

**Flood Protection
Strategy and Assets
Manager : Brendan Paul**

Report for Period Ending 21 April 2000

1. Waikanae River Floodplain Management [Graeme Campbell]

1.1 Flood Damage Work

Landscape planting on the State Highway 1 to Maple Lane flood damage improvement is scheduled for completion by 31 May 2000. The project is forecast to be completed \$56,000 under budget and to programme. An opening for the new walkway is planned for September 2000.

1.2 Waikanae – Friends of the River

The Terms of Reference, for the 'Friends of the River' group, and working relationship with the Wellington Regional Council, will be reported to the 13 June Landcare meeting. Representatives of the group will be asked to attend the meeting.

2. Otaki River Floodplain Management [Graeme Campbell]

2.1 Flood Damage Works

Recent minor floods in the Otaki River have delayed progress on the Traceys and Stresscrete repair works. The Traceys work had to be extended to cover the additional damage which will result in an increase in cost of \$25,000. Other works are programmed to be completed by the end of May 2000.

2.2 Chrystalls Stopbank Upgrade [Malcolm Abernethy]

The certificate of practical completion was issued by the consultant on 31 March 2000. Boundary fencing is well advanced and screen planting will be complete by 30 June 2000.

Land negotiations are complete for purchasing part of the Williams' property, to allow future construction of the Stage Two Chrystalls stopbank. Negotiations are to commence for the settlement of compensation and land purchase of that part of the Ramsbottom property occupied by the new stopbank.

2.3 Environmental Enhancement

The draft native planting plan, to extend the existing wetland and riparian habitat at Chrystalls Lagoon and Waimanu Stream, is complete and an order placed for native plants. An Arbor Day planting event is scheduled for the morning of 31 May and local schools and the 'Friends of the River' group will be invited to participate.

The consultant has continued work to develop a strategy for pedestrian access on the north bank of the river, from Chrystalls to the mouth.

2.4 Otaki – Friends of the River/Other Matters

The Terms of Reference for the 'Friends of the River' group will be reported to the 13 June Landcare meeting. Representatives of the group will be asked to attend the meeting.

An Otaki based surveyor has been commissioned to locate the river cross-section sighting points, in preparation for the full cross-section survey programmed for next year. The inspection will determine which benchmarks are missing and need to be reinstated. Site lines will also be viewed and a clearance programme set up.

3. Hutt River Floodplain Management Plan (HRFMP) [Daya Atapattu]

3.1 Design Standard Implementation

The cost estimate for the Hutt River Design Standard capital works implementation is \$78 million. The Regional Council's preferred LTFS \$2 million per annum capital spend, over the Western Region, provides an average \$1.7 million per annum expenditure for Hutt, or \$17 million for the ten year period 2000-10. The Advisory Committee wants the project completed in 20–25 years. This corresponds to a \$3.4 million per annum spend for the Hutt, or \$34 million for the ten year period 2000-10. "Elements" will contain details for both options including indicative rating impacts, and will provide an opportunity for ratepayers and territorial authorities to consider the benefits and costs of project acceleration. This publication will also set out the opportunities the public will have to make submissions on the LTFS.

3.2 Non-structural Measures

Advisory Committee members and officers considered non-structural options implementation at the well attended workshop. Land use controls and public information programmes are preferred methods for the upper catchment, the river corridor and the floodplain. Input to the workshop raised issues which may modify the proposed methods.

Workshop attendees also considered opportunities for improving the existing emergency management programmes and procedures of the three councils. An action plan, proposed by the emergency management officers, was accepted.

Public discussion on the non-structural options will commence in early May 2000. The date for finalising a suite of non-structural options appropriate for the Hutt Valley is June 2000.

The Advisory Committee will receive a verbal report on the public discussion outcomes at its meeting on 25 May 2000, and providing the process runs to plan, they will endorse the non-structural methods appropriate for the Hutt Valley on 29 June 2000.

3.3 **Environmental Strategy**

The concept plans, which reflect the character of various reaches along the river, are complete. A draft strategy will be ready by the end of April 2000 and the target date for completing the work is June 2000.

3.4 **Community Connection**

The non-structural options public information programme will start by the end of April 2000. The non-structural options will feature in the centre fold of the Hutt News and Upper Hutt Leader on 26 April and 10 May, and more than 500 land owners and interested parties on our mailing list will receive individual copies of Newsletter No. 5.

