

Quarterly
REPORT 

31 March 2014

ENVIRONMENT MANAGEMENT
GROUP

2 TE UPOKO TAIAO NATURAL RESOURCE MANAGEMENT COMMITTEE

2.1 Environmental Policy



Overview

The development of the second generation regional plans, through the plan review programme, continues, with both stakeholder and Te Upoko Taiao meetings

The Ruamāhanga Whaitua Committee's work programme is underway with two meetings and two fieldtrips held this quarter. Work to prepare for the establishment of the next whaitua committee, the Wellington Harbour/Hutt Valley Whaitua Committee, is progressing

The Department's implementation of the Regional Policy Statement continues

Key results

- ▶ Reprioritising of the methods in the Regional Policy Statement
- ▶ Work has started on the implementation of the National Policy Statement for Freshwater Management with,
 - » the Ruamāhanga Whaitua Committee's programme of work in underway
 - » meetings with partners and stakeholders regarding the establishment of the Hutt Valley/Wellington Harbour Whaitua Committee
- ▶ Workshops continued to be held with stakeholder groups on preliminary policy and rule options, as part of our work towards a release of a draft regional plan in September 2014.
- ▶ Te Upoko Taiao resumed meeting and approved a timeline of work for the release of the Draft (September 2014) and Proposed Regional Plan (mid 2015)

Looking ahead

- ▶ Meetings will be held with individual stakeholder groups in this quarter to clarify and make changes to the provisions contained in the Working Document for the Regional Plan

- ▶ Engagement with individual landowners regarding possible 'sites of significance' on their land started in March 2014 and will continue over the coming months
- ▶ The Ruamāhanga Whaitua Committee will continue to progress its work

Departmental activity

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

- ▶ the review of the regional plans
- ▶ supporting the Ruamāhanga Whaitua Committee
- ▶ the establishment of the Hutt Valley/Wellington Harbour Whaitua Committee
- ▶ the development of a Regional Hazard Management Strategy, and
- ▶ the implementation of the Regional Policy Statement

Implementation programme for the NPS for Freshwater Management

The Ruamāhanga Whaitua Committee had its inaugural meeting on 3 February 2014, at Te Ore Ore marae. This was attended by the Mayors of GWRC and the territorial authorities of the whaitua, and kaumatua from Kahungunu ki Wairarapa and Rangitāne. The committee has since had two fieldtrips, one around Wairarapa Moana and the other traversing a cross-section of the Ruamāhanga Whaitua from Mangatarere to Gladstone. The Ruamāhanga Whaitua Committee started its programme of meetings on March 24th, with ongoing meetings occurring approximately every six weeks.

Preliminary planning work has been undertaken to prepare for the formation of the Wellington Harbour/Hutt Valley Whaitua Committee. At present, discussions are being held with our partners and key stakeholder organisations regarding the whaitua process and the drafting of a Terms of Reference for the Wellington Harbour/Hutt Valley Whaitua Committee. The anticipated timing is for the Terms of Reference to be approved and the selection process for community committee members to be underway by the middle of the 2014, and the first Wellington Harbour/Hutt Valley Whaitua Committee meeting around October 2014.

Operative Regional Policy Statement

The regional planning managers met in February to discuss the other methods in the Regional Policy Statement, as part of the programme of work implementing the RPS. These methods have been reprioritised and this is being further developed.

Regional Plan review

Te Upoko Taiao - Natural Resource Management Committee

Te Upoko Taiao held its' first workshop of the current triennium on 12 February 2014. The key item on this workshop's agenda was a discussion around the timeframes of the Regional Plan review. The committee was presented with three timing options for the release of the Draft and Proposed Regional Plans and approved Option 2 – Release the Draft in September 2014 and the Proposed Plan in March/April 2015. This presents an opportunity to further refine policy and rule options and address comments from the committee, proposals by Central Government and stakeholder feedback prior to the release of the Draft.

Secondly, this additional time will allow for the development of all the necessary supporting documentation, including a draft Section 32 evaluation report, incorporating changes brought into force by the 2013 amendments to the Resource Management Act, and enable these to be available to assist the discussion around the Draft.

The Section 32 evaluation has both qualitative and quantitative components, the latter more substantive and focusing on those proposed provisions which are anticipated to have the greatest implications (based on tests of scale and significance set out in the Act and for which we have developed a set of criteria). The quantitative component involves economic analysis including potential impacts on employment opportunities.

The qualitative analysis is well underway and is being assisted by external contractors, Perception Planning. The quantitative analysis is being undertaken in stages, with parts of this still being scoped – given the potentially large external cost implications associated with commissioning economic analysis. We are still mostly in the data and information gathering phase for this piece of work.

On 26 March 2014, Te Upoko Taiao held a meeting and workshop. Reports on six key topics of the Working Document for Discussion that will undergo changes based on feedback received were presented. Te Upoko Taiao provided direction on each of the topics: Values; Schedule H and associate objectives; Contact recreation and tangata whenua use; Outstanding rivers and lakes; Sites of significance to tangata whenua; Non-regulatory incentives for livestock exclusion, riparian management and wetland restoration. Alastair Smail, Whaitua Project Manager, also presented an update on the Whaitua Programme.

Engagement

A programme of stakeholder meetings has been held during this quarter to focus on the specifics of particular policy and rule options. These meetings are part of the ongoing stakeholder engagement process. Individual meetings with some stakeholders are also taking place to get a greater understanding of the provisions and to highlight areas of particular interest.

Feedback on the provisions from all stakeholders is being collected and will be considered in the development of the Draft Regional Plan.

Consultation and Engagement Plan

A number of meetings were held in this quarter around the regional plan review, including six meetings with landowners with Significant Sites on their properties. Stakeholder workshops around values and water quality were also held.

Interagency/Interdepartmental Cooperation and Partnerships

Staff held discussions with staff from the Ministry of Primary Industries and Ministry for the Environment, as part of on-going efforts to work together better on the implementation of the National Policy Statement for Fresh Water Management and the development of farm plan tools.

Regional Council input into Statutory Planning

District Plan Changes

Wellington City Council

- ▶ Proposed plan change 77 – Curtis Street Business Area

WCC adopted the hearing panel's decision to grant this plan change, including with provisions that addressed GWRC's concerns regarding biodiversity values and stormwater management. Three parties have appealed this decision. GWRC has applied to be party to the appeal proceedings as one appeal proposes the removal of the provisions that addressed GWRC's concerns. Mediation to resolve appeal matters is likely to begin by the end of April.

Porirua City Council

- ▶ Northern Growth Structure Plan

Council officers are involved with providing advice to PCC in the early stages of development on a structure plan for the Northern Growth area in Porirua that runs from Mana to Pukerua Bay.

- ▶ Proposed plan change 16 –Network Utilities

This Proposed District Plan Change was put forward in response to the National Environmental Standard for Electricity Generation. GWRC submitted in support of the plan change although we sought some minor amendments to ensure hazard management and flood protect infrastructure are protected.

Hutt City Council

- ▶ Proposed plan change 33 – Amendments to the extraction activity area

- ▶ GWRC officer's attended a site visit to Belmont Quarry at the invitation of Winstone Aggregates and are currently in pre-hearing negotiations around mitigation options.

Notified resource consents

Wellington City Council

- ▶ Earthworks and vegetation clearance – 55-85 Curtis Street, Karori

Proposal for vegetation clearance affecting a wetland buffer and approximately 1ha earthworks discharging to the WCC stormwater network. GWRC sought that both activities were carried out in accordance with good practice so that adverse effects were appropriately mitigated. The submission was in line with the GWRC submission on proposed Plan Change 77 for the same site.

Natural hazards

Research Projects

Porirua Fault Trace Study

Work has begun on identifying and updating information on the location, rupture frequency and earthquake magnitude potential of active faults running through the Porirua area. The work is being undertaken by GNS Science and is being part funded by GWRC and Porirua City Council. The newly captured LiDAR data and aerial photo coverage, funded by a consortium headed by GWRC, is providing excellent high resolution data that is being used to identify the surface expression of faults in the area.

Wellington Harbour Fault Investigation

Work conducted as part of the It's Our Fault project has revealed the presence of fault structures on the seabed of Wellington Harbour. Preliminary analysis of the data indicates that these may be an extension of a fault that bisects Mt Victoria. It is not known whether it is still active or what rupture magnitudes it could generate, but it has the appearance of similar structures that underlie Pegasus Bay and were implicated in the devastating Christchurch earthquakes. GWRC is providing funds to

allow a more thorough analysis of these faults and the seismic hazard implications they pose Wellington City. The project is funded over two years, of which the first half of the project has been completed and an interim report has been filed. To date, an analysis of the faults and related sedimentary structures has been completed based on high-resolution geophysical data from Evans Bay, Lambton Harbour and the Kaiwharawhara regions of Wellington Harbour. The work is progressing satisfactorily, and is due to be completed by 30 September 2014.

Lower Hutt Seismic Event Related Geotectonics Investigation

Land around faults can move both horizontally or vertically in an earthquake. Sometimes the vertical movement is downward leading to subsidence. It is thought that Lower Hutt may experience subsidence from a Wellington Fault event of up to 2.0 m. The Fault runs along the western side of the Valley and poses a major risk to communities living in the area. Greater Wellington Regional Council is working with Hutt City Council and GNS Science to fund a study that will 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.

Regional Natural Hazards Management Strategy

Work is underway to develop a regionally coordinated natural hazards strategy. The project grew out of regional plan consultation on natural hazards. The Strategy will establish a regional framework for integrated and coordinated natural hazard management planning, covering both LTP and regional and district plan responses. Its development will also be integrated with the Wellington Region Civil Defence Group Plan prepared by WREMO, assisting in addressing elements of the 'reduction' component of the 4Rs specific to the Group Plan and CDEM activities. The project is being driven by the regional planning managers group with Greater Wellington Regional Council project managing its delivery. The four city councils have agreed to be involved with strong interest from Kapiti Coast District Council. The three Wairarapa councils are keeping a watching brief on the project and retain the right to opt in at a future date. A 'request for proposals' is being prepared, calling for a consultant or consortium to develop the strategy and engage community and stakeholder groups for its development.

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 Wellington regional CDEM group is currently in the process of working on tsunami preparedness. Environmental Policy has been involved in providing advice and feedback on regional tsunami hazards, attending workshops and reviewing documents and providing regional hazards and planning advice.

