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Committee Environmental Wellbeing Committee
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General Managers' report to the Environmental Wellbeing Committee 27 November 2012

1. Purpose

To inform the Committee of Greater Wellington's activities relating to the Committee's areas of responsibility.

2. The decision-making process and significance

No decision is being sought in this report.

3. Catchment Management

3.1 Flood Protection

3.1.1 Boulcott/Hutt Project

On 15 October 2012, the contractor commenced work in the remaining section of the stopbank extending north from the Boulcott course boundary through to Fairway Drive. The contractor is currently working outside the Hutt Clubrooms. The golf club has also commenced reinstatement works on the basis of the procurement arrangement approved by Council in September 2012.

The realigned section of Connolly Street has been sealed with asphalt. The construction of retaining walls is progressing. Construction of a guard rail on the eastern side of Connolly Street is now complete. Environmental planting is progressing along the shared access way at 54 Connolly Street, in 57 Connolly Street and in planter boxes placed on the stopbank.

The Ariki Street and Hathaway Avenue stormwater upgrades are substantially complete. The project also includes upgrading the Military Road stormwater with a pipe from the Illott Pond to the river. This Military Road pipe extension is funded by HCC, and they are expecting to confirm the design by mid November 2012.

3.1.2 City Centre Stopbank Project

Staff have commenced investigations on alternative construction sequence options, as agreed at the meeting with the Mills Street residents on 9 October 2012. Staff will use information from the recently completed works to prepare concept level options for the City Centre project. We aim to present these options to the residents by mid December 2012.

The Waimarie Croquet Club, with the assistance of a consultant, has made good progress in preparing a project plan for the upcoming move to be used when seeking funds from donor agencies. The total estimated cost of relocating to the new site is \$420,000 and the current shortfall is approximately \$270,000.

3.1.3 Otaki River Works

Staff are currently investigating a river channel management option for the Otaki River from SH1 to the Mouth. This option will involve constructing and maintaining a meander pattern with pools and riffles. Extending this meander pattern to the gorge will also be investigated. This year it is proposed to construct one groyne and carry out some channel works conforming to the above meander pattern. These works are designed to reduce the erosion risk to the banks at the Lower Gas Crossing.

3.1.4 Lower Waitohu Stream

Land entry negotiations with the landowners along Convent Road Bridge are progressing well. Staff will hand over draft land entry agreements to residents in late November 2012. These agreements include esplanade strips, easements and arrangements for construction and maintenance access. In this reach, staff are planning to carry out stream improvement works that are permitted under the Fresh Water Plan and the Kapiti Coast District Council District Plan. It is proposed to undertake these works in February/March 2013.

An application has been lodged with the Maori Land Court to obtain an easement for the deflector stopbank upstream of the Convent Road Bridge. This application will take some more time to process, and it is unlikely a decision will be available for obtaining planning approvals in time to commence construction in February/March 2013.

3.1.5 Lower Wairarapa Valley Development Scheme (LWVDS) Work Programme

Boulder protection work on the Ruamahanga River at Tuckers has been undertaken. The main development work programme for 2012/13 will commence in the summer months. Negotiations on land ownership under the new Tobin's stopbank are continuing. The balance of the property not required for river protection purposes will be put back on the market once negotiations are completed.

The development works programme is being reviewed with some enhancements proposed. The intention will be to present the revised programme to the LWVD Scheme Advisory Committee at its December meeting.

3.1.6 Floodplain Management Plans (FMPs)

Waiwhetu Stream

Design work, and related hydraulic modelling scenarios, on four option combinations is continuing. Draft outcomes/deliverables are expected at the beginning of December 2012.

Pinehaven Stream

A consultation strategy is being developed with UHCC, with a particular emphasis on one-on-one consultation with the affected landowners. The first round of consultation is to commence in late November or early December 2012.

The preferred combination of options is on target to be presented to the next Hutt Valley Floodplain Management Sub-Committee on 11 December 2012 seeking approval on the outcomes.

Waikanae River

A report and presentation on the review of the FMP will be made to the Environmental Wellbeing Committee on 27 November 2012 seeking approval on the outcomes, before being officially published (Report 12.569).

Otaki River

The review of the river management aspect, in support of the River Management Resource Consent Project – Western Rivers, is ongoing according to the programme.

Hutt River

The review of the river management aspect, in support of the River Management Resource Consent Project – Western Rivers, is ongoing in accordance with the programme.

Waiohine River

A meeting of the Waiohine FMP Advisory Committee was held on 15 October 2012. The Committee endorsed taking forward two combinations of options for consultation with the wider community and detailed analysis as part of the Phase 3 investigations.

Detailed investigations have commenced, resourced internally and externally, and a detailed project plan/programme is being finalised with an anticipated completion date of April 2013.

A report and presentation on the preferred combinations of options will be made to the Environmental Wellbeing Committee on 27 November 2012 seeking approval of the committee's recommendation (Report 12.559).

Waingawa River

A programme of detailed investigations (Phase 1) will be finalised when the Upper Wairarapa FMP Scoping Report has been completed. This will allow staff to combine similar/identical investigations to commence simultaneously, i.e. the better use of resources/economy of scale. This is anticipated to be completed during the first half of November 2012.