Officers will explain the proposed non-structural methods to Councillors of Hutt and Upper Hutt City Councils during the second week of May 2000.

Public meetings will be held in:

- Belmont/Stokes Valley
- Alicetown
- Bridge Road/Gemstone Drive
- Seaview

4. **Asset Management Plans [Malcolm Abernethy]**

A consultant was employed to critique the Asset Management Base Plan and the Hutt River Asset Management Plan before submitting them to Audit NZ for review. Work on the Data Management System is continuing.

5. **Wainuiomata Flood Hazard Assessment [Phillip Purves]**

The channel management component of the Wainuiomata Flood Hazard Assessment is drawing to a close, with some positive support for the proposed “hands off” approach to managing the rural reaches of the Wainuiomata River. The services of an independent river processes engineer have been engaged in further support of the proposed strategy.

6. Planning and Development Services [Phillip Purves]

Written requests for information or advice attended to during March 2000:

| | <u>March</u> | <u>YTD</u> |
|------------------------------|--------------|------------|
| Requests brought forward | 29 | 14 |
| Additional requests received | 11 | 179 |
| Responses provided | 21 | 174 |
| Outstanding requests | 19 | 19 |

The Upper Hutt City Council (UHCC) continued with hearings related to its Proposed District Plan, during March. Included in the March round of hearings were the *Open Space Zone* and *Special Activity Zone* Chapters, which involved the Hutt River area and the St Patrick's College land respectively. All matters relating to river management and floodplain issues, that were included in the WRC submission on the Plan, were recommended by UHCC Officers for inclusion in the District Plan. There was no need for the Flood Protection Group to attend these hearings, a very positive situation for flood protection issues and UHCC.

BRENDAN PAUL
Manager, Flood Protection (Strategy and Assets)

**Flood Protection
Operations
Manager : Geoff Dick**

Report for Period Ending 21 April 2000

Flood Protection Operations and Maintenance [Geoff Dick]

1. **Hutt River**

Flood Damage Repairs

The repairs at **Bridge Road** are now complete. Because of a delay in obtaining the specialised plant required, a later start than desired was made on this work. The work site is subject to flooding in minor events, but luckily the weather was kind for most of the construction period, and work was completed without a significant delay.

The supply of rock rip-rap for the proposed works at **Owen Street** and **Block Road** is still slow. Some progress has been made at Owen Street with 180 tonnes of C grade rock on site, but it is still unlikely that this construction will proceed this financial year. 1500 tonnes of B grade rock has now been delivered to Block Road with a start to be made on construction shortly.

The proposed repair work at **Avalon Berms** has been set out by the surveyor with work also to commence shortly.

Maintenance Work

Field staff have had a busy month with repairs now almost completed to an eroded section of the Black Creek stopbank. The work involved tree removal, toe rocklining, and stopbank refacing. Final finishing work and topsoiling is awaiting a fine spell of weather. Refurbishment of the outlet gates was also completed.

A number of large trees were removed from the stopbank between Sladden Park and Shandon Golf Club. This river side face of this section of stopbank was in poor condition and has also been refaced and reshaped.

A large number of overhanging trees have been cut back and removed from the end of St Albans Grove, and the stopbank face has been resoiled.

Following a leaflet drop in Totara Park about trees in stopbanks, staff have been busy meeting with residents of the area. Most concerns have now been addressed and work is now in progress.

2. **Water Courses (Wellington)**

Stream runs were completed in the Porirua, Kenepuru, Takapu, Stebbings and Taupo Streams during the period.

The weed clearing run in the Waiwhetu Stream is continuing using Periodic Detention workers. This work is being done on an ongoing “painting the harbour bridge” basis, with regular visits to keep the weed under control. The initial clearing run has been slower than originally envisaged but is otherwise working well, with large quantities of weed being removed. The Community Probation Service is to be commended for their helpful approach in dealing with this problem at little cost to Council.

3. **Kapiti Rivers**

The main focus for Kapiti staff during the period has been a catch-up on berm and stopbank maintenance, including mowing and spraying. Work continued on flood damage repairs and capital improvement works.

Otaki River

Staff have been busy taking delivery of rail iron and cutting it to length for both the capital improvement works at **Stresscrete** and **Traceys**. The contractor started work at the Stresscrete site, and our own staff have started construction at the Traceys site. Raised river levels have delayed work at Traceys, with the gravel beach at the site having to be relevelled following a flood event. Nevertheless, approximately 40 irons having been driven to date.

