

1. Executive summary for Social and Cultural Wellbeing Committee

1.1 Group overview

This report covers the last quarter for 2011/12 and also makes some general comments about the year as a whole, noting that the Development Group was formed on 20 October 2011.

1.1.1 Water supply development

The contractor started on seismic upgrading work and increasing the capacity of the Stuart Macaskill Lakes in January. At the end of the year, the lining was almost completed for lake 2.

Early in the year, the hydro generator at the Wainuiomata water treatment plant was completed and information on its annual performance will be included in the Water Supply annual report.

A significant part of the year's work has been spent on new water sources and investigating projects to improve the resilience of the water supply system. The current phase will be concluded in the first half of the new financial year and reported to Council. It appears though that through various measures, it will be possible to defer commissioning a major new water source for at least 20 years, subject to a number of assumptions being correct.

The seismic investigation work has continued during the year both for the Water Supply Group and the Council as a whole relating to a number of Council buildings.

It's Our Fault is a investigation project related to the Wellington fault and partly funded by Greater Wellington. Contribution to this group has been made through the Steering Group.

Increased assistance has been provided to number of Lifelines projects. At the end of June, the CDEM Group was presented with a report on utility restoration times following a Wellington fault earthquake. This report includes some details on restoration of the water supply network.

At the end of the year, proposals were sought from consultants for a preliminary investigation into constructing a 10 MLD desalination plant. This could potentially serve as the next new water source for peak demand and an emergency supply source. Results from this investigation will be available in the first quarter in the new financial year.

1.1.2 Emergency preparedness

On 1 July 2012, the Wellington Region Emergency Management Group starts. This is the result of all the Councils in the region pooling their emergency management resources into one group. While the group is semi-autonomous, the employees will be Greater Wellington staff.

It has taken some time to establish the new group under the Regional Manager who was appointed in October 2011. As a result of the pending change, it was decided to defer the new Regional Emergency Management Plan until 2012/13. In the meantime, the 2005 Plan remains operative.

One of the projects undertaken during the year was training of staff so they became familiar with the Ministry of Civil Defence and Emergency Management's new management information system.

Exercise Phoenix 8 was held in December 2011 and planning work has started for the national exercise “Shakeout” planned for 26 September 2012.

1.2 Key results for the year

1.2.1 Development

Future water sources

The final report reviewing the location of the Whakatikei Dam and providing comments on the impact, benefits and cost of a range of dam heights has been received from MWH. The report looks at alternative dam locations slightly upstream of the location selected in 2007 that reduce the visual impact of the dam and offer the potential for recreational use of deep pools in the river below the dam site. The report also comments on the impact of the dam on current recreational use and discusses the potential for additional recreational use in the future. The impacts of larger dams, sufficient to service populations of 500,000 and 550,000 people, are reported.

AgResearch has agreed to extend the Memorandum of Understanding for the option to purchase the AgResearch farmland at Kaitoke from February 2012 to December 2012. The budgeted funding for potential purchase of the land has been moved forward into the 2012/13 financial year.

Two possible ways of providing “compensation” water so that additional water can be abstracted at Kaitoke are being investigated. The first involves using the existing Stuart Macaskill Lakes in a slightly different way. Lake 2 would provide compensation water back to the Hutt River at Te Marua whenever the Kaitoke residual flow was below 600 L/sec. It would be refilled during freshes at Kaitoke. Harvesting water of a slightly lower quality than is currently the case would achieve a small increase in the capacity of the system. The only cost would be for a new pipeline from the treatment plant to the Te Marua Pumping Station. An alternative would be to build a new storage lake or lakes at Pakuratahi and fill them from the Pakuratahi River during winter, releasing the water back to the river in the summer when the Kaitoke residual flow is less than 600 L/sec.

Emergency water supplies

A desktop study has identified several sites around Wellington City where embankments could potentially be constructed to form ponds to store water for use in an emergency. Floating covers would be used to maintain the quality of the water and to minimise hazards. Preliminary cost estimates will be prepared over the next few weeks and discussions held with WCC as most of the sites are on land owned by the WCC.

Desalination pre-feasibility study

Sinclair Knight Mertz (SKM) has been awarded a commission to carry out a pre-feasibility study into the viability of sea water desalination as an emergency water supply for Wellington. The study will identify and report on potentially suitable locations from the inner harbour to the south coast for a nominal 10 megalitres/day plant with standby power supply, seawater intake and brine outfall. The option of using the plant for summer peak demand will also be explored.

The pre-feasibility study is planned to be completed in August and is intended to provide sufficient information for a decision to be made on whether to proceed to a full feasibility study.