Presentations/Publications/Media

There was a lot of media surrounding the establishment of the Ruamāhanga Whaitua Committee, both on the GWRC website and in local newspapers.

Andy Dodd, the contract archaeologist who did our archaeological survey for the coastal plan review, has had an article published about the work in the most recent Archaeology in New Zealand journal.

One of the senior policy advisors spoke to a group of conservation architects and other heritage professionals about the historic heritage places identified for scheduling in the new regional plan, and the provisions that are being considered to protect their significant values. The group

questioned the exclusion of a couple of sites, but did not give much feedback on the working document for discussion historic heritage provisions.

Environment Policy Senior Policy Advisor (hazards) continues to be approached to speak to community and council groups on natural hazards; most recently as a fieldtrip guide in the Wairarapa for WREMO and the Masterton District Council Environment Committee, speaking about coastal and tsunami hazards.

Financial reports

Policy Income Statement Period ending 31 March 2014	Year To date			Full Year			Last Year	
	Actual \$000	Budget \$000	Variance \$000	Forecast \$000	Budget \$000	Variance \$000	YTD Actual \$000	FY Actual \$000
Rates & Levies	2,038	2,038	-	2,717	2,717	-	1,627	2,170
Government Grants & Subsidies	-	-	-	-	-	-	-	-
External Revenue	26	-	26	-	-	-	-	-
Investment Revenue	-	-	-	-	-	-	4	6
Internal Revenue	19	19	-	25	25	-	19	25
TOTAL INCOME	2,083	2,057	26	2,742	2,742	-	1,650	2,201
less:								
Personnel Costs	1,095	1,146	51	1,528	1,528	-	1,028	1,351
Materials, Supplies & Services	65	34	(31)	46	46	-	26	46
Travel & Transport Costs	22	5	(17)	7	7	-	24	30
Contractor & Consultants	194	403	209	347	537	190	264	320
Grants and Subsidies Expenditure	-	-	-	-	-	-	-	-
Internal Charges	176	158	(18)	210	210	-	146	195
Total Direct Expenditure	1,552	1,746	194	2,138	2,328	190	1,488	1,942
Financial Costs	-	-	-	-	-	-	-	-
Bad Debts	-	-	-	-	-	-	(3)	(3)
Corporate & Department Overheads	311	311	-	415	415	-	292	390
Depreciation	5	4	(1)	6	6	-	5	7
Loss(Gain) on Sale of Assets / Investments	-	-	-	-	-	-	-	-
TOTAL EXPENDITURE	1,868	2,061	193	2,559	2,749	190	1,782	2,336
OPERATING SURPLUS(DEFICIT)	215	(4)	219	183	(7)	190	(132)	(135)
Add Back Depreciation	5	4	1	6	6	-	5	7
Other Non Cash	-	-	-	-	-	-	-	-
Net Asset Acquisitions	-	-	-	-	-	-	(11)	(11)
Net External Investment Movements	-	-	-	-	-	-	-	-
NET FUNDING BEFORE DEBT AND RESE	220	-	220	189	(1)	190	(138)	(139)
Debt Additions / (decrease)	-	-	-	-	-	-	-	-
Debt Repaid	-	-	-	-	-	-	-	-
Net Reserves (Increase) / decrease	-	-	-	-	-	-	138	118
NET FUNDING SURPLUS (DEFICIT)	220	-	220	189	(1)	190	-	(21)

Policy Capital Expenditure Statement Period ending 31 March 2014	Year To date			Full Year			Last Year	
	Actual \$000	Budget \$000	Variance \$000	Forecast \$000	Budget \$000	Variance \$000	YTD Actual \$000	FY Actual \$000
Total Asset Acquisitions	-	-	-	-	-	-	11	11
Capital Project Expenditure	-	-	-	-	-	-	-	-
Asset Disposal Cash Proceeds	-	-	-	-	-	-	-	-
Net Capital Expenditure	-	-	-	-	-	-	11	11
Investments Additions	-	-	-	-	-	-	-	-
Net Capital and Investment Expenditure	-	-	-	-	-	-	11	11

Financial variance analysis

- ▶ Policy has a net surplus of \$215k which is \$219k better than budget deficit of \$4k
- ▶ Personnel, materials & travel costs are all close to budget
- ▶ Consultants' costs are only \$194k to date and it is anticipated that unlike prior years consultants spend will be less than budget
- ▶ The forecast has been updated to reflect the likely underspend of \$190k in consultants costs this year
- ▶ There is no capital budget or spend

Performance Measure	Performance Target		Comment
	Baseline	2013/14	
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	The RPS was made operative in March 2013 and a programme is required to progress the methods and monitoring.
That regional plans are reviewed and adopted	Review of regional plans has been underway since 2009	Review of regional plans continues	The Regional plan review continues and it is expected that a draft will be made public in 2014.

Risk analysis

None identified in this department.

2.2 Environmental Regulation



Overview

The current peak in notified and national consenting workloads continues. This quarter's major consenting work was dominated by a flow on from hearings in December, and the annual influx of 'replacement' dairy effluent discharge and water take consent applications

Non-notified consent workload peaked recently, up from the December quarter

Ongoing high enforcement and investigations load including significant inquiries and court work and the flow on from appeals, judicial reviews and declaration applications to the Environment Court lodged in the December quarter

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 Winstones Dry Creek cleanfill, WCC Southern Landfill, C&D Landfill, GW Flood Protection Whakawiriwiri Stream, Handyside Irrigation Dam and Kiwi Lumber timber processing operations
- ▶ Roads of National Significance – Significant ongoing workload in Basins and Peka Peka to Otaki national consenting processes; and in MacKays to Peka Peka and Transmission Gully construction preparation work
- ▶ Appeals, declarations and judicial reviews – A substantial case load in appeals, and a judicial review and declaration proceedings; and results on the Jefferies abatement notice appeal and Burrell prosecution appeal
- ▶ Enforcement – Ongoing substantial enforcement cases including the Jefferies, C&M Transport/Mayall Properties and PCC prosecutions before the District Court; and recent cases in Stolte, Collings, Steens, Donald and Henergy resolved in the District Court
- ▶ Compliance – continued roll out of Territorial Authority regulatory forums with all local councils across the region
- ▶ Continued roll out of programmes for land development activities including contracting out compliance monitoring, development of a forestry sector regulatory strategy, and further development of a winter works earthworks protocol
- ▶ Ongoing roll-out of the dairy effluent pond storage calculator, and continuing implementation of the water management strategy around water metering and reporting (national regulations) compliance requirements
- ▶ Substantial 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 and further development of a revised QMS for Environmental Regulation statutory process work

Looking ahead

- ▶ Ongoing management of core statutory work with particularly heavy loads in major enforcement investigations, completion of annual compliance programmes, dairy shed effluent and water take replacement consenting, significant earthworks consenting, a range of notified consenting projects, and RoNS projects (pre-lodgement to implementation) and Board of Inquiry work
- ▶ Ongoing work with national sector groups and the Ministry for the Environment on proposed RMA reforms; and the development and implementation of processes and procedures in response to the RMAA 2013
- ▶ Regional Plan review input, incorporating significant input into draft plan provisions in the June quarter
- ▶ Continued development of the Ozone Call Centre database and new Incidents module
- ▶ Reviewing our Erosion & Sediment Control Guidelines
- ▶ Review of the Environmental Regulation Quality Management System
- ▶ Ongoing work in Regional Sector forums in responding to developing amendments to the Building Act 1991 regarding large dam and the pending implementation of the Dam Safety Scheme; and in the development of a 'strategic compliance' framework

Departmental activity

Resource consents

Non-notified consents

In the past quarter we have received more applications than usual, particularly in the Wairarapa office. Most of these are replacement applications for existing resource consents that expire this year. The numbers of consents issued is similar compared to the same stage of 2012-13 year.

Consents summary * Figures exclude applications to the EPA

Item	Mar Quarter 2014	Dec Quarter 2013	Mar Quarter 2013
Consents received	167	125	129
Consents issued	95	97	93

Item	2013-14 year to date	2012-13 year
Consents received	430	552
Consents issued	327	457

Item	Mar Quarter 2014	Dec Quarter 2013
Median processing time frame	18	18

Item	2013-14 year to date	2012-13 year
Median processing time frame	18	16

Notified and limited notified consents

A high and peaking work load in assessments, pre-hearings and hearings has been completed and/or decisions released on:

- ▶ **South Wairarapa District Council – Martinborough, Featherston and Greytown wastewater treatment plants re-consenting:** SWDC has now completed the majority of the investigations programme which has enabled any associated and additional information to be provided. Draft applications for all three plants have been provided for comment. A final version for Martinborough WWTP is expected by 7 April 2014 and provided the information is sufficient notification will occur soon after. A completed application is expected for Featherston WWTP by mid April and shortly after that one for Greytown WWTP.
- ▶ **GWRC (Flood Protection) – Whakawhiriwhiri Stream works:** These are applications to authorise the continued diversion of drainage water and flood water from the Tawaha catchment to the Whakawhiriwhiri Stream. The proposal also incorporated the re-grading and re-shaping of the bed of the stream to mitigate the effects of inundation caused by the diversion. A hearing was held on 3-4 December 2013 and a decision was released on the 24 March 2014. The panel decided to grant conditional approval. 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. The appeal period closes on 15 April 2014.