Gravel extraction at **Upper Rahu** has recommenced and, at the end of March, Winstone Aggregates had extracted 75,404 cubic metres of the proposed 120,000 cubic metres. A total of 43,870 cubic metres of gravel was extracted from the Lower Hughes’ beaches and islands for the **Chrystalls Stopbank** Construction Capex Project.

Waikanae River

A number of willow poles were planted at **Kebbells Corner** on the State Highway 1 to Maple Lane Capex Project.

4. **Kapiti Water Courses**

Clearing of aquatic weeds in a short section of the Waimeha Stream is complete.

The Waimeha Stream mouth was realigned following expressions of concern from a number of Waikanae Beach residents. The mouth had traversed northwards, produced a vertical scarp of over two metres in the sand dunes, thus meeting the triggers as set down in the Regional Coastal Plan.

5. **Work for Others**

Mabey Road staff installed a recorder box on the artesian test bore in Marsden Street, Lower Hutt.

6. **Resource Consents**

Opus International Consultants Ltd are continuing work on a long term consent application for the Wainuiomata River. A river walkover was held with consent management staff in order to view the type of works already in place and to gain an appreciation of likely future work. We plan to lodge the application by 30 June 2000.

The Waitohu Stream long term consent application is also on track for lodging by 30 June 2000. Work is progressing on a baseline environmental study and a review of our stream management approach. An iwi report has also been commissioned.

Reach Mower Contract

Flood Protection (Operations) will shortly be calling tenders for the reach mowing of stopbank and berm areas. The existing tractor and reach mower unit operated by the Mabey Road depot is currently due for replacement. The high capital cost of replacing this unit has prompted the question of whether it may be more economic to fully contract out this operation. The wish is to sell the unit as a going concern with a long term contract. Good records have been kept on the actual costs of Council operating this equipment. This will enable a cost benefit analysis to be done once the market is tested.

The unit is presently operated by a contract driver so there are no staff implications to fully contracting the operation.

7. **Gravel Extraction**

Gravel extraction figures for the year to 31 March 2000 are set out below.

| River | Area | Contractor | Period Year 1999/2000 (cubic metres) | | Year 1998/1999 (cubic metres) |
|---------------|-------------|------------|--|---------------|-------------------------------------|
| | | | Period | Year | Full Year |
| Hutt | Estuary | Winstones | 4,410 | 30,821 | 42,630 |
| | River | | Nil | Nil | 2,967 |
| Otaki | River | Winstones | 19,140 | 27,622 | 15,854 |
| | Upper Rahui | Winstones | Nil | 30,060 | 20,454 |
| Waikanae | River | Winstones | Nil | Nil | Nil |
| TOTALS | | | 23,550 | 88,503 | 81,905 |

8. **Managers' Visits**

A 'tiki tour' of the Hutt, Otaki and Waikanae Rivers was recently arranged for Andrew Annakin, and Brendan Paul. The visit allowed the office-bound Andrew and Brendan to view operational works on the ground. It also provided an opportunity for Jeff Evans (Mabey Road, Lower Hutt) and Garry Baker (Kapiti) to show off the work they are doing and discuss any issues 'face to face' with their divisional manager, and manager of the other half of the Flood Protection team.

9. **Acting Manager "Acts Up"**

With Geoff Dick away on extended leave, I am attempting to fill his rather large boots. Geoff assured me when he left that there would be no big floods. So far his promise has held, but we have certainly seen the end of summer. The loss of fine weather has added to the difficulties completing our remaining work for the year but we continue to battle on. Completing repairs at Bridge Road on the Hut River is particularly pleasing. This was a technically difficult site and the physical work carried out by our own staff under the control of Wayne Angus is to be commended. The rush is now on to complete the maintenance programmes, particularly on the Kapiti Coast where staff have been heavily involved in capex work.

