

# **Flood Protection Manager's report for period ending 9 June 2006**

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

### **1.1 General**

The last period has seen some major milestones reached, with probably the most significant being the completion of the 2004/2005 flood repairs. Jeff, Garry and their teams are to be congratulated on successfully managing and carrying out the substantial work required, on top of the regular operations works programme.

We are also reaching the end of two major works projects:

- The construction work at Jim Cooke Park on the Waikanae River is essentially complete. The landscaping and planting of the site will follow shortly.
- The Alicetown Stopbank just needs the contractor to finish some final tidying up before our Engineer to the Contract can issue the project completion certificate.

We are also pleased to present the flood hazard assessment reports for the Mangaroa River and Pauatahanui Stream, which have both been part of our investigation programme for some time.

Otherwise the flood protection team is making progress with a full and busy programme, as highlighted below.

### **1.2 Staffing**

Sally Coates, who was working part-time assisting Phil Purves with advisory work and Kapiti Coast District Council plan change advice, has left due to family reasons.

Caroline Ammundsen, who was assisting Kim Wall with the Summer Programme, environmental enhancement projects and development of the web site is back on a part-time 'on demand' basis assisting us build our in-house capability with web site development.

## **2. Waikanae River floodplain management [Graeme Campbell]**

### **2.1 Jim Cooke Park**

The works are now substantially complete. The in-channel works were completed by the end of May, as required by our consent. The earthworks on the berms and between the groynes have also been completed, with the only remaining works being the final tidy up of the area, construction of new walking tracks and the environmental planting. No substantive issues have arisen during construction and we anticipate completing the works on budget.

The next task associated with this project will be to advise KCDC that the works are completed and that the flood spread maps can now be amended to reflect the more secure stopbank.

## **2.2 Friends of the Waikanae River**

The Waikanae Friends are preparing for the 2006 planting season. Assisted by 90 pupils from a local school, they will be planting native trees near El Rancho on the north bank of the Waikanae River. We will also be involving them in the Jim Cooke Park environmental enhancement work planned for completion over the next few months.

The work on reviewing the Environmental Strategy and developing an action plan for the next 5 years is continuing. GW Flood Protection, KCDC and DoC staff have just completed the review of methods and actions in the current Environmental Strategy. The next stage is to organise a workshop with all interested parties to determine where to head in the next 5 years. The workshop is proposed for late June 2006.

## **3. Otaki River floodplain management [Graeme Campbell]**

### **3.1 Friends of the Otaki River**

The Friends of Otaki Nursery is now well stocked with plants for the 2006 planting season. The Friends are investigating the best site for a community planting day and are looking at re-vegetating the Waimanu Stream near Chrystalls Bend.

### **3.2 Chrystalls extended stopbank**

Work is progressing on the detailed assessment of the alternative alignments for the stopbank to confirm which alignment the new stopbank should be constructed on to provide a secure, long term solution to flooding in Otaki township. Further survey work has been completed along with geotechnical investigations at key locations. This work will allow the estimates to be updated. Work is also progressing on the consideration of the land and planning issues that will impact on the selection of the final alignment. The hydraulic analysis has been updated with the latest 2006 cross sections and confirmed that the design heights used for the concept design work undertaken in 2002 were correct.

The other work streams being considered as part of the detailed assessment are the security from erosion, maintenance and environmental enhancement. The report should be completed by mid July 2006 and reported back to the 10 August 2006 Landcare Committee meeting, with a recommendation on the preferred alignment.

### **3.3 South Waitohu stopbank**

Further meetings have been held with the Otaki and Porirua Trust Board and good progress has been made on resolving the issues they have with the proposal. Additional hydraulic modelling and flood spread mapping has been undertaken to clarify the impacts of the stopbank on both the Trust land and other adjacent land. The Trust have also asked that some environmental enhancement work is undertaken on the Mangapouri stream adjacent to the stopbank and we are looking into this matter. We are hoping that a win-win situation will be able to be created where the profile of the stream is changed to a more environmentally acceptable one at the same time as providing a source of material for the stopbank construction. Stopbank construction material can also hopefully be taken from areas just down stream of the works, which will also open up the Waitohu channel increasing its flood capacity. Provided we can complete the negotiations with the Trust within a reasonable time we will be on programme to start construction this coming summer.