Upper Wairarapa

The Draft Final Scoping Report has been received. This is to be finalised, following an internal workshop, at the beginning of November 2012. Work is underway to set up a sub-committee to oversee this work as agreed at the last Environment Wellbeing Committee meeting.

3.1.7 Other Investigations and Project Support

Otaki River – Hydraulic Model Upgrade

The draft technical report is being reviewed. The final report is expected to be approved during November 2012.

Waikanae River – Staged Flood Maps for Flooding Preparedness: Civil Defence Emergency Management (CDEM) Grant Funded

Modelling work and supported survey work is continuing and is on schedule to be completed by January 2013. The final adopted maps are to be completed by the end of June 2013.

Waikanae River – Sedimentation Transport Study

The final report on the Waikanae River – Sedimentation Transport Study: Phase 2A Sediment Budget has been received.

The next stages of investigations (Phase 2B), i.e. river management options, assessment of potential environmental effects and a sensitivity and risk assessment, are continuing.

The Waikanae River Optimum Bed Level Guidelines are being developed in conjunction with the above study. The outcomes of the guidelines will support the River Management Resource Consent Project – Western Rivers.

Porirua Flood Hazard Maps

The final hydraulic design report, including the updated Flood Hazard Maps is expected to be completed in November 2012.

A communication strategy is being developed on the consultation and publication of the Flood Hazard Maps in line with the 'Floodplain Management Plan principles'. This strategy is to be presented to the Environmental Wellbeing Committee for endorsement.

Tawaha Catchment Diversion (Whakawirwiri Stream)

Our resource consent application was received and acknowledged on 26 October 2012. Full consent notification was advertised on 27 and 31 October 2012.

Consultation with affected landowners on entry agreement, mitigation, compensation and future maintenance requirements, has commenced.

Flood Hazard Advisory Services

Staff continue to work with the Alliance on the McKay's to Peka Peka (M2PP) RONS project, and the NZTA consultants on the Peka Peka to Otaki project (Kapiti Express Way Project).

Queries on flood hazard advice have slowed down in comparison to the same period last year. Based on the current 'trend', the total number at the end of the fiscal year is projected to be around 400.

Floodplain Management Guidelines

Workshops were held in October, with further workshops planned for November and December on guidelines for the preparation of Floodplain Management Plans. The completion date for the draft guidelines is anticipated to be January 2013.

Regional Flood Warning and Flood Forecasting

A review of our Flood Warning Procedures, across the region, has yet to commence. A Project Plan (and Brief) has been completed. However, other re-prioritised programmes and projects require immediate input.

A presentation was held, by external parties, on flood forecasting packages during October. Proposals from other external parties (DHI and Aurecon) are expected shortly for a potential pilot project in the Hutt Valley.

3.1.8 Western Rivers and Streams

Hutt River

The mowing operations along the river berms are now in full swing. The spring flush results in a busy time for staff in managing amenity areas and undertaking spraying operations. Flood gate maintenance is underway and the native planting programme is almost complete. Old Man's Beard control along the river margins between the Hutt mouth and the Twin Bridges is also in progress.

Willow layering work has been carried out at Avalon, and the river trail has been relocated in the vicinity of the Kennedy Good Bridge to allow space for willow buffer planting. Beach grooming is in progress in Upper Hutt to remove

woody weeds from the high beaches, and gravel extraction is continuing just above the Kennedy Good Bridge.

Otaki River

The willow and native planting is now complete and mowing rounds are underway. Access track repairs have been made and stopbank drainage improvements are in progress opposite the Chrystall's stopbank. The two wooden flood gates on the Rangiuru Stream are being replaced as part of the ongoing flood gate maintenance schedule. Winstones Aggregates are carrying out gravel extraction above the Chrystall's rock line.

Waikanae River

Stopbank repairs have been undertaken on the old stopbank running through the Howarth block recently purchased by KCDC, and staff are working with KCDC staff to allow GW to gain access through the property to the river.

Greater Wellington and the Friends of the Waikanae River held a combined river walkover on 2 November. Over 60 people participated, and there was good positive feedback and support for the work that was undertaken during the last year.

Other Western Watercourses

Both the Mangaone and Waimeha Stream mouths have been cut during the period to remove blockages. Manual weed clearing has continued along the Waiwhetu Stream and a stream run is underway in the Pinehaven Stream.

3.1.9 Wairarapa River Schemes

Work is progressing on the 2012/13 work programmes. The planting of willow poles, natives and willow layering has been completed. Approximately 27,500 willow poles have been planted this season. Some willow bank edge protection work is continuing. Machine work consisting of beach vegetation clearing, ripping and bed recontouring is continuing in all the rivers. Construction of rock edge protection is continuing. In the coming month, willow re-growth control and Old Mans Beard spraying work will be carried out.

The Lake Onoke opening to the sea was opened twice during October.

The study to measure the impact of machine work in the water is continuing, with Massey University researchers measuring pre and post river work invertebrate life at sites in the northern valley rivers. This study will supply information towards the renewal of the river management consents.

A resurvey of the native birds in the rivers will be carried out over the next month. This information will be used in measuring the effects of river management work, and will contribute to the assessment of effects when the river management resource consents are renewed.

