

Environment Management Group

Performance Report ended 31 December 2014



1 TE UPOKO TAIAO NATURAL RESOURCE MANAGEMENT COMMITTEE

1.1 Environmental Policy



Overview

The draft Natural Resources Plan for the Wellington region was open for comment until 30 November 2014. More than 145 individuals and organisations provided comments covering more than 4,000 points.

The Ruamāhanga Whaitua Committee's work programme is continuing, with two workshops and one site visit held this quarter

The membership of Te Awarua o Porirua Whaitua Committee was confirmed

The Department's implementation of the Regional Policy Statement is on-going

The Regional Hazard Management Review continues

Key results

- ▶ Te Upoko Taiao held a workshop providing the opportunity for key stakeholders and interested parties to speak directly to Te Upoko Taiao Committee on the draft Natural Resources Plan for the Wellington region.
- ▶ Feedback on the draft Natural Resources Plan for the Wellington region was open until 30 November 2014, after which time the Environmental Policy staff will start to collate and respond to the feedback.
- ▶ Work is progressing on the implementation of the National Policy Statement for Freshwater Management with,
 - » the Ruamāhanga Whaitua Committee's programme of work underway
 - » the approval of the second whaitua committee: Te Awarua o Porirua Whaitua Committee
- ▶ Presentations were made at number of different sites across the region to introduce the public, consultants and stakeholders to the draft Natural Resources Plan (dNRP)

Looking ahead

- ▶ Te Upoko Taiao will be convening early in 2015 for workshops on the draft Natural Resources Plan
- ▶ The Ruamāhanga Whaitua Committee will continue to progress its work
- ▶ Te Awarua o Porirua Whaitua Committee will start its work in February 2015
- ▶ The Regional Hazard Management Strategy work programme will be finalised and a number of workshops held in early 2015.

Departmental activity

The department is currently working on the following activities to support its programmes, including;

- ▶ Engagement on the draft Natural Resources Plan
- ▶ Supporting the Ruamāhanga Whaitua Committee
- ▶ Supporting Te Awarua o Porirua Whaitua Committee
- ▶ The development of a Regional Hazard Management Strategy, and
- ▶ The implementation of the Regional Policy Statement

Implementation of the NPS for Freshwater Management/Whaitua

Programme

Ruamāhanga Whaitua Committee

The Ruamāhanga Whaitua Committee is continuing its work programme, meeting approximately every six weeks at different locations around the whaitua (catchment).

22 October 2014

The Ruamāhanga Whaitua Committee held a workshop on engagement, led by Glen Lauder (Cultivate). This workshop was designed to assist the Ruamāhanga Whaitua Committee with their engagement with each other as a committee and with the community.

24 November 2014

The Ruamāhanga Whaitua Committee held a workshop at the Greytown Town Centre on Monday 24 November. The workshop started with a presentation from Natasha Tomic (GWRC, Environmental Science) on the modelling framework that will be used by the modelling experts contracted to the Council to support the work of the Ruamāhanga Whaitua. Darran Austin (Ministry of Primary Industries) then gave a presentation on how scenarios for economic effects on agriculture were being modelled in different parts of the country, and some of the challenges and issues that have had to be overcome.

The Ruamāhanga Whaitua Committee members then each gave a five minute 'snapshot' report back on the community engagement work they had done, addressing points such as: who they have been talking to? What was the flavour of those conversations? What are the particular issues that community members have talked with you about? What are the issues they see facing the Ruamāhanga Whaitua?

The third session of the workshop involved committee members workshoping an initial set of outcomes and a vision for the Ruamāhanga Whaitua using the following question as a focus: What are the outcomes for land and water management we want to see achieved for the Ruamāhanga Whaitua in the future?

1 December 2014

The Ruamāhanga Whaitua Committee was invited to participate in the field visit and meeting of the Lower Wairarapa Valley Development Scheme Committee. This included viewing the scheme assets and programmes and discussing the importance of the scheme in the Lower Wairarapa Valley.

Te Awarua o Porirua Whaitua Committee

The application period for community membership of the Te Awarua o Porirua Whaitua Committee closed on Friday 31 October and 14 applications were received. The selection panel, consisting of Cr Barbara Donaldson (GWRC), Cr Bronwyn Kropp (PCC), Rawiri Faulkner (Ngati Toa) and Alastair Smaill (Whaitua Project Manager), assessed the applications and shortlisted 11 applicants to be interviewed. Following the 11 interviews, 8 applicants were selected to be put forward to Council for approval as community members on Te Awarua o Porirua Whaitua Committee.

At the 10 December Council meeting the full membership of Te Awarua o Porirua Whaitua Committee was approved (Report PE 14.619). The committee will start meeting in February 2015.

Operative Regional Policy Statement

Ongoing- activity planning is underway and this will be worked through with the Regional Planning Manager Group. A Regional Policy Statement information roadshow was undertaken with meetings held with staff from each of the regions TA's, as part of the wider implementation programme.

Regional Plan review

Te Upoko Taiao – Natural Resource Management Committee

26 November 2014

On 26 November 2014, Te Upoko Taiao held a workshop at the Greytown Town Centre. The workshop provided an opportunity for key stakeholders and interested parties to speak directly to the Te Upoko Taiao Committee on the draft Natural Resources Plan for the Wellington region.

Additionally, Pauline Hill (GWRC, Te Hunga Whiriwhiri) gave a presentation to the committee on the draft mana whenua and māori engagement strategy.

The draft Natural Resources Plan for the Wellington region was open for feedback until 30 November 2014, after which time the Environmental Policy staff will collate the feedback and prepare to report this back to Te Upoko Taiao early in 2015.

Engagement

Public engagement for the draft Natural Resources Plan provided people with a number of ways to deliver their feedback to us:

- ▶ Seven public meetings attended by arrange of people and organisations
- ▶ Presentations and discussion with the eight Territorial Authorities in the region
- ▶ A “Bang-the-table” survey that was accessed by over 150 people, 2 of whom submitted feedback

- ▶ Website feedback by over 165 submitters addressing more than 10 points each
- ▶ Response to the draft Natural Resources Plan included comments from more than 145 individuals and organisations covering over 4,300 points.

Interagency/Interdepartmental cooperation and partnerships

Staff continue to be part of a number of working groups from the Ministry of Primary Industries and Ministry for the Environment, as part of on-going efforts to work together on the implementation of the National Policy Statement for Fresh Water Management and the development of farm plan tools. These areas of work include collaborative planning, setting objectives under the National Policy Statement for Freshwater Management and scientific and economic investigation supporting the Whaitua process.

Regional Council input into Statutory Planning

District Plan Changes

Wellington City Council

- ▶ Proposed plan change 77 – Curtis Street Business Area

GWRC is an interested party (but not an appellant) to the appeals on this plan change on matters relating to biodiversity and stormwater management. A fifth independent mediation session in October to resolve appeal matters led to a decision to abandon mediation and move to the Environment Court. Direction from the Court for hearing the appeal is expected shortly.

- ▶ Draft Reserves Management Plan

GWRC provided comments on this non-statutory document in the areas of biodiversity and flood protection.

Porirua City Council

- ▶ Proposed plan change 16 – Network Utilities

GWRC has submitted on this proposed Plan Change 16. Our main reason for submitting was in respect of our flood protection infrastructure. The hearing was held on 17 September 2014. The Commissioners adjourned the hearing and Greater Wellington Regional Council has produced a report on the interpretation of 'Regionally significant infrastructure'. The hearing will reconvene on 29 January 2015.

- ▶ Proposed plan change 17 – Aotea Supermarket Zone

On 10 October 2014, GWRC appeared at hearing to support a submission seeking amendments to this private proposed plan change. A decision to approve the proposed plan change was notified on 11 December 2014. This decision supports the submission points made by GWRC seeking strengthened provisions for stormwater management and for maintaining the efficiency of public transport routes.

Hutt City Council

- ▶ Discussion Document – Providing for residential growth in Epuni, Waterloo and the CBD edge.

GWRC has provided feedback on this non-statutory discussion document to Hutt City Council. We have provided some comments on the positive effects of intensification on public transport use, comments around managing the effects of development on biodiversity and comments on avoiding intensification in areas subject to flooding.

Notified resource consents

Wellington City Council

- ▶ 55-85 Curtis Street – earthworks and vegetation clearance

This notified resource consent was to undertake earthworks and vegetation clearance to prepare the Curtis Street site for development. GWRC submitted seeking the minimisation of effects from earthworks and the protection of significant indigenous biodiversity values in accordance with the submission that was made on the same matter to proposed plan change 77 (PPC 77) (see above). The consent was granted by Commissioner on 3 December 2014, including provisions that addressed GWRC's submissions points. The site is the same as that affected by PPC 77 and appellants to PPC 77 have indicated that are also likely to appeal against the resource consent decision.

Natural hazards

Research Projects

Hikurangi Subduction Zone Tsunami Project

GWRC is part of a consortium to fund research into the rupture mechanisms of this major plate boundary fault. The project was initiated to investigate the potential for the Hikurangi Subduction zone to generate large mega-thrust earthquakes and consequent tsunamis. Features such as these have the potential to generate earthquakes of over > M8.5. Consequently, they represent a severe risk to local communities.

The first stage of this work has been completed which modelled potential fault rupturing areas, energy distributions and estimated earthquake sizes. GWRC took delivery of a report and associated GIS files in November. This work will contribute to modelling the potential for tsunami to be generated in an earthquake on this fault.

East Coast LAB (Life at the Boundary)

In a related project, Greater Wellington Natural Hazards Analyst has been asked to join a steering committee to for an inter-regional hazards research project called East Coast LAB (Life at the Boundary) being led by Hawkes Bay Regional Council and also involving Gisborne District Council and Horizons Regional Council. The 'Boundary' refers to the Hikurangi subduction zone.

The subduction Hikurangi subduction zone is the tectonic interface between the Pacific Plate and the Australian Plate. The seabed expression of this is one of the deepest ocean trenches in the world 30km off the Wairarapa Coast; the Hikurangi Trench. The interface runs under Wellington at a depth of around 20km and under the Kapiti Coast at about 30km. Movements on the interface are responsible for the slow slip earthquakes that have been occurring on the Kapiti Coast, which are thought to be responsible for triggering other large regional earthquakes, such as the Cook Strait sequence and the Eketahuna Earthquake.

The US National Science Foundation has selected the Hikurangi Margin as one of the three places in the world where a large amount of research effort and money (near \$14 m) will be spent on understanding subduction plate boundary phenomena over the next decade.

New Zealand and international earth scientists are keen to find answers to the many outstanding questions about why subduction zones behave the way they do, including what causes abrupt variations in seismic behaviour along subduction margins, understanding slow slip earthquakes, studying earthquake geology to obtain the timing and locations of past Hikurangi subduction earthquakes and tsunamis, and earthquake rupture and tsunami scenario modelling to better understand the sources of our risks. All this will help us understand what impacts might be on

communities, by defining boundary hazards using history & geology, so we can learn what we can do about it.