Upgrading of Stuart Macaskill Lakes

Following completion of the rock buttressing work in January steady progress has been made on installing the polyethylene membrane liner within Lake 2. At 30 June 90% of the membrane had been installed, with completion expected by mid July. Raising of the Lake 2 crest has been completed and reinstatement of the crest ring road has begun and completion of all work on Lake 2 is expected by mid August. Preparatory work on Lake 1 will commence in October.

Ecological monitoring in the Hutt River

Due to the wet summer, river levels stayed relatively high, water demand was modest and the new consent provision allowing reduction of the residual flow at Kaitoke to 400 L/sec was not invoked. In spite of this, algae proliferation occurred during February and toxic species were positively identified.

Over the summer, a range of monitoring activities has been carried out in the Hutt River. Temperature and dissolved oxygen have been continuously monitored at several sites and nutrient concentrations have been regularly sampled. A number of macroinvertebrate and algae surveys have been conducted and research work undertaken by Victoria University PhD student into the preferred habitat of Cyanobacteria (blue/green algae). Some monitoring, for example the fish passage survey in the Hutt Gorge, was not possible because the river flow did not drop low enough. A report on the results of the monitoring is currently in preparation.

Emergency preparedness and network resilience

Hospital lifelines preparedness

The final draft report on the level of preparedness of essential lifeline services at the Wellington, Kenepuru and Hutt public hospitals is almost complete. The final draft incorporates the comments and additional information provided by the Capital & Coast and Hutt Valley DHBs on the initial draft. Information received from Porirua City Council on emergency water supply options for Kenepuru Hospital has also been included in the report.

Waiwhetu aquifer study

GNS Science has reported that the study into the impact of a major earthquake on the Waiwhetu aquifer has now progressed to scenario testing using the aquifer model. This modelling will evaluate the response of the aquifer to extreme ground shaking and rupture of the Wellington Fault. The draft report on the impact on the aquifer and water supply wells is planned to be completed at the end of July 2012.

Seaview critical area study

The Development Group provided information on water supply infrastructure to the Wellington Lifelines Group for a scoping study on the Petone Esplanade and Seaview areas. The scoping study identified that Seaview is a critical site for the region in a major emergency, since it contains the fuel depots for all main fuel companies that will be required for post-event recovery, and requires water, power and road access for delivery. Seaview is likely to suffer liquefaction from a major earthquake and flooding from a tsunami.

A workshop was held in June by the Wellington Lifelines Group involving the key lifeline utilities that would be affected at Seaview. The planned new bulk water supply suction main to Point Howard pumping station (that avoids the liquefaction area) was presented as a positive improvement; and opportunities for cross-connection with the local reticulation will be investigated to improve resilience.

Assistance to Wellington Lifelines Group

The Development Group has provided assistance to the Wellington Lifelines Group (WeLG) over the last 12 months, particularly on lifelines projects relevant to water supply, planning for emergency recovery, and related interaction with the CDEM Group.

This includes a WeLG project that is underway to determine the transport and storage needs for the emergency distribution of critical supplies to the region's four cities. The project involves interaction with the key transport agencies (land, sea, air and rail), lifeline utilities, hospitals etc. to determine the primary access routes and options available for distribution and the timing/volume of supplies required. A close involvement with the CDEM Group is being maintained, since the outputs of this project will feed into CDEM planning for emergency supplies.

Structural assessment of water supply buildings

Beca Ltd was commissioned in June 2012 to carry out a detailed structural assessment of the flume bridge, which carries the bulk water supply from the Kaitoke inlet weir across a deep gorge over the Hutt River on its way to the Te Marua treatment plant. The bridge, built in 1952 and strengthened in 1992, is vital to the security of the water supply, particularly after a major earthquake. The structural assessment will identify the level of compliance of the bridge with the new building standard at importance level 4 (level appropriate for water utility essential structures). The structural report is planned for completion in July.

A request for proposal is being prepared for the detailed structural assessment of Te Marua, Waterloo and Wainuiomata water treatment plants to identify the level of compliance of the buildings to the new building standard. The RFP will be issued to selected consultants with appropriate experience in July.

Transfer of water supply assets

A draft sale and purchase agreement for the proposed transfer of pipeline assets between Greater Wellington and Wellington City Council has been sent to Wellington City Council officers for comment. The draft agreement covers the transfer of ownership of Wellington City Council's 800mm pipeline from Thorndon pumping station to Macalister Park reservoir, and a section of Greater Wellington's 525mm cast iron pipeline from Thorndon pumping station to Ngauranga.

The timing of the proposed transfer of assets has been delayed by Wellington City Council's deferment of the Prince of Wales Park reservoir to 2015, and the budget for the proposed transfer has been carried forward in the LTP. A report on the proposed transfer of assets will be presented to Committee when a final proposal has been agreed between officers.

