# **SAFETY AND FLOOD PROTECTION**

## 1 COMMUNITY OUTCOMES

The Safety and Flood Protection group of activities primarily contributes to the following community outcome

#### PREPARED COMMUNITY

We can cope with emergency events. Individuals and businesses are able to take responsibility for their own well-being. Effective emergency management systems are in place

by building flood protection measures and ensuring that communities know the risk of emergency events in their area, including earthquakes, and are as ready as possible to cope with these events. We also prepare emergency management plans and provide an emergency operations centre to respond to any emergency events.

This group of activities also contributes to the following outcomes:

**Healthy Environment** by cleaning up pollution incidents in our harbours and coastal waters, and enhancing the environment along flood corridors

**Prosperous Community** by ensuring that the regional economy is protected from the worst effects of emergencies and can recover quickly

**Quality Lifestyle** by ensuring that floods and other emergencies cause minimum disruption to normal activities, and by ensuring that people can enjoy safe recreational use of the harbour and coastal waters and river corridors.

#### 2 WHAT WE WANT TO ACHIEVE

The table opposite sets out our objectives and longterm targets, along with some baseline information. It also shows the corresponding community outcome measures. Additional measures are also included for assessing other aspects of our performance.

## 3 WHAT WE DO AND WHY

## 3.1 Floodplain management planning

Greater Wellington prepares floodplain management plans for identified floodplains in the region to minimise the impacts of flooding on people and property. This involves:

- Preparing flood hazard assessments
- Consulting with affected communities about options
- Agreeing risk reduction strategies, including appropriate levels of protection, with affected communities
- Identifying residual risk
- Enhancing the environment of flood corridors

Floodplain management plans provide the basis for annual work programmes. They are reviewed about every 10 years or as required.

Greater Wellington provides an advisory service to assist people to make informed decisions about development in flood-prone areas, and works closely with city and district councils to get flood hazard information incorporated in to district plans.

There are also river schemes in place which Greater Wellington manages in conjunction with Scheme Advisory Committees. River schemes only contain some elements of floodplain management plans. Where there is sufficient risk to the community, schemes will be expanded to floodplain management plans.

Community "friends groups" for the Otaki and Waikanae rivers work with Greater Wellington to oversee the implementation of the floodplain management plans for these rivers. These groups also carry out river corridor environmental enhancement work.



## WHAT WE WANT TO ACHIEVE

OBJECTIVES	HOW WE MEASURE PROGRESS WITH COMMUNITY OUTCOMES	ADDITIONAL MEASURES	LONG-TERM TARGETS	BASELINE
Reduce the impacts of floods on the region's communities through good flood risk management – planning and infrastructure	Assessed value of flood damage PREPARED COMMUNITY		The assessed value of damages during flood events will be reduced by 20% from 2009 levels in areas where floodplain management plans are being implemented	Assessed value of the annual average flood damage saved as a result of improvement works on the Hutt, Otaki and Waikanae rivers is \$2.2 million (June 2008)
Restore and enhance river corridor environments for recreational and biodiversity purposes		Volume of environmental enhancement work	5% of flood protection infrastructure spend will be on environmental restoration and enhancement projects	This has been Greater Wellington's practice since the completion of the three major floodplain management plans in the western part of the region
Improve household emergency preparedness	Level of household preparedness  PREPARED COMMUNITY		80% of households surveyed will have emergency food and water supplies to last at least three days	2006 – 69% 2007 – 71%
Improve business emergency preparedness	Level of businesses preparedness PREPARED COMMUNITY		80% of businesses surveyed will have current business-continuity plans	2004 – 28% 2007 – 56%
Be able to respond effectively to major emergency events	Capacity of Emergency Operations Centres (EOCs) as assessed by independent audit PREPARED COMMUNITY		The region will have sufficient capacity to manage an emergency event	An independent audit of the region's EOCs was carried out in 2008. Recommendations for improvements will be acted when resources are available
Promote safety in our harbours and coastal waters		Number of significant (resulting in death or major damage) accidents in harbour and coastal waters	There will be no significant accidents in the harbour or coastal waters	2007/08 – no significant accidents
Avoid any environmental damage from oil spills in our harbours and coastal waters	Response to reported oil spills HEALTHY ENVIRONMENT		Reports of oil spills in harbours and coastal waters will be checked within 30 minutes and clean-up action will be commenced within one hour of being reported (for harbours) and within three hours (for coastal waters)	Number of oil spills reported and responded to (in brackets) are: 2006 – 23 (2) 2007 – 21 (2) 2008- 27 (4) All responses were within required timeframes

## 3.2 Flood protection infrastructure

Greater Wellington develops flood protection structures, eg, stopbanks, banks protection works and detention dams, throughout the region to manage flooding and river alignments and to control erosion.

