

STAFF REPORT

TO: Mayor and Councillors

FROM: Susan Edwards, Strategic Development Manager

REFERENCE: F351

SUBJECT: **Aorere/Murchison Flood Event – Report RCN11-01-01**

PURPOSE

The purpose of this report is to provide Councillors with preliminary information on the flood event on 28 December 2010 that had major impacts on the Aorere Valley, Wangapeka Valley and on the Murchison area.

THE FLOOD EVENT

On the morning of 28 December heavy rainfall was experienced in the headwaters of the Aorere and Anatoki catchments in Golden Bay, and in the catchments north and south of Murchison. The Wangapeka Valley also had significant rain.

Estimates of the flood return periods and levels are:

- Aorere River – a 1 in 169 year return period flood event, peaking at 3560 cumecs, the largest flood during the last 30 years of records
- Anatoki River – a 1 in 53 year return period flood event, peaking at 627 cumecs, the largest flood during the last 30 years of records
- Wangapeka River – a 1 in 18 year return period flood in the lower Wangapeka, peaking at 932 cumecs. The flood earlier in the year was 800 cumecs, with a return period of 1 in 9 years
- Murchison area – NIWA recorder was washed away in the flood event and we are awaiting information on the surveyed flood level to ascertain the actual flood level. It is likely to be around the 2nd or 3rd largest on record since 1964.

KEY IMPACTS OF THE FLOOD EVENTS AND RECOVERY ISSUES

Golden Bay

- Aorere Valley residents, particularly in Ferntown and Rockville, were affected by flood waters and inundation of properties and homes. There were welfare issues to deal with families displaced from their homes. Work and Income assisted with the welfare issues. Property and houses needed cleaning up and repair work undertaken. A major community effort was involved in the clean-up exercise. Council assisted, including making dumping of waste generated from the flood event free at the local transfer

station. Council building inspectors have inspected most of the homes that were damaged. Four houses have been deemed temporarily insanitary. Most families are now back in their homes

- The Aorere River created a new channel below Rockville. A huge amount of work has been undertaken to get the river back into its former channel and to reinstate the rock protection. Work is ongoing.
- The event led to major damage to river works along the complete length of the Aorere River. There was also damage to other river works on other rivers, including the Takaka River and Wangapeka River. More inspections are being carried out across the District
- The James Road bridge (60 metre span) was washed away during the flood. The Pomeroy and Garrett farms have been isolated on the other side of the river. Emergency provisions were sent in by helicopter to the Pomeroy family. There is no other access to these properties
- Trampers on the Department of Conservation (DoC) estate were cut off and DoC staff were involved in evacuation of the trampers
- There were livestock losses in the Aorere Valley
- There were power outages in Rockville and Bainham for most of 28 December. Milk dumping was necessary (and authorised by Council under emergency powers) due to the power outages and tanker access issues
- A boil water notice was issued through until 7 January 2011 for the Pohara water supply, as the filtration plant could not cope with the sediment load in the water from the water source
- Damage occurred to the Takaka wastewater treatment plant wetland
- The approaches to several bridges were damaged and the surfaces of several roads were washed away. All roads and bridges in the area have been checked and cleared, and any closed roads were re-opened within a couple of days of the event. Water tables needed to be reinstated. There will be works needed to these structures to repair scour damage
- The historic Salisbury swingbridge was washed away. Two of the four towers are still in place. Attached is a letter from the Historic Places Trust with their view of the future of the bridge.

Murchison

- Residents, particularly in the Matakita Valley, were affected by flood waters and inundation of properties and homes. Welfare issues were dealt with by Work and Income personnel. Property and houses needed cleaning up and repair work undertaken. Community effort was involved in the clean up exercise
- Significant damage occurred to roads, culverts and bridge approaches, particularly in the Matakita and Matiri Valleys. Water tables needed to be reinstated. All roads were checked and cleared. Any closed roads were re-opened within a couple of days, with the exception of the Maruia Saddle

Road, which will remain closed to the public for some time due to the extent of damage and repair works needing to be undertaken

- The Murchison Transfer Station roof was lifted off the building and work has begun to repair the damage. The Station is operational.