### **3.4 Otaki River 2006 Cross Section Survey**

Work has now started on the analysis of the latest cross section survey data. A report outlining the results of the gravel analysis is hoped to be completed by October 2006.

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

### **4.1 Ava to Ewen project**

Juno Civil Ltd has completed the concrete works to extend the box culvert and its outlet structure. Three rows of 35 metre long 1200 mm diameter concrete pipes have been installed in the river berm as part of the pumping station. The flood gates removed from the existing outlet structure to enable culvert extension will be hung on the new structure in mid June. Mabey Road staff took this opportunity to repaint the flood gates. Juno is now backfilling around the pipes and box culvert.

All structural works and planting in Alicetown stopbank are now complete except for tidying up. Opus has sent to the contractor a list of tidying up works to be completed, before issuing the completion certificate. These works mainly include mowing and weed removal, topsoiling of uneven areas around completed foot paths and reinstating damaged surfaces. This work is taking more time than expected because of the wet weather.

### **4.2 Boulcott/Hutt stopbank**

Round one consultation for the Boulcott/Hutt stopbank feasibility study was completed with a public meeting on 24 May 2006. More than 50 residents, Councillors and officers from Hutt City Council and GWRC attended this meeting. At this meeting, we received very useful feedback on the proposed alignments and the evaluation methodology. As an outcome of round one consultation, we have now decided investigate a variation to the proposed alignments. This variation will initially follow the boundary between Hutt and Boulcott golf courses and then on the eastern boundary of the GWRC owned land. We will now start preparing detailed plans and cost estimates etc. We will distribute a newsletter in late June 2006, updating the community on the progress made with the feasibility study.

### **4.3 Norfolk Street floodgate**

The minor landscaping works by the Norfolk Street flood gate were completed in May 2006 on a cost sharing basis with Hutt City Council. This completes all works on the Norfolk Street flood gate. The next step is to develop a formal emergency operating procedure for the flood gates. This is scheduled for July/August 2006.

### **4.4 Whirinaki Crescent stopbank**

Following consultation with the local community, we have now included a planting strip along the residential boundary to reduce the effect of tree removal from the existing stopbank. We will also provide stormwater drains, where necessary, to prevent stormwater from the upgraded stopbank entering residential properties.

We are currently negotiating with St. Patricks College, Silverstream and the Wellington Golf Club to obtain their agreements on the extent of land required and the process for purchasing the land. We will lodge the resource consent application once these agreements are reached. We have sent a letter to St Patricks College outlining our requirements, and compensation offered. We are also meeting with Wellington Golf Club on 16 June 2006 to discuss these issues.

#### 4.5 Wet extraction of Hutt River gravel

The draft resource consent application was sent to key stakeholders for their comment prior to the application being finalised. We received positive feedback and the application has now been lodged.

#### 4.6 District plan measures

There were no appeals on the Hutt City Council district plan change. The plan change will soon be in the district plan.

The Upper Hutt City Council plan change is now scheduled for 2006/07.

### 5. Planning and development services [Phillip Purves]

The following table summarises the situation in regard to the number of formal, written requests attended to during April and May 2006:

	April / May 2006	YTD
Requests brought forward	5	12
Additional requests received	21	122
Responses provided	25	133
Outstanding requests	1	1

There has been an increasing interest from property owners in Waikanae Township who will have their flood hazard redefined following completion of the Jim Cooke Park river channel realignment work. The currently defined flood hazard for the affected area has recognised the potential for a breach of the stopbank, due to likely river channel attack in a major flood event. But the realigned channel means that this risk is sufficiently reduced for the stopbank to now be considered as providing a 100 year level of protection.

The flood hazard will be officially redefined as at 30 June 2006, when the current direct flood hazard will be represented as residual flooding. This will have many benefits for the landowners, in regard to the relaxation of controls for both building and subdivision. The KCDC will apply the new flood hazard information from that date, though the District Plan flood hazard maps will continue to show the flood hazard that applied at the time of their recent update (Plan Change 50).

