

## Catchment Management Division Update

for period ending 31 July 2007

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### **Biosecurity (Wayne O'Donnell)**

#### **1. Pest Animals**

##### **1.1 New Signage Guidelines for Vertebrate Toxic Agents**

The National Possum Control Agencies have recently published best practice guidelines for signage where Vertebrate Toxic Agents (VTA's) are laid outdoors in bait form for pest control. Legal requirements for signage are addressed with respect to content, design, installation, maintenance and recovery of signs.

Two Acts create the requirements for this signage; the Hazardous Substances and New Organisms Act 1996 (HSNO) for which the Environmental Risk Management Agency (ERMA) has oversight and the Agricultural Compounds and Veterinary Medicines Act 1997 for which the NZ Food Safety Authority has oversight. The Crimes Act 1961 (S156) also places a duty of care on persons in charge of dangerous things.

Whilst all of these Acts are long established it has only been recently that regulations under the HSNO and ACVM Acts have required a new approach to poison warning signage following the gradual transfer and renewal of vertebrate pesticide regulations from discarded legislation.

It has taken some time to interpret and gain national agreement on what exactly is required under the dual legislation. Consensus was reached with the expertise of the Department of Conservation and a selected expert working group sourced from throughout New Zealand.

The controls imposed relate to each separate VTA. The Biosecurity Department uses at least 13 different VTA's. These are just the active ingredients (1080, DRC1339, cyanide etc) and not the bait type. VTA's are grouped on toxicity and risk to the environment, the health and safety of people and communities, trade in primary produce, animal welfare and domestic food residue standards. This means that it is not possible to have a standard sign format for all occasions. A separate sign is required for each VTA and for each bait type.

The VTA warning signage used coinciding with the transfer process has been deemed to be satisfactory for the purpose (and sometimes exceeded requirements) but has not strictly been compliant. The new best practice guidelines will allow new signage to be made and gradually replace the thousands of signs already posted in and around operational areas. Priority is being given to Brodifacoum, Cholecalciferol, Pindone and potassium cyanide (Feratox).

## **1.2 Information Brochures**

Information sheets and brochures are one of the most important tools in imparting advice and education to the region's constituents. The Biosecurity Department has built a significant resource in this regard. However information becomes dated especially with new legislative requirements or shifts in internal policy. A review of the information available for pest animal management has been carried out, shortfalls identified and updates planned. New brochures will be written for rodenticide baits, the DOC200 model possum traps and for integrated multi-species pest animal management. These will be of particular benefit to occupiers wanting to undertake their own control.

There is also an intention to develop more of the larger information posters for use at field days and other forums. They will also be useful as props for presentations given at short notice on a particular species or aspect of pest management.

## **1.3 Contracts for Key Native Ecosystems and Territorial Authority Reserves**

Contract renewals have been agreed with JG McCaslin Trappers and Hutt Valley Contracting Services (HVCS) for two-year maintenance possum and predator servicing of KNE sites and reserves.

John McCaslin has been contracting to GW since 1996. He prefers to work within the Wairarapa and has established a sound record and excellent reputation with his clients. HVCS are commencing their third year of predator control for GW and have responsibility for twelve areas throughout the Western Zone. HVCS now undertake most of the works for keeping the service lines open as they have the proven expertise for this sometimes dangerous work. They have also previously secured contracts for GW Parks.

The seven contracts incorporating 27 sites previously held by GW BioWorks have now expired. Seven of these sites are now overdue for servicing with four more due now. Most of these sites are subject to commitments with the respective city or district council under Memorandums of Understanding.

## **1.4 Communications**

A presentation was given to the Upper Hutt Branch of Forest & Bird on 27 June.

The annual Otari Plant Open Day is being held on 11 August 2007 at Otari/Wiltons Bush Reserve, Wellington.

## **2. Pest Plants**

### **2.1 Control Work**

All 2006/07 control contracts were completed in early June. All property inspections for Eradication species were completed prior to June.

Staff managed a joint funded project between DoC, Hutt City and Greater Wellington, to control Marram grass on dunes at Pencarrow. Post monitoring indicates that the operation was successful.