- ▶ **Matahiwi Farms Ltd – construction of a dam:** This is a proposal to construct a dam, a diversion channel and a weir intake structure, which involve works in the bed of the two un-named tributaries of Waingawa River and bulk earthworks, as well eventual water harvesting. A hearing was held on 12 December 2013 and a decision was released on 20 February 2014. The panel decided to grant conditional approval. The main issues covered by conditions included construction management planning; and mitigating for the impacts of stream loss which will include requirements for extensive riparian planting and monitoring of effects. The appeal period closed on 13 March 2014 – no appeals were received.
- ▶ **Masterton District Council – Te Ore Ore water race re-consenting:** An application was received and notified in October 2013 for the continued operation of the Te Ore Ore water race. Five submissions were received that were either neutral or supporting of the application. A productive pre-hearing meeting was held on 20 February 2014. All parties have expressed a desire to resolve the issues without the need for a formal hearing and in this regard a set of draft conditions are currently being devised. These will then be circulated to all the parties and if agreement can be reached then a formal hearing will not be required.
- ▶ **Juken New Zealand Ltd – Discharge to Air:** After a couple of pre-hearings and further negotiation all parties formally agreed to a set of conditions thereby negating the need for a formal hearing. The final report is currently being finalised with a decision due shortly. Conditions will deal with reducing particulate matter (PM10), dust management, and a requirement to trigger a Community Liaison Group if there are any dust or odour issues.
- ▶ **Kiwi Lumber – Discharge to Air:** After a pre-hearing and further negotiation all parties formally agreed to a set of conditions thereby negating the need for a formal hearing. The decision to grant conditional approval was made on 31 March 2014, with the appeal period closing on the 24 April 2014
- ▶ **Burrell Demolition Limited – re-consenting and demolition fill extension at C n D Landfill:** A hearing was held over four days between 10- 13 December 2013. On hearing the evidence the reporting officers for GWRC and WCC both confirmed that their respective positions to decline the application remained. The key issue was leachate collection and treatment for GWRC. The hearing panel directed the applicant to look into this matter further and adjourned the hearing to 2014. During this time the panel directed expert conferencing to occur. The hearing reconvened for a day on 21 March, with the position between the councils and the applicant significantly closer. The panel again adjourned the hearing to mid-April and requested the applicant and council officers confer over potential consent conditions.
- ▶ **Wellington City Council – Southern Landfill extension (Stage 4):** – This project is moving along at a steady pace with all technical matters being peer reviewed by external consultants. We are expecting the reports in a few weeks' time. A pre-hearing with submitters was held in January 2013, with the focus of the meeting on progress since the close of submissions and the process from here. While WCC decided not to extend the pre-hearing into a discussion of key issues, feedback from participants was positive. We expect a hearing to be held in the second half of 2014.
- ▶ **CentrePort Limited Stage 1:** CentrePort has applied to renew their consent to dredge the Wellington Harbour navigational channel as their existing consent expires in 2015, and to date no dredging has occurred under the existing consents. CentrePort seeks to obtain new resource consent for the same proposed dredging and disposal activity, with a reduced depth of 12.2 m

below chart datum to align with the currently consented dredge volume. This application is due to be notified within the next quarter.

- ▶ **GWRC (Flood Protection)** – Throughout 2013 GWRC Flood Protection department lodged consent applications to continue flood protection and erosion control operations, and maintenance activities on the Hutt, Waikanae and Otaki Rivers as per their existing consents which have, or are about to, expire. Further information has been requested and notification of these applications will likely occur mid-year.
- ▶ **Aquacom NZ Ltd – Aotea Lagoon:** Aquacom NZ Ltd has applied for resource consent to construct and operate a cable wakeboard facility within the Aotea Lagoon, Porirua City. This application will more than likely be jointly notified with PCC as the activity of wakeboarding will be carried out in the CMA while the other facilities will be within the jurisdiction of PCC. Notification, if confirmed, is expected sometime in April 2014.
- ▶ **Te Marua Golf Club – erosion protection works:** The Te Marua Golf Club is seeking resource consent to undertake erosion control works on the Hutt River along the north-western edge of the golf course. The application was limited notified on 4 March 2014, due to an affected neighbour not wishing to sign off on the proposal. The neighbour has since lodged a submission in opposition, and a hearing is likely to be held in May.
- ▶ **Winstone Aggregates – DryCreek** – Please see Appeals section.

Major pre-application discussions continue for:

- ▶ **Aotea Block:** Carrus intends to lodge a global consent for the remainder of the development in relation to land use consents and discharge permits for bulk earthworks, in mid 2014. This application is likely to be publicly notified.
- ▶ **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, in mid-2014. This application is likely to be publicly notified.

Other regulatory consenting:

- ▶ **Schlumberger Seismic Survey work:** Schlumberger Multiclient, utilizing a leading geophysical services company, is conducting a geophysical survey in the Pegasus and East Coast basin to gather geological information on potential oil and gas reservoirs. The proposed 2D seismic survey is due to commence at the start of April 2014 using the seismic survey vessel *Aquila Explorer* (and will be accompanied by the support vessel, *Amaltal Mariner*). The survey duration is anticipated to be between 40-50 days.

Board of Inquiry – national consenting projects

- ▶ **NZTA – Transmission Gully RoNS:** The two consortia bidding to construct and operate the Transmission Gully motorway (under a public-private partnership procurement model) submitted their tender documents to NZTA for consideration in October 2013. The preferred bidder, Wellington Gateway Partnership (WGP) was announced in December 2013, and confirmation of the contract will be announced in July 2014. Enabling works are expected to commence in the second half of 2014. GWRC is working closely with the four territorial authorities involved in the project and there is intensive and ongoing discussions with NZTA and WGP regarding road design changes that will be carried forward to construction. The facilitator engaged by the councils is working very well and is ensuring consistent feedback and efficient information distribution. In the meantime, NZTA continues to undertake baseline environmental monitoring for the project. Additional consent applications and changes to consent conditions are expected from WGP in next two months as they track towards financial close on the project contract in July.

- ▶ **NZTA/MacKays to Peka Peka Alliance – MacKays to Peka Peka RoNS:** Construction of the M2PP expressway is ongoing, with bulk earthworks commencing earlier in 2014. GWRC site audits are occurring weekly. In general, compliance on site has been good, with the odd teething problem largely resolved. Multiple management plans are being received and certified almost on a daily basis. A number of new consent applications for ancillary works and changes to conditions have been received and are forecast to continue over the coming months as works progress. Fortnightly meetings between the Project Leader, Statutory Projects and M2PP planners and compliance managers are occurring.
- ▶ **NZTA/Kiwi Rail – Peka Peka to Otaki RoNS:** The hearing for the Peka Peka to Otaki expressway application occurred between 23 September and 3 October 2013. Prior to and during the hearing, a significant amount of consultation occurred with NZTA in an effort to resolve outstanding concerns with the project. As a result, counsel for GWRC was able to confirm at the close of the hearing that all outstanding concerns had been addressed to the Council's satisfaction. A decision on the application was released granting consents on 14 February 2014.
- ▶ **NZTA – Basin Reserve RoNS:** The application was notified on 10 August 2013. GWRC made a submission in support of the application, primarily covering strategic and public transport matters. Regulatory and environmental matters were also covered but are considered to be minor. The hearing began on 3 February 2014. GWRC's Public Transport and Strategic Planning experts presented evidence on day 11 and 12 of the hearing and were cross-examined. There have been ongoing discussions with NZTA regarding the proposed conditions of consent and at this stage GWRC is satisfied that the current wording of the conditions meets GWRC's concerns. Due to the hearing running behind schedule, the Board applied to the Minister for the Environment for an extension of time (in accordance with section 149S of the RMA) which was granted. The revised date for release of the draft decision is 19 July 2014, and 30 August 2014 for the final decision.
- ▶ **NZTA – Mt Victoria Tunnel duplication:** Pre-application consultation has commenced with NZTA on this project. NZTA are currently working up the design and consultation will be ongoing.

Appeals, objections, and declarations

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

- ▶ **Alan Jefferies abatement notice appeal:** GWRC defended an appeal of abatement notices issued following the diversion of the Mangaroa River and the associated river works and placing of fill material. The notices were upheld in the Environment Court in 2012 and an appeal of the Environment Court decision was upheld by the High Court in early 2013. An application to the High Court for leave to appeal the decision to the Court of Appeal was declined on 9 September 2013. An application, direct to the Court of Appeal, for leave to appeal to the Court of Appeal was heard on 10 February 2014 and the matter was dismissed. This concludes these proceedings as there is no further right of appeal open to Mr Jefferies.
- ▶ **Alan Jefferies declaration:** GWRC is defending a declaration sought by Mr Jefferies on 18 November 2013 in the Environment Court that a crossing on a tributary of the Akatarawa River does not require resource consent. Evidence was filed with the Environment Court on 21 January 2014 and mediation was held on 25 February 2014; no agreement was reached. The matter will be set down for a hearing in the Environment Court – a date is still to be set by the Court.
- ▶ **Alan Jefferies statement of claim for judicial review:** GWRC is defending a statement of claim for judicial review including damages, filed in the High Court on 15 November 2013. This claim

relates to two matters: the charges laid in the Criminal Court following the diversion of the Mangaroa River (see above); and the setting of Regional Council rates for flood protection activities and associated works expected. The matter has been set down for a half day hearing in the High Court on 5 May 2014.

- ▶ **Capacity Infrastructure Ltd (Capacity) infringement notice appeal:** GWRC is defending a request for a hearing on an infringement notice issued in relation to a discharge of waste water to the Karori Stream. The matter was filed with the Wellington District Court on 12 December 2013. Following discussions and review of the matter it was determined that it was not in the public interest to proceed with a costly hearing for a breach that has been assessed as minor overall. Actions have been proposed by Capacity which will significantly reduce the chance of a reoccurrence.
- ▶ **The Age of Satya Trustee Co. Ltd abatement notice appeal:** This is an appeal of an abatement notice filed in Environment Court on 16 December 2013 which related to deposited material in the bed of a tributary of the Otaki River. The party involved has undertaken remedial works on the site and has no further plans to develop the land at the present time. Based on this the abatement notice was then cancelled and clear direction issued to the party on expectations prior to undertaking works in the future.
- ▶ **A J Barton consent application objection:** 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. Mr Barton has agreed to a meeting on 9 April 2014 in which it is hoped that the issues can be negotiated out or at the very least narrowed.
- ▶ **NZTA consent condition objection – consent to discharge de-icing/prevention chemical calcium magnesium acetate to the State Highway network :** NZTA objected to a monitoring condition on a non-notified resource consent granted in September 2013. We have been working through their concerns and requested them to provide further information to justify their position that no water quality monitoring is required. This information was submitted and reviewed by the Environmental Science team. We are satisfied now that no monitoring is required and have provided NZTA with a set of revised consent conditions for review and comment. We are awaiting a response. If NZTA agree to the changes, we expect that they will subsequently withdraw the appeal.
- ▶ **Winstone Aggregates Ltd – Dry Creek Cleanfill consent decision appeal:** This is the only new appeal relating to the 31 January 2014 decision of the hearing panel to decline consents to establish a cleanfill at Dry Creek near Judgeford. The joint application with PCC and HCC was to develop, operate and maintain a cleanfill on rural land near Judgeford, Porirua. The hearing panel decided to decline all council consents for reasons based on proposed location and configuration of access to the site; site safety; on-site provisions for erosion and sediment control. The decision also raised important planning matters regarding the consideration of significant reclamations and policies related to impacts on Pauatahanui Stream – finding that on both counts the proposal failed against the 'gateway test' of the Act. Winstone Aggregates has appealed the decision and we have applied to the Environment Court to be included in the appeal proceedings. A first call over is yet to set by the Court.