STEVE MURPHY

Acting Manager, Flood Protection (Operations)

Regional Parks (Strategy & Marketing)

Manager : Susan Edwards

Report for Period Ending 21 April 2000

1. Manager's Comments (Susan Edwards)

Out and About

The Strategy & Marketing team has been "out and about" again during April and May:

- Ross Jackson is in Canada and Mexico on three weeks annual leave. While in Canada he is visiting the Greater Vancouver Council Parks Department.
- Graham Laws and I attended the Society of Local Government Managers (SOLGM) Asset Management Planning Workshop in Palmerston North. It was a very useful workshop and has alerted us to the key concerns of Audit New Zealand when they consider this year's versions of the AMPs. We will be working hard on asset management planning over the next few months.
- Anne Manley, Bruce Andrell and I attended a Zone 4 SOLGM meeting in April. The meeting involved a "behind the scenes" tour of the Westpac Trust Stadium. All of us had attended various games at the Stadium before, but it was interesting to see areas not generally available to the public. The tour was followed by a talk from Daryl Griffin (SOLGM president) on managing work and family commitments.
- Ross Jackson gave a talk on parks and recreation planning to Hutt Polytechnic students doing an event management and tourism course. He set them an assignment and will be following up on their work over the next few weeks.
- Ross Jackson spoke to the Upper Hutt Rotary Club on the Regional Council's involvement in Parks and Forests. They were also interested in the concession and filming activities occurring on Council's land. The Club contacted us as a result of the "Tribe" article in the last copy of *Elements*.

ARAC Meeting

We had one of our regular meetings with the Akatarawa Recreation Access Committee (ARAC) in April. The Committee expressed great pleasure at having Dean Hearfield (Forest Lands Ranger) back from six weeks annual leave. They also commented that Kerrie Chudleigh and Helena Firth at the Upper Hutt office had done a tremendous job of issuing permits and following up on things during Dean's absence.

Now that the Orange Hut is nearing completion, ARAC is setting about landscaping a picnic and camping area adjacent to the hut. ARAC is also helping Dean with track maintenance work in the Akatarawa Forest.

2. **Resource Management and Planning Issues (Anne Manley, Graham Laws & Ross Jackson)**

State Highway Upgrades

We are still working with Transit New Zealand's consultants on several State Highway upgrades. Recent developments include:

State Highway 1 - MacKays Crossing

Transit New Zealand has completed preliminary investigations into a proposed overbridge at MacKays Crossing and has selected a preferred scheme to improve this stretch of highway. The project is designed to be compatible with the proposed Transmission Gully route. Transit is now refining the preferred option. We will be involved again during the designation and resource consents processes. The impacts of the preferred scheme on Queen Elizabeth Park are significantly less than earlier proposals. However, we are still interested in the detailed design work relating to the MacKays Crossing entrance to the Park.

State Highway 2 - Rimutaka Hill

Two private individuals have lodged objections with the Environment Court against Transit's upgrading of State Highway 2 near Te Marua. The work will not proceed until the objections are resolved.

Events

Wetland Planting

Councillor Turver, Ross Jackson and Nola Urquhart potted up wetland plants with a class of Raumati School students. The plants will be planted in a Queen Elizabeth Park wetland during Arbor Day celebrations in June.

Clearlight Music and Dance Event

During April an all night music and dance event was held at Tunnel Gully Recreation Area, organised by Clearlight. This group travels around New Zealand organising such events. Around 100 people attended. Clearlight said Tunnel Gully provided an excellent venue for their activity. Dean Hearfield liaised with the group on the day and has inspired many of them to seek careers as park rangers!

Arbor Day

We are progressing preparations for this year's Arbor Day events. We have six plantings happening this year. Therefore, we need to start preparations early to ensure each event occurs without any problems.

We applied for money from the Lottery Grants Board Millennium fund towards two of the Arbor Day projects (\$10,000 for each project). We received:

- \$3,000 for the Battle Hill community planting
- \$7,000 for the Millennium Totara Grove planting at Te Marua.

Concession Applications

Filming activities have dropped off during April. Areas used were:

- Kaitoke Regional Park - Waterworks Road;
- Wainuiomata Recreation Area.

We are currently working with the Communications Section on preparing a video promoting the Council's Parks and Forests to location managers, film companies and directors. We hope this will encourage more filming activity in the Wellington Region.

ARAC Safety Plan

Anne Manley has been working with Andy Cockcroft from ARAC completing a safety policy for motorised recreation user groups in the Akatarawa Forest. The policy, largely drafted by ARAC for Council officers' consideration, is to be adopted by all clubs affiliated to ARAC. Anne has liaised with the OSH unit at the Department of Labour to ensure they are happy with it. The OSH representative thought the plan was an excellent idea and was impressed with the quality of the document. Anne and Andy have made a few changes as suggested by the OSH people.