3.1.10 Recreation Activities

Once again there has been steady use of the Hutt River Trail and berms by walkers, runners, cyclists and dog walkers. The Pelorus Trust held its annual fun run, which attracted over 600 participants. Hutt Valley Police organised an Emergency Services Challenge, and the Madison Group helped plant 150 saline tolerant plants along the Opahu Stream, and donated \$1,000 to help fund further planting and maintenance.

3.1.11 Gravel Extraction

Details of gravel extraction volumes are provided in the following table:

River	Extraction Volumes (m ³)	
	YTD 12/13	FY 11/12
Hutt Mouth	11,760	29,057
Hutt	36,705	49,873
Otaki	13,710	50,265
Wairarapa	43,310	209,359
Totals	105,485	338,554

To date applications for gravel licences in the Wairarapa area are light indicating the overall take will be down on previous years.

3.1.12 Drainage Schemes

The annual pump drainage schemes meetings have been arranged for November and December. The scheme committees will be provided with information about completed and proposed works programmes and associated budgets. Options for natural disaster insurance cover and scheme reserves will also be presented. Scheme rating has also been reviewed and an average rate increase across all gravity and pumped schemes of 4% is proposed, equating to \$14,000. These schemes are fully funded by scheme members.

A presentation will be made to the Te Hopai scheme meeting on the Wairarapa Moana project and the linkages with discharge to Matthews Lagoon. There have been no operational issues to report.

3.1.13 River Management Resource Consent Project

Since the last report, the resource consent for the western river consent applications has progressed with a first draft due shortly. A draft recreation and tourism assessment of the relevant Wellington rivers has already been completed. This report includes input from the GW Parks Department.

Work is progressing on the other technical reports that are required to support the applications covering ecology and river morphology. Work on environmental monitoring and Code of Practice is continuing, with a particular emphasis through November on Hutt River habitat. Work continues on the Waingawa River short term consent, with a draft application to be sent to affected parties in November. Consultation with affected and interested parties will be the focus for staff during November and December.

3.1.14 Asset Management and Planning

The organisational wide Asset Management Maturity Assessment has been completed. Generally there were no surprises with the assessment, and it indicated additional resources would be required to implement an improvement plan in a timely manner. The report has highlighted three main areas for improvement, and work is now underway to address those.

3.2 Biosecurity

3.2.1 C+C toxin submission

The Biosecurity Department submitted to the Environmental Protection Authority (EPA) in support for an application by Connovation Limited to import coumatetralyl and cholecalciferol to be used as manufacturing concentrates in the formulation of C + C block or pellet baits. C + C baits are used as poisons to control possums, rats and rabbits, via bait stations. The applicant states that coumatetralyl and cholecalciferol have been identified as cost-effective alternatives to other pest poisons and are less persistent in the environment. We have used this poison combination in bait stations for several years and having it in one lower risk bait will be an improvement to our pest animal control toolbox.

Pest Animals:

3.2.2 Rooks

The seasons rook control programme has now been completed with the first nest baiting undertaken on 2 October and a final baiting run completed on 26 October 2012. There were only 44 nests treated this year compared to 98 last year. This is a significant reduction in nest and rook numbers and is very pleasing to report. For the first time in 20 years active nests were found in the South Wairarapa region.

3.2.3 Wainuiomata/Orongorongo Aerial Operation

Monitoring bait and carcass deterioration continues. Signage checks are required regularly until the bait has detoxified. The first test that was conducted showed the bait still contained a small amount of toxin despite there being over 100mm of rain in the area. A second sample has now been sent after further rainfall and we are expecting this to indicate the bait is now detoxified. Carcasses are semi decomposed in the lower warmer valleys, but still remain fairly intact up on the cold ridge tops. The poison signs will need to stay in place into the new year until the carcasses decompose.

3.2.4 Waikanae River

Planning work has commenced to set up a predator control programme along the Waikanae River corridor from SH1 to the Waikanae Estuary. This programme will be jointly funded by the Kapiti Coast District Council, GW Flood Protection and Transpower (one-off \$10k grant). The programme will consist of DOC200 traps for mustelids and bait stations for possums and rats,

placed along both sides of the river corridor at set intervals. Traps and bait stations will be serviced monthly alternating between local volunteers and GW Biosecurity staff. This has reduced the servicing cost and made this programme feasible.

3.2.5 NZ Dotterel protection at Riversdale

Trapping around the NZ Dotterel site at Riversdale during the past several weeks has resulted in one weasel caught to date. Weekly trap checks are ongoing along with some inspection work to monitor the nesting progress of this pair of birds.



NZ dotterel at Riversdale

3.2.6 Ants

A suspect Argentine ant infestation was reported in a vacant property in Waikanae (old nursery site). A delimiting survey was carried and samples sent to Te Papa and Victoria University to identify the species.

Pest Plants:

3.2.7 Surveillance and Total Control species

As a part of the Total Control species delimiting programme, Biosecurity staff are concentrating on the Raumati area (616 sites inspected to date). The outcome to date is 22 new Total Control sites (4 Moth plant, 6 Blue passion flower, 10 Woolly nightshade, 1 Eelgrass and 1 Madeira vine sites). Two remaining areas (approx. 100 properties) are due to be inspected to complete this programme. A letterbox pamphlet drop across the entire Raumati area is proposed for early next year. This will alert landowners to identify and report

any potential new Total Control species prior to annual inspections in the area planned for end of January 2013 (approximately 1500 properties).