Consented compliance monitoring

- ▶ **Kapiti Coast District Council – public water supply project:** Following the consent decision in September 2013, KCDC has been working through a programme to implement these consents. KCDC submitted a suite of management plans for consideration and approval in December 2013/January 2014. Officers have spent considerable time reviewing these plans that sit at the

heart of this consent. All plans have now been approved, and KCDC is collecting environmental data on the effects of the water take/discharge.

- ▶ **Porirua wastewater treatment plant – discharge to CMA at Rukatane Point** : We are continuing into the third year of our focus on the wastewater quality and bypass discharges from the PCC WWTP. PCC has advised us that the plant is currently at its maximum flow capacity and advised of a number of operational issues which could impact the discharge quality. We are currently considering options to address this before the consent expiry in 2020. One option is formally reviewing the consent under section 128 of the RMA. This process would allow us to specifically address the bypass discharge issue, and put in place a new conditions framework to address this issue, and its associated environmental effects.
- ▶ **Wellington City Council – Global Stormwater Discharge to the CMA**: A key milestone in the consent was reached at the end of March with the submission of Stage 1 of the Integrated Catchment Management Plan (ICMP). The plan sets up the framework for the next 3-4 years to identify, and, most importantly, put a timetable programme in place to address existing stormwater quality and management issues. Initial reviews of the document are positive. We will consider the ICMP over the next month.

Environmental incidents

249 incidents were notified and responded to in the quarter, up from 221 in the previous quarter. A summary breakdown of incidents is reported 6-weekly through the Councillor’s Bulletin.

Enforcement

Abatement and infringement notices

Item	Mar Quarter 2014	Dec Quarter 2013	Mar Quarter 2013
Abatement notices	9	45	7
Infringement notices	6	12	3

Item	2013-14 year to date	2012-13 year
Abatement notices	63	61
Infringement notices	22	53

Prosecutions and enforcement orders

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

- ▶ **Alan Jefferies prosecution:** Four charges were laid in 2010 relating to the diversion of the Mangaroa River, associated river works and deposition of fill. Mr Jefferies pleaded not guilty and requested a jury trial. The matter was adjourned awaiting the outcome of the abatement notice appeal relating to the same incident (see Appeals, Objections, and Declarations). The jury trial is set down for 4-8 August 2014. A one-day Pre-Jury Trial hearing was heard in the Wellington District Court on 18 March 2014 to establish matters of law. The Judges' decision is still to come.
- ▶ **Alex Burrell and Burrell Demolition Ltd enforcement order and prosecution:** Following the dismissal of the appeal by the High Court in June 2012, Mr Burrell successfully gained leave of the High Court to appeal to the Court of Appeal (and seek a stay of the enforcement order). The Judge also granted a stay of the Enforcement Order with conditions that the appellant must meet including providing a management plan for the filling operation. The appeal in the Court of Appeal was withdrawn after the matter was called in the Court of Appeal on 1 February 2014. Mr Burrell has agreed to pay standard costs which will be shared between GWRC and WCC. The prosecution related to a breach of resource consent in 2008 at C&D Landfill in Happy Valley Road. Connected to these proceedings is the processing of Mr Burrell's substantive consent application (discussed earlier in this report) to cover all existing activities and extend the fill in both height and area. This brings this matter to an end.
- ▶ **C & E Stolte Ltd and Clarence Stolte prosecution:** Two charges were laid in the District Court on 10 April 2013 against each of the parties relating to the discharge of dairy effluent and disturbance of the stream bed due to stock accessing Parkers Stream near Carterton. This resulted in significant environmental effects in Parkers Stream. On 2 October 2013, both parties entered pleas of not guilty. Following extensive discussions, on 22 January 2014 C & E Stolte Ltd pleaded guilty to the charges laid and as a result the charges against Clarence Stolte were withdrawn. Following discussion it was agreed that a restitution outcome would be in the interest of the local environment and wider community and as a result a donation of \$15,000 was made to the Mangatarere Stream Project. On 22 January 2014, the company was convicted and discharged and ordered to pay \$2,500 costs to GWRC.
- ▶ **P A & S C Steens Ltd (and four directors of the company) prosecution:** Nineteen Charges were laid in the District Court on 13 June 2013 relating to discharges of contaminants from a honey processing plant to a tributary of Solway Stream on three separate occasions; and also for a breach of abatement notices. Charges against two of the directors have since been withdrawn after new information about their involvement in the company came to light. On 4 December 2013, PA & SC Steens Ltd and Mr Steens pleaded guilty. Charges against Mrs Steens were withdrawn. In Masterton District Court on 22 January 2014, the company and Mr Steens were convicted and discharge in relation to the discharges to the stream offences. Mr Steen was convicted and fined \$7,500 for breach of two abatement notices. Costs of \$1,328 were paid to GWRC by Mr Steens.
- ▶ **Daniel Hart and Selwyn Donald prosecution:** Two charges were laid in the District Court on 28 June 2013 relating to a discharge of dairy effluent to land entering a roadside drain and local stream in the Featherston area. Mr Donald pleaded guilty on 3 October 2013 and charges against Mr Hart were withdrawn. Sentencing took place in Masterton District Court on 22 January 2014, where Mr Donald was fined \$45,000.
- ▶ **Henergy Cage-Free Ltd and Graeme Napier prosecution:** Four charges were laid in the District Court on 6 November 2013 relating to the discharge of poultry effluent to land and land adjacent to a tributary of the Whangaehu River. Henergy Cage-Free Ltd pleaded guilty on

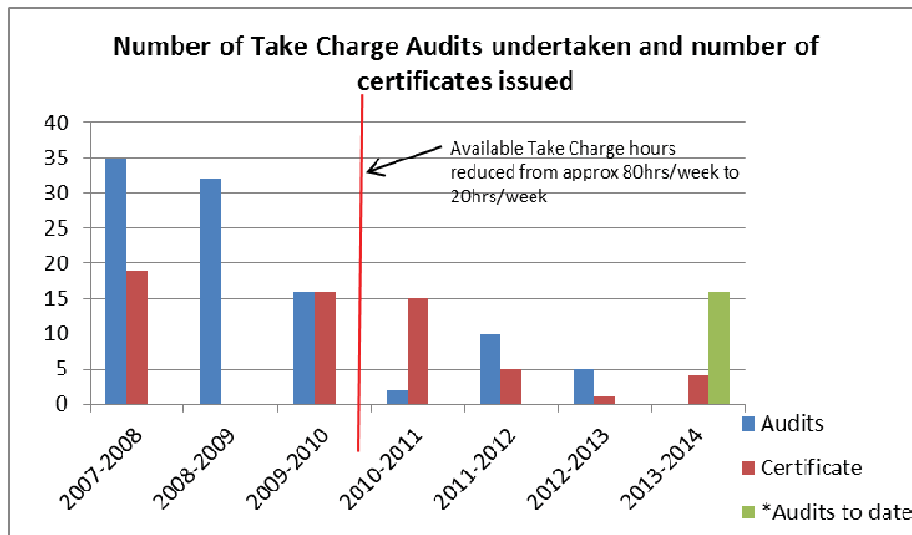
5 March 2014 and the charges against Graeme Napier were withdrawn. Henergy Cage-Free Ltd was fined \$40,000 on 25 March 2014 and ordered to pay GWRC \$2500 costs.

- ▶ **Mayall Properties Ltd and C & M Transport Ltd prosecution:** Four charges were laid in the Wellington District Court on 19 December 2013 relating to the reclamation of the bed and diversion of the Korimako Stream. The parties pleaded guilty on 12 March 2014. The matter has been set down for sentencing on 24 April 2014.
- ▶ **Porirua City Council:** One charge was laid in Porirua District Court on 24 March 2014 relating to the unauthorised discharge of partially treated wastewater to land where it entered a stream and the coastal marine area. A date for the first call is yet to be set by the Court.

Take Charge Programme

The focus of the Take Charge programme continues to be the Naenae industrial area. The strategy and procedure to engage businesses introduced in October 2013 is still working well, although a small number of businesses require some persuasion to take part in the programme.

Nine new businesses have been audited in the January/March quarter bring the number of audits to date for the 2013-2014 year to 16. There are four remaining businesses left to be audited, before winding the programme up in Naenae.



Four Take Charge certificates have now been issued to businesses in the Naenae industrial area – thereby meeting the Take Charge programme requirements including ensuring compliance with our regional rules. Certificates have been issued to Naenae Panelbeaters, DIC (printing ink and chemical supplier) Trethewey Stone and Hoult’s Doors. The remaining businesses are working through their various requirements in order to receive Take Charge certification.

One of the focuses of the next quarter will be following up with businesses that have been audited, but are yet to complete the Take Charge requirements. The businesses are all complying with the Resource Management Act 1991 (the Act) and the permitted activities in our regional plans, but are yet to apply best practice measures – which can prevent, or minimise the risk of contaminants entering the environment, particularly to the stormwater network and Waiwhetu Stream. Examples of the most common requirements are:

- » Improve the adequacy of spill kit
- » Display spill posters in a prominent position

- » Implement secondary containment around hazardous substances

Our ability to enforce the Take Charge best-practice requirements is limited as there has been no breach of the Act or regional rules. Therefore, it is important to explain the purpose of the programme and the reason for the requirements at the time of the audit.

Projects work programme

We have prioritised our projects work programme for 2013-2014. Some key initiatives we have been working on in the March quarter are:

Review of Erosion and Sediment Control Guidelines

We commenced a review of the Erosion and Sediment Control Guidelines in the previous quarter. Staff have met with key stakeholders about the review and selected a representation of these stakeholders to form an external advisory group to provide specific feedback on the review. A further meeting has been held with the external industry advisory group and good progress has been made with redrafting the Guidelines.

Following up deferred resource consent applications

One of our department projects this year was spend time following up all deferred resource consent applications. Deferred applications include those that have been placed on hold for further information, written approvals, and/or additional consents. This work was required to be completed by the end of March.