Staff are currently waiting for the delivery of the report from NIWA, outlining the monitoring results following the use of the herbicide Endothall on the aquatic pest plant Hornwort at the Lake Wairarapa Domain. Visual inspections to date indicate variable results between the liquid and pellet formulae.

Staff are currently preparing the new contract schedules for tendering the 2007/08 programme.

### **2.2 National Pest Plant Accord Inspections & Regional Surveillance**

The second round of inspections of plant nurseries, retailers and markets was completed in the April – June quarter. There is now a very high level of knowledge and compliance amongst retailers and growers. No issues requiring action were necessary.

The current Regional Surveillance monitoring system for new pest plant arrivals in the region is under review. A new design is being developed. This design will target potential sites through stratification by risk habitat types. The draft is currently being reviewed for implementation later in the year.

### **2.3 Notices**

A Default Notice under the Biosecurity Act was served for the control of Old Man's Beard following a boundary complaint in Kelburn, Wellington. The owners had not complied with previous requests.

Staff requested control action be taken by property owners on four Wairarapa urban properties for Old Man's Beard after public complaints.

### **2.4 Biological Control**

Gorse Soft Shoot Moth samples were collected in Blenheim for distribution in the Wellington Region.

Broom Seed Beetle inspections indicate that this species is fully established in Wairarapa. Future work is required to enhance the spread south of Featherston and into the Rimutaka Range.

Staff physically shifted Broom Psyllid from established sites to new areas in the region.

## **2.5 Community**

Three speaking engagements were attended by staff.

- National NZ Restoration Day
- QE11 Regional Field Day at Otaki
- Waikanae Estuary Care Group AGM

## **3. Bovine Tb**

See separate Report 07.488 in this order paper.

## **Flood Protection (Graeme Campbell)**

### **1. Manager's comments**

#### **1.1 General**

The Department materially completed the 2006/07 programme of works within budget. This was a good achievement given the size of the capital works programme, and the extent of the flood damage repairs required as a result of the 2006 Wairarapa floods.

Our main focus over the last month has been to wrap up last year's projects, prepare the annual reports and get the 2007/08 works programme planning underway. The coming year has a particularly large capital works programme but hopefully the necessary landowner agreement and approval work is now in place and the major effort will be in managing the construction.

A recent workshop to discuss the works and investigations programme over the next 8 years has shown that there are a number of major projects, particularly in the Wairarapa, that will stretch existing staff resources. Consideration of how this work is best managed and what additional staff resources may be required is underway.

### **2. Kapiti floodplain management [Kees Nauta]**

#### **2.1 Friends of the Waikanae River (FOWR)**

During June the Department was able to assist the FOWR with about \$7,000 worth of tree removal and site preparation work (prior to planting) from existing maintenance budgets. Graham Winterburn and John Bissell worked with the FOWR to identify the sites and manage the work. The Friends were very happy with the outcome and wrote a letter of appreciation to Greater Wellington stating this. Two planting sites for the next planting season were cleared and a number of exotic trees were removed.

John Bissell and Kees Nauta attended a FOWR Executive meeting on 12 June 2007.

The FOWR held their AGM on Wednesday 18 July. Kees Nauta gave a presentation on work carried out by Greater Wellington Flood Protection on the Waikanae River during the 06/07 financial year. This was well received and GW officers were formally thanked for their efforts over the past year. The meeting was attended by 25 people and once the business was attended to there was an informative talk by Professor Lionel Carter on climate change.

#### **2.2 Friends of the Otaki River (FOOR)**

The FOOR held an Arbor Day planting on Saturday 9 June 2007. The site for this year was the entrance to the newly opened Otaki walkway. The event was well attended by 30 people and the plants were in the ground very quickly.

John Bissell and Kees Nauta attended a committee meeting on 6 June 2007.

### **2.3 Chrystalls Extended Stopbank**

The Notice of Requirement and Resource Consents have now been granted or recommended. Appeals close by mid-August.

The detailed design and tender documents have now been completed. Advertisements for tenders are expected to commence on 4 August 2007 with tenders closing by the end of the month.