1.2.2 Emergency Management

Wellington region CDEM reorganisation

The key driver for WREMO is 'Network Enabled Civil Defence' which will provide the opportunity to deliver more from existing resources and by taking a more coordinated, holistic and functional approach to the design and delivery of CDEM services. The focus for the new team will be mobility and tapping into council owned facilities and resources as required. In the event of an emergency situation, the new team would reconfigure to support approximately six emergency operations and coordination centres. These centres would continue to be staffed by appointed council employees in order to deliver an effective response effort.

The last quarter was mostly devoted in getting all the arrangements in place for the establishment of the Wellington Region Emergency Management Office (WREMO) on 2 July 2012. These arrangements included:

- Acquiring and updating IT equipment and change them to be agnostic – laptops, cell phones, printers, etc.
- Recruiting and selecting for six vacancies. Received more than 70 applications and interviewed a shortlist of 16 (all positions are now filled)
- Branding – vehicles, stationery, clothing, etc. to display the WREMO logo

Exercises

Exercise 'Shake Out' (26 September 2012)

New Zealand ShakeOut is a national, multi-agency exercise led by Ministry of Civil Defence and Emergency Management (MCDEM) and is not a traditional 'operational' exercise. New Zealand ShakeOut is a public education exercise that promotes earthquake discussion, awareness and planning and will be the first of its kind in New Zealand.

The main drive for the exercise is to have a least 1 million New Zealanders participate in a 'drop – cover – hold' drill at 9:26 on the 26th of September 2012 (9:26 on 26:9). More than 400,000 people have already registered for the exercise. Everyone who participates in New Zealand ShakeOut will be better prepared to 'Get Thru' an earthquake'. More information is available on www.getthru.govt.nz.

Projects

The CDEM Group Office and the territorial authority Emergency Management Offices are required to carry out ongoing projects as set out in the CDEM Group Plan. These activities include: local hazard analysis, resource management plan reviews, Business Continuity Plan (BCP) development, LTCCP consultation with emergency management organisations, asset management planning, public training, and formal agreements prepared as necessary for response and recovery, hazardous substances industry advocacy, volunteer training and professional development programmes.

Several specific projects set out in the CDEM Group's work programme have also been completed on time and within budget. These are: CDEM Group Mass Temporary Accommodation Plan, GIS in Emergency Management, Social Media Guide, Fuel Supply Plan.

2. Group financial summary

2.1 Financial summary for Social and Cultural Wellbeing Committee

Emergency Management

Emergency Management Income Statement For the 12 months ended 30 June 2012	YTD as at 30 June			Last Year	notes
	Actual \$000	Budget \$000	Variance \$000	FY Actual \$000	
Rates & Levies	891	891	-	844	
Government Grants & Subsidies	-	9	(9)	-	
External Revenue	173	-	173	62	1
Investment Revenue	-	-	-	-	
Internal Revenue	-	-	-	3	
TOTAL INCOME	1,064	900	164	909	
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Personnel Costs	491	354	(137)	366	2
Materials,Supplies & Services	124	191	67	163	3
Travel & Transport Costs	29	16	(13)	18	4
Contractor & Consultants	58	21	(37)	42	5
Grants and Subsidies Expenditure	-	-	-	-	
Internal Charges	180	189	9	185	
Total Direct Expenditure	882	771	(111)	774	
Financial Costs	-	-	-	-	
Bad Debts	-	-	-	-	
Corporate & Department Overheads	63	63	-	58	
Depreciation	13	20	7	36	
Loss(Gain) on Sale of Assets / Investments	-	(7)	(7)	-	
TOTAL EXPENDITURE	958	847	(111)	868	
OPERATING SURPLUS/(DEFICIT)	106	53	53	41	

1. Unbudgeted recoveries from TLAs for their share of the new Regional CDEM Manager.
2. Unbudgeted costs of the new Regional CDEM Manager.
3. Savings due to lower than budgeted level of maintenance of the emergency communications network.
4. Over budget due to fitting out of new CDEM Regional Managers vehicle and upgrades and repairs to equipment in existing vehicles.
5. Over budget due to unbudgeted consultants advice on new Regional CDEM structure

2.2 Capital Expenditure

Emergency Management Capital Expenditure Statement For the 12 months ended 30 June 2012	YTD as at 30 June			Last Year	notes
	Actual \$000	Budget \$000	Variance \$000	FY Actual \$000	
Total Asset Acquisitions	126	80	(46)	-	1
Capital Project Expenditure	-	-	-	-	
Asset Disposal Cash Proceeds	-	(15)	(15)	-	
Net Capital Expenditure	126	65	(61)	-	
Investments Additions	-	-	-	-	
Net Capital and Investment Expenditure	126	65	(61)	-	

1. Variance due to the unbudgeted purchase of vehicles from several Council's for the Regional EM Group.