Compliance Manual

A first draft of a Compliance Manual has been completed. This Manual documents all procedures and best practice associated with our compliance monitoring work. All staff are now providing more specific input to our Health & Safety and Inspections chapters in the Manual. It is expected that the Manual will be completed by the end of June.

Water use data management system

Significant time has been spent ensuring that all water use data for 2012-2013 has been entered into our Water Use Data Management System (WUDMS) as we have been requested by MfE to provide monthly water use data for all consents in 2012-2013 by the end of March. We have been working closely with staff in Environmental Science and ICT to develop reporting systems that can access data from WUDMS and our Consents Database (Ozone). In April, we intend to evaluate the data collated to see where our data gaps exist and work through strategies to ensure consent holders can comply with consent conditions and Regulations which require water use data to be submitted to us.

Ozone Call Centre

Work on implementing the Ozone Call Centre (OCC) module of the Ozone database, currently used for consent and compliance tracking and reporting, has been progressing during the quarter. The OCC will replace the current incident database. The incident database is no longer supported by IT and does not perform the services required as the GWRC operating system, duty role and reporting requirements have evolved over time

Dam Safety Scheme

Under the Building Act 2004 regional councils have been given responsibility to administer the Dam Safety Scheme. The commencement date of the Dam Safety Regulations has been delayed until 31 March 2015. This is as a result of amendments to the Regulations taking longer than anticipated.

We are continuing to work with other regional councils to ensure a consistent approach to implementing the Regulations.

Financial reports

Regulation Income Statement Period ending 31 March 2014	Year To date			Full Year			Last Year	
	Actual \$000	Budget \$000	Variance \$000	Forecast \$000	Budget \$000	Variance \$000	YTD Actual \$000	FY Actual \$000
Rates & Levies	1,699	1,699	-	2,265	2,265	-	1,847	2,462
Government Grants & Subsidies	-	-	-	-	-	-	23	-
External Revenue	1,897	1,403	494	2,271	1,871	400	1,119	1,524
Investment Revenue	-	-	-	-	-	-	-	-
Internal Revenue	104	94	10	125	125	-	50	86
TOTAL INCOME	3,700	3,196	504	4,661	4,261	400	3,039	4,072
less:								
Personnel Costs	1,960	1,830	(130)	2,540	2,440	(100)	1,892	2,571
Materials, Supplies & Services	61	81	20	108	108	-	62	72
Travel & Transport Costs	31	34	3	45	45	-	34	46
Contractor & Consultants	978	293	(685)	1,091	391	(700)	370	505
Grants and Subsidies Expenditure	-	-	-	-	-	-	-	-
Internal Charges	391	421	30	562	562	-	397	524
Total Direct Expenditure	3,421	2,659	(762)	4,346	3,546	(800)	2,755	3,718
Financial Costs	-	-	-	-	-	-	-	-
Bad Debts	29	-	(29)	-	-	-	17	2
Corporate & Department Overheads	509	509	-	678	678	-	461	614
Depreciation	23	28	5	37	37	-	27	35
Loss(Gain) on Sale of Assets / Investments	-	(20)	(20)	(20)	(20)	-	(17)	(17)
Total Indirect Expenditure	561	517	(44)	695	695	-	488	634
TOTAL EXPENDITURE	3,982	3,176	(806)	5,041	4,241	(800)	3,243	4,352
OPERATING SURPLUS/(DEFICIT)	(282)	20	(302)	(380)	20	(400)	(204)	(280)
Add Back Depreciation	23	28	(5)	37	37	-	27	35
Other Non Cash	-	(20)	20	(20)	(20)	-	(17)	(17)
Net Asset Acquisitions	-	(38)	(38)	-	(38)	38	(3)	(3)
Net External Investment Movements	-	-	-	-	-	-	-	-
NET FUNDING BEFORE DEBT & RESERVE MOVEM	(259)	(10)	(325)	(363)	(1)	(362)	(197)	(265)
Debt Additions / (decrease)	-	-	-	-	-	-	-	-
Debt Repaid	-	-	-	-	-	-	-	-
Net Reserves (Increase) / decrease	-	-	-	-	-	-	-	-
NET FUNDING SURPLUS (DEFICIT)	(259)	(10)	(325)	(363)	(1)	(362)	(197)	(265)

Regulation Capital Expenditure Statement Period ending 31 March 2014	Year To date			Full Year			Last Year	
	Actual \$000	Budget \$000	Variance \$000	Forecast \$000	Budget \$000	Variance \$000	YTD Actual \$000	FY Actual \$000
Total Asset Acquisitions	-	58	58	-	58	58	3	3
Capital Project Expenditure	-	-	-	-	-	-	-	-
Asset Disposal Cash Proceeds	-	(20)	(20)	-	(20)	(20)	(23)	(23)
Net Capital Expenditure	-	38	38	-	38	38	(20)	(20)

Financial variance analysis

- ▶ Regulation has a net deficit of \$282k which is \$302k worse than budget with overspends in staff costs & consultants costs
- ▶ External income is \$1,897k which is more than the full year budget already. There was \$483k of invoicing processed in March with more to come over the next quarter. Most of this invoicing is on charging of consultants costs for notified consent processing and RONS project work, although some costs have to remain with Regulation
- ▶ Regulation consultants & contractors spend of \$9781k is \$685k more than budget and includes Hearing commissioners costs, contracts for earthworks monitoring, contract staff for consent

processing, enforcement legal costs and technical advice for RONS projects. The forecast has been updated by \$700k to include unbudgeted consultants costs. This may need to be reforecast if the RONS work continues as planned

- ▶ Personnel costs are \$130k more than budget of which \$93k is resource costing from staff in Science & Support departments which is unbudgeted but nets off across the Group
- ▶ Travel costs and materials are all close to budget
- ▶ The forecast consultants spend for Regulation has increased by \$700k. This is following analysis and review of consultants costs to date and reflects unbudgeted costs for Enforcement, consultants working on RONS projects and Earthworks compliance costs. Some of the RONS costs are recoverable so the net impact is to increase the net deficit by \$400k

Performance Measure	Performance Target		Comment
	Baseline	2013/14	
Percentage of resource consents ¹ processed within 20 working days ²	98% (2010/11)	98.5%	100% Five consents as part of one suite processed beyond statutory timeframes in the December quarter. All consents processed within statutory timeframes this quarter.
Percentage of monitoring inspections completed for resource consents with individual monitoring programmes	98% (2010/11)	100%	N/A Not assessed until year end.
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%	98.4% There were four exceedances this quarter.

Risk analysis

None identified in this department.

2.3 Environmental Science

Overview

Completion of ESci's departmental science strategy, and development of a GWRC research strategy in conjunction with SCEG

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

Work has commenced around provision of basic science and environmental information for Ruamahanga whaitua

Continuing to provide scientific information for Wairarapa Moana, Mangatarere, Wairarapa Water Use Project and Wellington and Porirua Harbours

Provision of advice and information to internal departments, notably around future requirements to determine limits for water quality and quantity

Key results for the year

- ▶ Completion of departmental science strategy
- ▶ Development of a project brief for reviewing the groundwater quality SoE monitoring network (Stage 1)
- ▶ Completion of the first phase of the Lake Wairarapa water balance project, report under review
- ▶ Completion of the suite of 2012/13 State of the Environment Annual Data Reports
- ▶ Completion of the "new look" 2012/13 Annual Summary Report
- ▶ Development of a project plan in conjunction with SCEG to produce an organisational research strategy and implementation plan
- ▶ Completion of information provision to Wheel of Water project
- ▶ Completion and release of the final report for the second Wellington Harbour sediment survey
- ▶ Completion of a three year banded dotterel investigation which demonstrated that management actions undertaken have resulted in improved nesting success

Looking ahead

- ▶ Consideration of the NPS-FM, National Objectives Framework and Environmental Reporting Bill into the strategic direction of science programmes and review of monitoring programmes
- ▶ Continued development and release of reports around flow investigations in a variety of rivers across the region, and including lake Wairarapa

- ▶ Wairarapa Moana “cleanup” programme science information needs and ongoing performance monitoring
- ▶ Gazetting of a new Masterton airshed and consideration to the long term monitoring of the Kapiti Airshed
- ▶ Implementation of a monitoring programme for terrestrial biodiversity
- ▶ Development and prioritisation of science and research needs in conjunction with SCEG, Whaitua committees and end user departments, providing for an integrated science programme
- ▶ Development of MoA’s (Memorandums of Agreement) with various internal departments to define services provided by the science department
- ▶ Integration of Maturanga maori and science where appropriate and development of cultural health monitoring and indicators
- ▶ Working in partnership with iwi, NGO’s and TA’s to provide an increasingly integrated monitoring network
- ▶ Second presentation to TA’s and the Hutt River Catchment Group in May around the hydrology of the Hutt Valley system
- ▶ Implementing a new agreement for the provision of analytical laboratory services for the department’s surface and groundwater quality monitoring programmes

Departmental activity

General

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

- ▶ Commencement (via workshops with a working group of representatives from the various departments) on the development of a GWRC organisational research strategy
- ▶ Completion of the 2012/13 Annual Summary Report
- ▶ Commencement of a 12-18 month trial with three community groups monitoring water quality and ecological health in parallel with ESci’s river monitoring programme
- ▶ Completion of water quality and catchment information for the public launch of the Land Air Water Aotearoa (LAWA) website
- ▶ Preparation of documentation needed for a multi-council tendering process GWRC is leading for the provision of analytical laboratory services for council surface and groundwater quality monitoring programmes
- ▶ Completion and preparation for public release of a technical report on the second Wellington Harbour sediment quality survey
- ▶ Completion of the air and climate science needs analysis and commencement of the recruitment process for an Environmental Scientist for the Air and Climate team
- ▶ Ongoing collaborations with Victoria University and DoC around biodiversity monitoring
- ▶ Provision of a range of technical support to Environmental Regulation, Environmental Policy, Biodiversity, Biosecurity, Parks, Water Supply and Flood Protection departments
- ▶ Ongoing work around reviewing outcomes in Schedule H and developing the appropriate supporting technical documentation
- ▶ Provision of preliminary information to the newly formed Ruamāhanga Whaitua Committee

- ▶ Work on the long term planning process

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

Air quality and climate

Redefining Wairarapa airshed boundaries

The science work that will underpin an application to the Ministry for the Environment (MfE) to change the boundaries of the Wairarapa airshed is now complete. Airshed modelling using emission estimates from the 2013 Masterton home heating survey and outdoor air quality measurements predicts that most of the Masterton urban area and some surrounding land is the only part of the Wairarapa airshed that is likely to breach the National Environmental Standard for PM10 (24-hour average) during the winter months. This provides the weight of evidence necessary for formally reducing the Wairarapa airshed boundary to a much smaller area centred on Masterton.