East Coast LAB will be a brand around which to

- ▶ Leverage international research opportunities relating to the Hikurangi tectonic boundary lying off the coast of Gisborne / Hawke's Bay / Wairarapa and the natural hazards associated with this boundary (earthquakes, liquefaction, fault rupture, tsunami)
- ▶ Promote public awareness of the natural hazards, including a dedicated website, marketing and dedicated focal points/local venues (eg, the museum and the National Aquarium in Napier or Te Papa) to share such information.

An application to the MCDEM resilience fund to support this project was successfully granted in December and will only require GWRC staff time and occasional travel expenses to attend workshops/meetings.

Porirua Fault Trace Study

The report for this project has been being finalised, following input from GWRC and PCC. A presentation of the findings was held at Porirua City Council in November and to discuss the implications for future development in the Porirua CBD. The project identified and updated information on the location, rupture frequency and earthquake magnitude potential of active faults running through the Porirua area. The work was undertaken by GNS Science and was part funded by GWRC and Porirua City Council. The results indicate that the location of the Ohariu Fault through the CBD is approximately in line with previous work, but that there is greater uncertainty about its exact location due to earthworks and development that has occurred in the area over the past 60 years.

Wellington Harbour Fault Investigation

This project has recently been finalised. A media briefing held at Wellington City Council to announce some of the findings was held in October and was reported on in the print, radio and television media. Work conducted as part of the It's Our Fault project revealed the presence of fault structures on the seabed of Wellington Harbour. GWRC provided funds to allow a more thorough analysis of these faults and the seismic hazard implications they pose Wellington City. The project discovered a previously unknown fault that may be an extension of a fault that bisects Mt Victoria, called the Aotea Fault. The investigation also clarified the existence and location of a fault running through the harbour floor in Evans Bay and into Lyall Bay known as the Evans Bay Fault. This work will contribute to our understanding the seismic hazard risk facing Wellington City.

Lower Hutt Seismic Event Related Geotectonic Investigation

Greater Wellington Regional Council has been working with the Hutt City Council and GNS Science to investigate in more detail the type of fault movement that may occur in Lower Hutt and the potential magnitude of any subsidence that may occur. It is thought that Lower Hutt may experience subsidence from a Wellington Fault event of up to 2.0m. The Fault runs along the western side of the Valley and poses a major risk to communities living in the area.

The report was finalised in November following input on the draft from GWRC and HCC. The implications on how to apply the findings for Lower Hutt are now being discussed.

Regional Natural Hazards Management Strategy

Environment Policy Senior Policy Advisor (hazards) is project managing the development of a regional natural hazards management strategy. The project aims to coordinate hazards management for better consistency and alignment between resource management plans and hazards research across the region. The project has been agreed to by six Local Authorities, Kapiti, Porirua,

Wellington, Hutt, Upper Hutt and GWRC. The Wairarapa councils are keeping a watching brief and may join the project at a later point in time. The project advisory team is the regional planning managers group and the project team will report to the Coordinating Executive Group of WREMO.

MWH has been selected to help with this project following a 'request for proposals' tender and selection process.

The project kicked off in October with the development of a draft 'vision' and some objectives of how we as a region want to responsibly manage the risk from natural hazards and where we want to be in 20-30 years.

A stocktake of what science councils have commissioned and what is currently being done to manage the risks we face from natural hazards has also begun and this will provide the basis of information for a gap analysis and provide a talking point to begin engaging local communities.

A community engagement strategy was agreed to by the Chief Executives Forum in December that will start with a messaging programme on Facebook followed by community drop in days.

Greater Wellington Regional Council is managing the expenses for the project through the natural hazards budget. Councils have contributed \$135k funding to date in addition to \$50k from GWRC.

Civil Defence and Emergency Management

Wellington region civil defence and emergency management group plan

The department continues to work with civil defence emergency management. The latest work has involved the roll-out of the blue lines project through Miramar.

Environment Policy Senior Policy Advisor (hazards) attended a two-day workshop on tsunami hazards in October along with other WREMO staff as part of the wider tsunami hazards education programme.

Presentations/Publications/Media

There have been a number of media articles surrounding the work of the Ruamāhanga Whaitua Committee, and the establishment of Te Awarua o Porirua Whaitua Committee, both on the GWRC website and in local newspapers.

Environment Policy Senior Policy Advisor (hazards) presented a lecture at Massey University in October on RMA planning tools for managing natural hazards.

Financial reports

Policy Income Statement Period ending 31 December 2014	31 December 2014			Full Year			31 December 2013	
	Actual \$000	Budget \$000	Variance \$000	Forecast \$000	Budget \$000	Variance \$000	YTD Actual \$000	FY Actual \$000
Rates & Levies	1,384	1,384	-	2,767	2,767	-	1,358	2,717
Government Grants & Subsidies	-	-	-	-	-	-	-	-
External Revenue	6	-	6	100	-	100	26	26
Investment Revenue	-	-	-	-	-	-	-	-
Internal Revenue	12	12	-	25	25	-	13	25
TOTAL INCOME	1,402	1,396	6	2,892	2,792	100	1,397	2,768
less:								
Personnel Costs	855	815	(40)	1,631	1,631	-	722	1,527
Materials,Supplies & Services	56	26	(30)	52	52	-	25	77
Travel & Transport Costs	7	3	(4)	7	7	-	17	25
Contractor & Consultants	158	187	29	529	429	(100)	63	289
Grants and Subsidies Expenditure	-	-	-	-	-	-	-	-
Internal Charges	120	108	(12)	215	215	-	118	235
Total Direct Expenditure	1,196	1,139	(57)	2,434	2,334	(100)	945	2,153
Financial Costs	-	-	-	-	-	-	-	-
Bad Debts	-	-	-	-	-	-	-	-
Corporate & Department Overheads	229	229	-	459	459	-	207	415
Depreciation	3	3	-	6	6	-	3	7
Loss(Gain) on Sale of Assets / Investments	-	-	-	-	-	-	-	-
TOTAL EXPENDITURE	1,428	1,371	(57)	2,899	2,799	(100)	1,155	2,575
OPERATING SURPLUS/(DEFICIT)	(26)	25	(51)	(7)	(7)	-	242	193
Add Back Depreciation	3	3	-	6	6	-	3	7
Other Non Cash	-	-	-	-	-	-	-	-
Net Asset Acquisitions	-	-	-	-	-	-	-	-
Net External Investment Movements	-	-	-	-	-	-	-	-
NET FUNDING BEFORE DEBT AND RESE	(23)	28	(51)	(1)	(1)	-	245	200
Debt Additions / (decrease)	-	-	-	-	-	-	-	-
Debt Repaid	-	-	-	-	-	-	-	-
Net Reserves (Increase) / decrease	-	-	-	-	-	-	-	-
NET FUNDING SURPLUS (DEFICIT)	(23)	28	(51)	(1)	(1)	-	245	200

Policy Capital Expenditure Statement Period ending 31 December 2014	31 December 2014			Full Year			31 December 2013	
	Actual \$000	Budget \$000	Variance \$000	Forecast \$000	Budget \$000	Variance \$000	YTD Actual \$000	FY Actual \$000
Total Asset Acquisitions	-	-	-	-	-	-	-	-
Capital Project Expenditure	-	-	-	-	-	-	-	-
Asset Disposal Cash Proceeds	-	-	-	-	-	-	-	-
Net Capital Expenditure	-	-	-	-	-	-	-	-

Financial variance analysis

- ▶ Policy has a net deficit of \$26k which is \$51k worse than budget surplus of \$25k
- ▶ Personnel costs are \$40k over budget due to resource costing charges from Environmental Science staff for work on the Whaitua and Plan. Following discussions between the Science & Policy managers it has been agreed that these costs will be transferred back to Science who hold the staff budget
- ▶ External spend on materials, travel costs and consultants costs is close to budget
- ▶ Internal charges are more than budget due to higher IT costs
- ▶ The forecast has been update to include \$100k income and costs for the Regional Natural Hazards Strategy work being done in association with the local authorities as GW are managing the costs of this project

- ▶ There is no capital budget or spend

Performance Measure	Performance Target		Comment
	Baseline	2014/15	
That the Regional Policy Statement is reviewed and adopted	The Regional Policy Statement was approved by the Council in May 2010 and is subject to a number of appeals	Establish a work programme for methods in the RPS	Work is underway to implement the RPS and progress the methods in the RPS, including monitoring of the RPS implementation.
That regional plans are reviewed and adopted	Review of regional plans has been underway since 2009	Review of regional plans continues	The draft Natural Resources Plan was made public on 22 September 2014.

Risk analysis

A potential risk to the time line of the Regional Plan review are signal reforms to the Resource Management Act , but it is too early to say what these risks might be as the degree and nature of the reforms to the RMA are as yet unclear. .

1.2 Environmental Regulation



Overview

Notified and 'national' consenting workload remained steady in the last quarter. This quarter's major consenting work was dominated by pre-application and assessment work on a number of major notified applications

Non-notified consent workload remains relatively high, as it has through 2014, dominated by 'replacement' dairy effluent discharge and water take consent applications

Compliance activity focussed on completion on annual compliance reports; and significant ongoing work in RoNS project compliance set-up work

An ongoing high investigations and enforcement load includes the conclusion of significant inquiries and court work

Key results for the year

- ▶ Consenting – Ongoing replacement consenting across the region for municipal waste water plant treatment and infrastructure overflows at South Wairarapa and Hutt Councils; and processing of significant applications including Wellington Waterfront (Site 10 Kumutoto) redevelopment, GW Flood Protection Western Rivers global consents, and CentrePort Harbour Deepening
- ▶ Roads of National Significance – Substantial ongoing projects in the Transmission Gully pre-construction and enabling works programmes; and MacKays to Peka Peka construction work
- ▶ Appeals– A case load in appeals proceedings in the Environment Court and Court of Appeal
- ▶ Compliance – Development of a Strategic Compliance Programme across all RMA consented activities. Ongoing proactive compliance projects for major sites in Porirua, Wellington city and Kapiti Coast
- ▶ Enforcement investigations – Ongoing enforcement cases including Jefferies appeal of Jury Trial decision; and current cases in All Excavation & Reinstatement Services Ltd, Judgeford Heights Ltd/Brian McPhee and Stephen Hammond, and other significant investigations in progress
- ▶ Incidents – Ongoing roll-out of the Ozone Call Centre database and new Incidents module, creation of a GIS layer of incident sites and sampling training for officers
- ▶ Commencement of the Take Charge Porirua Area Assessment
- ▶ Regional Plan review input – ongoing input to Draft Plan provisions post submissions
- ▶ Continued roll out of programmes for land development activities including the completion of the revised Erosion and Sediment Control Guidelines, and development of consenting processes under the Wellington Housing Accord