3.2.8 MPI National Interest Pest Response – Manchurian wild rice

This season's Manchurian wild rice programme activity continues. All infestations that are not in standing water have been sprayed. The control of the remaining plants in standing water is on hold until the Galant registration review with EPA is completed (to allow use over water)

Funding for the programme has doubled this year to reflect the concentrated effort required to control a very few remaining plants on the site and to control two new patches that have been located outside the current operational area. Staff are still investigating the history of the new patches to ascertain the incursion pathway (most likely contaminated machinery movement).



Manchurian wild rice plants at Waikanae

3.2.9 National Pest Plant Accord (NPPA)

Staff have inspected 150 plant outlets and many market stalls during the Spring season. Inspection of all outlets is required this year to deliver new NPPA species information following the review completed earlier this year. Usually there is a lead in period before newly added species are actually banned from sale but at the completion of the latest review the species added were immediately banned from sale. It is evident that the Nursery and Garden Industry Association (NGIA) has not communicated these changes well, with some businesses being unaware and still growing banned species. Some retailers were not happy with the changes and our staff referred them to NGIA, as their representative on the NPPA.

3.2.10 Biodiversity

Currently 20 control contracts are underway within KNE sites across the region.

Staff continue to provide technical and operational support in various work streams in the Lake Wairarapa and Pauhatanui restoration projects. We are collaborating with Department of Conservation (DOC) in East Harbour (Pencarrow), Matiu Somes Island (perennial nettle control), Pukerua Bay Escarpment and Lake Wairarapa. Meetings with territorial authorities are underway to plan future co-funded restoration work, biological control and joint contribution to the Weedbusters “Plant Me Instead” regional plant guide.

3.2.11 Weedbusters ‘Plant me Instead’

Many of the weedy species that are invading and damaging our natural areas are ornamental plants that have 'jumped the fence' from gardens and gone wild. It costs councils, government departments and private landowners millions of dollars, and volunteers and community groups thousands of unpaid hours, to control these weeds each year.

The ‘Plant Me Instead’ booklet profiles the environmental weeds of greatest concern in our region. GW staff are working with DOC and the TA’s to produce a booklet specific for our region that will be available on the web and free to the public. The project is sponsored by Weedbusters. The booklet will be of use for all those who work and volunteer in local parks and reserves, national parks, bush remnants, wetlands and coastal areas. The booklet will suggest locally sold non-weedy species, both native and non-native, that can be used to replace the weedy species gardens, parks and reserves. This booklet will complement the GW publication “Wellington Regional Native Plant Guide” (revised in 2010).

3.2.12 Biological control

A project is underway with Landcare Research to model and document the actual slow decline in target pest plants over the decades, whilst a biocontrol agent population spreads and builds up density. The aim is to have a full understanding of optimum management requirement for each agent. An assessment is also underway to test the viability of releasing some agents into contained (insect mesh over plants) sites. This will target biocontrol species which have failed to establish or found very sparsely in the region. The aim is to improve establishment certainty and gain a higher local population before translocation to new sites.

Initial post winter site inspections are underway at recent release sites for many species including, Tradescantia tip and leaf beetles, green thistle beetle, Buddleia leaf beetle, ragwort plume moth, thistle gall flies and Smilax rust.

3.2.13 Gorse and Broom

The gorse thrips, seed pod moth and seed weevil, and broom psyllid and seed beetle surveys have been completed across the majority of the region (except

Kapiti). Biocontrol agents were released in the areas where they were not recorded during surveys. Staff noticed a definite decline in gorse and broom health when travelling from heavily infested sites to sites where agents were absent.



Green thistle beetle larvae damage

3.2.14 Dung beetles

Staff are working with Landcare Research and Waikato University on the final stages of designing monitoring trials for initial releases of dung beetles next year. The monitoring is aimed at assessing the likely positive effects of dung beetles to the environment. Monitoring will include changes in soil porosity and biota, nutrient cycling, percolation /nutrient movement, root mass, dry matter, carbon sequestration and corresponding water quality.

The project will involve research providers, GW Science, GW Biosecurity and landowners. The release sites are planned for Lake Wairarapa and Mangatarere restoration sites. The data will assist developing integrated farm practices aiming to reduce animal source pollution (dung leaching). We are looking for corporate partners to co-fund the study and staff are meeting with Landcorp in November. Staff are also looking into possible Ministry for the Environment and MPI funding for the project.

BioWorks:

3.2.15 Rimutaka Range Aerial Project

The aerial operation was completed on 29 and 30 August. BioWorks continues to monitor rainfall for bait toxicity, and possum carcasses to determine when the treatment areas will become safe for normal use. We expected that no 1080

will be detected in the bait after mid November as the treatment area has received a significant rainfall. BioWorks are checking poison signs and information boards weekly in high use public areas to ensure the public remain informed of the operation. Any damaged or missing signs are replaced immediately.

3.2.16 Pukeatua Aerial Project

Aerial 1080 baits were applied over 4,722 hectares on 7 November. There are still approximately 130 ha to treat by ground control methods. These areas were excluded from aerial control following consultation with the occupiers. Ground control activity should be completed over the following month.

