIGATION WATER TAKES

There are currently over 900 consents for water abstraction for the agricultural and horticultural sectors in the Bay of Plenty. The majority of water takes, approximately 83%, are utilised for the horticultural sector; the most prominent crops are kiwifruit and avocados. The bulk of the remaining 17% of consents provide irrigation for pastoral farming, with a small number also supporting dairy farms.



Approximately 31% of water abstractions are from surface water (rivers/streams/lakes), with the rest being sourced from groundwater aquifers.

Consents are required for the abstraction and use of water over a rate of 15 litres per second.

Given the significant role that farming plays in the Bay of Plenty community, BOPRC works closely with industry sector groups to improve relationships and improve compliance with plans, regulations and resource consents. As a result, consent holders are realising that water is a valuable resource, not just as part of the property 'chattels' but also as part of a key component of their business. This is growing an attitude of not simply compliance, but also looking to improving efficiency to better utilise their valuable asset as a core part of their business.

RESULTS

140 water takes were inspected throughout the region in the 2015/2016 reporting period. Compliance was high, with 81% of all consents assessed to be compliant, and no moderate or significant non-compliances. This is an improvement on compliance levels for the previous year (80%).

Hort/Ag Abstraction Inspection Results: 2015/2016 Monitoring Period	Total Inspections	Complying	Low Risk NC	Moderate Risk NC	Significant NC
Tauranga Harbour	62	57	5	0	0
Kaituna	52	37	15	0	0
Rotorua Lakes	0	0	0	0	0
Tarawera	6	3	3	0	0
Rangitaiki	15	12	3	0	0
Whakatāne	1	1	0	0	0
Ōhiwa Harbour	0	0	0	0	0
Waioeka	3	3	0	0	0
East Coast	1	1	0	0	0
TOTAL	140	114	26	0	0

CASE STUDY: EXCESS WATER TAKE

In July 2016, BOPRC successfully undertook a prosecution for the take and use of water above their consented limits.

In this instance, the defendant held a current consent for take and use of water for the purposes of irrigating 14.53ha of kiwifruit orchard, and had a history of non-compliance as far back as 2010. Initially, these related to a failure to keep adequate water use records, and install and maintain a water meter. However, following the commissioning of the water meter, it became apparent that the consent holder was exceeding the limits stipulated in the consent; in some instances, by as much as 68% (5892m^3/week, compared to the limit of 3500m^3/week).

BOPRC initially issued three infringements and abatement notices in March 2015, requiring the consent holder to cease taking water in excess of the consent limits. However, a review of subsequent monitoring data later in the year found a failure to meet these requirements, with ongoing use well above the consented limit of 3500m3/week.

As a result of the prosecution, the consent holder was fined $22,500. More importantly, this case set an important precedent as the first prosecution BOPRC has pursued relating to a water take consent, and gave consideration of the cumulative impact of an ongoing pattern of non-compliance.

ILLEGAL WATER TAKES

Currently, any take and use of water greater than the permitted activity allowance of 35m3/day for groundwater and 15 m3/day for surface water requires a resource consent. During development of Proposed Plan Change 9 to the Regional Water and Land Plan (Region wide water quantity), BOPRC was engaged by members of Horticulture New Zealand, who identified the problem of unauthorised water takes.

In order to identify illegal water users, BOPRC Staff, in conjunction with Kiwifruit and Avocado industry Groups, held 11 open days throughout the region. Through these workshops, 127 growers registered as having unauthorised takes.

Staff have been assisting growers to understand the information required to apply for any required resource consent, and information relating to the water body that they are abstracting water from. A number of these water takes are located in over-allocated water bodies, meaning a greater level of work will be required if the growers are to be able to continue taking and using water above the permitted rate.

WATER USE DATA MANAGEMENT

As of November 2016, under the Resource Management (Measurement and Reporting of Water Takes) Regulations 2010 (the Water Use Regulations), all water takes above 5L/s will be required to provide daily use data to BOPRC; prior to this coming into effect, data collection and management remains one of the most challenging aspects of compliance for water takes.

Although the uptake of digital logging and/or telemetry is improving, the majority of water use records are submitted manually in hardcopy. Furthermore, a significant number of consent holders do not submit water use data within the required timeframe. Over 70 fines were issued for the late submission of data in 2015/2016, which is up from 58 in the previous year.

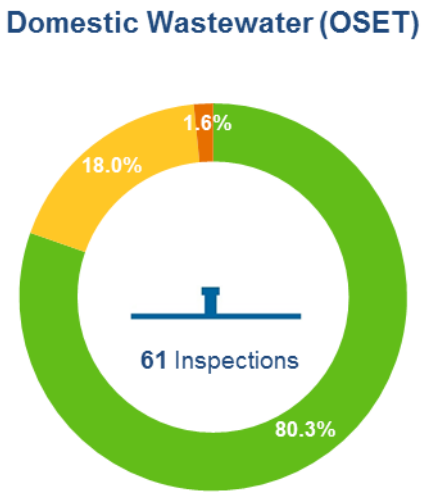
BOPRC has continued to work closely with industry groups to not only communicate the legal requirements for data collection.

In addition to increasing engagement, BOPRC is also exploring a range of tools to facilitate the submission of data:

- Working with Irrigation NZ and local providers to promote the Blue Tick accreditation programme for the installation and verification of water meters which comply with the National Water Metering.
- The development of a water records mobile app, to assist in the recording and submission of water use data (currently in the proof of concept phase).