- ▶ Ongoing work to both implement the Resource Management Amendment Act (RMAA) 2013 consenting provisions, and review proposed reforms under the Government’s Phase Three reforms package
- ▶ Ongoing work on major revisions of procedures manuals for Environmental Regulation statutory process work

Looking ahead

- ▶ Ongoing management of core statutory work with major enforcement investigations, a range of notified consenting projects, and RoNS projects implementation work
- ▶ Development of a comprehensive ‘strategic compliance’ framework for our consented monitoring programme
- ▶ Rolling out reviewed GWRC Erosion & Sediment Control Guidelines
- ▶ Ongoing input to Draft Natural Resources Plan provisions post submissions
- ▶ Ongoing work with Regional Sector groups and the Ministry for the Environment on RMA reforms; and the development and implementation of processes and procedures in response to the RMAA 2013
- ▶ Ongoing work in Regional Sector groups in responding to developing amendments to the Building Act 1991 regarding large dam and the pending implementation of the Dam Safety Scheme
- ▶ Ongoing work in Regional Sector groups to develop a national Strategic Compliance Framework approach and process pending implementation of the Dam Safety Scheme
- ▶ Ongoing work with agencies and developers to implement the Wellington Housing Accord
- ▶ Review, update and deliver Health and Safety in the field training for staff

Resource consents

Non-notified consents

In the past quarter we have received slightly more applications than the September quarter, and processed around the same number to completion – with an ongoing high number of replacement applications for existing water take and dairy effluent resource consents that expire this financial year (carried over from the September quarter), bore permits, streamworks (including structures) and RoNS project consents.

Overall, we are up on the number of consents processed compared to the 2013-14 year.

Consents summary * Figures exclude applications to the EPA

Item	Dec Quarter 2014	Sept Quarter 2014	Dec Quarter 2013
Consents received	171	161	136
Consents issued	112	111	148

Item	2014-15 year to date	2013-14 year
Consents received	332	591
Consents issued	243	635

Item	Dec Quarter 2014	Dec Quarter 2013
Median processing time frame	14	14

Item	2014-15 year to date	2013-14 year
Median processing time frame	14	18

Notified and limited notified consents

A moderate load in assessments and pre-hearings has been completed in the last quarter:

- ▶ **South Wairarapa District Council – Featherston wastewater treatment plants re-consenting:** As previously reported, this application sets out a two-stage proposal: Stage 1 is a targeted rehabilitation of the sewer network to reduce the volume of inflow by up to 31% (2013-2019); and Stage 2 involves the commissioning of a modern high-rate treatment plant (2025). Since the close of submissions, the applicant has requested an extension of the process timeframe in order to review the potential effectiveness of environmental mitigation options ahead of a hearing. The date for the hearing has been provisionally planned for the latter part of 2015.
- ▶ **South Wairarapa District Council – Martinborough wastewater treatment plants re-consenting:** The situation remains as previously reported. The proposal is essentially looking at a staged approach to upgrading waste water treatment infrastructure and reducing overall discharges into the river by utilising adjacent land disposal options. Stage 1A involves a series of minor upgrades to optimise its existing performance; Stage 1B involves the discharge of 24% of

treated wastewater to 5.3ha of vacant land adjacent the site; Stage 2A involves irrigation of 42% of annual wastewater to Pain Farm; and Stage 2B involves the construction of additional storage at the Plant or Pain Farm to contain all treated wastewater. Stage 1 is programmed to 2022 and stage 2 from 2022 to 2048. A hearing date is still presently planned for 2015.

- ▶ **South Wairarapa District Council - Greytown wastewater treatment plants re-consenting:** Again the proposal remains as previously reported - for a staged upgrade: Stage 1A (2014-2018) will involve some minor upgrades to the existing pond system to ensure it is performing to its optimal level; Stage 1B (from 2020) will see approximately 20% of the annual treated wastewater going to 16ha of adjacent land during low flow conditions; Stage 2A (from no later than 2035) – 62% of typical flow irrigated on land at Papawai Farm; and Stage 2B (from no later than 2040) – full discharge to land. The application was notified on 10 December 2014 with the closing date for submissions being the 2 February 2015. A provisional hearing date is still planned for mid-2015 (to work in with the possible timings of both the Featherston and Martinborough WWTP hearings).
- ▶ **Wellington City Council – Southern Landfill extension (Stage 4):** – This project remains ‘parked’ in terms of process as WCC will now design, construct and fill the landfill from the ‘bottom up’. This change in approach needed to be approved by WCC Councillors. Once we review the new approach we will be determining a way forward with WCC and the submitters.
- ▶ **Hutt City Council – renewal of wastewater pump station overflow to the Wainuiomata River –** Hutt City Council applied in mid-2011 for a renewal of a wastewater overflow consent, following a collaborative process to develop conditions accepted by the applicant and the three submitters. In late December the decision to grant the consent was made following the submitters all withdrawing their wish to be heard at a hearing. Key conditions require HCC to report overflows and advise the public of the potential health risk when an overflow occurs. They will also need to report on the sewerage network repairs in the Wainuiomata catchment. The decisions appeal period closes at the end of January 2015.
- ▶ **CentrePort Limited – Stage 1 Harbour Dredging:** CentrePort has applied to renew their existing consent to deepen the Wellington Harbour navigational channel and specified berths (existing consent expires in 2015). CentrePort seeks to obtain new resource consent for the same proposed dredging and disposal activity, with a reduced ‘maximum’ depth of 12.2m (below chart datum) to align with the currently consented dredge volume. CentrePort is also now considering a Stage 2 option to increase the current depth of dredging in the Harbour. If they proceed with this option, Stage 2 would likely supersede Stage 1. Notification of Stage 1 is therefore on hold until CentrePort has confirmed plans ahead for Stages 1 and 2. CentrePort is currently in consultation with GWRC regarding methodologies and collection of marine data as part of the pre application phase. CentrePort is planning to release a public statement on the Stage 2 dredging proposal either late January or early February 2015.
- ▶ **GWRC (Flood Protection) – Western Region global rivers consents:** These are applications to continue existing flood protection and erosion control operations and maintenance activities on the Hutt, Waikanae, Otaki and Waikanae Rivers. Public notification of the four applications will likely occur in April/May 2015. In the meantime, we are continuing to work with GWRC Flood Protection around possible options for running combined hearings for these applications.
- ▶ **Site 10 Redevelopment Limited Partnership & Wellington City Council - North Kumutoto Project:** In October 2014 Urban Perspectives on behalf of Site 10 Redevelopment Limited Partnership & Wellington City Council simultaneously lodged two resource consent applications relating to a proposed five-level commercial building on Site 10 at North Kumutoto, and the construction, maintenance and use of new and modified landscaped public open spaces and associated structures at North Kumutoto.

GWRC and WCC jointly publically notified the applications on 18 November 2014. 45 submissions were received, 38 in opposition, 6 in support and 1 not stated. On 19 December 2014, GWRC and WCC received formal requests for direct referral of both applications to the Environment Court.

GWRC is required to decide whether or not the request is approved or declined by 2 February 2015. If approved the applications will be directed to and heard in the Environment Court.

- ▶ **Marua Management Limited – Stroma Way subdivision, Stroma Way, Upper Hutt** – This retrospective consent was applied for in early 2013, following enforcement action for illegal streamworks. We determined following our assessment of the application that affected persons approvals would be needed to progress the application – as these persons would likely be affected by sediment runoff from the site during construction. In late 2014 the applicant advised they were unsuccessful in gaining all written approvals and would like the application to proceed to limited notification. We are currently in discussions with the applicant about this process, and when a hearing could be held.

Non-notified consent of interest

Carterton District Council, Wastewater Treatment Plant: – discharge treated effluent to land from the Carterton wastewater treatment plant (WWTP). You may have seen a few positive articles recently in the Wairarapa Time Age regarding this consent process.

CDC was granted a short term (2 year) consent to irrigate approximately 20 hectares (ha) of CDC land with the treated effluent using a low pressure, low profile, central pivot irrigator, and a sub-surface dripline along the eastern shelter belt of the property. This new consent adds to the existing suite of discharge permits which allow the discharge of treated wastewater from the WWTP to a tributary of the Mangatarere Stream and by irrigation to a small area of land within the WWTP site. Most importantly, the new consent adds to total land area being irrigated.

CDC's long term vision is to discharge all treated wastewater to land. However, until sufficient land can be acquired, a dual discharge wastewater management system is anticipated involving a combination of discharge to land and discharge to the stream. This new consent is the first major step toward that dual system.

Actual irrigator application rates will be determined by site specific conditions monitored on a continuous basis by soil moisture probes linked to an on-site weather station and control centre and will be calculated relative to actual soil moisture conditions so as to achieve optimum crop growth. Irrigation may occur at any time of the year that soil moisture and wind conditions allow, but will predominantly be over the period December to March. Furthermore, irrigation will be controlled so as to restrict irrigation to periods to when the crop is actively growing. During periods of high wind, the sprinklers will be turned off and all treated wastewater be diverted to the storage area within the existing WWTP, discharge to the existing land disposal area, or surface water discharge in accordance with the current discharge permits.

The irrigation will also help to irrigate a new native shelter belt. Irrigation in this regard is to be by pressure compensated dripline. The dripline is proposed to be sub-surface (surface laid with a minimum of 100mm of mulch covering it) and can occur at any time of the year when required (as indicated by soil moisture probes), but will be predominantly over the period December to March in order to increase survival rates of boundary plantings.

Major pre-application discussions continue for:

- ▶ **Woodridge Block:** Cardno is currently preparing to lodge consent application for the remainder of the Woodridge development in relation to land use consents and discharge permits for bulk earthworks. Lodgement and possible notification of this application is expected later in 2015. As the site has been identified as a Wellington Housing Accord area, the developer may consider submitting under a resource consent application under the HASHA Act. The implementation of the Wellington Housing Accord is discussed further in the *Project Work Programme* section of this report.
- ▶ **Moa Point Wastewater Treatment Plant:** Since this consent was granted in 2008/09, Wellington City Council and Wellington Water have been working to comply with the various conditions imposed by the hearing panel. One central condition required WCC to 'treat' bypass flows from the plant before discharging to the offshore outfall/diffuser. The treatment method, however, was left to WCC to investigate and decide by 2014. WCC completed investigations and modelling and have concluded that a treatment option is not feasible, and is in fact, not needed. Given this, the consent will need to be changed to 'remove' this requirement from the consent. In December a meeting was held with the community liaison group, which includes some submitters on the original application. WCC and Wellington Water will be continuing discussions with the other submitters. We will also map out a consenting process with WCC in early 2015.