### 6. Investigations

#### 6.1 Waiwhetu Stream floodplain management study [John Eyles]

The latest Waiwhetu Stream Advisory Committee meeting was held on 15 June, however the minutes from this meeting are not available at the time of writing.

Phase 1 of this project is drawing to a close and is due to be reported to the August WSAC meeting.

The project team has concentrated on developing the flood protection options and concepts presented at the WSAC meeting on 4 April. Options reports have been prepared for the lower Waiwhetu and Awamutu Streams. These reports outline the results of the assessment of flood protection concepts and options for reducing flooding risk. Final decisions on flood protection options are expected at the August WSAC meeting.

The community consultation programme is continuing and meetings have been held throughout May. Further consultation is planned to assess the community's views on the heights of flood protection defences and to test community acceptance of alternative methodologies for dealing with the contaminated sediments.

## **6.2 Waitohu Stream Study [Phil Wallace]**

The draft Waitohu Stream Study Summary Report was released for comment to the Waitohu community, following its presentation to the Landcare and Environment Committees in March and April. We requested comment from the community be received back by the end of May. The report has generated some interest and, in particular, some new landowners in the area have been alerted to the flood hazard where previously they were unaware.

The feedback will be reported upon more fully later in the year. At that time a revised Summary Report will be presented for approval to the Committees and recommendations for future actions will also be developed and presented.

## **6.3 Mangaroa River flood hazard assessment [Phillip Purves]**

The consultants (SKM) have provided their final reports, which form the basis of Report 06.253 included with this order paper. A copy of the consultants' Summary Report is available in the Councillors' Lounge for perusal prior to the meeting.

## **6.4 Pauatahanui Stream flood hazard assessment [John Eyles]**

A report updating the Committee about the flood hazard assessment is attached to the order paper. Refer to report number 06.257.

## **6.5 Pinehaven flood study [John Eyles]**

The timings for this study have been confirmed with Upper Hutt City Council, Phase 1 - 2008/2009 and Phase 2 - 2010/2011.

# **7. Operations**

## **7.1 Wellington [Jeff Evans]**

### **7.1.1 Hutt River**

The January 2005 flood damage works are now complete, and the rock rip rap contracts have drawn to an end with the last of the rock railed down from Taumarunui.

Four rock groyne have been constructed at Avalon which completes the last of the programmed work. Because of the size of the rocks, which in some cases are up 12 tonne each, we had to bring a 37 tonne digger down from Rotorua on dry hire to help us complete this work. We also had to apply to both consents management and the Fish and Game Council for an extension until 10 June for working in the river (fish spawning season starts 1 June) to enable us time to complete the works.

Work has also been undertaken on repairing rock groynes at Pomare and Manor Park and rock line maintenance has been carried out along the River Road and Whakatiki areas of the river.

The twin Black Creek flood gates have been removed, sand blasted and repainted, new hinges and pins have been made and the cathodic protection sacrificial anodes have been replaced. These gates have now been returned to the contractor for installation to the new head walls.

#### 7.1.2 Hutt River Trail

Maintenance to the trail has included vandalism repairs on signs, installation of new bollards and forming new car parks at Kennedy Good, Avalon and Taita. A contract has been let for improvements to the trail at the southern end of Taita Gorge, which has been partly funded by HCC.

#### 7.1.3 Hutt River ranging services

Work during this period has included a presentation to the Hutt Valley Anglers Club, regular patrols and surveillance, general public relations and liaison with event organisers. There has been some positive progress with Rotary on the design and implementation of new re-vamped trail signs.

There has been a number of events held over this period, with the most notable ones being the annual Crazyman multi-sport event held in May and a Bike Jam held at Trentham Memorial Park, the latter event used part of the River Trail and despite a wet, chilly morning over 800 children participated from around the region.

#### 7.1.4 Watercourses

Stream clearing runs have been undertaken in Porirua Stream, Taupo Stream, Takapu Stream, Stokes Valley Stream, Stebbings Stream, Pinehaven Stream and on the Wainuiomata River.