DOMESTIC WASTEWATER

With a large percentage of the community living and working outside of a city centre, the use of On-Site Effluent Treatment (OSET) Systems, such as septic tanks and aerated wastewater treatment systems, is a common requirement.



In the majority of circumstances, an OSET system can be installed without resource consent; however, a consent may be required if:

- The system is designed to treat more than 2000 litres per day
- New septic tank based systems in the Rotorua Lakes Catchment
- The wastewater is not entirely from domestic sources (e.g. rural businesses, commercial wastewater or campgrounds)

Consented OSET systems can be classified as high risk or low risk, depending on the consented volume of wastewater, the location in relation to Rotorua Lakes, and/or the compliance history.

OSET systems which have been inappropriately designed and/or poorly maintained can lead to contamination of ground or surface water. One of the common signs of a poorly performing system might include ponding of partially treated wastewater, which is a risk to human health.

RESULTS

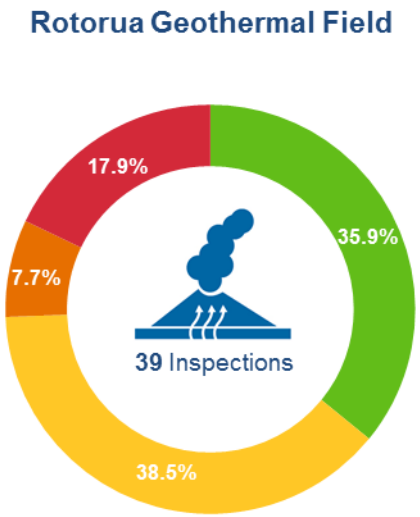
Sixty-one1 inspections were carried out on OSET systems around the region. Compliance has improved notably over previous years, with 80% of all inspections found to be compliant compared to 71% in 2014/2015. Furthermore, of the 12 identified non-compliance, none were deemed to be significant (compared to two significant non compliances in the previous reporting period).

OSET Inspection Results: 2015/2016 Monitoring Period	Total Inspections	Complying	Low Risk NC	Moderate Risk NC	Significant NC
Tauranga Harbour	25	20	4	1	0
Kaituna	1	1	0	0	0
Rotorua Lakes	16	13	3	0	0
Tarawera	4	3	1	0	0
Rangitaiki	1	1	0	0	0
Whakatāne	4	3	1	0	0
Ōhiwa Harbour	1	1	0	0	0
Waioeka	1	1	0	0	0
East Coast	8	6	2	0	0
TOTAL	61	49	11	1	0

SMALL SCALE GEOTHERMAL USE

ROTORUA GEOTHERMAL FIELD

The Rotorua Geothermal Field covers about 12km^2 beneath Rotorua City and the southern margin of Lake Rotorua.



The Rotorua geothermal system is a hot pressurised geothermal system and has many surface features, such as geysers, hot springs and mud pools in areas such as Whakarewarewa Valley, Ōhinemutu, Kuirau, Arikikapakapa, and Ngāpuna . The Rotorua Geothermal resource has significant social, cultural and economic value, which is recognised both nationally and internationally.

There are approximately 140 consented geothermal takes in Rotorua City; the majority of these consents are for production wells (abstraction and use of the fluid), with some others for Down Hole Heat Exchangers.

Two thirds of the consented takes re-inject fluid to the geothermal system through reinjection wells. Fluid used for bathing is not re-injected and is discharged to sewer.

Monitoring indicates that the geothermal reservoir is relatively stable, and water levels increase quickly after bore closure. This has meant that hydrothermal eruptions are less frequent and that many surface features have recovered (especially from 1992-1999). However, recovery is not equal across system. Some are similar to what they were 100 years ago, while others are not fully recovered, and we don't know if they ever will.

Consent inspections generally focus on the flow and temperature readings, and require that wells are maintained to a standard that they can be:

- Tested and monitored (i.e. flow testing to show how much of the resource is being used, temperatures of the fluid being used)
- be controlled at all times to prevent uncontrolled discharges

RESULTS

The compliance levels for Rotorua Geothermal Wells were below average, with less than half of the inspections resulting in and assessment of complying. Of those which were non-compliance, 28% were considered to be in significant non compliance.

The majority of non-compliances related to well maintenance (see further discussion below).

Rotorua Geothermal Inspection Results: 2015/2016 Monitoring Period	Total Inspections	Complying	Low Risk NC	Moderate Risk NC	Significant NC
Rotorua Lakes	39	14	15	3	7

FLOW TESTING TRIALS

To manage the resource the Regional Council needs data on how much fluid and heat is being used (not just how much has been consented). We use this data in modelling to improve our understanding about how the resource is responding to use and how much can be allocated without damaging surface features.

BOPRC can monitor use at any time, and consent holders must provide information on their 'take' to the Regional Council once every 5 years. Providing this information is not easy because geothermal fluid is hot, under pressure and gas filled.

The Regional Council is running flow testing trials to find the best way to measure use. Trials will take place on 15 wells. The method will be used more widely if successful. There is no cost to well owners for the trial.

We are testing use of a flow loop which involves fitting a flow loop with a meter on the reinjection line (see Figure 5, right).

The loop consists of 2 parts: the spool which is permanently left in the reinjection line and the loop.