### **2.4 South Waitohu stopbank**

A detailed site survey to complete the geotechnical investigation has been completed. We believe all material for the proposed stopbank is available onsite. We are also progressing the detailed design and resource consent application.

## **3. Hutt River floodplain management [Daya Atapattu]**

### **3.1 Ava to Ewen project**

Ava Rail stopbank contract works are on track for completion by February 2008. Rock supply to site is continuing and by mid July 2007, the contractor had supplied and placed about 7100 tonnes of rock out of a total of 15,000 tonnes. Earthworks have been suspended because of the prevailing wet weather and the contractor has now started concrete works under the Ava Rail Bridge. Installation of the stormwater pipe at the Rail Bridge is about 50% complete and the foundation works for the 20mx10m concrete slab under the bridge have commenced. Opahu pump station testing started on 23 July 2007.

Repairs to stormwater manholes adjacent to the Alicetown stopbank are now progressing. These works are required to be done in between tides and will go on until August 2007.

### **3.2 Boulcott/Hutt stopbank**

Phase 2 of the feasibility study to determine a preferred alignment for the Boulcott/Hutt stopbank is now nearing completion. An officers' workshop to review the outcomes of Phase 2 is scheduled for 26 July 2007. The feasibility study outcomes will then be presented to a workshop of the Hutt River Advisory Committee on 13 August 2007 followed by a presentation to the Hutt City Council. We expect to recommend a preferred alignment to the Advisory Committee on 6 September 2007.

### **3.3 Whirinaki Crescent stopbank**

Tenders for Stage 2 works closed on 23 July 2007. We expect to complete the tender analysis during the week and assess the total budget requirements to complete the Stage 2 works and Stage 1 floodwall by 1 August 2007.

### **3.4 Maoribank Riverbed stabilisation**

Brendan Paul from Dam Watch was appointed to complete the risk assessment and produce the technical report. The risk assessment report is scheduled for completion by September 2007.

### **3.5 UHCC District plan changes**

Upper Hutt City Council planning officers have now informed us that the plan change process to include the Hutt River flood hazard will begin in September 2007. It is proposed to include the Mangaroa flood hazard also in this plan change.

## **4. Western Operations [Jeff Evans]**

All programmed works in the western operations area have been completed, including a number of extra jobs, which weren't originally budgeted for. These jobs were funded from savings in other areas.

Over the last year operations staff also helped with a number of capex jobs, including the Whirinaki Crescent stopbank raising through the Wellington Golf Club, and work associated with the Chrystall's extended stopbank.

Staff in both Wellington and Kapiti have been busy preparing sites for the upcoming planting season. On the Hutt River a large number of old crack willows and silver poplars have been removed to ease constrictions in the channel and new hybrid Moutere willows have been planted back on the correct alignment. A number of areas have been cleared for the Waikanae and Otaki friends groups in preparation for native planting, and willow stock is being cut from river side plantings for infill planting on all the major river systems.

### **4.1 Hutt River**

Wet extraction has continued at Belmont. Fish and Game NZ have been supportive of the works and wrote a very good article in their magazine supporting the methodology used and the works undertaken.

Maintenance of survey markers used for bed level surveys has been completed along with some channel shaping in both Upper and Lower Hutt.

### **4.2 Hutt River Trail**

The cutting back of vegetation has been ongoing and gravel has been used to top a number of pot holes on the trail surface.

Events on the trail have been steady. Maidstone Intermediate had a rubbish clean up day on the river berms and Fergusson Intermediate took part in a planting day at Poets Park.

### 4.3 Hutt River ranging services

Ranging has included the usual patrols and enforcement, in particular the misuse of vehicles on the riverbanks. We have been liaising with Hutt City Council in relation to the redevelopment of Sladdon Park. We recently made a presentation to the Wellington Tramping Club on the Hutt River and its surrounds and also spent some time with Fish and Game on signage placement for recreational anglers.

### 4.4 Watercourses

Gravel extraction has continued in the Waitohu Stream, and clearing runs have now been completed in the Porirua Stream, Kenepuru Stream, Takapu Stream, Korokoro Stream, Pinehaven Stream, Hulls Creek and Waiwhetu Stream. An annual drain clearing run was also completed on all the major rural drains under our responsibility in the Kapiti area.