Environmental Policy staff are currently consulting with interested parties and then council approval will be sought to apply to the Minister for the Environment to re-gazette the airshed boundary.

New air and climate science position

The recent review of council science needs identified a key need to align and integrate climate related environmental monitoring and science to provide a forward looking focus for resource management planning. Approval to appoint an Environmental Scientist to replace the vacant Environmental Monitoring Officer position in the Air and Climate Team has now been obtained. Accordingly, we are now seeking to recruit an Environmental Scientist to be based in the Wellington office to oversee the development and ongoing management of an integrated and quality assured air quality, climate and meteorological monitoring network that will provide information to underpin reporting on the state and trends of our natural resources. The role will also involve scientific analysis and interpretation for policy development and provision of information as required for the whitua process.

Aquatic ecosystems and quality

Rivers and streams

It was a busy quarter for monitoring staff carrying out annual assessments of ecological condition (sampling of macroinvertebrates, periphyton and, at some sites, biofilms) at our 55 Rivers State of the Environment (RSoE) monitoring sites. While the majority of these assessments were completed by the end of March, rainfall and subsequent high river flows have delayed sampling at a handful of sites in the Wairarapa.

Several ESci staff were involved in establishing a community stream health monitoring project being coordinated across multiple regions by NIWA. The intention of the project is to investigate the 'concordance' between community monitoring and professional State of the Environment (SoE) data (ie, that obtained by a regional council), and the complementarity of iwi cultural monitoring. The goal is to advance the use of community monitoring in freshwater management in New Zealand, thereby increasing engagement and knowledge among community groups and iwi while extending the monitoring capacity of regional councils. GWRC is working with three groups in the Wellington region to undertake parallel water quality and ecological monitoring of the Mangatarere Stream in the Wairarapa, the Mawaihakona Stream in Upper Hutt and the Waikanae River in Kapiti. The first

monthly assessment was undertaken in March and parallel assessments will continue for the next 12 to 18 months.

Background information on RSoE sites was prepared for upload to the Land and Water Aotearoa (LAWA) website which was publicly launched at GWRCs Wellington offices in March. Information on water quality at popular river swimming spots was also provided for the website.

In February a small group of GWRC staff joined PJ Devonshire (Rangatane o Wairarapa) on a visit to a site of significance to iwi (Maurioho waterfall in the Wairarapa). The role of the senior monitoring officer attending was to demonstrate a simple assessment of the stream to help decide if the water was suitable for cultural use. PJ was able to share the significance of the site with the owners and GWRC staff.

The same monitoring officer attended part of a three-day freshwater field skills wananga run by DoC at Whangaehu marae. The wananga was designed to showcase several iwi freshwater sampling projects and matauranga as well as to present some regional and DoC initiatives. Practical demonstrations of Tau Koura (traditional fishing method for crayfish harvest) and how to find inanga spawning sites as well as discussions around traditional fishing methods complimented the more formal presentations.

Work commenced on a multi-council tender process GWRC is leading for State of the Environment water sample processing with Tasman District Council, Hawke's Bay Regional Council and West Coast Regional Council (GWRCs existing analytical laboratory contract expires on 30 June 2014). While river and stream sample analyses are the key focus of the tender, the tender is covering all routine water sample analyses including lake, coastal and groundwater sample analyses. The joint tendering process offers an opportunity to maximise consistency across council monitoring programmes as well as economies of scale through collectively larger sample volumes. Calls for tender are expected in mid-April with the view to finalising a new contract in June.

Lakes

A report was completed documenting a workshop held with three external coastal lake specialists in December 2013 to discuss a number of technical issues relating to monitoring and reporting on the region's shallow lakes for both State of the Environment monitoring and plan-effectiveness purposes. The workshop was also used to discuss ecosystem health outcomes appropriate for these lakes that could be included in Schedule H of the Regional Plan.

Estuarine and marine waters

The report for the second Wellington Harbour sediment quality survey, conducted in 2011 jointly with Wellington City Council, was published in February 2014. The general findings from the survey were that heavy metal and hydrocarbon concentrations exceed national sediment guidelines at sites in the inner Lambton Basin and Evans Bay, and DDT remains a ubiquitous contaminant throughout the harbour. Although much of the sediment contamination is historic, analyses of sediment in roadside catchpits indicates that urban stormwater is an ongoing source of contamination. The benthic invertebrate communities are reasonably diverse and abundant at all sites sampled, though they likely represent an already modified and pollution tolerant community. There were some statistically significant changes in metal, hydrocarbon and DDT concentrations between the 2006 and 2011 surveys but the magnitude of change was small and high analytical variability accounted for much of this change. At least three surveys will be needed before we can say if the contamination is worsening or improving. A media release has been prepared along with a summary card and Q&A sheet which are available at www.gw.govt.nz/coast-and-estuaries.

Annual estuarine monitoring in five key estuaries (Hutt, Waikanae, Whareama and the Onepoto and Pauatahanui arms of Porirua Harbour) was completed by external consultants in January 2014. This year monitoring largely focussed on key indicators of sedimentation and eutrophication (ie, sedimentation rates over buried plates, sediment texture, sediment oxygenation and nuisance macroalgal cover). An exciting addition to the Porirua Harbour monitoring programme this year was mapping the subtidal areas to assess the spatial extent of key habitats such as seagrass. We undertake five-yearly mapping of intertidal habitats but the addition of subtidal mapping completes the picture. Results of this monitoring will be available around mid-2014.

ESci provided financial and in-kind support for the preparation of an honours thesis by Ben Robertson at Victoria University of Wellington. Using our annual estuarine monitoring data Ben was able to determine the sensitivity of various estuarine animals to mud. The presence and absence of these species can then be used to assess the health of estuarine sediments.

Wet weather water quality sampling in the major tributaries of the Porirua Harbour catchment continued during the quarter, with samples collected during several heavy rain events in January. Work has subsequently begun on a report documenting the key findings from all wet weather sampling undertaken in the catchment over the last few years. The report, which will inform actions required under the Porirua Harbour and Catchment Strategy and Action Plan, will also include results of water quality sampling undertaken by Porirua and Wellington city councils.

Recreational water quality

The 2013/14 summer recreational water quality monitoring programme finished at the end of March. Under this programme (jointly conducted with four of the region's territorial authorities) microbiological water quality at 61 marine and 20 freshwater sites is assessed weekly from mid-November until the end of March. Assessments of cyanobacteria cover are also made at each freshwater site. Similar to last season, faecal source tracking testing was undertaken at the seven sites in the region which have an SFRG of "poor". This testing involves specialist analysis undertaken by ESR in Christchurch to identify whether faecal contamination is from human or other animal sources (eg, stock, birds).

Key events from the 2013/14 season were:

- ▶ Three exceedances of the Action trigger of the national microbiological water quality guidelines at South Beach, Plimmerton between mid-January and mid-February prompted Porirua City Council (PCC) to erect health warning signs at the site. The Taupo Stream which discharges very close to the site has been identified as the main source of contamination. Recently received faecal source tracking results indicate that there are both human and bird faecal contamination sources in the stream. PCC has been undertaking water sampling within the Taupo Stream catchment and have narrowed down the source of contamination to an area below the Plimmerton Park and Ride. Further work will be undertaken over the next month to try and isolate the exact source of the contamination.
- ▶ There were frequent exceedances of both the Action and Alert triggers at Wainuiomata River at Richard Prouse Park during March 2014 resulting in Hutt City Council (HCC) erecting health warning signs in early March. Further sampling undertaken at this site indicates that the Wainuiomata Stream which discharges to the river approximately 50m upstream of the swimming hole frequently has high counts of *E. coli*. Faecal source testing of samples from the stream, which drains the Moores Valley area, indicates that human faecal contamination is consistently present as is contamination from ruminants (eg, sheep, horses) and birds. We are currently working closely with HCC to identify the sources of contamination in the Moores Valley area, including septic tanks. Discharges upstream of the Wainuiomata Stream are also being investigated. Skerrets Creek which runs alongside Sunny Grove and discharges to the

Wainuiomata River approximately 500m upstream of the swimming hole has also been identified as having elevated *E. coli* counts. HCC and Capacity are currently checking the sewer that runs alongside the stream for any faults.

- ▶ There was a distinct lack of cyanobacteria (toxic algae) growth at all of our sites over the summer season. The reasons for this are unclear as there were no apparent changes in flushing flows or nutrient availability compared to previous years.

Investigations to further our knowledge of the drivers of cyanobacteria blooms continued during the quarter. More water samples were collected from streams, groundwater and the mid-upper reaches of the Hutt River in order to understand nutrient inputs to this part of the river which is particularly prone to cyanobacteria blooms. Analysis of trends in the frequency of flushing flows in the Hutt River was also carried out. Unfortunately a parallel investigation with GWRC Flood Protection into the effects of sediment re-suspension from flood protection works on cyanobacteria growth has been delayed until next summer due to the planned gravel extraction not taking place.

The Victoria University summer project (co-funded by GWRC) to trial the use of aerial photography taken from a small unmanned plane for monitoring the spatial coverage of cyanobacteria in the Hutt River continued. The final report from this project is expected in April. A summary of results from the investigations undertaken will be released in June.

In March two staff featured in an interview on National Radio's *Our changing world* where they explained how recreational water quality monitoring is carried out in the region and the process and guidelines used to assess whether rivers and beaches are suitable for swimming. The interview was recorded in the field during an actual sampling event and included a visit to the analytical laboratory to see how the samples were processed.

Terrestrial ecosystems and quality

Contaminated land

Staff continued with general improvements and updating entries in the Selected Land Use Register (SLUR). A number of new sites that potentially meet the requirements for addition to the SLUR database have been identified and now need to be reviewed in accordance with MfE HAIL criteria. It is envisaged that this will result in a significant number of new sites being added to the database.