Board of Inquiry – national consenting projects including implementation

- ▶ **NZTA – Transmission Gully RoNS:** Commencement of construction on a site compound at Lanes Flat, Pauatahanui marked the start of construction of on the Transmission Gully Project in January 2015. Prior to this the first 'Enabling Works Management Plan' was certified by GWRC and the four TA's.

Strategic and regulatory framework workshops occurred with NZTA and Leightons Heb Joint Venture (LHJV) in December 2014 to establish an understanding of the project construction timeframes and how consent and compliance requirements will be managed within those timeframes. LHJV have engaged additional planning and environmental support to assist in meeting consent requirements and to achieve good compliance on site.

A number of additional enabling works sub-plans will be forthcoming over the next 6 months and main construction works are programmed to commence in spring 2015. It is expected that applications for changes to consent conditions and new consents will also be forthcoming over the next 6 months.

- ▶ **NZTA/MacKays to Peka Peka Alliance – MacKays to Peka Peka RoNS:** Construction of the M2PP expressway is ongoing. GWRC site audits are occurring weekly. Good levels of compliance on site are being achieved generally – and multiple management plans are still being received and certified on a weekly basis. The number of resource consent applications for ancillary works/changes in design reduced in this quarter, although there are several expected in the next quarter. Fortnightly consenting meetings between the RoNS Project Leader and M2PP planners and compliance managers, also continues, as does a monthly compliance meeting.
- ▶ **NZTA – Peka Peka to Otaki RoNS:** Opus has been contracted by NZTA to prepare the 'specimen design' for the Peka Peka to Otaki RoNS project. This will involve preparation of draft management plans and potentially applications to change conditions, and for consents for ancillary works associated with that project. GWRC staff and external experts have been in discussions and meetings with NZTA/Opus experts to discuss design modifications and management plan requirements. An Advisory Group has been established with representatives from GWRC, KCDC and NZTA which will meet quarterly to discuss upcoming work and resolve

any higher level matters. The project will go out to full Design and Construct tender mid-2015 and construction is anticipated to commence around mid-2016.

- ▶ **NZTA – Mt Victoria Tunnel duplication:** Following the Basins decision, there has been no further discussion with NZTA on the Mt Victoria Tunnel duplication project.

Appeals, objections, and declarations

One new appeal was lodged in the Quarter, with ongoing work on a number of existing appeals and objections:

- ▶ **Alan Jefferies – conviction appealed:** This appeal relates to charges laid in 2010 for the alleged diversion of the Mangaroa River, associated river works and deposition of fill. A jury trial concluded in August 2014, and Mr Jefferies was found guilty and convicted on three charges and found not guilty on the fourth charge. Mr Jefferies was fined \$18 000 by Judge Harland in sentencing in the District Court. Mr Jefferies filed an appeal with the Court of Appeal against the sentence and one of the convictions, which are set down to be heard on 2 March 2015.
- ▶ **A J Barton – GWRC consent application objection:** As previously reported, A J Barton has objected under s357 of the RMA to GWRC's decision to return his application for a water take under s88 of the Act as there was insufficient information to process the application. Negotiations [on a without prejudice basis] are still ongoing. It was previously thought a way forward may have been agreed which involved Mr Barton amending his proposal and providing additional information; however, this is still to come to fruition. If this information is not forthcoming or the negotiations stall then a hearing date will be set.
- ▶ **A J Barton – GWRC (Flood Protection) Whakawhiriwhiri Stream works:** As previously reported, the hearing panel decided to grant consents for this activity. The main issues covered by conditions included regulating outflows from the Tawaha Floodway; and mitigation of potential effects on water quality and habitat – including the provision of refuge areas of aquatic life and marginal vegetation, and riparian planting requirements. An appeal against some of the conditions has been received from one of the adjacent landowners, namely with regard to issues such as culvert designs, creation of refuge areas/riparian planting and the operational management plan – believing the consent requirements to be too onerous. Following a meeting between GWRC Environmental Regulation department and the Flood Protection department, some potential amendments to several conditions were agreed (which did not alter their intent) and clarification around interpretation of others given. All the parties were happy with the amendments and further explanations and Consent Orders incorporating these agreements were agreed and issued by the Court on 19 December 2014.
- ▶ **AJ & RM Teasdale - Te Marua Golf Club – erosion protection works:** This is an appeal to the Environment Court of a decision (July 2014) to grant consent to undertake erosion control works on the Hutt River along the north-western edge of the golf course. Mediation was held on 11 November 2014, where the appellant sought to determine a preferred alignment for the river, as well as a commitment from GWRC to assist with funding outside the annual plan process. GWRC has no funding to contribute to the required level needed for the proposed river works at this time, and as such the mediation has been drawn to a close. GWRC has now sought an evidence timetable and a date for a hearing. If the Teasdales or Te Marua Golf Club wish to pursue having funding included in the 2016 Annual Plan, it is submitted that it should happen as a separate process, as this appeal cannot remain on hold for the period of time required for that process to be concluded.

Consented compliance monitoring

- ▶ **Kapiti Coast District Council – public water supply project (River recharge with groundwater):** This quarter saw the review and approval of the *Wetland Baseline Monitoring Plan* and the *Bore Construction Plan*. The KCDC team have also completed the installation of monitoring equipment and commenced the first round of baseline monitoring for the Waikanae River, Waikanae Borefield, wetlands and small coastal streams. The results of this and future monitoring will be used to inform the development of ongoing management trigger levels and compliance limits. We also completed our full assessment of the project for compliance with the consents for the 13/14 year. KCDC complied with most of their conditions; however, there was a technical non-compliance issued for the development and notification of monitoring alerts to GWRC. But, overall, the KCDC team have done an excellent job in implementing a technically challenging project with numerous and interlinked consent conditions.
- ▶ **PCC Porirua wastewater treatment plant – discharge to CMA at Rukatane Point:** We continued this quarter with our substantial proactive compliance programme for this plant. Maintenance and refurbishment of one of the clarifiers has been scheduled, following Wellington Water Limited's (WWL) review of the plant's waste water process and systems. Associated new consents will be sought in early 2015. WWL have also programmed for completion in the 2014/15 year a much needed upgrade to pumps at the plant as well as a full plant hydraulic assessment. We are also stepping up our focus on the monitoring of coastal waters following bypass events, and whether the existing information collected is robust in determining the potential health effects of these bypasses. In addition, we completed our compliance assessment for the 13/14 year giving the plant a *significantly non complying* rating, due to continued non-compliance with effluent discharge quality conditions over the year.
- ▶ **Wellington City Council – Global stormwater discharges to the CMA:** We continue to work with Wellington Water and WCC on compliance for this project, and especially so as we are now in the summer 'bathing' season where stormwater contamination issues could impact recreation use of coastal waters. At December *Stormwater Consultative Committee* meeting (a requirement of the consent) the group discussed the stormwater education programme; a critical aspect of the consent. The group's input is being sought on potential programmes for the next 12 months. The compliance assessment saw WCC receive *full compliance* for all consents, for the first time since the consent was granted.
- ▶ **Porirua City Council - Spicers Landfill operations:** In October 2014 the Duty Team responded to a spate of calls regarding offensive odour from the landfill. Following this, we have increased the compliance scrutiny of the landfill's operations and compliance with the consent conditions. We are now in regular communication with the landfill manager and operators and in December we held a meeting with PCC, the landfill operators and consultants to gain a better understanding of the issues. PCC has put in place additional measures to mitigate odour (including the placement of additional cover on completed area; reducing the 'open' tip face area; and are trialling odour sprayers/neutralisers), which PCC considers should be effective. We will be holding regular meetings with PCC until we are confident the odour is being managed effectively. The compliance assessment for 2013/14 saw PCC issued with a rating of *environmental non-compliance*, principally for exceedances in leachate water quality limits for ground and surface water.
- ▶ **T&T Landfills – Operation of a construction and demolition materials landfill, Happy Valley:** Delays in the construction of a contaminant treatment wetland at the base of the landfill continue to cause compliance issues at this site. The consent holder is now exploring options to capture and divert 'clean' stormwater to stop it entering the proposed wetland area. In December we met with the landfill operator and their consultants onsite to discuss the issues.

The applicant is likely to lodge consents to address these issues in early 2015. This quarter also saw a full review of the compliance with conditions for the 2013/14 year. The consent holder rated as *significant non-compliance* – this principally due to the issues discussed above.

- ▶ **Regional Earthworks Sites:** There are several active earthworks sites located mainly in the northern growth, Porirua and Kapiti Coast areas. So far the earthworks season has been steady and with no major incidences. This said we are still continuing with our regular monitoring programme including the contracting out services which *Southern Skies* carries out.
- ▶ **Water take restrictions in the Wairarapa:** With the prolonged spell of dry weather a few of the rivers and streams in the Wairarapa are now experiencing low flows. Most resource consents for both surface water and ground water will now have some sort of restriction on them when the stream/river reaches a certain critical low flow level. These restrictions can vary depending on a number of factors including the rate of take, method of take and location and the restrictions themselves again vary from consent to consent but can include a reduction in take or hours of operation of the irrigators or to cease the take altogether. A list of the current restrictions can be found on the GWRC website by following the link: <http://graphs.gw.govt.nz/compliance-flow-summary-page/> . In most cases the consent conditions place the onus on the consent holders to check on our website for flow conditions and adhere to any restrictions placed on them; however, we have also been contacting the relevant consent holders when restrictions have come in to force.

Environmental incidents

288 incidents were notified and responded to in the quarter, up from 242 in the previous quarter and 228 in the July quarter. A summary breakdown of incidents is reported 6-weekly through the Councillor’s Bulletin.

Enforcement

Abatement and infringement notices

Item	December Quarter 2014	Sept Quarter 2014	December Quarter 2013
Abatement notices	1	15	45
Infringement notices	5	12	12

Item	2014-15 year to date	2013-14 year
Abatement notices	16	81
Infringement notices	17	36

Prosecutions and enforcement orders

Significant prosecutions and enforcement order work in the last quarter includes:

- ▶ **Brian McPhee and Judgeford Heights Ltd:** Two charges were laid on 28 July 2014 against each party as a result of reclaiming 40m of streambed within the Pauatahanui catchment. Guilty pleas were entered on 14 October 2014. Sentencing is set down for 21 January 2015 in Wellington District Court.
- ▶ **All Excavation & Reinstatement Services Ltd (AERSL):** Two charges were laid for the deliberate discharge of sediment slurry into a gully, which is an unnamed tributary of the Kenepuru Stream, over a 6 month period. When the matter was called in Porirua District Court on 30 September 2014 AERSL pleaded guilty to one representative charge for the duration of the offending. The other charge for a single date was withdrawn. AERSL was convicted and fined \$28,500 in Wellington District Court on 21 November 2015 by Judge Dwyer.
- ▶ **Stephen Hammond and Pope and Gray Contractors Limited:** One charge was filed against each party in Masterton District Court on 14 October 2014 in relation to the excavation and disturbance of the bed of the Papawai Stream. On 8 December 2014 Stephen Hammond pleaded guilty to the charge, and the charge against Pope and Gray Contracting Limited was withdrawn. As a result of this proceeding Pope and Gray Contracting Limited has undertaken to provide environmental education to their customers and associates by writing to them about good environmental practices to meet the requirements of the RMA and Regional Plans. Sentencing is set down for 3 March 2015.