### 4.5 Otaki River

Beach re-contouring has been completed opposite Wallace-Lutz. A small area of rock wall was topped up on the Chrystall's bend rock line, and native planting has been undertaken with the Otaki friends groups.

### 4.6 Waikanae River

A large number of redundant willow trees have been removed from Jim Cook Park and this area will be replanted with natives by the Waikanae friends. Several large and dangerous silver poplar trees have been removed from behind private property at Greenaway Road, after complaints of branches falling onto houses.

### 4.7 Gravel extraction

Gravel extraction figures to the end of June 2007 are set out below.

River	Area	Contractor	Period Year 2006/07 (cubic metres)		Year 2005/06 (cubic metres)
			Period	Year	Full Year
Hutt	Estuary	Winstones	6,566	46,100	49,154
	River	Horokiwi	12,369	46,890	60,680
Otaki	River	Winstones	0	40,929	41,442
Waikanae	Above Greenaway Road	Various	1,080	3,330	9,210
	Below Greenaway Road	Gary Holland Earthmoving	0	5,360	5,040
<b>TOTALS</b>			<b>18,935</b>	<b>142,609</b>	<b>165,526</b>



## **5. Wairarapa Operations [Mike Longworth]**

### **5.1 Wairarapa River Schemes**

#### **5.1.1 Annual Works Programmes**

The annual work programmes have been completed. The 9 annual river scheme meetings were held over the period April and May to review the year and set the 2007/08 years programme and rates. Most schemes accepted rate increases in the order of 5.9% except for the Whangaehu, Gladstone and Lower Wairarapa Valley Development schemes which held their rates at last year's level. The Waiohine River Scheme reduced its rates by 30% because it has significant reserves.

#### **5.1.2 Flood Damage Repairs**

The July 2006 flood damage repairs of \$1.24m are now completed except for some work on the Hikinui sill. The old sill was retained to provide protection for the new sill until grass cover was established and the new sill consolidated. The removal of the old sill and installation of the debris barrier will be done over the summer 2008. Funds of \$120,000 have been carried forward to the 2007/08 financial year for this work.

#### **5.1.3 Drainage Schemes**

A combination of factors including a very wet winter, power price increases, and a catch up on some deferred maintenance resulted in drainage scheme reserves being significantly depleted. At year end there was a deficit of \$42,000 in the scheme reserves. To rectify this situation the drainage scheme committees that have schemes in a deficit, have agreed to the rates being increased, some of them up to 77% in the coming year. The increase in scheme rates should see the deficit recovered by 2009/10. The drainage schemes are fully funded by the benefiting farmers and not from the Regional Council.

### **5.2 Kopuaranga River Enhancement Project**

The committee to develop a scheme on the Kopuaranga have completed their work and the Kopuaranga community have agreed on a scheme covering the lower 27 km of the river from the confluence with the Ruamahanga up to the road bridge immediately below Mauriceville. The community had earlier failed to adequately support a scheme over the entire 50km of the river. The shorter scheme will have a development phase of 8 years at a total cost of \$240,000 and then revert to a maintenance phase from then on.

### **5.3 Lower Wairarapa Valley Development Scheme Review (LWVDS)**

The LWVD Scheme review was presented to the community at a series of public meetings in April. Legal advice has indicated that the Council will need to follow a special consultative procedure before the new rates for the scheme can be adopted. This requirement, and a couple of outstanding minor issues from the consultation phase to

resolve, have meant that the adoption of the final classification will occur in 2007/08 financial year.

The detailed works programme for 2007/08 is now being developed for the Scheme committee to consider at its first meeting on 1 August. Once the Committee has endorsed the works programme work will commence within the next two months, weather permitting.

#### **5.4 Lower Wairarapa Valley Development Scheme Global Consent**

The LWVD Scheme Global Consent has been lodged with the Council's Consents Department. Further consultation is in progress to get sign-offs from affected parties so that it can be processed as a non notified consent.