Power Pramming

Two women in their mid-thirties with young children decided to get out more and exercise. They started "power pramming" (walking/running while pushing their children in a pram). They noticed others doing the same thing and discovered a need for information on tracks suitable for power pramming. They wrote a book that was launched in mid-April. The book gives details of about 35 tracks around the region and examines suitability for power pramming. Several of the tracks in the Regional Parks and Forests are covered in the book. Their comments provide excellent feedback and have assisted the rangers identify hazards and trouble spots for people with prams, also where additional direction signs are needed. The rangers are taking action, where they can, to address the trouble spots.

Regional Parks (Operations) Department

Manager: Bruce Andrell

Report for Period Ending 21 April 2000

1. Manager's Comments

Restructure Presented to Staff

The Proposed Parks and Forests structure was presented to Regional Parks and Natural Forestry staff on 10 April 2000. The process involves consulting staff on the proposed structure, reviewing staff submissions, editing and confirming the structure, confirming staff and exploring redeployment opportunities for those affected. The process is scheduled to be completed in June/July 2000.

Occupational Safety and Health Systems Audit

The Department undertook an OSH systems audit in February. An independent safety trainer and auditor have conducted the audit. Independent audits are valuable to check that systems are robust, implemented consistently and meet the requirements of the Health and Safety in Employment Act 1992.

We are implementing a training workshop and enhancements to our systems to address the issues raised. A follow-up audit will be carried out in six months time.

Resignation: Ben Robertson

Ben Robertson resigned as Assistant Ranger. The position will be left vacant until the restructuring is completed.

2. Battle Hill Farm Forest Park (John Bissell)

Three Thai educators spent several enjoyable hours with John during March. Their visit was part of a trip to New Zealand to gather information on how to improve environmental education in their community in Thailand. They were very interested in the way that the farm as a productive business unit, working hand in hand with sound environmental practice, is communicated to visiting schools. They heartily endorsed the philosophy of 'hands on learning' and 'ownership'.

Work has started on constructing of the combined pony clubs storage facility in the Dell.

3. **Belmont Regional Park (Chris Wootton)**

At Cannons Creek, the Conservation Corp have been preparing tree planting sites and collecting native tree seed with the assistance of the Cannons Creek Valley Protection Society. Landcorp Farm management has agreed to allow native tree planting on retired farmland alongside the public walkway behind Cannons Creek. This allows the Conservation Corp to extend their work in the area. Arbor Day celebrations may be extended to this area as well. Ross Jackson is co-ordinating an Arbor Day event with Porirua City Council and the Cannons Creek Valley Protection Society.

Park maintenance during the period included Old Mans Beard control in the Korokoro Valley. The isolated and rugged nature of many of the Old Mans Beard sites meant that they could only be treated using a helicopter. All known Old Mans Beard sites in the Park have been treated this year. Each year new sites are discovered or reported to us by the public. It is important that a good control programme is maintained in the future.

4. **East Harbour Regional Park (Chris Wootton)**

At the Pencarrow Lakes, two more directional signs have been constructed and are due to be installed. The signs are to be placed on the centre ridge between the two Lakes, marking an inland-walking route. These signs have been prompted by the success of earlier signs, which create a better awareness of public access opportunities in the area.

5. **Kaitoke Regional Park (Matt Ballantine)**

A research student at Victoria University is undertaking a study of the fault lines within the Park. The study measures sediment variations in the Kaitoke basin. One test involves detonating small explosive charges underground and measuring the sound wave at a recording station. Preliminary results suggest a fault line is running past the Rangers house and sediments in the basin are up to 200 meters thick. Results of the study will be released next year.

Other significant Park activity:

- The maintenance team are upgrading 300 metres of the Ridge Track. The realignment was required to detour a set of eroded switchbacks.
- The Pakuratahi River flood repairs are progressing well. Willow planting is established with a wet summer helping their growth. The re-aligned river has held its intended course after a number of high river flows lately.
- A field drain on Benge Flats was refilled last month to reinstate wetland habitat. The area will be further enhanced with native plants over the winter.
- The film set at Pakuratahi Forks is being dismantled. Work is expected to take until late April. Heavy rain has slowed progress and made the site muddy.
- The 'Totara Grove' Arbor Day planting preparation work is underway.

6. **Queen Elizabeth Park (Nola Urquhart)**

During the period Nola met with the Kapiti Environmental Action group and Iwi to discuss damage incurred by horses in the Park. It was agreed to look at routing the horse trails away from sensitive heritage sites.