Flood protection works need regular maintenance to ensure they continue to perform as planned. This involves routine inspections, repairs and adjustments, as well as prompt flood damage repairs.

All flood protections works have asset-management plans which are regularly reviewed and updated to ensure that the assets are kept in good condition.

The Soil Conservation and Rivers Control Act 1941 and the Land Drainage Act 1908 provide the basis for this function.

## 3.3 Environmental enhancement of river corridors

Greater Wellington manages river corridors to encourage public use and improves these environments by providing tracks, planting, and removing rubbish and debris. A ranger service is provided for the Hutt River to facilitate public use of this popular area.

#### 3.4 Flood warning service

Greater Wellington has an extensive network of flood and rainfall gauges for its flood warning service. River levels are monitored and flood warnings are provided to local authorities and selected landowners, as well as the media. We also respond to flood events by monitoring flood protections systems and responding to any emergencies.

# 3.5 Civil defence and emergency management (CDEM)

The Civil Defence Emergency Management Act 2002 requires that CDEM groups be formed for every region and that each CDEM Group prepares a CDEM Group Plan. The Wellington CDEM group comprises all local authorities in the region.

Greater Wellington does the following:

- Leads the preparation and review of the Wellington Region CDEM Group Plan and associated plans
- Educates people about the risks they face and how to prepare for emergency events

- Maintains the Wellington Region CDEM Group's emergency operations centre so that it can be quickly activated to manage an emergency event. The centre has information management systems, robust communication systems and trained volunteer staff
- Acts as the administering authority for the Wellington Region CDEM Group
- Works with central government, emergency services, welfare groups, lifeline utilities, and a wide range of interested and affected organisations on emergency management issues

### 3.6 Harbour management

Greater Wellington is responsible under the Maritime Transport Act 1994 for the management of the region's harbours and coastal waters for navigation and safety purposes. It operates a 24/7 communication's station at Beacon Hill in Wellington and provides and maintains navigation aids in our harbours. It also promotes the safe use of harbour and coastal waters by educating recreational users and operating a harbour ranger service. Greater Wellington manages and cleans up oil spills in our harbours. Where possible, costs are passed on to polluters.

## 4 FURTHER INFORMATION

#### Legislation

Civil Defence Emergency Management Act 2002

Land Drainage Act 1908

Local Government Act 1974

Local Government Act 2002

Maritime Transport Act 1994

National Civil Defence Emergency

Management Plan 2005

Resource Management Act 1991

Soil Conservation and Rivers Control Act 1941

#### **Policies and Plans**

Floodplain Management Policies and Plans

Asset Management Plans for Flood Protection Assets

Wellington Region Civil Defence Emergency

Management Group Plan 2005

Wellington Regional Navigation and Safety Bylaws 2009

## **5 ASSUMPTIONS AND RISKS**

#### **FLOOD PROTECTION**

- There will be no significant changes to the legislative framework
- There will not be any flood events in the next 10 years which require repairs where costs exceed available regional flood contingency and local area reserves
- The Council's current funding policies for flood protection will not change
- The interest rate on debt will be 7%
- Treaty of Waitangi claims, eg, for the Otaki River bed, will not impact on river management activities

#### **EMERGENCY MANAGEMENT**

- Greater Wellington will continue to receive from central government the same level of funding as present for its emergency management functions
- The Wellington Civil Defence Emergency Management Group Emergency Operations Centres will remain at Greater Wellington's main offices in Wellington

The risk of not carrying out this function effectively would obviously have severe impacts on the community. However, we have to maintain a fine balance between the resources expended and the probability of an event.

#### **HARBOUR MANAGEMENT**

The income stream from CentrePort Ltd for navigation aids will not change.

#### **6 THE ISSUES WE ARE FACING**

#### **FLOOD MANAGEMENT**

#### Minimising loss of life

Floods pose a risk to people as well as property. Greater Wellington wants to minimise the risk of loss of life from flooding in the region. Where people and property are at risk in flood-prone areas, the key focus is on advising people of the flood risk, helping the local authority put in place appropriate emergency plans and ensuring flood protection schemes perform as expected.

Flood protection systems require regular monitoring and maintenance to ensure that they are able to perform when flooding occurs. The challenge is to continually review and improve asset management, so that flood protection schemes will perform to the standards agreed.

## Communities taking appropriate action about flood risk

Helping the community to avoid and manage flood risk through the provision of information and advice is a growing area of work. The information is important for city and district council planning.

A significant challenge is to keep residents, businesses and landowners aware of the flood hazard they are living with, and to keep them informed and prepared to manage flooding effects. This requires frequent communication with communities.

#### Climate change

Some of the predicted changing weather patterns associated with global warming include increased drought conditions in the east and more rain in the west, and increased frequency of extreme daily rainfalls and other extreme weather events. These patterns will likely impact on the size and frequency of flood events, and flood protection requirements.