3.3 Biodiversity

3.3.1 General

Council and community collaboration for sound environmental planning was recognised when the Porirua Harbour and Catchment Strategy and Action Plan won the Wellington branch of the NZ Planning Institute's Geok Ling Phang Memorial Award for 2012. The strategy is the result of a collaboration between Greater Wellington Regional Council, Porirua City Council, Wellington City Council and Te Runanga O Ngati Toa.

Staff assisted with the planning and judging of the Encore awards. These awards honour individuals, groups, school communities and landowners whose sustained commitment to environmental restoration, biodiversity and conservation is making the Wellington region a better place. GW administers these awards in collaboration with the Department of Conservation and the Wellington/Hawke's Bay Conservation Board. The award ceremony will be held on 3 December.

The department is leading the development of a joint communications plan for the Porirua Harbour project with Porirua City Council and Wellington City Council. Many of the projects resulting from the implementation of the projects associated with Porirua Harbour and Catchment Strategy are being delivered collaboratively and it is important to coordinate communication with the public.

3.3.2 Policy and planning

Advice was provided on six resource consent applications to Environmental Regulation, and on two submissions on other council's plan changes and other external projects. More comprehensive advice included:

- Continued involvement in the MacKay's to Peka Peka expressway proposal in front of the EPA Board of Inquiry. Tim Porteous took part in a site visit and pre-hearing conference as an expert witness presenting the concerns raised in his evidence. The key ecological concerns about the proposal raised are the applicant's application of the criteria in Policy 22 in the proposed Regional Policy Statement and following best practise when offsetting residual adverse effects.

- Advice was given regarding a consent application for discharge of contaminated water into the Waikanae River, and alternative methods were proposed to avoid impacts on that river's significant biodiversity values.
- Comments were provided on the structure and content of sections pertaining to biodiversity of the draft KCDC District Plan.

Biodiversity staff worked with the Environmental Policy Department in regards to the Regional Plan Review, including:

- Reviewing the draft 'General Coastal Policies', draft regional rules for coastal structures, and draft rules for destruction, damage and disturbance.
- Contributing to a workshop on applying the criteria of policy 22 in the pRPS to identify significance of wetlands.
- Reviewing the paper to be presented to Te Upoko Taiao regarding draft rules and methods for activities in the beds of lakes and rivers.

3.3.3 High value biodiversity areas

A total of 140 areas are actively managed for their biodiversity value.¹ Of these, 106 receive pest animal control on an ongoing basis and 90 are scheduled for pest plant control in the 2012/13 year.

Over the last six weeks:

- staff have worked on planning management activities for 60 sites,
- 41 sites received pest animal control, and
- 25 have received pest plant control

The department is planning to complete 27 Biodiversity Area Plans (BAPS) in this financial year. So far 16 are being prepared.

The Aorangi Restoration Trust has installed 120 nesting boxes for Little Blue Penguin around the Cape Palliser coast since June. GW has supported this initiative by providing traps for predator control that is carried out by local residents. The Trust recently monitored the nesting boxes and discovered the first penguin chick has hatched successfully (see figure 1).

Staff attended a familiarisation site visit with Roopu Tiaki, the governing organisation of GW and Iwi tasked with developing a long-term vision and management plans for the Pencarrow coast and Paranagarahu lakes. Ecological and historical features of the site were highlighted.

A plan has been prepared for re-vegetation of the northern wetland of the QE Park for 2013, which will include a trial of a newly developed root trainer planting machine.

¹ Active management can involve various activities, including advice to landowners, exclusion of stock, as well as pest and weed control.

Figure 1. Welcome arrival: Little Blue Penguin mum with the first chick hatched in one of the 120 nest boxes installed around the Cape Palliser coast



3.3.4 Site-specific biodiversity advice

Site-specific advice has been provided to 12 external and 3 internal stakeholders on forest, riparian and wetland ecosystem types.

External stakeholders were individuals, landowners, non-government organisations, DOC, education providers, and territorial authorities.

3.3.5 Priority areas for community engagement

Wairarapa Moana

An agreement has been reached with DOC to coordinate a network for restoration groups, create a process ensuring restoration work follows best practice and develop a system to market community restoration events.

Protocols for use of the Wairarapa Moana logo are being developed. Once approved by the Wairarapa Moana Management Team the logo will be available for use by all project partners.

A restoration plan for the Lake Ferry Lagoon is being developed with the South Wairarapa Biodiversity Group.

Porirua Harbour

The draft project brief for the development of a catchment re-vegetation plan to reduce excessive sedimentation of the Harbour that was identified in the Porirua Harbour and Catchment Strategy has been sent to key stakeholders for comment. Once the brief is finalised, the re-vegetation plan will be commissioned.

3.3.6 Region-wide ecological restoration support

A working-bee was held at Whitireia Park with Aotea College and the Whitireia Park Restoration Group. The students built nest boxes for Little Blue Penguin that were placed in the park to provide safe breeding places for the penguins and helped the park ranger with fence building to protect the plantings by the restoration group.