Nola, Blair Ewington, Ross Jackson, Susan Edwards, Councillor Turver and I met with the Paekakariki Community Focus Group in March. The meeting discussed park management activities, the proposed 2000-2010 Business Plan, and various issues raised by locals. In particular:

- The Group was advised of the expense and issues associated with retaining the Paekakariki boating pond. In light of the information, the Group indicated an acceptance of decommissioning the pond.
- The Paekakariki playground is to be retained for up to five years. It is to be upgraded to meet the Australasian Playground Standards. The work is estimated at \$8,000. The upgrade will be funded from budget allocated to decommission the Paekakariki paddling pool. This is programmed for 2000/01 and 2001/02 in the proposed 2000-2010 business plan.

Our thanks to Councillor Turver for his contribution to a productive and successful meeting.

Department of Conservation (DoC) visited the Park concerned about silt build-up in creeks which may cause flooding on neighbouring properties. DoC is looking into the issue of silt clearance without draining the adjacent wetlands within and neighbouring the Park.

A memorial service for US Marines was held at MacKays Crossing. The service was well attended by ex-marines, the Mayor of Kapiti, Kapiti Coast District Councillors and interested members of the public.

7. **Wainuiomata Water Collection Area (Scott Farrell)**

During April researchers and Ranger staff will be looking at the possibility of using the Wainuiomata River as a resource to help monitor regional water pollution. Researchers are sampling watercress, which has been found to absorb toxins including aluminium and cadmium, from several watercourses in the Wellington Region. Because of the 'closed catchment' situation, the upper Wainuiomata River is being considered for use as a 'control sampling zone'.

A number of gum trees in the Wainuiomata Recreation Area have been removed, as they were hazardous. The trees were 'standing dead' and could have fallen on the main walking track.

The bridge over the Nikau stream, also in the recreation area, has been upgraded to meet safety manual standards. Work has included replacement of old decking, new handrail construction and fixing of anti-slip material to walking surfaces.

8. **Forest Lands (Dean Hearfield)**

The relationship between the Regional Council and the Akatarawa Recreational Access Committee continues to strengthen. The Orange Hut project and on-going access for recreational users has created a feeling of ownership amongst the local community. This reflects the positive feedback from users both formally (through newspaper articles) and informal (comments to staff).

ARAC has developed a comprehensive safety policy for forest users. The guidelines will help prevent accidents and highlight possible hazards within forest areas.

The 1998 Tunnel Gully flood repairs are in good condition with revegetation of the stream banks progressing nicely. The native plants are well established and we do not envisage any problems with future high water levels.

9. **Parks Maintenance Management (Dean Munn)**

Dean has been liaising with the local Upper Hutt Vintage Machinery Club to recover an old log hauler off Maymorn Ridge, Kaitoke Regional Park.

Monitoring of all structures and bridges continues to be implemented each month.

Maintenance crews are working on upgrading the Rimutaka Incline summit shelter, cleaning up signs, re-benching of the Kaitoke Ridge Track and building a replacement footbridge at Te Marua.

The Assistant Rangers have been helping Robin Blake with annual monitoring in the Wainuiomata Orongorongo Catchments.

10. **Visitor Activities**

See attached visitor data schedule.

BRUCE ANDRELL
Manager, Regional Parks Operations

Natural Forestry Department
Manager : Geoff Cameron
Report for Period Ending 21 April 2000

1. Forest Operations (Robin Blake/Geoff Cameron)

Pest Plant Control

Our contractor, Darryl Kee, continued cutting and manually spraying the Old Mans Beard in the Bridge Road, Upper Hutt, area. Unfortunately he found another major infestation on Council land; Robin Blake investigated and approved the treatment regime. With the Biosecurity team, we are working with a local helicopter operator to trial an aerial spraying system for isolated pockets of Old Mans Beard.

Forest Health Survey

Robin Blake accompanied two forest health specialists from Forest Research on a systematic Forest Health survey of the Akatarawa's. I have worked with Forest Research specialists to develop a forest health survey technique specifically for indigenous forests. As nothing like it existed before, surveys of the past three years used a modified plantation system.

The aims of the survey are:

- to provide a guide to the health status of a forest over time;
- to enable any new deleterious fungi or insects to be detected as soon as possible.