Take Charge Programme

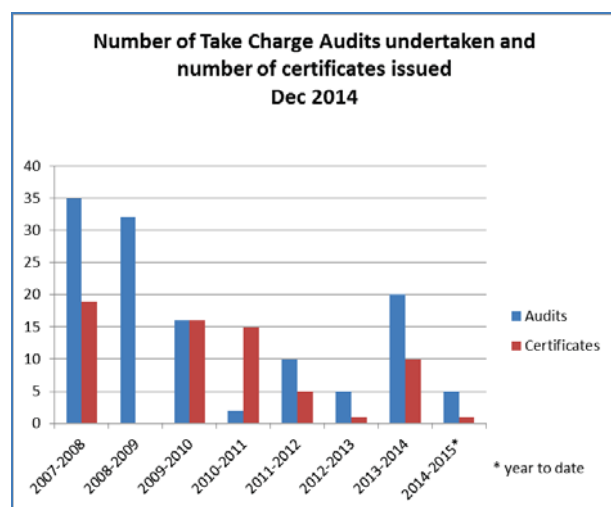
Take Charge is a proactive programme endeavouring to improve the environmental and regulatory performance of small to medium-sized businesses across the Wellington region. The primary focus of the programme is two-fold in ensuring businesses meet the requirements of our regional plans and ultimately achieving the environmental outcome of minimising the risk of contaminants entering our region's rivers, streams, coastal waters, land and air.

Last quarter the *Take Charge* programme started working in the Porirua area, particularly focusing on businesses in the Wall Place area. A walk over of the area was undertaken in late September and early October to identify businesses that may benefit from participating in the pollution prevention programme.

38 businesses were visited and given information about the *Take Charge* programme and how pollutants affect the environment. Of those 38 businesses, 22 have been identified as ones that may benefit from taking part in the *Take Charge* programme.

During the October to December quarter five businesses received a *Take Charge* audit and one business has already completed the programme requirements and been issued with a certificate.

Letters have been sent to the next five businesses inviting them to take part in the programme in the New Year.



Projects work programme

Progress on recent significant projects include:

Strategic Compliance Project

During this quarter the Strategic Compliance Project (SCP) focussed on assessing risk and importance across a range of factors, in order to rank various compliance activity groupings and their associated level of importance (and focus) for any monitoring programmes. Staff have met and drafted new approaches to monitoring programmes for compliance activities based on this risk assessment. The next phase of the SCP is to further refine monitoring programmes and update compliance charging schedules in the Resource Management Charging Policy.

Ozone Call Centre

The Ozone Call Centre (OCC) module of the Ozone regulatory database went live on 1 July 2014. The majority of the bugs in the system have been resolved during the second quarter and reporting facilities set up and tested. Four months of data was audited during this quarter to check for consistency, accuracy and relevance. Users were updated on the findings and further training was provided to increase efficiency for Environmental Regulation staff.

GIS Layer for Incidents

In coordination with ICT a GIS layer has been set up which identifies on a map the location of all historical environmental (pollution) incidents held in our EDocs filing system. Work is continuing with ICT to identify a system and method for creating a GIS layer for all future environmental incident locations. This will improve the organisational knowledge of environmental incidents within catchments and recurring issues and incident history for officers.

Sampling training

Environmental Regulation staff participated in competence based investigation and compliance sampling training during this quarter. The training module was developed by our own staff to ensure maximum relevance – involving resources to support it as well as classroom and field based training and assessments. The aim of the training is to ensure that our sampling decision making, process and methods are absolutely robust.

Investigation Manual

An investigation manual has been drafted documenting the process and procedures that should be followed from the point where non-compliance is detected through the investigation and enforcement process. This will replace parts of the old Incident Response Protocols and the Enforcement Manual. This will be finalised and rolled out to staff in the next quarter.

Review of Erosion and Sediment Control Guidelines

Our review of the Erosion and Sediment Control Guidelines is approaching completion. We are still awaiting a technical peer review of the drafted Guidelines.

MfE - National Monitoring System reporting

The Ministry for the Environment has been working with councils and other organisations to develop a National Monitoring System (NMS). The NMS will improve the way that information on the implementation of the Resource Management Act 1991 is collected and shared. We are now implementing the NMS and all councils are in the process of collecting a priority set of data to submit to the Ministry by 31 July 2015.

To check how the NMS priority information data is being managed and whether councils require further guidance or assistance the Ministry has, over the past two months, been conducting a test run with a small number of councils, including GWRC.

The test run revealed some diversity in council information management practices, and issues with data quality and completeness. This is inevitable during the initial implementation year of a new system. However, we want to work in partnership with councils to make sure we have consistent, complete and reliable data, and see significant benefits in inviting all councils to submit a sample of the priority data set.

We are continuing to update our systems and gather the necessary 2014/15 information to submit in July 2015.

Special Housing Areas

WCC signed a Housing Accord with Central Government on 24 June 2014 to help increase housing supply and improve the affordability of homes in Wellington City by providing an environment that facilitates development.

The Accord enables WCC to use the Housing Accords and Special Housing Areas Act 2013 (the HASHA Act). The Act enables streamlined consenting processes for residential developments (called 'qualifying developments') in areas designated as Special Housing Areas (SHAs).

The *first tranche* of Special Housing Areas was approved by the Government on 20 November 2014, and includes all of the identified growth areas outlined in the (draft) *Wellington Urban Growth Plan* (which will supersede the existing *Transport and Urban Development Strategies* in mid-2015). The SHAs are made up of locations within the existing urban area, as well as new greenfield sites, including:

1. Lincolnshire-Woodridge (greenfield area),
2. Lower Stebbings (greenfield area),
3. Johnsonville (medium density residential area),
4. Kilbirnie (medium density residential area),
5. Mount Cook Centre (Adelaide Road),
6. Central Area North,

7. Central Area South,
8. Arlington Apartments site

Further SHAs are expected to be added in successive tranches over time.

An Officials Working Group, made up of WCC & GWRC officers, MBIE & NZTA staff, has been formed with the aim to work together to achieve the objectives and targets of the Accord. This includes setting up processes to managing applications associated with SHAs.

To date GWRC has started work with consultants and developers in relation to developing fit-for-purpose processes in the qualifying greenfield areas.

Financial reports

Regulation Income Statement Period ending 31 December 2014	31 December 2014			Full Year			31 December 2013	
	Actual \$000	Budget \$000	Variance \$000	Forecast \$000	Budget \$000	Variance \$000	YTD Actual \$000	FY Actual \$000
Rates & Levies	1,182	1,182	-	2,365	2,365	-	1,133	2,265
Government Grants & Subsidies	-	-	-	-	-	-	-	-
External Revenue	1,423	1,190	233	2,800	2,400	400	1,085	2,720
Investment Revenue	-	-	-	-	-	-	-	-
Internal Revenue	36	63	(27)	125	125	-	98	203
TOTAL INCOME	2,641	2,435	206	5,290	4,890	400	2,316	5,188
less:								
Personnel Costs	1,410	1,368	(42)	2,816	2,736	(80)	1,309	2,647
Materials,Supplies & Services	42	52	10	105	105	-	39	78
Travel & Transport Costs	19	22	3	45	45	-	16	42
Contractor & Consultants	563	312	(251)	945	625	(320)	621	1,529
Grants and Subsidies Expenditure	-	-	-	-	-	-	-	-
Internal Charges	285	289	4	574	574	-	257	544
Total Direct Expenditure	2,319	2,043	(276)	4,485	4,085	(400)	2,242	4,840
Financial Costs	-	-	-	-	-	-	-	-
Bad Debts	50	-	(50)	100	-	(100)	47	196
Corporate & Department Overheads	375	375	-	750	750	-	339	678
Depreciation	13	20	7	41	41	-	15	30
Loss(Gain) on Sale of Assets / Investments	-	(16)	(16)	(16)	(16)	-	-	-
Total Indirect Expenditure	438	379	(59)	875	775	(100)	401	904
TOTAL EXPENDITURE	2,757	2,422	(335)	5,360	4,860	(500)	2,643	5,744
OPERATING SURPLUS/(DEFICIT)	(116)	13	(129)	(70)	30	(100)	(327)	(556)
Add Back Depreciation	13	20	(7)	41	41	-	15	30
Other Non Cash	-	17	9	(16)	(16)	-	-	-
Net Asset Acquisitions	-	(56)	38	(56)	(56)	-	-	-
Net External Investment Movements	-	-	-	-	-	-	-	-
NET FUNDING BEFORE DEBT & RESERVE	(525)	-	(525)	(101)	(1)	(100)	(312)	(526)
Debt Additions / (decrease)	-	-	-	-	-	-	-	-
Debt Repaid	-	-	-	-	-	-	-	-
Net Reserves (Increase) / decrease	-	-	-	-	-	-	-	-
NET FUNDING SURPLUS (DEFICIT)	(525)	-	(525)	(101)	(1)	(100)	(312)	(526)
Regulation Capital Expenditure Statement Period ending 31 December 2014	Actual \$000	Budget \$000	Variance \$000	Forecast \$000	Budget \$000	Variance \$000	YTD Actual \$000	FY Actual \$000
Total Asset Acquisitions	-	72	72	72	72	-	-	-
Capital Project Expenditure	-	-	-	-	-	-	-	-
Asset Disposal Cash Proceeds	-	(16)	(16)	(16)	(16)	-	-	-
Net Capital Expenditure	-	56	56	56	56	-	-	-

Financial variance analysis

- ▶ Regulation has a net deficit of \$116k which is \$129k worse than budget. The RONS projects (Roads of National Significance) have contributed a \$104k surplus which offsets some of the costs of other EREG activities
- ▶ External income is \$1,423k which is \$233k more than budget. \$478k of this invoicing is on charging of costs for RONS project work
- ▶ Regulation consultants & contractors spend of \$563k is \$251k more than budget and includes \$238k for RONS projects. There are also \$67k legal costs for enforcement activity
- ▶ Personnel costs are slightly over budget but around 50% of staff costs are oncharged to consent holders.
- ▶ Travel costs and materials are all close to budget
- ▶ The provision for doubtful debts (on debtors balances over 90 days old) has increased by \$50k to \$330k. Of this balance \$180k relates to just one debtor where we have negotiated repayment terms so some of this debt will be collected
- ▶ There is no capital spend to date with vehicle purchasing round due later in the year
- ▶ The forecast has been updated to include \$400k more external income and the related consultants costs, and also a provision for doubtful debts of \$100k which reduces the net result to a \$70k deficit

Performance Measure	Performance Target		Comment
	Baseline	2014/15	
Percentage of resource consents ¹ processed within 20 working days ²	98% (2010/11)	98.7%	100% No exceedences this quarter. 93 consents processed.
Percentage of monitoring inspections completed for resource consents with individual monitoring programmes	98% (2010/11)	100%	Rated at year end following the completion of the annual compliance programme.
Percentage of environmental incidents reported to the 24-hour incident response service investigated in accordance with legal timeframes ³ for enforcement	68% (2010/11)	100%	100% No exceedences this quarter. 288 environmental incidents investigated.