The project received support from various sources. Timber for the boxes was donated for environmental purposes by Mainzeal, materials were cut to size by the Whitireia Park Restoration Group, and a penguin expert from Forest & Bird, provided advice on where and how to place the boxes. While it may be too late for penguins to use them for this year's breeding, some may find and start using the boxes in the winter next year.

3.4 Wairarapa Moana

An annual report has been prepared for Wairarapa Moana Wetlands Group for the year 2011/12. Attachment 1 to this report is the Wairarapa Moana newsletter which highlights activities undertaken last year.

3.4.1 Works in Progress

Recreation

- SWDC hope to have the proposed new signage for the Lake Domain in place before Christmas. It is proposed to have a metal structure located on a gabion wall.
- The Wairarapa Moana Experience Development Plan is on target for completion in December this year.
- DOC's engineer has visited the site of the bridge for the "Te Ara o Parera walkway" which will lead out onto the eastern lakeshore. A boardwalk is proposed. Once it has been designed then an assessment of environmental effects will be developed as part of obtaining a resource consent for its construction.

Marketing

- A joint group is working up the website within GW and making good progress.
- Several staff have made contributions to the book about to be printed on Wairarapa Moana following the successful exhibition at Aratoi. This book will be launched on 25 November.

Relationships

- The Aquatic Weeds Working party is developing a pamphlet to assist landowners to identify their dominant weed species and the potential herbicides which could be used to manage the weeds. It is expected to be completed early in the new year.
- Two sets of plantings occurred at Lake Domain in September, one by students from Saint Matthews and the other by the Catchment Management staff. Saint Matthews spent its prize money from the logo competition on their plants.
- The Wairarapa Moana Coordinating Committee met on 6 November. The committee was updated on the activities completed both for the Wairarapa Moana project and the Cleanup Fund.

The main item was a presentation from the GW Environmental Monitoring team on water quality. Wairarapa Moana is described as eutrophic/supertrophic (ie, highly nutrient enriched) based on four elements nitrogen, phosphorus, algae and water clarity. The water quality has remained stable but poor since monitoring has began. GWRC is now monitoring Lake Wairarapa at monthly intervals - this will help improve our ability to detect any changes in lake condition (historically it was only sampled around 3 times per year).

Water quality is monitored for both surface and ground water as part of State of Environment monitoring, although this has been limited to larger rivers and deeper groundwater. There has been no routine monitoring of the wetlands, nor of the small tributaries or shallow groundwater.

Limited historical monitoring of Matthew's Lagoon and Boggy Pond (from the 1990s) shows that the water quality in these wetlands tends to have higher nitrogen and phosphorus levels than those measured in Lake Wairarapa. The algal biomass can be much higher in the wetlands as well but the water clarity is better in the wetlands than Lake Wairarapa.

One set of water quality samples has been collected from Barton's and Matthew's Lagoons in September this year.

Assuming this one set of results was averaged for a year (which is a gross oversimplification of what is actually happening in reality) then the annual output from Bartons Lagoon to Lake Wairarapa would be 48.5 tonnes of

nitrogen and 0.9 tonnes of phosphorus. The residence time for waters passing through the lagoon is very short, some 1-2 days.

At Matthews Lagoon our work is currently hampered by a lack of good flow data into the lagoon. The one-off September sampling showed high nitrogen and phosphorus levels, very low dissolved oxygen and elevated faecal bacteria counts entering the lagoon. Based on this one sampling event, the nitrogen concentrations decreased by 400% between the inlet and the outlet and the phosphorus levels decreased by some 250%. These reductions prove the value of wetlands at stripping nutrients.

Biodiversity

- The Ramsar application is expected to be lodged by the end of November. There have been some technical issues around land parcels to unravel plus a detailed assessment of the wetlands found within the Wairarapa Moana Wetland complex.
- Fish status report is still being worked on by DOC staff in head office. This is proving to be a complex task. Questions such as how do we treat rudd and perch which were illegally released in the lake complex but have coarse fishing status are taxing the legal section in DOC.
- Three teams have recently counted 22 shore and wetland bird species totalling some 3817 individuals.

A full list of birds counted is attached below:

Kawau	Black Shag	50
Kawau tūī	Little Black Shag	79
Kawau paka	Little Shag	3
Kōtuku	White-faced Heron	16
Kōtuku ngutupapa	Royal Spoonbill	27
Kakīānau	Black Swan	2597
	Canada Goose	135
	Canada x Feral Goose	1
	Feral Goose	29
Pūtangitangi	Paradise Shelduck	79
Pūkeko	Pūkeko	6
Tōrea	SI Pied Oystercatcher	1
Tōrea tai	Variable Oystercatcher	11
Poaka	Pied Stilt	262
	Black-fronted Dotterel	5
	Pacific Golden Plover	22
	Spur-winged Plover	185
	Red Knot	1
	Bar-tailed Godwit	57
	Black-backed Gull	235
Tarāpuka	Black-billed Gull	8
Taranui	Caspian Tern	8
	Total	3817

- Water Balance study – The Environmental Monitoring team continued working through winter and autumn to gather data for investigating the water balance (and water quality) of Lake Wairarapa. This investigation is needed to inform the review of water allocation policies as well as other management actions. Detailed analysis of the data collected so far has not yet begun. This will occur at the end of the coming summer when we can make use of a full suite of hydrological data covering the period of the year of most interest to the investigation (ie the summer/irrigation season).