#### **5.5 Waingawa River Scheme Review**

The Waingawa River Scheme review was not been able to be completed in 2006/07 due to resources being concentrated on the Kopuaranga project and the LWVDS review. Staff have assembled background information to be used in the review. The full scope of the review is still to be determined but once this is done then the review will proceed with the involvement of the scheme advisory committee.

### **6. Strategy and Technical Support [Sharyn Westlake]**

The following table summarises the number of formal, written requests attended to during the year ending 30 June 2007:

	June 2007	YTD
Requests brought forward	4	4
Additional requests received	22	191
Responses provided	19	188
Outstanding requests	3	3

Responding to requests for advisory information in a timely manner is an ongoing issue with the department remaining short-staffed. There was a 30% increase in the number of requests received in 2006/07 compared to 2005/06 (196 compared to 148). Of these, 61 were received, and responded to, in the last quarter of the year.

Policy input provided over this period has included the Department's input to the review of the Regional Policy Statement, the Ministry for the Environment's Flood Management

Review, the Local Government Regional Affairs Committee Flood Management Subcommittee reports, and Flood Protection's internal policy development in light of the developing framework.

We also met with Upper Hutt City Council to discuss their programme for a planned change to the Upper Hutt City Council District Plan, which is needed to reflect and convey flood hazard information for both the Hutt and Mangaroa Rivers.

We have received the final design channel alignment and report for the Wainuiomata River, and the planned winter planting will take this information into account.

The objections to Plan Change 50 of the Kapiti Coast District Plan are in the final stages of settlement through the Environment Court Mediation Process, and we are expecting a successful outcome, without needing to go to the Environment Court.

## **7. Investigations and Assets [John Eyles]**

### **7.1 Waiwhetu Stream floodplain management study**

The bulk of technical work to complete Phase 2 was completed by the end of June 2007. Investigations into house raising, the assessment of property easement requirements and stream sedimentation and morphology will be completed in July.

The next phase of the project is to complete option development, formal consultation, drafting the Flood Management Plan (FMP) and getting signoff from HCC and GW by the end of June 2008.

Officers are continuing to talk with Ministry officials to try to secure funding for the contaminated sediment clean up costs. Hutt City Council and Greater Wellington have confirmed a local contribution totalling 33% (estimated to be \$2M) of the total project costs. An application for the remaining 67% of total project costs (estimated to be \$4M) was made to the Ministry for the Environment on 22 June. We await the results of the latest application.

The next WSAC meeting is scheduled for 22 August.

### **7.2 Pauatahanui Stream (in conjunction with Porirua City Council and Transit NZ)**

The flood hazard study showed this stream is heavily overgrown with willows and has many obstructions to flow which increases the risk of flooding.

Steve Murphy has been preparing individual property reports to identify stream maintenance required. He is also working on a resource consent template for individual owners to use when they wish to start work. Steve's progress on these two activities has slowed due to a recent spell of poor health. Transit has agreed to call tenders to clean up the whole stream, probably next financial year. The individual property owners have to agree to pay their pro rata share.

We will continue to liaise with PCC in developing an integrated whole of catchment approach for managing the Pauatahanui stream.

### **7.3 Detention Dams study, Stebbings Dam Hydrology**

The Building Act 2004 defines the responsibilities that dam owners have with respect to the integrity of dams and how they should be managed to protect public safety in the event of failure.

A draft report has been received from consultants NIWA that completes a review of the hydrology of Stebbings Dam which follows similar work undertaken in 2001/02 for the Seton Nossiter dam. The review has shown that Stebbings Dam has the capacity to deal with very extreme storm events right up to PMF. The next step will be to assess our full responsibilities as dam owners under the Building Act.

### **7.4 Asset management**

The major project to revalue the department's assets has been completed. The last asset valuation was completed in 2002. The value of Flood Protection's infrastructural assets has increased by 34%, from \$140.9 million to \$188.5 million. The increase can be mainly attributed to a substantial increase in material and construction costs, along with an increase in the number of assets since the last re-valuation. An external peer reviewer has confirmed that the revised asset values are acceptable and appropriate for financial reporting purposes.