Risk analysis

None identified in this department.

1.3 Environmental Science

Overview

Ongoing collection and data management for SoE programmes, including reviewing SoE monitoring programmes

Work around provision of science and environmental information for Ruamāhanga Whaitua and preparation for the Te Awarua o Porirua Whaitua

Continuing to support the RMA plan process with additional investigations and research as required, and provision of scientific information to major projects including Wairarapa Moana, Mangatarere, WWUP and Wellington Harbour

Working with the regional Kaitiaki Group to establish how we proceed with a partnership in science

Investigating a multi-agency approach to delivering the monitoring and research required to support regional operational activities and community outcomes

Provision of a range of advice and information to internal departments and community

Key results for the year

- ▶ Completion of an Implementation Plan for the department which outlines actions for 2014-2016 in order to realise our strategy goals and objectives
- ▶ Commencement of a comprehensive review of all SOE monitoring programmes
- ▶ Completion and submission of a first draft Asset Management Plan for the department
- ▶ Development and signing of a Memorandum of Agreement between the Environmental Science department and Water Supply/Wellington Water for the provision of hydrological and terrestrial monitoring services by ESci
- ▶ Successful gazettal of a new Masterton airshed
- ▶ Successfully secured joint funding for two Victoria University summer scholarships
- ▶ Completion of the 2013/14 Annual Data Reports for our river, lake, coast, hydrology, groundwater quality and soil quality State of the Environment monitoring programmes
- ▶ Delivered three presentations at the International Harmful Algae Conference in October (Wellington) and six presentations at the Water Symposium in November (Blenheim)

- ▶ Rolled out a new communications plan and campaign (“Summer Check”) for recreational water quality in preparation for summer, including the development of a new interactive map on our website which displays current water quality and toxic algae warnings
- ▶ Delivered, on behalf of the regional sector, analysis of national water quality data for the launch of the new coastal and revised freshwater recreational modules on LAWA
- ▶ Production of a YouTube clip <https://www.youtube.com/watch?v=G9A0W1-lq9E> illustrating how kaka have spread out from Zealandia since their successful re-introduction in 2002
- ▶ Securing a partnership with MfE and MPI on the collaborative modelling project (development of a framework for scenario testing of land use impacts on water quality to inform the whitua), including a successful application to the Community Environment Fund (MfE) worth \$100k
- ▶ Completion of two major reports on Kapiti Coast groundwater resource investigations

Looking ahead

- ▶ An ongoing focus for the year will be the review of all SoE monitoring programmes which will take into consideration future information requirements (particularly for the whitua) as well as central government directives such as NOF
- ▶ The development of a permanent air quality monitoring station in conjunction with WelTec for our Wellington City monitoring site
- ▶ Increased science requirements for the management of contaminated sites, in particular Te Mome Stream, Miramar Gasworks and a residential site in Wellington City
- ▶ Development of MoA’s (Memorandums of Agreement) with various internal departments to define services provided by the science department
- ▶ Development of cultural health monitoring indicators and investigation of a joint approach to SOE reporting
- ▶ Establishing a multi-agency approach to fish monitoring and research with our iwi partners
- ▶ Working in partnership with iwi, NGO’s and TA’s to provide an increasingly integrated monitoring network
- ▶ Progress the development of a modelling framework to identify and integrate models required for future scenario testing
- ▶ Ongoing input to the Ruamāhanga Whitua and gearing up for the Te Awarua o Porirua Whitua
- ▶ Ongoing input to LAWA, the next phase being the development of a new module for hydrology
- ▶ Development of a Communications Plan for the department
- ▶ A complete revamp of the Environmental Science webpages including making monitoring data readily available and accessible

Departmental activity

General

The more significant areas of work for the department during the quarter were:

- ▶ Provision of a range of technical advice to Environmental Regulation, Environmental Policy, Biodiversity, Biosecurity, Parks, Water Supply and Flood Protection departments

- ▶ Ongoing input and technical support for the draft Natural Resources Plan
- ▶ Input at workshops to the Environmental Monitoring and Reporting (EMaR) initiative including providing technical support to various project teams
- ▶ Ongoing input to LAWA including provision of technical and site information for the new coastal module added in December
- ▶ Implementation of a suite of water resource investigations for progression over the next two years in partnership with the Wairarapa Water Use Project (WWUP)
- ▶ Ongoing provision of science information to the Ruamāhanga Whaitua Committee and preparation for the Te Awarua o Porirua Harbour whaitua, particularly the development and coordination of the Collaborative Modelling Project
- ▶ Engagement with mana whenua (through the Kaitiaki Group) on developing a joint approach to SOE monitoring and reporting
- ▶ Involvement and presentations made to several national conferences
- ▶ Identification and relocation of our inner city air quality monitoring site
- ▶ Support of the “Summer Check” campaign and development of improved recreational water quality information on GWRC’s website

A summary of work carried out in the various teams within the departments is as follows:

Air quality and climate

New inner city monitoring site planned

The Wellington central air quality monitoring site, that has been on the corner of Victoria and Vivian Street since 2004, was permanently moved late last year to make way for Wellington City Council’s Victoria Street precinct upgrade. Our mobile monitoring station has been installed one block to the west as a temporary measure while we work with WelTec to design a new monitoring station for the site. We are planning to build a larger monitoring station that can accommodate instruments to measure other traffic-related air pollutants such as PM2.5. We are also planning to include a real time display of air quality information so people walking and driving past the station can see at a glance what the air quality is like.



Mobile monitoring station on the new site at the corner of Willis Street and SH1

Aquatic ecosystems and quality

The quarter was busy with conference activity. In late October, Wellington hosted the International Harmful Algae Conference of which GWRC was a bronze sponsor. Three of ESci's Aquatic Ecosystems and Quality Team delivered talks relating to benthic cyanobacteria (toxic algae) in the Hutt River.



Mark Heath, Summer Greenfield and Juliet Milne presented papers at the International Harmful Algae Conference in Wellington, October 2014

In mid-November, ESci's coastal scientist attended the NZ Coastal Society Annual Conference held in Raglan. In Blenheim the following week, the Aquatic Ecosystems and Quality Team delivered five talks (and were co-authors on several more) and a poster at the Water Symposium, a joint conference between the NZ Freshwater Sciences Society, NZ Hydrological Society and the IPENZ Rivers Group. The talks and poster addressed:

- ▶ Assessing the implications of changing nutrient test methods on long-term river and lake water quality monitoring programmes
- ▶ Considerations in designing a State of the Environment fish monitoring programme
- ▶ Key learnings from 9 years of investigations into benthic cyanobacteria (toxic algae) blooms

- ▶ Western and traditional (Māori) approaches to assessing the health of a Wairarapa stream
- ▶ The role of the environmental scientist in RMA-related processes
- ▶ Fish values in agricultural drains around Wairarapa Moana (*poster*)

Rivers and streams

The Rivers State of the Environment (RSoE) Annual data report 2013/14 was completed during the quarter.

Since July 2013 we have been trialling national guidelines for measuring nutrients alongside our existing protocols. A draft report has now been received from NIWA assessing the paired nutrient data and the implications of changing measurement protocols on our ability to detect long-term trends in nutrient concentrations.

As part of the current review of the RSoE monitoring programme, Kevin Collier (University of Waikato) was engaged to explore the potential development of a site network based on new randomly selected sites. This type of network would aid unbiased reporting on the state of the regions' rivers and streams.

The Team Leader has continued to provide technical input to the national project team (rivers) which is developing further indicators to be reported on the Land, Air, Water Aotearoa (LAWA) website. This work forms part of the wider sector's Environmental Monitoring and Reporting (EMaR) initiative in partnership with the Ministry for the Environment and also encompasses the development of National Environmental Monitoring Standards (NEMS).

A number of summer research projects investigating factors contributing to benthic cyanobacteria blooms (ie, toxic algae) are in full swing:

- ▶ Two students from Victoria University received summer scholarships to investigate nutrient sources entering the Hutt River. GWRC funded one scholarship which involves a desktop study investigating the urban nitrogen sources in the Upper Hutt area, while UHCC funded the other scholarship which has been examining nutrient sources entering the Hutt River via the Upper Hutt stormwater network.
- ▶ A Victoria University Masters student and part-time GWRC employee has been monitoring multiple Hutt and Waipoua river sites for benthic cyanobacteria and instream nutrient concentrations. Future investigations will examine the role deposited sediment plays in promoting toxic algae growth.
- ▶ Plans are underway for investigating nutrient sources within the Pakuratahi and Mangaroa tributaries and the Upper Hutt aquifer.

Lakes

The Lakes State of the Environment (SoE) Annual data report 2013/14 was completed during the quarter.

Monthly water quality sampling of Lake Waitawa (Forest Lakes, Kapiti), which recommenced in July 2014 and will continue until June 2015, continues to show very high concentrations of cyanobacteria in the lake. As the lake is used for recreational use, Regional Public Health is working with the Forest Lakes Camp staff to develop a risk communication plan.

Estuarine and marine waters

The Coastal State of the Environment (SoE) Annual data report 2013/14 was completed during the quarter, along with a technical report documenting the 2010 Te Awarua-o-Porirua Harbour subtidal sediment quality survey. Completion of the subtidal survey report was significantly delayed as a result of the need to re-analyse the sediment samples from all four harbour surveys carried out to date.

Another Victoria University student received a summer scholarship to undertake a study of seagrass condition in Te Awarua-o-Porirua Harbour. Monitoring to date indicates that seagrass cover continues to decline throughout the harbour and this study will investigate the health of the remaining seagrass meadows. The findings will inform ongoing monitoring of seagrass condition and extent.

DHI undertook faecal contaminant plume modelling in Te Awarua-o-Porirua Harbour for the purpose of predicting which areas of the harbour are at greatest risk from faecal contamination, and understanding which rain and wind conditions may make the harbour unsuitable for contact recreation or shellfish gathering. The report will be available in the next quarter.