In addition to the two lake shore meteorological stations installed over 2011/12 summer, a central lake Met station has been designed and resource consent for installation has been sought. This station is needed to obtain accurate measurements of open water evaporation, an important component of the overall water balance. Discussions about this consent are underway with iwi representatives in the Wairarapa and the necessary approvals have not yet (as of the end of October) been received. It seems unlikely that the lake centre station will be installed in time for the coming summer; however, a back-up plan to obtain evaporation estimates (from water temperature measurements made from buoys) is being worked on.

Installation of a sideways-looking acoustic doppler unit at the lake outlet channel was completed in August. This unit provides a continuous measure of flow in and out of the lake and initial calibrations to date have been very promising. While it is too early to interpret results in a meaningful way, the ACDP is quantifying peaks flow rates of +/- 80 cumecs when the gates are open to tidal influence and also allowing us to identify and quantify periods of net gain and loss from the lake.

- Several days were spent by monitoring staff in late August sampling all major lake tributary inflows and shallow groundwater sample points to capture typical 'winter' conditions with respect to flows, levels and water quality. This exercise will be repeated in the future to help build a picture of hydrological influences on contaminant loading as well as improve our understanding of the water balance under different climatic conditions.

3.4.2 Fresh Start for Freshwater Clean Up Fund

The latest quarterly report has been accepted by the Ministry for the Environment.

The brochure explaining the project and a perception survey will be forwarded to landowners in the third week of November. These have been held back because dairy farmers have been focussed on getting their new dairy season underway. This has also delayed the programme of meetings with landowners in the vicinity of the priority edge wetlands.

3.4.3 Works Programme

Land Environment Plans – Nine of the sixteen properties who expressed an interest in being part of the project have received an initial assessment. It is expected that all of these properties will have been assessed by the end of November. A table of possible actions will be prepared and prioritised by the Technical Advisory Group in early December. There will be follow up discussions with the individual land owners and where necessary additional analysis will be completed. Further work to clarify the cost benefits of some actions and the potential to improve habitat etc in the drainage networks is being researched.

New requests for initial assessments will occur following the distribution of the brochures.

Monitoring - the first set of water quality samples have been collected from Matthews and Bartons Lagoons. With a restricted monitoring budget establishing a realistic monitoring programme is a challenge.

Restoration – a list of proposed actions for the five priority edge wetlands has been prepared as follows:

- Boggy Pond - pest plant control e.g. willows, purple loosestrife and eelgrass. Decision yet to be made on the removal of hornwort and pest fish. Habitat will be improved in some areas plus there will be some pest animal control.
- Matthews Lagoon - a three year programme of aerial and ground control of willows has been prepared. NIWA specialists have been engaged to advise on how the wetland can be reconstructed to achieve improvements in the water quality exiting the lagoon.
- Wairio - the existing wetland areas will be extended and planted. The ongoing programme of removal of alders and willows will continue. The NIWA specialists have been given a brief to see if it's possible to link Wario to Boggy Pond and Matthews Lagoon into one large wetland complex.
- Bartons Lagoon - an aerial and ground control programme to control alders is in place. NIWA is researching the options to increase the size of the wetland with a view to increased nutrient stripping from within the wetland. This will mean additional planting within the newly constructed wetland. This wetland has the best native fishery so we are investigating the feasibility of trialling a programme to remove pest fish.
- JK Donald Reserve - an aerial and ground control works programme to remove pest plants is scheduled. The aim is to develop a series of linked wetlands which may require a resource consent to divert the lower section of the Otakura Stream into the wetland complex. Fish and

Game NZ have indicated they have some funds to assist in this restoration work.

Technology Transfer - staff will investigate a number of topics, e.g. the values of the priority wetlands including the hydrology, drain management options, soils, effluent management, fertiliser management. Regular seminars with the interested parties are scheduled to commence in late January.

Project Structure – aside from the Wairarapa Moana Wetlands Project Group and Management Team meetings there is a Technical Advisory Group which comprises staff from DOC, Iwi, Dairy NZ, Fonterra, GW and consultant Peter Handford. There have been a number of meetings to explore the options to achieve the work programme agreed to with MfE.

David Nettleship, our liaison officer from MfE normally attends the management team meetings.

3.5 Land Management

3.5.1 Akura Conservation Centre

The six hectares of new poplar and willow plantings at the new nursery have established extremely well. In the period since planting 60mm of rain has been recorded. Preliminary strike rate is looking like 95% for the 30,000 plants. The new bore and irrigation system is due to be commissioned on 21st November. Irrigation on the existing nursery began in late October on the back of very low rainfall in October. Overall the nursery is looking in good shape as the summer season approaches.

As part of ongoing development at Akura staff are looking at expanding the retail area as well as increasing public parking and improving traffic flows. In particular there will be a focus on improving safety around traffic movement from the busy main road.

Management at the nursery over the next month will concentrate on mulching, mowing and spraying. Pruning will begin in late November and continues through to March.