A Stream clearing run is currently in progress on the Waiwhetu Stream.

### 7.2 Kapiti [Garry Baker]

#### 7.2.1 General

Weather conditions over the past 2 months have been rather mixed, but we did manage to complete all our programmed in-channel work projects, including the completion of all rock deliveries and repair works associated with the January 2005 flood damage.

Some minor earthworks were completed on a small section of former Horowhenua water race to improve the dispersal of overland drainage on a property in Te Horo Beach Road.

The annual Asset Condition Rating inspections were carried out on the Otaki and Waikanae Rivers. Apart from known future Capex projects, all structures are in “very good shape”, in particular assets repaired as part of the 2004 and 2005 flood damage works.

#### 7.2.2 Otaki Depot

Work has commenced on the building of the new implement shed at the depot, with foundation excavations completed.

The surveyor has completed the survey and “scheme plan” for the boundary adjustment with Riverbank Orchards Ltd.

### 7.2.3 Waikanae River

Further berm development work and extraction of gravels from the left bank above Greenaway Road were completed.

January 2005 flood damage repairs that were completed up to the end of May included:

- Completion of rock deliveries - 360 tonnes
- Sunny Glen right bank berm - re-built and re-shaped
- Sunny Glen right bank rock groynes - 4 of the 5 groynes strengthened with additional rock and rock retrieved from the channel
- Sunny Glen right bank toe-rock wall - re-built with additional rock
- Edgewater Park left bank rock wall - top 20 metres re-built with additional rock
- Kebbells Corner left bank rock wall - minor top-up with additional rock and rock retrieved from the channel
- Kebbells Corner rock grade control structure - top of weir slightly raised and rock retrieved from the channel
- Kebbells Corner rock grade control structure left bank rock wall - extended downstream an additional 10 metres
- Maple Lane right bank rock groynes - new 20-metre toe-rock line built upstream of Groyne 2

### 7.2.4 Otaki River

The right bank berm area below Lower Chrystalls has been cleared of all scrub and dead trees, ready for planting of “front-line” willows and poplars, with additional space available for extending the planting of native trees.

The re-metalling of the haul access road from Chrystalls to Upper Lutz’ was also completed.

### 7.2.5 Kapiti watercourses

The annual stream-clearing run of all Kapiti watercourses has commenced, with the Ngatotara/Waitohu “Waikato Cut” cleared of debris and excessive weed growth.

### 7.2.6 Mangapouri Stream

Some minor weed blockages were removed from the Mangapouri Stream.

## 7.3 Operations support [Jacky Cox]

### 7.3.1 Asset management

Work is well underway to review the department’s base asset management plan. The aim is to produce a base document that reflects the common asset management policies and procedures for both the Wairarapa and western parts of the region, in line with the new Catchment Management Division's responsibilities. An initial workshop has been held with key staff to determine level of service criteria. It’s fair to say that the workshop generated a lot of discussion between officers about the levels of service we provide to our customers in different areas.

We are also currently performing the annual asset management inspections of all our assets on the five major flood protection schemes in the western part of the region. The results from these inspections will form the basis of the 2006/07 maintenance work programmes.

### 7.3.2 Health and safety

We ran a successful health and safety meeting with operational staff in mid May. Part of this meeting involved training in the use of the department's new radio telephones.

Jacky Cox is now part of the Council's Pandemic Planning group and is also Deputy Influenza Manager for Greater Wellington.

### 7.3.3 Gravel extraction

Gravel extraction figures to the end of April 2006 are set out below.

River	Area	Contractor	Period Year 2005/06 (cubic metres)		Year 2004/05 (cubic metres)
			Period	Year	Full Year
Hutt	Estuary	Winstones	3,822	42,084	50,105
	River	Horokiwi	1,196	59,912	30,717
Otaki	River	Winstones	0	38,702	35,366
Waikanae	Above Greenaway Road	Various	0	0	2,790
	Below Greenaway Road	Gary Holland Earthmoving	0	8,760	10,828
<b>TOTALS</b>			<b>5,018</b>	<b>149,458</b>	<b>129,806</b>

**Sharyn Westlake**  
Acting Manager, Flood Protection