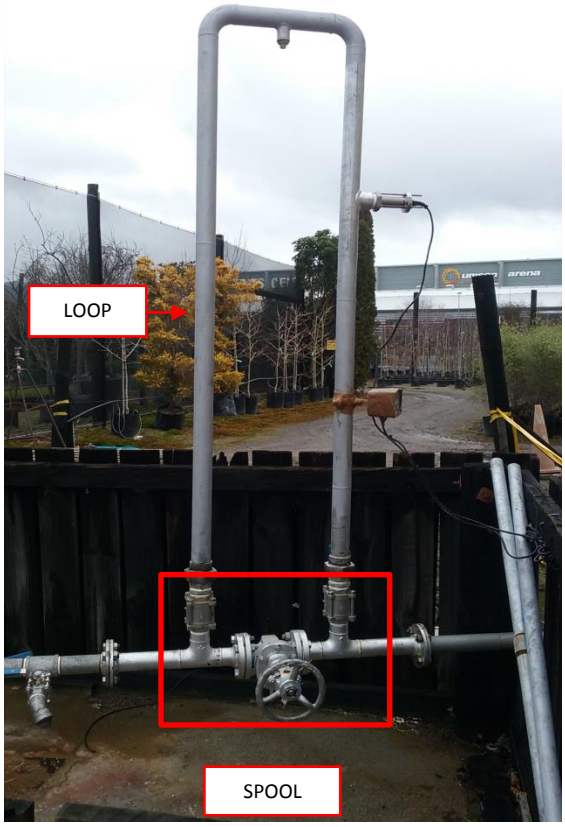


Figure 5: The Flow Loop system developed for flow testing on geothermal bores

The spool allows for the installation and removal of the loop and meter without having to shut in and restart the wells. The loop can be configured for whatever meter is chosen.

The loop is taken away at the end of the test, but can be left on the reinjection line if longer term measurements are required.

Risks from poorly maintained wells or wells not built to standard include:

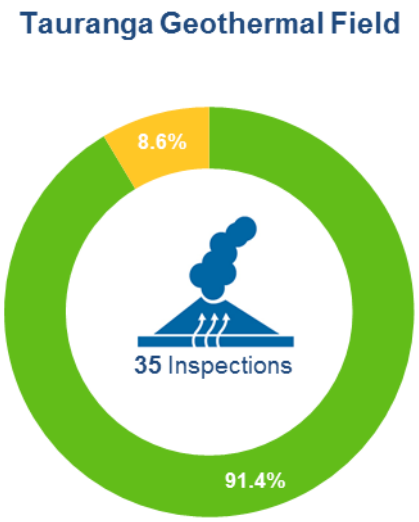
- Inability to control wells if they 'fail' or blow out
- Discharge of poisonous gases (H_2S, CO_2)
- Inability to flow test wells (due to valve design, inability for downhole testing)
- Inability to test casing (i.e. some casing is too small for standard downhole testing tools)

TAURANGA GEOTHERMAL

The Tauranga Geothermal System is a low-temperature geothermal system which runs roughly from Bowentown to Maketū.

Compliance inspections involve ensuring that the water is being used for the activity provided for the resource consent.

Warm water drawn from the system is used for a range of domestic and commercial purposes. The use of geothermal water is not always ideal, particularly for horticultural users which find geothermal water, but really wanted cold water. In some such cases, these users have to install additional infrastructure to cool the fluid before use, or consider the expense of re-drilling a bore. Bores cost about $20,000.00 per 100m depth to drill so very costly to re-drill.



There are currently 129 consented geothermal water takes from the system, which amounts to a total daily abstraction of 35,998.6m^3 per day. The actual volume drawn is generally much less than that, and records indicate that, on average, 66.8% of this total allocation is being abstracted on a daily basis.

- Domestic – use 56.9% of consented allocation (3330.6 m³/day max of 5857.4 m³/day allocated).
- Commercial – use 68.7% of consented allocation (20727.68 m³/day max of 30141.2 m³/day allocated).

The impacts of abstraction on the geothermal system are not yet well understood; scientists require a longer monitoring period to help them accurately model and forecast to predict how long the Tauranga Geothermal System will last and/or confirm whether or not it is cooling. As the consenting authority BOPRC needs up-to-date, accurate data to help with planning and to gain an accurate understanding of the current status of the field.

Newly installed systems are becoming more and more energy efficient with a greater ability to conserve geothermal fluid than older systems. Automated temperature gauges and pumps which are linked to timers are more readily available and less costly. These ensure geothermal fluid is only pumped on an as required basis.

The identification of illegal takes is also an on-going project being run by the compliance team at Council. Seventeen illegal geothermal abstractions were identified during the 2015/2016 investigation of potential unauthorised geothermal abstractions. Fifteen of these abstractors have either submitted a resource consent application to Regional Council or have had their consent application granted; investigation is on-going in relation to the remaining two abstractors.

In addition to monitoring the consent holders' compliance with the conditions of their consent, inspections also include an assessment of the maintenance of the bore head, head works and water meter. This involves running the bore for at least 30 minutes and checking for signs of leakage, checking the bore head is sealed to prevent direct contamination of the groundwater aquifer, water meter condition and presence of a tamper proof seal.

RESULTS

Forty-three consented geothermal abstractions were visited in 2016; the majority were found to be compliant. Fifteen low-risk non-compliances (35%) identified which included one not having a meter installed before exercising the consent, two cases of minor breaches of daily abstraction volume, and 12 having deficient and/or overdue water use and temperature records. Twenty-eight sites in full compliance of the 43 monitored (65%). No moderate or significant non-compliances identified.