Fifty permanent tree-centred plots have now been set-up in the major forest types through that area. "Forest health" in this case is assessed by the canopy condition of each tree in the plot, which is given a condition rating. The overall condition rating will be compared from year to year to assess the trend in forest health. We are also looking at regeneration as an indicator of the "vitality" of the forest.

Animal Pest Control

Chris Wootton worked with us and Biosecurity staff to prepare a contract for possum control in Belmont Regional Park, relying on trapping and bait stations. This is the first time such a contract has been offered on WRC land, as in the past we have relied on volunteer trappers (proven to be unsuccessful), or most recently aurally applied poison (most successful). The area Chris identified has long urban boundaries and aerial poison application is not appropriate. The contract is a modified version of that used for private land in the Wairarapa.

I wrote to landowners adjoining our winter possum control operation in Kaitoke Regional Park and the Akatarawa Saddle, explained our intention, and offered the chance to join in. None have taken up the offer, and several have discussed the issues with me. These relate to accuracy of bait delivery and control of dogs after the operation.

2. **Catchment Operations (Robin Blake/Geoff Cameron)**

Trial Hunting Period - Wainuiomata/Orongorongo

The hunting began without incident on 31 March. The wet weather has favoured the animals so far, and by 10 April 17 animals (five deer, seven goats and five pigs) had been shot. As reported last time, I will get comprehensive data from the kill returns which will assist in future animal pest management.

In the time available before hunting started Robin Blake, assist by two Assistant Rangers, re-measured some of the pellet lines set-up last year to assess the impact of the 1080 poison job in the Wainui Catchment on the deer population. This was an Animal Health Board project.

Forest Health Survey

The survey team moved into the Hutt Catchment in early April. This survey is to the same format as described for the Akatarawas. In two of the forest types, the forest health survey plot line began at the site of an existing vegetation monitoring plot. The plots have a different design and are for different purposes, but the common location has logistical advantages.

3. **Rural Fire Control (Geoff Cameron)**

WRC Rural Fire District

The hearing called by the NRFA to consider the WRC case to disestablish our Rural Fire District was originally programmed for 21 March, but has now been postponed three times. The current timing is for 2 May. The WRC submission is ready.

Fire Permits

Robin Blake issued 45 fire permits in the period, mostly for “clean-up” fires.

4. **Management Issues (Geoff Cameron)**

Upper Hutt Depot

Staff farewelled the Edinburgh Castle painters from the back area of the Depot during the period. It was fascinating to see the development of the colour scheme for the castle, and consider the logistics for building, painting, dis-assembly, storage and then re-building to a tight deadline.

Landcare Research Workshop

Landcare Research scientists organised a one-day workshop to present recent results from some of their Public Good Service Fund research. I found the following points interesting:

- (1) Comparing conservation costs and benefits, although the work done is with the DoC endangered species programme. The different species are categorised according to conservation status and the probability of extinction. We have not ventured anywhere near that particular area of work because it is so specialised.
- (2) Landcare Research Scientists may redesign bait stations to reduce bait wastage during possum feeding; spilt bait becomes available to birds and this contributes to by-kill. We need to be aware of this as we move to ecosystem management in our forest areas.
- (3) Scientists are researching why certain trees are attacked by possums and others of the same species are not. If we can detect the presence of a number of known anti-feedants it may help in selecting plants for future revegetation work.
- (4) A presentation on the relative efficiencies of deer and possums as herbivores, and the importance of understanding the sources of other food for these animals. The effects of possums in a forest may be less comprehensive than deer because possums are dietary generalists with seasonal preferences for flowers and fruit rather than vegetation. However, when the possum population reaches high densities, their impact is significant. Another interesting point for managing water collection areas is that deer eat fallen leaves thus affecting the litter layer and reducing the “sponge” effect of that layer and its ability to reduce turbidity during rainfall events. I am more convinced than ever of the importance of taking an “all pests” approach to animal control in our water collection areas. A goal of animal pest eradication is necessary to achieve the low animal numbers required to enable the forest to function efficiently.
- (5) A discussion on the long-running (now 34 years) study on an undisturbed possum population on a small area of DoC land in the Orongorongo valley. This population is able to maintain high densities, with slight variations according to the growth responses of particular foods such as flowers and fruit. They also pose a major threat to vulnerable native prey such as snails and insects.

I will be following-up some of these research results in more detail because they have direct relevance to the management of Council lands.