Annual asset inspections were completed in June. The inspections continue to show, on the whole, that flood protection assets are in good condition and are being maintained appropriately.

As part of the organisation-wide asset management information system review, officers have also attended a series of vendor demonstrations. Clarification is being sought with the vendors before a recommendation can be made for a preferred supplier.

## Land Management (Dave Cameron)

### 1. Manager's comments

#### 1.1 Hill Country Liaison Group

A Steering Committee has been appointed to guide the establishment of the Hill Country Liaison Group. The Steering Committee had its first meeting on 23 July and will meet on a regular basis in order to meet the project timeline of 31 October 2007.

Key discussion points relate to scope, terms of reference, representation, appointments and reporting. The Steering Committee is comprised of eight members, along with senior staff.

#### 1.2 Winter Planting Programme

The weather has played a large part in delaying the start of the winter planting programme. Seedling planting in the Streams Alive programme has progressed well, however the bulk of the Wairarapa hill country work has been delayed by one month. In particular this has affected the pole planting programme.

To achieve best results all poles will need to be planted by the middle of September. The loss of June as a planting month means that four months work will need to be completed in three months. Currently we are assessing our resources and may need to employ additional casual staff to complete the programme.

#### 1.3 Catchment Schemes

Some minor work has been carried out in the Awhea and Whareama catchments. The bulk of the Catchment Scheme work is not due to get underway until the second quarter.

The global consent for the Awhea/Opouawe Scheme will be completed in time for the construction period which is normally October/November.

<b>Scheme</b>	<b>Budget 2007/08</b>	<b>Expenditure to Date</b>	<b>Storm Reserve – June 2007</b>
Awhea/Opouawe	40,000	950	27,415
Whareama	20,000	2,025	6,792
Homewood	12,200	-	18,085
Mataikona/Whakataki	12,000	-	13,118
Maungaraki	12,000	-	12,810
Kaiwhata	12,000	-	15,130
<b>Total</b>	<b>108,200</b>	<b>2,975</b>	<b>93,350</b>

## 2. Farm Plans (Don Bell)

### 2.1 New Plans and Reviews

In the first month of the new financial year, one review and one new Shelter Plan have been completed.

Activity	Completed	Annual Plan Target	Total 10 Year Expenditure
New Sustainability Plans	-	3	-
New Conservation Plans	1	2	\$30,315
Ten Year Reviews	1	20	\$38,000

### 2.2 Annual Programmes

- The focus has been on finalising programmes with farmers. Although fairly consistent rain has fallen over the district, soils are slow to moisten up after the long autumn drought. Up until last week most areas were marginal for pole-planting.
- Helicopter spreading of poles started on 19 July through the lower Ponatahi – Awhea – Palliser area. Other areas are being prioritised according to their anticipated soil conditions. Any properties where soil moisture is adequate have been scheduled for farmer or contract pole-planting.
- Most pre-spraying had been completed and retirement plantings are underway.
- Wet weather is hampering some site preparation activities for shelter belt establishment.
- An inspection of native plants being grown by Rimutaka Prison for the Streams Alive programme showed the need for them to gain further root mass and hardiness. Consequently many planting programmes will be held off until spring. In the meantime the emphasis is on pre-spraying and other site preparation activities.

Activity	Completed	Annual Plan Target	Approved Expenditure	Annual Plan Budget
Annual programmes – Hill country	26	130	\$118,800	\$516,000
Isolated works	1	5	\$800	\$10,000
Annual programmes – Shelter	3	20	\$21,000	\$50,000