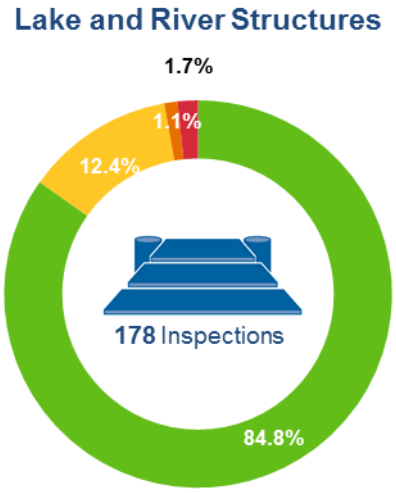
Tauranga Geothermal Inspection Results: 2015/2016 Monitoring Period	Total Inspections	Complying	Low Risk NC	Moderate Risk NC	Significant NC
Tauranga Harbour	43	28	15	0	0

LAKE AND RIVER STRUCTURES

Structures include any permanent buildings or structures over rivers and lakes, which can include boat sheds, jetties, boat ramps, slipways, retaining walls, bridges, etc.

The construction and maintenances of structures requires a resource consent in order to minimise the impact of the structure on the river or lake bed, ensure that the structure is appropriately maintained and safe, uphold visual amenity, and protect important cultural aspects of our lakes and rivers.

Structures are inspected at the time of installation, and on a 10-yearly basis thereafter. Because of the large number (over 900), lake structures are inspected by a contractor, who undertakes assessments of structural and aesthetic conditions from a boat.



One of the key concerns relating to structures in the Rotorua Lakes is the proliferation of new unconsented structures. It is estimated that approximately 100 new structures are installed each year without authorisation, resulting in a high level of reactive compliance work.

RESULTS:

Compliance for consented structures across the region was above average, with 85% of inspections assessed to be compliant.

Inspections relating to Rotorua lake structures were less impressive, with 42% of structures found to be non-compliant. Three inspections relating to the Okere Gates were found to be in significant non-compliance with their resource consent.

Freshwater Structures Inspection Results: 2015/2016 Monitoring Period	Total Inspections	Complying	Low Risk NC	Moderate Risk NC	Significant NC
Tauranga Harbour	62	57	4	1	0
Kaituna	26	25	1	0	0
Rotorua Lakes	41	24(19[3])	14(10[3])	0	3 (3[3])
Tarawera	4	3	1	0	0
Rangitāiki	10	10	0	0	0
Whakatāne	17	15	2	0	0
Ōhiwa Harbour	5	5	0	0	0
Waioeka	4	4	0	0	0
East Coast	9	8	0	1	0
TOTAL	178	151	22	2	3

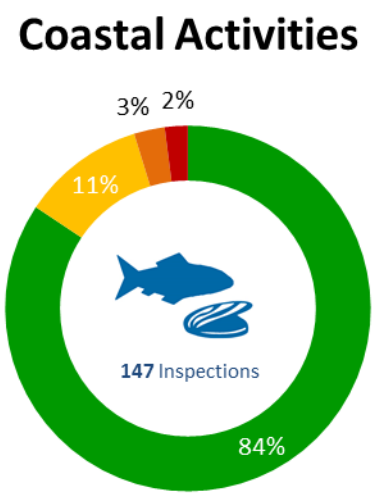
[3] Includes Rotorua Lake Structures

COASTAL ACTIVITIES

The Bay of Plenty coastline extends east from Orokawa Bay (east of Waihī) toward East Cape ending near Lottin Point. Along the coast there are two large harbours Tauranga and Ōhiwa, a number of estuaries and eight large river mouths.

The section focuses on the coastal marine area (CMA), which starts at the high tide mark and extends 12 nautical miles off the coast.

Various activities in the CMA require a resource consent including coastal structures, dredging, mangrove removal and aquaculture.



The Bay of Plenty is a hotspot for marine biodiversity in New Zealand and has a wide range of coastal habitats including estuaries, brackish water lagoons, open sandy beaches, offshore islands and an active volcano.

Coastal areas can often include sensitive environments under threat such as conservation areas, animal habitats, landscape vegetation and culturally significant areas. The coastal marine area also has significant recreational and historic heritage values.

Activities in the CMA have the potential to discharge contaminants, disturb natural processes, disturb or damage ecosystems, native plants and animals or areas of historic heritage, cause erosion, prevent public use of (or access to) an area, or have an adverse effect on values and resources of significance to tangata whenua.

The majority of these activities are discussed in other sections of this report, for example: municipal wastewater, industrial discharges, and the Port of Tauranga. However, there are a small number of other activities which hold either individual consents (such as aquaculture or mangrove management), or have a longer inspection regime, such as coastal structures.

RESULTS:

Results for coastal activities were generally positive, with 84% of inspections resulting in full compliance.

The majority of non-compliances identified in Tauranga Harbour, including the 3 significant non-compliances, were related to consents for the discharge of stormwater or treated wastewater. These issues are discussed in more detail in the respective sections of this report.

Compliance for consents relating to works in the CMA, dredging, and coastal structures were all high (>80%); with only one non-compliance considered to be moderate risk. Compliance for mangrove removal was slightly lower (70%); however, all non-compliances were considered to be low risk.