We responded to public SLUR-related enquiries, sending out 36 property enquiry letters and adding two new sites to the database. Additional email correspondences were replied to in cases where further information regarding contamination status was required. There were also several amendments/updates made to site records based on contamination status reviews and technical reports received.

Staff provided technical advice to EReg, largely around reviewing Contaminated Land Management Plans and consent monitoring for the Roads of National Significance works in the Kapiti Coast region. Staff also worked with EPol on reviewing draft rules of the discharge to land section of the Draft Regional Plan.

The contract for engaging Sephira Environmental Limited to undertake a review of a SLUR information management strategy and protocols was finalised in March. The final reports and reviews are due by the end of June 2014.

We have been actively involved in activities with the Regional Waste and Contaminated Land Forum (RWCLF, special interest group for the contaminated sites). We are currently in the process of organising to host the next RWCLF meeting at GWRC in late May 2014. Esci staff provided written feedback and support for the proposed Envirolink Tools project headed by Landcare Research

entitled “Background concentrations and soil guideline values for the protection of ecological receptors”. This project is jointly supported by both the RWCLF and the Land Monitoring Forum.

ESci staff were also approached to be part of the MfE reference group for reviewing the “Contaminated Land Management Guideline No. 5 (Site Investigation and Analysis of Soils)” which is cited by reference in the “National Environmental Standards for Assessing and Managing Contaminants in Soil to Protect Human Health”. The first of three workshops was held in March.

Staff attended the third joint meeting hosted by Golder Associates with the region’s TAs to discuss current contaminated land issues in the Wellington region, as well as the MfE Contaminated Site Remediation Fund.

Soil quality

ESci terrestrial science staff contributed to the Land Monitoring Forum (LMF) hosted by GWRC. The LMF is supporting an Envirolink Tool project undertaken by Landcare Research about ‘Land Fragmentation’. This includes urbanisation and development on high class soils commonly used for vegetable, cropping and agriculture commonly on flat land. Part of the project has so far produced a report called: ‘Guidelines for monitoring land fragmentation: review of knowledge, issues, policies, and monitoring’. GWRC policy staff also contributed to the nationwide survey of regional council policies in the report.

Our soil scientist attended the national MPI-chaired Cadmium Management Group meeting. Landcare Research staff have prepared three draft reports on cadmium in New Zealand, including a nationally-focused analysis of both fertiliser industry and soil quality data from 10 contributing regional councils. This is significant as cadmium data from both industry and 10 regional councils has been analysed and reported on in a national perspective. This new information provides a major update to New Zealand’s national soil cadmium database and knowledge. GWRC has also offered support with in-kind resources and co-contribution of funding for a SFF application.

Groundwater quality

Quarterly Groundwater Quality State of the Environment (GQSoE) sampling runs were completed in March. A second round of sampling of shallow groundwater bores in Upper Hutt was also carried out in February to investigate groundwater nutrient inputs and cyanobacteria growth in the Hutt River.

Terrestrial biodiversity

A talk about council experiences in wetland limit setting was given at a recent National Wetland Restoration Symposium by the Team Leader, Terrestrial Ecosystems and Quality. Our staff have been working with national experts to determine relevant indicators of wetland health. A project to determine the extent of different wetland vegetation types through remote sensing has also been initiated and early results show that there is a close correlation between quantification of wetland vegetation types using GIS and on-the-ground surveys.

GWRC has been working with the Department of Conservation (DoC) to develop criteria to determine regional threat status. National threat status is identified by DoC, but many regions wish to be able to determine regional threat status for management and regulatory purposes. GWRC convened a workshop of national experts in March to develop the criteria so that there can be a nationally consistent approach to regional threat listing of species.

Pilot trials for SOE plots for terrestrial biodiversity were completed over summer. Bird counts were carried out at 20 sites and vegetation plots measured at five sites. GWRC is working with Landcare Research scientists to analyse the data and to determine the practicalities associated with using DoC plot methodologies in the farmland landscape.

The banded dotterel nesting investigation at Lake Kohangapiripiri and Baring Head has been completed. The study has taken place over three years and has resulted in the identification of the management required to improve the nesting success of these nationally threatened birds. The use of cameras showed that hedgehogs and cats were the main cause of nest failure with only 3% of nests hatching. A pest control regime was initiated in September 2013 as a result of this work and a rahui was placed over the area to minimise human impacts. This year's monitoring completed in February showed nesting success to have increased 7-fold to 20%, which has provided evidence that management interventions are working.

Post-release monitoring of the North Island robins translocated to Wainuiomata Mainland Island has been completed for this year. 67% of nests (8 out of 12) monitored successfully fledged one or more chicks. These results are comparable with those seen on predator-free offshore islands or mainland islands, which means that predator control is being effective in Wainuiomata Mainland Island.

Hydrology

Summer across the region has not been exceptionally dry with rainfall for the summer months being 60-100% of the long term average at most of our monitored sites. There has, however, been some quite distinct periods of low flows in the rivers with the likes of the Waikanae River being at or close to restriction levels at times. Also on the Kapiti coast a number of the shallow groundwater supported wetland ponds that are monitored for water levels have reached record low levels and in some cases have dried up completely. Records in these areas only go back 10 years but comments from local residents note that the pond levels have not been so low for around 20 years. It is suspected that this occurrence is partly a hangover from the drought last year and not enough recovery in the groundwater storage over the interceding winter months. More research will be done into this in coming months.

Monitoring

Wairarapa Water Use Project (WWUP) requested the support of the Hydrology team for the collection of large amounts of flow data related to the proposed storage sites and the use of the rivers for conveyance of stored water. Hydrology monitoring and science staff worked closely with the WWUP and Tonkin & Taylor hydrologists to develop an achievable and useful approach to the required investigations. Hydrology monitoring staff have to date completed comprehensive low-flow gauging runs on the Tauweru and Huangarua Rivers with the aim to quantify any possible losses to groundwater from the rivers. This information has been provided to Tonkin & Taylor and we are awaiting further direction from them with regard to the need for further investigations.

Major upgrades to sites for the improvement of health and safety on sites has progressed with the access at the Wairio groundwater bore having been completed. Work on the replacement of the catwalk access to the Hutt River at Taita Gorge flow site has been progressing well. Fabrication of the new steel catwalk has been completed and the site works are to begin soon.

Investigations

Work on the lake Wairarapa Water Balance Model continues including calibrating the model with both summer and winter data and refining some of the river flow inputs. The report is being revised and finalised with recommendations for any longer term work programme that may be required. This work has proven to be a great interest to various parties and in early March it was presented to the local farmers that are involved in the Wairarapa Moana project.

A new project has been initiated which aims to try to establish a visual record of flow at various sites on rivers with significant abstraction and instream values. A pilot study has begun with initial camera

installations on the Waipoua River. The aim is to eventually use the time-lapse footage to help communicate some of the hydrology science and flow management policies during Regional Plan and whitua discussions. Work on the project will continue throughout the next two years.

A comprehensive suite of water resource investigations has been scoped up for progression over the next two years in partnership with the Wairarapa Water Use Project (WWUP). It is recognised that a number of the questions that are likely to be raised by the Ruamahanga Whitua Committee are also relevant to the WWUP and that it makes sense to align this work where possible for the mutual benefit of both entities. This work ranges in scale from catchment based testing of water use modelling packages to general questions about the approach to water allocation with regard to ground and surface water interactions. Much of the work is likely to be outsourced to consultants but will be closely managed by ESci Hydrology science staff.

Science strategy and information

As reported last quarter, the department's science strategy has been finalised and a strategy document, video and posters produced. Work has now commenced on the development of an implementation plan (due to be finished by June 2014) which will outline the actions and projects required to realise the strategy objectives. Some of this work is already underway, including the development of a communications strategy, and a review of our monitoring programmes.

Work has commenced on the development of an organisational research strategy. The first workshop was held in March, the aim of which was to develop a collective vision and some key/overarching goals for the strategy. The second workshop (to be held in May) will be used to define organisational research priorities and information gaps.

There continues to be a strong focus on improving our science communications, both internally and externally. During the quarter we:

- ▶ Contributed to updating information on the Wellington region on LAWA www.lawa.org.nz, which was launched in March
- ▶ Contributed to finalising the 2012/13 Annual Data Reports and posting them to the GWRC website
- ▶ Finalised the 2012/13 Environmental Science Annual Summary Report

One of our Senior Analysts has been working on an asset management plan for the department, which to date has involved compiling an equipment inventory in SAP Plant Maintenance, as well as determining the required levels of service and linking them to community outcomes. This will feed into the long term planning process and asset planning for the next 30 years.

We continued work to improve our Project Management System. Previous work focussed on the development of processes and templates (note that two other departments have since requested the use of these templates and commented on their ease-of-use). In this quarter we organised training for a number of department staff and also commenced work on a Project Management Database. The database will hold key details and track progress for all active projects within the department.

There has been a significant amount of work in coordinating the necessary science input required to update and provide the necessary supporting documentation for Schedule H of the Regional Plan – Working Document for Discussion.

Other 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 Ecology and Quality 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.

Staff took part in a “catch-up” day with farmers where presentations on the Lake Wairarapa water balance study, fish surveying in drains and the value of constructed wetlands were provided by ESci staff and NIWA scientist, James Sukias. The information was well-received and the talks were followed by a field trip to Barton’s Lagoon to look at the possibilities for wetland alteration in the area to improve water quality entering the lake. Staff also took part in a field day on effective irrigation systems.

The February shorebird count was completed by a mixed team of DoC, GWRC and OSNZ staff and volunteers. A highlight of the day was the sighting of two white-winged black terns, an Asian-breeding species that is a rare summer visitor to New Zealand. Good numbers of black-billed gulls, including numerous juveniles were recorded, which is good news for this critically endangered species. The exotic fish removal trial in Barton’s Lagoon began in January with the removal of 191 exotic fish over three nights. The majority of the fish were rudd, but trout, perch and goldfish were also caught. In March, another three night’s fishing resulted in the removal of 57 fish, with perch making up the bulk of the fish captured this time. The results are promising so far, as falls in the number of exotic fish present are being seen over time.

Ruamahanga whaitua

Now that the Ruamāhanga Whaitua Committee has formally commenced its work, a number of projects have been kicked off to gather the information the committee is likely to require over the next 12 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.