3.5.2 Land Environment Plans

The Land and Environment Plan (LEP) programme has progressed by signing up the ten farms for which plans will be produced this financial year. Eight of these plans will be in the Mangatarere, with the remaining two located in Te Horo. A new staff member, Richard Parkes, has commenced and will be charged with running the programme, initially in the Mangatarere. Richard has an agronomy and teaching background with strong communication skills that see him well suited to the role.

Part of the programme will see more collaborative links formed with stakeholders in the Mangatarere. This has involved further involvement with Dairy NZ discussion group days held on farms in the catchment, interaction with the Mangatarere Restoration Society and working along side Ravensdowne fertiliser representatives preparing nutrient management plans on farms involved in the LEP programme.

Landowners with plans prepared in 2011/12 have undertaken suggested riparian works (both fencing and planting) with some further works planned for May/June 2013. Engagement with these farmers in this new programme is working well.

3.5.3 Hosting Ministerial Forestry staff

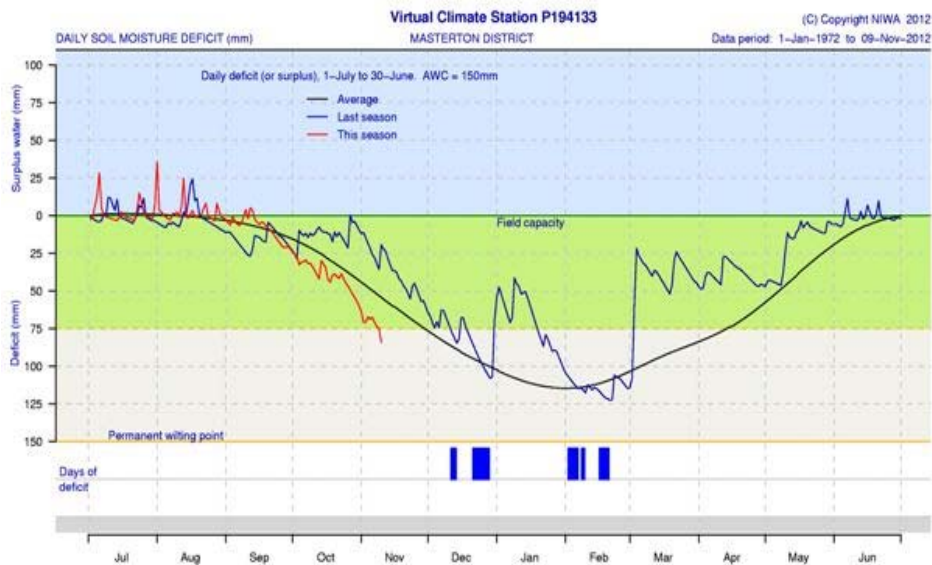
Policy staff from Ministry of Primary Industries (MPI) and Ministry for the Environment (MfE) are touring the Wairarapa over the next month, primarily to view aspects of forestry covered by their policy areas. MPI are responsible for implementing the Forestry Schemes review and are interested in looking at how the hill country erosion programme (WRECI) and the Afforestation Grant Scheme have been implemented in the Wairarapa. There are many examples where erosion prone land has been planted through both of these programmes and the visit will provide a great opportunity to promote the benefits of the programmes, especially the crucial partnership between regional councils and landowners.

Staff from MfE are interested in viewing forest harvest operations as they relate to the proposed National Environmental Standard (NES) for Forestry. The NES has been a long time in gestation and has been resurrected in recent months, along with a number of MfE staff who are new to the work stream. There are some major areas of concern with the NES as currently written and the visit aligns well with internal discussions within GW around forestry activities and GW's Natural Resource Plan.

3.5.4 Climate Smart Farmers Project

Farm performance is inextricably linked to adverse weather events and climatic conditions which are expected to become more frequent in the future. This Sustainable Farming Fund project, supported by Greater Wellington, has enabled climate prediction models to be presented in a way that informs farmer decision making and presents the information using a range of predictive models. The project has also enabled farmers throughout the country to corroborate and add context to their own weather data/observations. The project will produce improved tools to strengthen farmer knowledge and confidence in climate-dependent decision making around the purchase/sale of stock and sourcing supplementary feed, and could save farmers tens of millions during major droughts.

The virtual station shown below is located at Homebush near Masterton and shows soil moisture levels at 9 November 2012. The line for this year has dipped below the 75mm deficit, well below the average. At Akura this has resulted in the decision to start irrigating three weeks ago.



Additional information showing rainfall and temperature graphs and fifteen day predictions are also included in a weekly update.

3.6 Forestry

3.6.1 Forestry – Sale of Cutting Right

Council is to consider a paper regarding the sale of Cutting Right for 60 years at the Council meeting on 7 December 2012.

3.6.2 Metro Forests

Although Rayonier have indicated that they would like to fell and sell all the contracted blocks, to date they have yet to arrange new crews to progress this target. Tuckey Contracting is currently the only company working. Although Rayonier have increased their production to about 82500 tonnes per annum, they are well short of the 150,000 tonnes they need to complete all blocks.

Moonshine Forestry commenced harvesting within the forest last week and will start loading out by road to Totara Park this week via the Council access.

4 Recommendations

That the Committee:

1. *Receives the report.*
2. *Notes the content of the report.*

Report prepared by:



Wayne O'Donnell
General Manager, Catchment
Management

Attachment 1: Wairarapa Moana Newsletter