Coastal Activity Inspection Results: 2015/2016 Monitoring Period	Total Inspections	Complying	Low Risk NC	Moderate Risk NC	Significant NC
Tauranga Harbour	128	109	13	3	3
Kaituna	1	1	0	0	0
Rotorua Lakes	0	0	0	0	0
Tarawera	0	0	0	0	0
Rangitāiki	0	0	0	0	0
Whakatāne	7	6	1	0	0
Ōhiwa Harbour	3	3	0	0	0
Waioeka	3	3	0	0	0
East Coast	5	2	2	1	0
TOTAL	147	124	16	4	3

INFRASTRUCTURE

MUNICIPAL WATER TAKES

There are currently over 60 consented municipal or community water schemes in the Bay of Plenty. The majority of these schemes are run by district councils, although



Bay of Plenty Regional Council is responsible for managing the abstraction and use of all fresh water under the RMA. Resource consents are required for any abstraction above a particular threshold (which may change, according to the water source). These consents allow BOPRC to monitor the amount of demand being placed on the resource, and ensure water resources are not over allocated so are available for as many users as possible. They also ensure that minimum water levels are maintained to a prevent significant social, cultural and environmental effect

Bay of Plenty Regional Council does not control or monitor the quality of water abstracted for municipal supply; this is administered by the Department of Health.

Municipal abstractions are inspected once every five years. Ongoing compliance is largely monitored by auditing the water abstraction records, submitted by the consent holders.

RESULTS

During the 2015/2016 reporting period, there were 14 inspections on drinking water schemes. Compliance was excellent, with 100% deemed to be operating in compliance. This is a significant improvement on the previous reporting period, where drinking water compliance was one of the poorest performing activities.

Municipal Water Inspection Results: 2015/2016 Monitoring Period	Total Inspections	Complying	Low Risk NC	Moderate Risk NC	Significant NC
Tauranga Harbour	3	3	0	0	0
Kaituna	1	1	0	0	0
Rotorua Lakes	3	3	0	0	0
Tarawera	4	4	0	0	0
Rangitāiki	1	1	0	0	0
Whakatāne	2	2	0	0	0
Ōhiwa Harbour	0	0	0	0	0
Waioeka	0	0	0	0	0
East Coast	0	0	0	0	0
TOTAL	14	14	0	0	0

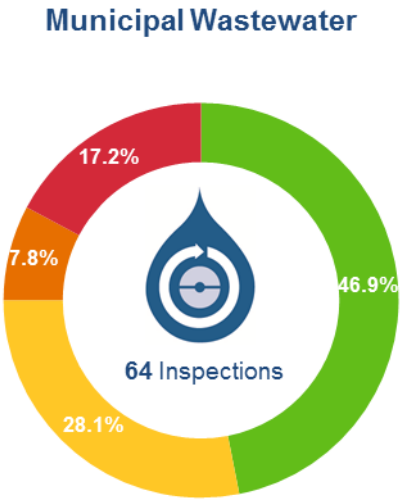
DETAILED INVESTIGATION OF MUNICIPAL WATER TAKES

Although BOPRC is not directly responsible for ensuring the quality of drinking water meets the required health standards, the recent incident in Havelock North has resulted in a significant focus on different Authorities' roles in managing drinking water resources.

As a result of this, BOPRC has instigated a project to take a closer look at the way we undertake compliance inspections on water treatment consents and, where necessary, conduct additional inspections in order to help minimise the risk of a similar incident occurring in the Bay of Plenty.

WASTEWATER

There are currently 16 Municipal Wastewater Treatment Plants (WWTP's) in the bay of plenty region; they are all run by a district council, with the exception of the Kāingaroa Forest, which is operated by the local village trust.



A number of the region's WWTPs are based on oxidation pond designs, and have been modified over the years to allow for growing populations and changing attitudes to environmental impacts. Newer plants use more advanced technology in order to produce better quality treated effluent within a smaller footprint.

Treated wastewater contains elevated levels of nutrients and bacteria, which have the potential to cause impacts to the environment and human health. Cultural impacts are also critical when considering the disposal of treated wastewater from a municipal plant.

BOPRC inspects all major WWTPs on a six-monthly basis, while smaller/low risk plants are visited annually.

Compliance is also monitored through the review of monitoring results submitted by consent holders, and informally through ongoing work with consent holders on particular areas for improvement.

RESULTS

Compliance throughout the 2015/2016 reporting period was relatively poor, particularly compared to previous years. Furthermore, there have been significant non-compliances identified in relation to a number of councils; the most significant of which is the ongoing operation of the sludge lagoon at Te Maunga WWTP (discussed further below).

Municipal Wastewater Inspection Results: 2015/2016 Monitoring Period	Total Inspections	Complying	Low Risk NC	Moderate Risk NC	Significant NC
Tauranga Harbour	26	15	1	1	9
Kaituna	8	3	3	2	0
Rotorua Lakes	4	1	2	1	0
Tarawera	8	4	3	1	0
Rangitāiki	7	4	3	0	0
Whakatāne	5	1	4	0	0
Ōhiwa Harbour	4	0	2	0	2
Waioeka	2	2	0	0	0
East Coast	0	0	0	0	0
TOTAL	64	30	18	5	11

CASE STUDY: BIOSOLIDS MANAGEMENT AT TE MAUNGA WASTEWATER TREATMENT PLANT (TAURANGA)

On 23 December 2015, TCC advised the Bay of Plenty Regional Council (BOPRC) and tangata whenua representatives that they are in non-compliance their resource consent for the discharge of odorous gases from the Te Maunga WWTP, which stipulates that the sludge lagoon "*shall be decommissioned within 7 years of the permit being granted* [9 September 2012]".