Work undertaken in this quarter by the science department include:

- ▶ In February staff from the Aquatic Ecosystems and Quality team carried out a fish monitoring demonstration for the committee where key issues affecting fish in the region were also outlined.
- ▶ For the Terrestrial Ecosystems and Quality team, providing land-based information for the committee has been a high priority and a number of projects associated with this are underway. A preliminary modelling investigation of the Mangatarere catchment is being planned. A student has been working with WWUP and Land Management staff to gather information to improve land use GIS layers of the Ruamahanga catchment, and is also evaluating consented loads of nutrients from the five municipal wastewater treatment plants in the Wairarapa.
- ▶ Our Hydrology team provided summary information on the water resources of the Ruamahanga area which is a key first step in helping the committee get to grips with the state of the catchment and the water resource issues that they will be faced with. The next phase will involve provision of more detailed information on specific issues that are likely to be topical for the area.

Technical support for other departments

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

Environmental Regulation

- ▶ Several ESci staff have continued to provide further advice to assist KCDC with developing the monitoring plans required under conditions of their water supply consent relating to the Waikanae River and ground water
- ▶ Technical advice was provided for the Transmission Gully Motorway (TGM) project in relation to impacts on birds, lizards, bats, vegetation and contaminated land, with staff taking part in field trips to ascertain the area affected by the planned route change. Technical input was also provided on reviewing the effects of the proposed changes to the construction of TGM on the ecology of Porirua Harbour.
- ▶ Feedback on the ecological impacts of a wetland enhancement proposal at Waitohu was provided, while planting plans for riparian areas and wetlands at the Duck Creek development and Nikau cleanfill were also reviewed
- ▶ Technical advice was provided on a re-development proposal at the Trentham Military Camp, the effects of a diesel spill at Chaffer's Marina, and on the effects of unplanned wastewater discharges to the coast from the Porirua Wastewater Treatment Plant
- ▶ Hydrology staff have been helping with the technical and field aspects of the monitoring plan for Masterton District Council's Wastewater Treatment Plant consent

Environmental Policy

- ▶ Following presentations delivered to stakeholder workshops in December 2013 on Schedule H of the Regional Plan – Working Document for Discussion, a number of scientists have continued work to refine the provisions for rivers, lakes, wetlands, groundwater and coastal waters. This has involved engaging a number of external consultants, including:
 - » The Cawthron Institute to identify numeric outcomes for indicators of macroinvertebrate community health
 - » Experts from Wriggle Coastal Management , University of Otago and River Lake Ltd to provide technical advice on ecological outcomes for lakes
 - » Experts from Landcare Research and Department of Conservation to assist with developing ecological attributes outcomes for wetlands
 - » Experts from NIWA and GNS Science to advise on the appropriateness of ecological outcomes to protect groundwater ecology and quality, and the ecology and quality of surface water fed by groundwater
 - » Wriggle Coastal Management to provide technical advice on ecological outcomes for estuaries
- ▶ Hydrology scientists continue to work closely with EPol to refine Regional Plan provisions for minimum flows and water allocation regimes. Particular focus recently has been on responding to early feedback on the Regional Plan – Working Document for Discussion and considering alternative proposals in some cases
- ▶ Science staff continue to provide information to EPol staff on sites of significance for rare and threatened birds for the draft Regional Plan. Input is also ongoing in relation to options for

identifying rivers and lakes in the region that have outstanding ecological values (as required by the NPS-Freshwater Management)

Flood Protection

- ▶ Hydrology staff are working closely with Flood Protection in the scoping of options for the enhancement of flood models for short-term event scale prediction of flood flows

Biodiversity

- ▶ Technical support was provided on a resource consent application prepared by the Biodiversity department for the spray application of herbicide at Lake Kohangatera (in East Harbour Regional Park) to manage the infestation of *Egeria densa*, an aggressive exotic weed. The application was lodged late in late March and, if granted, will require ESci staff to carry out a period of continuous dissolved oxygen monitoring on the lake prior to, during and after each annual spray event
- ▶ In January monitoring equipment was deployed at two locations on Lake Kohangatera to gather information on the lake's water levels. Further discussions are being held with the Biodiversity department about the long-term requirements of this monitoring. Sixteen KNE areas were monitored for rodents and small animals in February. Rat tracking rates were below 5% in the two mainland island areas (Wainuiomata and East Harbour), and in seven other sites. High tracking rates for rats were recorded in Queen Elizabeth Park (45%), Johnsonville (20%) while Korokoro, Long Gully and Fensham Reserve all recorded 10% tracking rates. Ecologists continue to provide feedback on the KNE plans currently being produced by the Biodiversity department

Parks

- ▶ Staff completed assessments of the ecological impacts of moving the Muratai Track in East Harbour Regional Park and of an access track proposal for forestry purposes in the Akatarawa Forest
- ▶ Four permits for the collection of natural materials from or research in GW's parks and forests have been issued in the last three months. One was for seed collection, while the others were for research projects, including for a researching from Prague who is working on predatory wasps

Biosecurity

- ▶ ESci have collated data from world-wide databases to provide to AgResearch for the development of a CLIMEX model for moth plant. Work has now started on collecting this data for purple loosestrife. These CLIMEX models predict the types of habitats in the region where the emerging weed species may be found, and will assist Biosecurity with surveillance efforts
- ▶ Staff provided assistance to Bioworks on possum monitoring contracts in the Wairarapa

Water Supply

- ▶ Ungulate plot re-measurements are underway in the Wainuiomata/Orongorongo water collection area. This monitoring is completed every two years and measures the impact of goat and deer hunting on the growth of forest seedlings

Staff changes

Recruitment is underway for a newly created internship with local iwi. The position will work in one of the following areas:

- » Science strategy and information
- » A specific science discipline, or
- » Monitoring

Recruitment for the current vacancy in the Air and Climate team has commenced with interviewing now underway and the appointment expected to be confirmed by the end of April.

With Elaine Asquith (Senior Science Coordinator) currently on maternity leave we have, prior to advertising the maternity leave cover position, contracted the Ruamahanga whaitua-related science coordination role to Tess Bunny. The maternity leave cover position will be advertised in late April.

The department has also entered into a closer working relationship with a secondment-style arrangement currently in place with GNS as we work through plan-related groundwater issues.

Financial reports

Science Income Statement Period ending 31 March 2014	Year To date			Full Year			Last Year	
	Actual \$000	Budget \$000	Variance \$000	Forecast \$000	Budget \$000	Variance \$000	YTD Actual \$000	FY Actual \$000
Rates & Levies	3,784	3,784	-	5,045	5,045	-	3,595	4,793
Government Grants & Subsidies	-	-	-	-	-	-	-	-
External Revenue	17	8	9	10	10	-	38	71
Investment Revenue	3	-	3	-	-	-	3	4
Internal Revenue	202	184	18	245	245	-	176	312
TOTAL INCOME	4,006	3,976	30	5,300	5,300	-	3,812	5,180
less:								
Personnel Costs	2,060	1,903	(157)	2,688	2,538	(150)	1,651	2,313
Materials, Supplies & Services	224	208	(16)	277	277	-	289	376
Travel & Transport Costs	88	68	(20)	91	91	-	76	124
Contractor & Consultants	594	733	139	987	977	(10)	589	945
Grants and Subsidies Expenditure	-	-	-	-	-	-	-	-
Internal Charges	418	349	(69)	466	466	-	322	441
Total Direct Expenditure	3,384	3,261	(123)	4,509	4,349	(160)	2,927	4,199
Financial Costs	12	10	(2)	14	14	-	17	23
Bad Debts	3	-	(3)	-	-	-	-	-
Corporate & Department Overheads	578	578	-	770	770	-	508	677
Depreciation	203	241	38	321	321	-	211	281
Loss(Gain) on Sale of Assets / Investments	-	-	-	-	-	-	(10)	(15)
TOTAL EXPENDITURE	4,180	4,090	(90)	5,614	5,454	(160)	3,653	5,165
OPERATING SURPLUS/(DEFICIT)	(174)	(114)	(60)	(314)	(154)	(160)	159	15
Add Back Depreciation	203	241	(38)	321	321	-	211	281
Other Non Cash	-	-	-	-	-	-	(10)	(15)
Net Asset Acquisitions	(53)	-	(53)	(105)	(105)	-	(52)	(180)
Net External Investment Movements	-	-	-	-	-	-	-	-
NET FUNDING BEFORE DEBT & REVENUE	(24)	127	(151)	(98)	62	(160)	308	101
Debt Additions / (decrease)	13	-	13	-	-	-	(1)	50
Debt Repaid	(52)	(47)	(5)	(63)	(63)	-	(72)	(96)
Net Reserves (Increase) / decrease	(3)	-	(3)	-	-	-	(3)	(4)
NET FUNDING SURPLUS (DEFICIT)	(66)	80	(146)	(161)	(1)	(160)	232	51

Science Capital Expenditure Statement Period ending 31 March 2014	Year To date			Full Year			Last Year	
	Actual \$000	Budget \$000	Variance \$000	Forecast \$000	Budget \$000	Variance \$000	YTD Actual \$000	FY Actual \$000
Total Asset Acquisitions	38	-	(38)	105	105	-	53	124
Capital Project Expenditure	13	-	(13)	-	-	-	(1)	49
Asset Disposal Cash Proceeds	-	-	-	-	-	-	(10)	(38)
Net Capital Expenditure	51	-	(51)	105	105	-	42	135

Financial variance analysis

- ▶ E Science has a net deficit of \$174k which is \$60k worse than budget
- ▶ Direct costs are \$123k over budget of which staff costs are \$157k of this variance
- ▶ Staff costs are more than budget due to a combination of factors. Two key positions were recruited with higher salaries than budgeted, there is overlap in one position with replacement staff being recruited prior to the incumbent staff leaving and unbudgeted casual staff
- ▶ Capital spend is \$51k on monitoring equipment which leaves \$54k available to be spent by year end. Orders have been placed for equipment, eg, replacement data loggers so this budget will be fully spent by year end.
- ▶ The forecast has been updated to include an additional \$150k staff costs and \$10k for airshed work in the Wairarapa

Performance Measure	Performance Target		Comment
	Baseline	2013/14	
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

We have reviewed our risks and no changes are required to the risk register.



greater WELLINGTON

REGIONAL COUNCIL

Te Pane Matua Taiao