ONGOING RECOVERY WORK

Council staff, consultants and contractors are still undertaking work in the following areas:

- Ongoing assessment of damage and the costs of repair and reinstatement works on roads, bridges, culverts, etc
- Ongoing maintenance and repair works on road surfaces, water tables, etc, and work to the Maruia Saddle Road to get it re-opened
- Identification of options to provide access to the Pomeroy and Garrett properties following the loss of the James Road Bridge
- Ongoing assessment of damage and the costs of repairs and reinstatement works on rivers
- Ongoing work on the Aorere River, near Rockville, to get the river back into its correct channel
- Repairs to other Council assets (eg the Murchison Transfer Station)
- Continuing inspection of buildings and homes affected by flood damage and of other infrastructure
- Effluent disposal systems for affected dairy farms have yet to be inspected. Staff will liaise with Federated Farmers representatives over timing, but it is not expected to be a significant issue.

In addition to the infrastructure related work, Council staff are involved in ongoing communications with the affected communities, media liaison and recovery meetings involving a range of agencies.

INITIAL COST ESTIMATES

Our preliminary inspections have been carried out with the initial estimated costs to repair the network to the same state as before the event happened being:

- Roading across the District is around \$1,100,000 excluding costs for consultants
- Bridging costs for the James Road Bridge vary depending on the solution, but the costs could be up to \$1,600,000 for a full bridge replacement. It is hoped to at least have a temporary footbridge at James Road by the end of the month. Costs associated with preparing a ford across the river for stock and vehicles have yet to be determined due to the complicated nature of the

Aorere River. A special report to Council will be prepared on how best to address this issue

- River works where the Aorere River changed course will be around \$800,000
- Other river works are expected to be needed and are yet to be determined, however the costs could be up to around \$1,500,000. These costs include areas where loss of rock wall work previously completed in River Z areas. The exact amount of work will take some time as full inspection of all Council's assets will need to be undertaken. The difficulty of inspecting this river is making the job more difficult and time-consuming
- Repairs to utility assets have been estimated at around \$100,000, plus the cost of the Takaka wastewater treatment plant wetland.

Council staff are working with Government agencies and our insurers on what possible funding sources and assistance that may be available. For example, we will be making a claim for funding from the New Zealand Transport Agency for repairs and reinstatement of the roading and bridge network. The work should be funded to at least a 49 percent subsidy. We will also be making a claim against the Local Authority Protection Programme (LAPP) and national civil defence funding for the river works. The LAPP fund has an excess of around \$450,000.

Even with these claims, it appears that there could be a significant impact on Council's General Disaster Fund and Classified River Protection Fund, on rates and on other resources. This raises the question of whether it will be possible to reinstate all infrastructure to its original state.

FURTHER REPORTS

A further report will be prepared for the 3 February 2011 Engineering Services Committee meeting with updates on the costings and potential funding sources.

ACKNOWLEDGEMENTS

The Golden Bay Community Board, Councillors for the affected wards and the Mayor were all actively engaged in the event recovery.

There have been a large number of people within the community who have made a huge contribution to assisting affected people and helping with repairs. Central government staff have also assisted.

A number of Council staff worked on the flood event. Many of them came back to work from annual leave and worked through statutory holidays and weekends. Key staff that should be acknowledged are:

- Rivers Asset Engineer - Philip Drummond
- Recovery (and Engineering) managers – Peter Thomson, Gary Clark
- Civil Defence staff – Roger Ball, Debbie De Geus, Joe Kennedy

- Communications Adviser – Chris Choat (and Penny Bloomberg NCC)
- Hydrology staff – Martin Doyle, Gordon Curnow
- Civil Defence Controller – Jim Frater
- Building Inspector – Rory Medcalf
- Environmental Information staff – Rob Smith, Eric Verstappen, Glenn Stevens
- Utilities Engineer – Kim Arnold

Council contractors and consultants have also put in a major effort during the recovery phase to date.

RECOMMENDATIONS

THAT the Tasman District Council receives the Aorere/Murchison Flood Event Report number RCN11-01-01.

Susan Edwards
Strategic Development Manager