Following the notification of this issue, TCC committed to expediting the decommissioning of the sludge lagoon, to be done as quickly as practicable; however, as the ponds form part of the treatment process, it cannot be done immediately and the chosen option needs to provide for the long term viability of the Te Maunga WWTP.

BOPRC staff have since been attending Wastewater Management Review Committee (WMRC) meetings to monitor progress on this project, and provide input into any further discussions around consenting and compliance. The options for resolving this issue were tabled at the Committee meeting in August 2016, and will be further progressed to Tender for design and engineering via District Council.

This matter has resulted in a significant level of interest from members of the public, which has been voiced in the WMRC meetings, particularly from representatives of tangata whenua. On 7 July 2016, BOPRC staff met with the tangata whenua representatives to discuss the matter further, and provide assurance of our position.

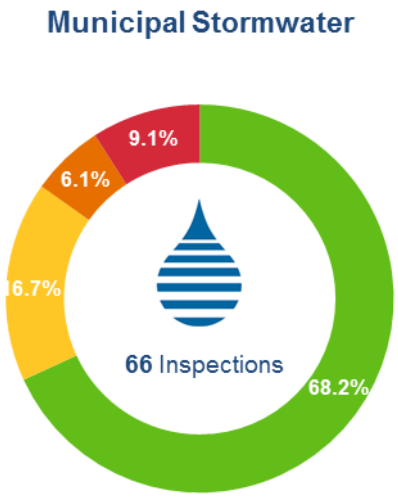
In the wider picture of the operations of Te Maunga WWTP, TCC have remained compliant with other aspects of its resource consents, including the effluent quality limits. However, there have been several other significant issues which have been, or are in the process of being, resolved:

- The sludge lagoon is an unlined pond, and a volume of the contents is discharged into Tauranga Harbour at Rangataua Bay via subsurface seepage, and managed under a separate resource consent. Throughout 2016, TCC identified a significant increase in flow through these seepages; however, recent monitoring indicates that the flow has peaked and begun to decline, with no observed breach of the resource consent.
- The commissioning of the UV treatment plant at Te Maunga WWTP was delayed beyond the required date (April 2015), as a result of significant mechanical and engineering issues. This has since been resolved and the UV plant is now fully operational.
- TCC failed to conduct a review of the Environmental Mitigation and Enhancement Fund, as required by resource consent. This review is currently in progress, with changes to the fund being advanced through the district council process.

STORMWATER

Stormwater runoff from developed activitied can contain a number of contaminants; particularly in urban or industrial areas with a large amount of impervious surfaces.

In order to manage the stormwater discharge network in urban areas, District Councils require a resource consent. In some instances, this can be a comprehensive consent which includes an entire area, and may also include managing all third party discharges into the network (such as industrial sites). More commonly, however, an urban area may include a number of resource consents for the individual discharge points, and significant third party discharges (such as industrial sites) all require a specific consent.



Due to the complexity and risks associated with these discharges (particularly municipal and industrial), stormwater compliance is expected to be a significant focus under the new regulatory compliance structure.

RESULTS

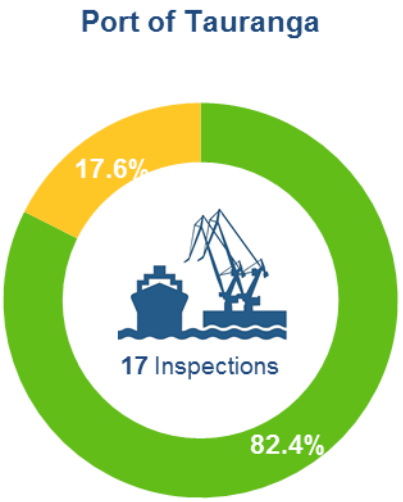
Compliance with municipal stormwater consents was below average, largely due to poor results in the Tauranga Harbour WMA, where only 50% of inspections were found to be compliant. Performance was much better in the other WMA's, with only a single low risk non-compliance identified.

Municipal Stormwater Inspection Results: 2015/2016 Monitoring Period	Total Inspections	Complying	Low Risk NC	Moderate Risk NC	Significant NC
Tauranga Harbour	40	20	10	4	6
Kaituna	16	16	0	0	0
Rotorua Lakes	1	1	0	0	0
Tarawera	0	0	0	0	0
Rangitaiki	2	2	0	0	0
Whakatāne	4	4	0	0	0
Ōhiwa Harbour	1	0	1	0	0
Waioeka	2	2	0	0	0
East Coast	0	0	0	0	0
TOTAL	66	45	11	4	6

PORT OF TAURANGA

The Port of Tauranga (the Port) is a very significant contributor to the economy of the Bay of Plenty. As is expected, the Port, and businesses associated with the Port, carry out a range of activities which, at times, can result in discharges to the environment. The Port holds a number of resource consents; the majority of which relate to structures within the coastal management area, and the ongoing discharge of stormwater from the Port area.

The discharge of dust remains a longstanding issue at the port, particularly related to the unloading of bulk cargo ships and vehicle movements. BOPRC has been working actively with the Port and stevedoring companies recently to improve practices and look at options to reduce dust discharges to air and land.



RESULTS

Compliance with Port of Tauranga resource consents during the 2015-16 year was good, with over 80% of all inspections resulting in compliance, and only three low risk non compliances identified.