A Te Awarua-o-Porirua Harbour and catchment science update was presented in mid-December (in fulfilment of the Porirua Harbour and Catchment Strategy and Action Plan). Attendees included representatives from PCC, WCC, Victoria University, Wellington Water, Guardians of Pauatahanui Inlet (GOPI), NZTA, Regional Public Health, DoC, Wriggle Coastal Management, NIWA and multiple GWRC departments. The presentation was followed by a workshop involving NIWA and Wriggle Coastal Management scientists to discuss science priorities for the next two years.

Recreational water quality

The recreational water quality season started in mid-November. This involves weekly sampling of faecal indicator bacteria at 20 river and 61 coastal sites. Water clarity and cover of toxic and nuisance algae are also assessed at the river sites. No bacterial warnings were issued during November or December but toxic algae warnings were issued on two occasions (9 December and 23 December) for the Waipoua River at Colombo Road (Masterton). On both occasions large amounts of toxic algal mats were observed washing up on the river's edge making it unsafe for swimming and dog walking. Toxic algae growth was low at all other monitored sites.

Together with Comms and ICT, ESci revamped recreational water quality information on the GWRC website. A whole raft of water quality and safety information can now be accessed via the Summer Check webpage <http://www.gw.govt.nz/summer-check>. The Summer Check initiative also involves radio advertising, signage at popular sites and other external promotion, and has been financially supported by GWRC, WCC, HCC and MDC.

We also developed a new interactive map <http://www.gw.govt.nz/is-it-safe-to-swim> which shows the overall grades for each site as well as any current warnings based on weekly sampling results. A lot of feedback has been received, much of it positive, but some feedback indicates improvements are needed to make the information clearer. These improvements will be instigated early in the new year.

Toxic algae warning signs have been redesigned with messaging now focussed on educating river users what to look out for (as opposed to simply warning users to stay away), as agreed by local councils and Regional Public Health. The new signs also incorporate the new Summer Check logo.

Recreational water quality was also the primary focus of LAWA www.lawa.org.nz during the quarter. With assistance from the Science Strategy and Information Team we processed the freshwater

recreational data for all 16 regional councils in time for LAWA to go live before Christmas with a revamped freshwater recreation module alongside a new coastal recreation module. Preparation for the coastal module involved several staff collating both water quality data and site information. The new LAWA modules have generated a significant number of hits, particularly in the Wellington region.

Terrestrial ecosystems and quality

Contaminated land

An application made to MfE to fund the remediation of contaminated land in Wellington City has been approved by the Minister for the Environment. The application was made in collaboration with WCC and is for the remediation of two properties that are located on an old landfill site, where recent soil tests have confirmed the presence of high levels of arsenic and lead. Greater Wellington Regional Council has been granted \$61,750 from the Contaminated Site Remediation Fund for assistance with the development of the remedial action plan and remediation. The total cost is \$129,800 with funding in kind being provided by WCC and GWRC. Works are due to begin in early 2015. The Masterton Gasworks site has been removed from the MfE list of 'top ten' contaminated sites but will be replaced by the site described above.

The Selected Land Use Register (SLUR) continues to be improved and updated. During this quarter 87 files for potential new SLUR sites were reviewed by Golder Associates. Of those sent for review, 85 had sufficient information to meet HAIL requirements and have been added to SLUR. The SLUR team completed response letters to at least 96 SLUR enquiries.

Staff attended two regional council expert focus group panel workshops for the MfE interim review of the National Environmental Standard (NES) for Assessing and Managing Contaminants in Soil to Protect Human Health. This included discussion on issues from a regional council perspective regarding implementation of the NES. GWRC also hosted the Regional Waste and Contaminated Land Forum in October which was well attended.

Soil quality

The ESci's soil scientist in association with several regional councils and MfE staff, is contributing to the EMaR project on the development and implementation of land-based indicators. He also attended the national MPI-chaired Cadmium Management Group meeting and contributed to an expert advisory panel on an Envirolink tools project being undertaken by Landcare Research. The project aims to develop an agreed methodology for determining background soil concentrations of trace elements and heavy metals and guideline values for ecological receptors.

Groundwater quality

Quarterly Groundwater Quality State of the Environment (GQSoE) sampling runs were completed in December 2014. Additional groundwater samples were collected from 12 bores for the four-yearly pesticide survey conducted by Environmental Science and Research (ESR). In the past ESR has identified the presence of pesticides in four groundwater bores. All bores are located in areas of horticulture.

Institute of Geological and Nuclear Sciences (GNS) has completed source capture zones models and a review of groundwater hydrochemistry in the GQSoE monitoring bores. This information will be used to determine the suitability of bores for inclusion in the future monitoring network.

A memo looking at contamination in the Waingawa Wetland (and surrounding industrial area) and the Waingawa/Parkvale aquifer has been drafted and is ready for review. The memo summarises the findings of historic information and assesses the need for further environmental testing to determine the extent and cause of contamination.

NIWA is working on a document of the fundamentals of groundwater ecosystems and the importance of protecting groundwater quality and ecosystem health. This document provides a rationale for the inclusion of outcomes in the draft Natural Resources Plan for the Wellington region and will aid the GQSoE network review. It is hoped it will become a national reference document.

Our groundwater quality scientist has also contributed to the project plan for the groundwater quality component of the EMaR initiative.

Terrestrial biodiversity

Three new staff members have been employed on fixed term and casual contracts to undertake SoE terrestrial biodiversity monitoring. Monitoring will begin in January and encompasses measuring vegetation, birds and pests at 17 sites across the region. We are also collaborating with DoC who will be measuring two other plots in our region for carbon accounting purposes this summer. A factsheet has been prepared for landowners who have granted access to their properties to allow us to complete this monitoring.

Soil samples for DNA analysis will also be collected from two of the SOE monitoring plots for a collaborative research project with Landcare Research. This national research project has been funded by a MBIE "Smart Idea" investment and aims to develop the use of DNA techniques to assess the presence of organisms at a site, including nutrient cycling species such as nematodes, mites, fungi and bacteria.

The first rodent monitor after the September 2014 aerial 1080 operation in the Hutt catchment was completed in late November (as part of Project Kaka). The average tracking rate was low but varied widely between sample areas; 0% tracking in the Western Hutt, 4% on Maymorn Ridge and 28% in the Eastern Hutt. This suggests that most of the animals detected have immigrated into the catchment in the six weeks since the operation was carried out, rather than being survivors of the operation itself.

A total of 108 lizards were found in pitfall traps at Baring Head this year. This total is lower than that recorded in the last two years (193 in 2013 and 137 in 2012). The decrease in numbers recorded is thought to have been caused by poor weather conditions at the time of the survey. This research project was initiated to provide baseline information about lizard populations at Baring Head, as the land management changes underway at the site may have impacts on those populations.

A workshop to determine the regional threat listing for lizards was held in early December. Seventeen lizard species are still present in the region, of which thirteen are categorised as nationally threatened or 'at risk'. It was interesting to find that the Wellington region is a national stronghold for four lizard species, but concerning that all except one of these (common grass skink) are undergoing population declines on the mainland.

The Team Leader Terrestrial Ecosystems and Quality has attended further meetings of the EMaR Biodiversity project team. A project plan to develop national terrestrial biodiversity information using regional council data has been completed. Staff also recently provided WCC with designs and advice for vegetation monitoring in Otari Reserve and rodent monitoring on farmland near Zealandia. We also attended workshops involving volunteer ecological monitoring.

Hydrology

Monitoring

A major focus of work this quarter was the review of the groundwater network for SOE monitoring, including selection of the most appropriate wells for monitoring groundwater levels.

Two major reports on the Kapiti Coast groundwater resource investigations were completed during the quarter and will be published early in the new year.

A major report on a new framework for managing groundwater in the Wairarapa Valley was revised and republished in December 2014. The report included refinements to recommended allocation limits.

Work continued on gathering data from several new camera sites in the Wairarapa to develop a visual record of flow changes in different systems. These visual records will help during consultation about allocation and minimum flow provisions in the draft Natural Resources Plan as well as during whitua discussions.

Investigations

Work in the quarter focussed on finalising the scope of two projects relating to water allocation. The first project will use a model called EFSAP to predict fish habitat changes under a range of flow conditions in different catchments. The project will provide information that will help the whitua committees understand the implications of different minimum flow regimes and allocation policies.

The second project will use a model called CHES to predict flow changes relating to various water abstraction scenarios in the Ruamahanga catchment. Both projects are being undertaken by NIWA and the contracts were approved in December.

Science strategy and information

There has been a significant amount of work in coordinating the necessary science input to the Regional Plan and Ruamāhanga Whitua, and we are now also gearing up for the Porirua Whitua. Particular emphasis has been on the development and coordination of the Collaborative Modelling Project – which will ensure that we have all the necessary knowledge and expertise required to answer the various questions that the whitua are likely to have about land use and impacts on water quality.

Our Senior Science Coordinator has been coordinating the department's review of its SOE monitoring programmes, which has included initiating conversations with other GWRC departments to identify their monitoring needs. The initial focus of the SOE review will be to comprehensively describe what is required for "baseline" SOE monitoring for the region. Once that has been defined, we will look at what is required to meet other monitoring needs or questions.

The third meeting of the external Science Advisory Group has held in November 2014 and the focus was also on the SOE review, particularly the technical aspects of the Hydrology and Rivers programmes.

There continues to be a strong focus on science communications. During the quarter we:

- ▶ Worked on the development of a departmental communications plan (due to be finalised in February)
- ▶ Contributed to SOE programme posters and handouts for both the Aquatic and Terrestrial teams

- ▶ Started work on the 2013/14 Annual Summary Report, due to be published in the next quarter
- ▶ Contributed to the improved recreational water quality information on our website, including the development of a new interactive map which displays both overall grades and current warnings for our monitored swimming sites
- ▶ Continued to be involved with LAWA, most recently the addition of information for our coastal recreational sites.

Significant projects

Wairarapa Moana

ESci continues to play a key role in the Wairarapa Moana project and is heavily involved in the FreshStart for Freshwater Programme. Members of the Terrestrial and Aquatic teams are part of the Technical Advisory Group and involved in all three arms of the project; lake-edge wetland restoration, Land Environment Plans and monitoring.

The Aquatic Ecosystems and Quality team provided a presentation to farmers and stakeholders at a recent field day. The results of a one-off large-scale water quality monitoring event involving 20 farms were presented, as well as information about water quality in the waterways around Wairarapa Moana. Ongoing monitoring of a number of constructed wetlands on farms (including a large created wetland at Kaiwawai Dairy Farm) is being completed.