### **3. Akura Conservation Centre (Stan Braaksma)**

#### **3.1 Nursery Operations**

- Pole cutting is now well underway with 6,000 three metre poles cut to date and a further 2,400 delivered from RST Nursery at Aokautere. Initial pole grading quality problems are now sorted. Also 1,000 poles have been cut for rivers.
- One block of stump extraction is yet to be completed, otherwise the new cutting blocks are clear and ready for cultivation prior to planting in September. This year 20,000 cuttings are to be planted.
- The pole cutting crew has consolidated to 4-5 men and outputs are currently at over 2,000 poles per week. The target over the next 6 weeks needs to be lifted to 3,000 poles.
- Weather conditions since June have become very cold and wet. Small areas of drought stressed willow stools at Akura are displaying silverleaf fruiting bodies, a sign of the climatic extremes and stresses experienced in the January to May period. It is standard practise to rogue and burn this ill thrift material.
- The Mangapakeha Forest logging continues with some track and water tabling repairs to be completed along with 300 metres of boundary fence to be reinstated. Our own *P.radiata* harvest has yielded 864 tonnes of logs with a 30% yield of P1 pruned butt logs. The contract was awarded to Whittaker Sawmills and they have operated very efficiently. The income is expected for the end of July.

#### **3.2 Trading**

- Tree sales have improved markedly with the wet colder weather and soil conditions proving more favourable for tree establishment. Weekend trading is also popular with opening hours now 9am to 12 on Saturday mornings. In the last week major plantings of *P.radiata* seedlings have started along with buoyant sales in natives and planting support items.
- Farmer orders for poles are still strong with very few cancellations or adjustments. It's pleasing to see the budget status many farmers put on continuing pole planting for erosion control.

#### **3.3 Budget**

- The Akura Business Unit has returned a very strong performance for the last financial year, returning a dividend of \$35,000 and generating an additional \$14,000 operating surplus.

<b>Activity</b>	<b>Budget 2006/07 – Operating Surplus</b>	<b>Revised Budget 2006/07 – Operating Surplus</b>	<b>Actual Operating Surplus 2006/07</b>
Nurseries	18,400	25,800	26,600
Trading	(53,100)	(76,000)	(75,600)
<b>Total</b>	<b>(34,700)</b>	<b>(50,200)</b>	<b>(49,000)</b>

### **3.4 Research**

- A Research project looking at the stability of hill slopes protected by different ages and densities of poplars and willows has commenced in the Wairarapa. The focus is on the properties of Waikoukou and Eringa in the Longbush area that were heavily hit in the July 2006 weather bomb. These two properties provide the full range from totally stable to severe slip erosion. The project will provide very good commentary on Greater Wellingtons specifications for hill slope protection using spaced tree planting. Both Ag Research and HortResearch will be involved in the project.

### **4. Biodiversity (Megan Banks)**

- Planting is underway in the Otaki catchments. So far four new sites have been planted, two in the Waitohu catchment and two in Otaki, with a total length of 1.4km and 2271 plants. Three other sites within the same catchments have received maintenance plantings to fill in the gaps from the 2006 planting – a total of 365m and 200 plants. Planting is pending for three other new sites and one other requiring blanking.
- Barberry control work is being done in the Mangaroa catchment in preparation for pre-spraying and planting next month.
- Work on the Ohariu voluntary change research project continues with preparations taking place for a lifestyle field day to be held in September. This is to commence any day, weather depending.

### **5. Operations (Kevin Burdan)**

#### **5.1 Silviculture Programmes**

- In 2006/07 we completed 80% of the annual targeted area of silviculture work. The reduced area was due in the main to a continuing downturn in forestry returns, and the impact of the very dry autumn on the last quarter figures. This trend is expected to continue into the new financial year.
- The 408.4 hectares of thinning and pruning has been completed across 51 properties.



<b>Activity</b>	<b>Completed (hectares)</b>	<b>Annual Plan Target (hectares)</b>	<b>Expenditure to date</b>	<b>Annual Plan Budget</b>
Thinning	227.0	250	\$67,251	\$75,000
Pruning	181.4	250	\$111,359	\$150,000
<b>Total</b>	<b>408.4</b>	<b>500</b>	<b>\$178,610</b>	<b>\$225,000</b>

## 5.2 Conservation Programmes

- Eight hectares of thinning was completed at the Hiwinui Soil Conservation Reserve.
- The late start to pole planting has allowed time for new staff to be trained in a number of activities, including, working around helicopters, HIAB operations, release spraying and pole planting.
- The first helicopter flight to access remote parts of farms requiring pole planting was carried out on 20 July. A further five flights are scheduled over the next month or so. Contractors are also busy undertaking tree planting and spraying operations.