Port of Tauranga Inspection Results: 2015/2016 Monitoring Period	Total Inspections	Complying-	Low Risk NC	Moderate Risk NC	Significant NC
Tauranga Harbour	17	14	3	0	0

INDUSTRIAL

The Bay of Plenty supports a number of heavy and light industrial activities. Although they are spread throughout the region, the majority of these occur within the urban areas of Tauranga, Rotorua, Whakatāne and Kawerau.

In addition to the wider industrial sector, there are also a handful of sites which are classified as “Major industrial”. These sites include:

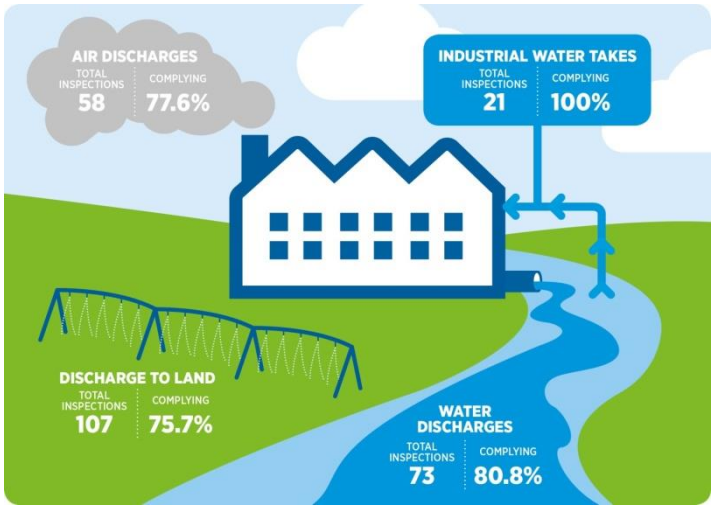
The following sites are classified as Major Industrial:

- Asaelo Care
- Affco New Zealand Limited
- Ballance Agri-Nutrients Limited
- Carter Holt Harvey Pulp and Paper Limited
- Fonterra Cooperative Group Limited (Edgecumbe)
- Genera Limited
- Norske Skog Tasman
- Norske Skog Tasman and Carter Holt Harvey Joint Venture
- Whakatāne Mill Limited.

These sites hold a suite of consents for industrial discharges, water abstractions, and other related activities.

INDUSTRIAL DISCHARGES

The discharges associated with industrial activities have the potential to cause significant impacts to both the environment and human health. Given the majority of industrial activities are undertaken within urban industrial precincts, the cumulative impacts of industrial discharges can be particularly significant.



Major and medium sized industrial discharges are inspected annually, at the very least. Smaller industrial discharges are inspected at least every five years.

In addition to compliance inspection from BOPRC, industrial discharge consents also tend to include a significant requirements for self-monitoring and reporting. As such, the management and review of performance monitoring relating to Industrial sites are critical.

Given the significant risks associated with major industrial action, there is a higher expectation of internal auditing and self-reporting, and BOPRC compliance officers work closely with the consent holders to monitor compliance throughout the year.

RESULTS

Industrial discharge compliance performance was generally good; 77% of all inspections found full compliance, with a total of only 4 significant non-compliances from 238 inspections.

The level of compliance was generally consistent for each of land, water and air discharges; no significant non-compliances were recorded in relation to discharges to freshwater.

Industrial Discharge Inspection Results: 2015/2016 Monitoring Period	Total Inspections	Complying	Low Risk NC	Moderate Risk NC	Significant NC
Tauranga Harbour	94	74	14	5	1
Kaituna	23	17	3	3	0
Rotorua Lakes	20	14	3	3	0
Tarawera	54	44	9	1	0
Rangitaiki	29	23	0	3	3
Whakatāne	14	9	5	0	0
Ōhiwa Harbour	3	3	0	0	0
Waioeka	1	1	0	0	0
East Coast	0	0	0	0	0
TOTAL	238	185	34	15	4

CASE STUDY: SCRAPMAN LTD (DISCHARGE TO WATER):

In June 2016 Scrapman (BOP) Limited, a metal recycling plant, permitted the discharge of contaminants, in one case 27 times above the consented limit for zinc, to a tributary of the Waimapu Stream which drains to the Tauranga Harbour. This offence was a breach of a 2015 issued abatement notice and punitive enforcement action was considered.

The recycling plant subsequently spent upwards of $14,000 on upgrading their stormwater treatment system, including installing a second 3-stage interceptor and an engineered sponge which removes trace heavy metals from the stormwater discharge. An environmental engineer was also engaged to audit the site and provide a report detailing the improvements to make to their operation to prevent and minimise the levels of the contaminants in the stormwater discharge. All of this took place within two weeks of the breach being identified and has ultimately resulted in an improved discharge into the environment.

CASE STUDY: BALLANCE AGRINUTRIENTS (DISCHARGE TO AIR)

Ballance Agrinutrients operate a super-phosphate fertiliser plant in Mount Maunganui; the facility operates under 6 individual resource consents, which include controls around the take and use of seawater, and discharge to Air, Land and Water. One of these consents includes a limit relating to the discharge of Sulphur Dioxide, an odours gas which can have impacts on human health.

As a result of repeated air quality complaints in the vicinity of the Ballance facility, BOPRC launched an investigation into the air quality in the area, with a particular focus on sulphur dioxide, hydrogen sulphide, hydrogen flouride, and dust. This included commissioning an additional air quality monitor at the Whareroa Marae, which is located adjacent to the Balance Plant.