The November shore-bird monitoring completed on the eastern edge of Lake Wairarapa has shown a drop in bird numbers recorded during the 2010-2014 surveys (591 individuals on average) compared to the 1984-1994 surveys (724 individuals). The abundance of seven species appear to have declined between the two surveys, including numbers of the second most abundant species at the lake – pied stilt. Increases in the abundance of 10 other species were noted. These findings highlight the importance of obtaining long-term datasets in order to be able to determine real trends in species abundance, as environmental fluctuations can mask these changes.

An increase in bittern numbers has been recorded in a recent survey of Boggy Pond. Five birds were recorded in 2012, and eight birds were recorded in the recent survey. With such few numbers and given that they are such secretive birds it is difficult to tell if the increase can be attributed to the pest control that was put in place in 2012.

Two fishing events were completed in the October and December as part of the exotic fish removal trial at Barton's Lagoon. Fourteen trout, 66 perch and 61 rudd were caught. There is some concern that the current fishing regime is not adequately suppressing the exotic fish populations and a change to the trial may be required. This will be discussed with Fish and Game following the native fish survey that will be completed in January.

Ruamāhanga Whaitua

As reported last quarter, a number of projects have been kicked off to gather the information the committee is likely to require over the proceeding months. These projects are being coordinated by the SSI team, and are largely around providing information on the current state of our environment, trends, key issues and drivers of those.

To date a number of presentations and papers have been provided to the committee on the state of our environment, current trends and contaminant inputs to the catchment.

A major piece of work has been around the development of the Collaborative Modelling Project (CMP). This project will provide a knowledge framework which will ensure that we have all the

necessary knowledge and expertise required to answer the various questions that the whaitua are likely to have about land use and impacts on water quality. In particular, it will explore how to utilise existing models for scenario testing of various land uses and their impact on water quality. A number of workshops have been held with modellers and experts from around New Zealand to develop this framework. Once established, the framework will be able to be used across all the whaitua.

Technical support for other departments and Wellington Water

Considerable technical support was provided to other GWRC departments/groups during the quarter:

Environmental Regulation

- ▶ On-going consent application advice has been provided for NZTA's MacKays to Peka Peka and Transmission Gully roading projects, including assessment of remediation plans for contaminated sites
- ▶ Technical review of marine monitoring results has been provided to NZTA as enabling works for the Transmission Gully project have commenced in Pauatahanui
- ▶ Following review of a number of annual monitoring reports relating to the operation of GWRC's water treatment plants, a meeting was held with Wellington Water to discuss possible changes to existing water quality and ecological monitoring required under their consent to abstract water from the Hutt River.
- ▶ Input was also provided on Wellington Water's consent application to chemically clean water supply bores contaminated by iron bacteria. The application has now been approved, with the first bore treatment scheduled to take place in mid-January 2015 at the Waterloo well field in Lower Hutt
- ▶ Pre-application discussions have been ongoing with regard to marine sampling methods proposed by CentrePort for their harbour dredging project
- ▶ Advice was provided to inform EReg enforcement procedures relating to sediment discharges from Meridian Energy's Mill Creek wind farm site
- ▶ Planting plans were reviewed for consents for Best Farms and Hanson Street in Wellington City
- ▶ Assistance was provided in updating the 'allocation calculator' a tool which tracks the combined impact of consented allocation in the Wairarapa Valley

Environmental Policy

- ▶ Work continued to support EPol with technical information in support of the draft Natural Resources Plan which included:
 - » An analysis of the security of supply for irrigators in the Wairarapa
 - » A stream depletion analysis to assist with water allocation policies
 - » Defining capture zones for groundwater drinking water supplies.
- ▶ Terrestrial ecology staff have been gathering information related to the identification of significant wetlands in the region
- ▶ Aquatic ecology staff and our Senior Science Coordinator have provided ongoing input into Tables 3.1-3.5 (related to protecting ecological health and mahinga kai) and Schedule H (related to providing for contact recreation and Māori use), including the development of supporting technical material and reviewing stakeholder feedback

Flood Protection

- ▶ Hydrology staff are continuing to work closely with Flood Protection in scoping options for the enhancement of flood models for short-term event predictions
- ▶ A contract has been prepared for the annual survey of river birds on the Hutt, Waikanae and Otaki rivers

Biodiversity

- ▶ Ecologists continue to provide feedback on KNE plans and advice as requested.
- ▶ Four KNE sites were monitored for rodents and small mammals in November. In the East Harbour Mainland Island, the rat tracking rate has fallen to 6% in the treatment area, but is still at 74% in the non-treatment area. Rat tracking rate is at or below 10% in Korokoro Valley, Baring Head and Battle Hill, but remains high in Queen Elizabeth Park (55%). Hedgehog tracking is high at Baring Head (81%), while the mouse tracking rate was the highest ever recorded in Battle Hill bush remnant (95%)
- ▶ We have recently run the post-1080 operation possum monitor in Kaitoke Regional Park. The result of 1.7% RTC shows the 1080 operation has been successful

Parks

- ▶ Two assessments and a site visit for a third track development proposal have been completed. The assessments were associated with Stratton Street and Baked Beans Bend in Belmont Regional Park, while the site visit was made to the Devil's staircase in Akatarawa Forest
- ▶ ESci has assisted the volunteer group MIRO in completing robin searches in the mainland island through contracting a bird expert to organise the searches

Biosecurity

- ▶ Staff continue to provide possum monitoring designs and reports for Bioworks in the Wairarapa

Wellington Water (previously Water Supply department)

- ▶ An aerial flight with a fixed-wing plane to survey for damage to the canopy from introduced insects and fungi in the water collection areas was completed in late December. The canopy in the Wainuiomata/Orongorongo catchment looked to be in good health, but the red and silver beech trees in the Hutt catchment appeared to be under environmental stress

Staff changes

Our recently recruited climate scientist, Alex Pezza from Melbourne University, starts work with GWRC on 16 February 2015. This role will be responsible for developing a climate science programme designed to inform council wide climate-sensitive decision making and to provide a forward looking focus for resource management planning.

We are currently recruiting for a Science Coordinator to replace Tessa Bunny who is going on maternity leave in February 2015.

Emily Martin recommenced work as a part-time casual student worker. Emily will be assisting with recreational water quality monitoring and targeted investigations in the Hutt River catchment and also carrying out data collation and other tasks related to whitua work.

Grant Redvers started in early December as the Field Supervisor for the SoE terrestrial biodiversity monitoring team. Jacqueline Bond has also been hired as a casual contractor for this work.

Victoria University student Luke Crouch has replaced Charlie Hopkins as a casual student worker. He will also be part of the SoE terrestrial biodiversity monitoring team.

Financial reports

Science Income Statement Period ending 31 December 2014	31 December 2014			Full Year			31 December 2013	
	Actual \$000	Budget \$000	Variance \$000	Forecast \$000	Budget \$000	Variance \$000	YTD Actual \$000	FY Actual \$000
Rates & Levies	2,687	2,686	1	5,373	5,373	-	2,523	5,045
Government Grants & Subsidies	-	-	-	-	-	-	-	-
External Revenue	94	5	89	205	10	195	11	39
Investment Revenue	2	-	2	-	-	-	2	4
Internal Revenue	107	123	(16)	245	245	-	133	320
TOTAL INCOME	2,890	2,814	76	5,823	5,628	195	2,669	5,408
less:								
Personnel Costs	1,494	1,360	(134)	2,987	2,720	(267)	1,367	2,804
Materials,Supplies & Services	174	102	(72)	205	205	-	174	308
Travel & Transport Costs	60	41	(19)	82	82	-	54	104
Contractor & Consultants	368	531	163	1,276	1,063	(213)	412	874
Grants and Subsidies Expenditure	-	-	-	-	-	-	-	-
Internal Charges	292	240	(52)	477	477	-	274	607
Total Direct Expenditure	2,388	2,274	(114)	5,027	4,547	(480)	2,281	4,697
Financial Costs	9	8	(1)	16	16	-	8	17
Bad Debts	-	-	-	-	-	-	2	(2)
Corporate & Department Overheads	426	426	-	853	853	-	385	770
Depreciation	125	131	6	261	261	-	138	267
Loss(Gain) on Sale of Assets / Investment	-	(5)	(5)	(5)	(5)	-	-	-
TOTAL EXPENDITURE	2,948	2,834	(114)	6,152	5,672	(480)	2,814	5,749
OPERATING SURPLUS/(DEFICIT)	(58)	(20)	(38)	(329)	(44)	(285)	(145)	(341)
Add Back Depreciation	125	131	(6)	261	261	-	138	267
Other Non Cash	-	(5)	5	(5)	(5)	-	-	-
Net Asset Acquisitions	(64)	(129)	65	(292)	(292)	-	(20)	(102)
Net External Investment Movements	-	-	-	-	-	-	-	-
NET FUNDING BEFORE DEBT & RE	3	(23)	26	(365)	(80)	(285)	(27)	(176)
Debt Additions / (decrease)	-	58	(58)	116	116	-	(10)	68
Debt Repaid	(20)	(18)	(2)	(36)	(36)	-	(34)	(64)
Net Reserves (Increase) / decrease	(2)	-	(2)	-	-	-	(2)	(4)
NET FUNDING SURPLUS (DEFICIT)	(19)	17	(36)	(285)	-	(285)	(73)	(176)

Science Capital Expenditure Statement Period ending 31 December 2014	31 December 2014			Full Year			31 December 2013	
	Actual \$000	Budget \$000	Variance \$000	Forecast \$000	Budget \$000	Variance \$000	YTD Actual \$000	FY Actual \$000
Total Asset Acquisitions	62	95	33	200	200	-	27	52
Capital Project Expenditure	1	58	57	116	116	-	(10)	48
Asset Disposal Cash Proceeds	-	(24)	(24)	(24)	(24)	-	-	-
Net Capital Expenditure	63	129	66	292	292	-	17	100

Financial variance analysis

- ▶ E Science has a net deficit of \$58k which is close to budget
- ▶ Staff costs are more than budget mainly due to unbudgeted casual staff and early recruitment of staff to meet science requirements of the Whaitua Committees. The forecast has been updated for these staff as the costs are ongoing

- ▶ External spend on materials, travel & consultants costs are under budget at December but the forecast has been updated for projects such as the Collaborative Modelling project which are starting in January
- ▶ Internal costs are overbudget by \$52k most of which is ICT charges due to more computers and gadgets than budgeted
- ▶ The capital spend to date is on replacement data loggers for monitoring sites with vehicle purchasing round due later in the year

Performance Measure	Performance Target		Comment
	Baseline	2014/15	
Number of state of the environment report cards downloaded on the Greater Wellington website	1929 (2010/11)	Increase on previous year	This information is not currently available.

Risk analysis

Increased communication has been occurring between TA's and ourselves in response to three sites now meeting the remediation fund top 10 criteria.



greater WELLINGTON

REGIONAL COUNCIL

Te Pane Matua Taiao