## **Integrated Catchment Management (Ian Gunn)**

### **1.1 Lower Wairarapa Valley Scheme Review**

Staff have made minor adjustments to the proposed rating classification. A meeting is being arranged to have further discussions with South Wairarapa District Council about the review committee's desire to have an indirect benefit charge.

### **1.2 Total Catchment Management**

Research on the concept continues both of the situation in NZ and abroad. It is very clear that natural resources management needs to move up a gear to both involve stakeholders and recognise the inter-relationships within and between the economic, social, cultural and environmental elements. I have been reading about assessing natural resources from both an ecosystem services and resilience approach.

Current approaches to sustainable natural resource management are failing us.

Here are two quotations to support a change to a resilience approach:

- *“They are too often modeled on average conditions and expectations of incremental growth, ignore major disturbances, and seek to optimize some components of a system in isolation of others. This approach fails to acknowledge how the world actually works”.*
- *“Business as usual is about increasing efficiency and optimizing performance of parts of social-ecological systems that have delivered defined benefits, but fails to acknowledge secondary effects and feedbacks that cause changes (sometimes irreversible changes) in the bigger systems, including changes to unrecognized benefits. While increasing efficiency is important for economic viability, when undertaken without considering the broader system's responses it will not lead to sustainability; it can lead to economic collapse”. The clearing of the native bush in New Zealand followed by the continuing practice of farming pasture on the steep hill country is a classic example of this. Secondary effects such as increased runoff and the damage caused by silt from erosion are now only being considered seriously”.*

TCM has a broad definition and GW is already involved in a number of TCM type projects e.g, Pauatahanui Inlet, Papawai Streams Alive, the Eastern Hills Liaison Group, Lake Wairarapa wetlands park. Water availability (both surface water and groundwater) is an issue in the Hutt, Waikanae and Lower Ruamahanga rivers. Any of these catchments could be possible pilot projects. Staff are working with Massey University on the development of a resource inventory for the Ruamahanga River. This is expected to be submitted for marking at the end of October.

Discussions have been held with the two local iwi and Massey to consider how the iwi can contribute to the resource inventory. The researcher hopes to obtain copies of the submissions to the Wairarapa Treaty Settlement process and interview some key personnel. Interestingly at the meeting the draft settlement between Tainui and the Crown on the Waikato was tabled. Central to this agreement is a proposal for co-management with

Environment Waikato to achieve the Vision of Tainui and the Crown to restore the health and well being of the Waikato River.

Many ICM projects in NZ are really restoration projects. Notable exceptions are Motueka and the Taieri. These use an ecosystems approach to research issues within these catchments.

### **1.3 Government Reviews**

The Government is at an advanced stage in a number of reviews. Announcements are imminent on Climate Change, Sustainable Land Management and National Policy Statements for both the Sustainable Programme of Action for Water and Flood Risk Assessment. I have attended a series of meetings and assisted in the development of LGNZ policy for both the Flood Risk Assessment and Sustainable Programme of Action for Water programmes.

To date the Government seems to be very supportive of the LGNZ position on Flood Risk Assessment.

A key element in both the Flood Risk Assessment and Sustainable Programme of Action for Water is a TCM approach.

### **1.4 Carbon Farming**

Land management staff and the conservation forester have been made aware of schemes to generate income from carbon sequestration. Researchers have also used our soil conservation forest reserve to complete studies on the rate etc of carbon sequestration. It is clear that probably later this year, with the introduction of the government's climate change policies, that companies will be in the market to sign up land owners.

One company Kyoto Forests of NZ made a presentation recently. Using the Permanent Forest Sink Initiative they wish to retire steep erodible low fertility land with or without native or exotic trees at specified dates. In some cases manuka may be planted. Kyoto Forests administer and set up the project. The landowner receives returns from apiculture and the carbon which is produced. The minimum area is 50 hectares with the ability to aggregate blocks of land either on a farm or within a valley. The suggested returns looked attractive.

Staff will maintain a watching brief. There may be opportunities for GW across all of its land holdings. GW will want to offset its carbon footprint at some time. In the short term GW will provide aerial photographs on potential clients properties on a full cost recovery basis.