Sulphur Dioxide concentrations measured at Whareroa Marae confirmed two breaches of the upper limit of the National Environmental Standard for Air Quality, and an additional 8 exceedences of the lower limit. The results from the monitoring, combined with atmospheric conditions, clearly indicated that the elevated levels were a result of the discharge from the Balance site, despite the fact that there had been no exceedences of the limits within Ballance's resource consent.

Balance have since undertaken significant works to improve the discharge from the plant, in order to reduce the risk of elevated sulphur dioxide levels occuring in the future, and BOPRC are continuing to closely monitor the site.

CASE STUDY: MOBIL

In April 2015 there was a significant discharge of oil into Tauranga Harbour from a Port wharf during bunkering (re-fuelling) of a vessel. The discharge entered the harbour where it ultimately washed up on the foreshore in various places.

This resulted in a large clean-up operation involving staff from Bay of Plenty Regional Council, Tauranga City Council, Ministry for Primary Industries, Envirowaste, Waikato Regional Council and volunteers from local iwi/hapū and the community.

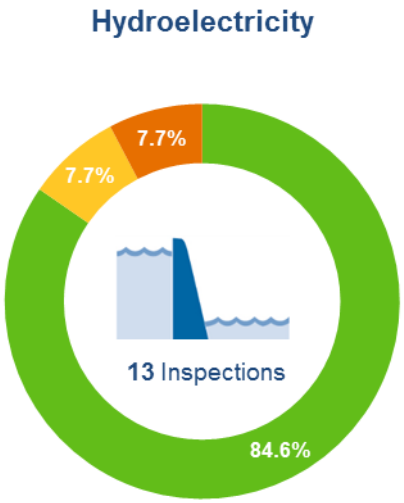
BOPRC undertook a detailed investigation, and, in May 2016, Mobil were ultimately sentenced and fined $288,000 for the discharge of heavy fuel oil into the Tauranga Harbour. Beyond the prosecution, both Mobil and BOPRC have also invested heavily to improve resources and processes and provide greater resilience to spill events, particularly in the Port of Tauranga.

ENERGY

Electricity production in the bay of plenty generally utilises hydro, with the most significant schemes being located along the Rangitāiki River, or geothermal generation, particularly around Kawerau.

HYDRO-ELECTRICITY GENERATION

Hydro generation occurs in various locations around the region, with the most prominent schemes located on the Rangitāiki River (Trustpower and Southern Generation Ltd), and the Kaimais Scheme (Trustpower). There are also several small scale hydrogeneration consents which service individual properties.

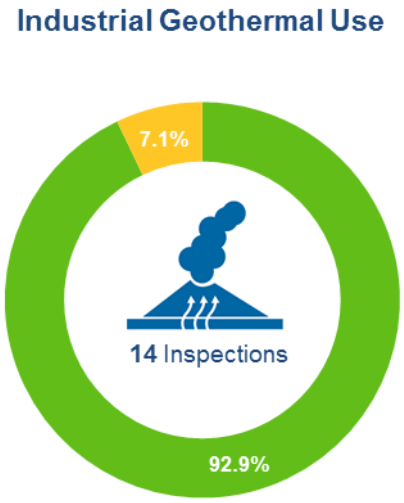


Resource consents generally relate to the structures, damming and diverting of a waterway, and the take, use and discharge of freshwater. These consents often include conditions relating to water volume limits, maintenance of warning signs, safety booms and intake screens, the use of fish passages and ladders, and vegetation control.

The major schemes on the Rangitāiki River, Matahina (Trustpower) and Aniwhenua (Southern Generation Ltd), are monitored on a yearly basis, while smaller scale producers are inspected and reported on every 5 years.

GEOTHERMAL GENERATION

Geothermal electricity generation utilises the Kawerau Geothermal field, which is a high temperature geothermal system concentrated under the town of Kawerau, on the banks of the Tarawera River.



The development of the field is carefully managed to ensure that the system remains sustainable over the long-term. Consent conditions generally relate to collecting daily information on the abstraction and reinjection volume and rates, and discharge quality.

The major users of this resource are all located in the township of Kawerau

- Mighty River Power Ltd
- Ngāti Tūwharetoa Geothermal Assets
- Geothermal Developments Ltd
- Te Ahi o Māui Partnership Ltd

In addition to the monitoring required through resource consents, there a number of dedicated geothermal and groundwater monitoring wells spread throughout the field which are used to monitor pressure, temperature and any changes in fluid chemistry within the field; similarly, additional monitoring is conducted to identify any changes in geothermal vegetation, surface features, subsidence, and micro seismicity. Given the

unique and highly specialised nature of the field, an independent peer review panel of geothermal experts has been engaged to review monitoring reports and advise BOPRC of any issues which may require further information.

RESULTS

Hydro energy producers compliance remained high for this reporting period, with only two non-compliances recorded in relation to Aniwhenua.

Compliance with consent requirements for Kawerau Geothermal remained high, with only a single low risk non-compliance identified amongst 14 individual inspections.

Energy Generation Inspection Results: 2015/2016 Monitoring Period	Total Inspections	Complying	Low Risk NC	Moderate Risk NC	Significant NC
Tarawera (Geothermal)	14	13	1	0	0
Rangitaiki (Hydro)	13	11	1	1	0
TOTAL	27	24	2	1	0

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