## Continuing provision of flood protection infrastructure

The completion of floodplain management plans tends to result in a demand for the plans to be implemented speedily. The Council's job is to balance the desire for communities to get works constructed and environmental plans implemented, with the ability of the beneficiaries and the regional community to pay.

Communities do require some certainty around when floodplain management measures will be implemented, how the measures will affect them and what costs they may be required to meet.

## Managing the environmental impacts of river management/flood protection works

River management activities can have adverse environmental impacts. But the community is demanding higher environmental standards for works and river environments. Greater Wellington currently addresses these issues by developing environmental strategies for the major rivers and undertaking works in accordance with an Environmental Code of Practice.

## Ensuring use and development of land is compatible with the flood risk

Flood protection contributes to the financial and economic well-being of the region.

The demand for flat land for development continues to put pressure on river corridors and floodplains where flood and erosion risks make development unwise. Despite land purchases and regulatory controls in district plans, development pressures at times conflict with the mantra of our floodplain management plans – *keep people away from water rather than water away from people*.

#### **Best Practice**

The new NZ Standard for Flood Mitigation and the planned National Policy Statement will drive best practice in floodplain management planning. Greater Wellington believes that its current practices are sound but will gladly embrace any new standards.

## **Funding Policy**

It is generally accepted that the various beneficiaries of flood protection should pay for the service. Direct beneficiaries are relatively easy to identify. However, there are many indirect beneficiaries whose benefits are harder to define. The allocation of costs between direct beneficiaries and indirect beneficiaries will continue to be an issue debated by communities. Getting the balance right will continue to be a challenge for Greater Wellington.

#### **EMERGENCY MANAGEMENT**

## **Promoting Community Emergency Preparedness**

Disaster events internationally and within New Zealand raise awareness of the need for preparedness. However, there is a constant challenge to combat complacency and maintain a high level of awareness so that individuals and organisations have emergency supplies, particularly water, and emergency plans in place – and keep these up to date.

#### Resourcing

Greater Wellington has to decide on the level of resourcing for this emergency management activity. In doing so it has to consider the probability and impact of events. It is an area of uncertainty. Greater Wellington has taken the view that it will be "as ready as reasonably possible" to cope with a major emergency event.

#### HARBOUR MANAGEMENT

#### Greater environmental awareness

The public's increasing environmental awareness means that prompt and effective response to pollution, particularly marine oil spills, has become more important.

#### Promoting safety in harbour and coastal waters

Gaining public support for and compliance with the Wellington Regional Navigation and Safety Bylaws presents a continuing challenge. Often people's confidence outweighs their sense and capabilities. Policing is difficult because of access and the diversity of water uses.

### 7 WHO WE WILL WORK WITH

Boaties and water recreation groups

Centreport Ltd

City and district councils

Community housing, health and welfare agencies

Department of Conservation

District Health Boards

Earthquake Commission

Emergency Services - police, fire and ambulance

Fish and Game New Zealand

Flood-prone communities

Insurance Council

Lifeline utility providers

Maritime New Zealand

Ministry of Civil Defence and

**Emergency Management** 

Other government departments, eg, health, housing

Research institutions

Shipping companies and ferry operators

Wellington Volunteer Coastguard

## 8 WHAT WE ARE GOING TO DO

#### ACTIVITY 1

## Floodplain management planning

For a description of this activity see 3.1.

#### **OUR SERVICES**

- Develop floodplain management plans for those rivers and streams that pose a significant flood risk or potential flood risk to the community and review current plans to ensure that they are still effective
- Provide flood hazard information to all territorial authorities in the region for planning purposes.

## **HOW WE MEASURE OUR PERFORMANCE**

- Number of new floodplain management plans adopted
- Number of floodplain management plans reviewed
- Provision of flood hazard information to territorial authorities

#### WHERE WE ARE NOW

There are currently floodplain management plans in place for the Otaki, Waikanae and Hutt rivers and the Waitohu Stream. There are also 10 river schemes in the Wairarapa and schemes in Porirua and Wainuiomata. Currently, 12 regional communities are involved with long-term plans to manage flood risk on floodplains.

#### WHAT WE PLAN TO DO AND BUDGETS

TARGET	BUDGET
Flood hazard maps will be prepared	Included within
for the Mangaroa River and a range of	the western area
risk management options developed	"investigations"
for discussion with the community and	budget
decision by the Council	of \$163,000
The Otaki River floodplain management	\$50,000
plan will be reviewed in consultation with	
the community and adopted by the Council	

2010/11 – BY 30 JUNE 2011		
TARGET	BUDGET	
The first stage of the Waiohine River floodplain management plan (flood hazard maps) will be completed to the satisfaction of the Council	\$119,000	
A review of flood risk to Masterton will be commenced	Included within the Wairarapa area "investigations" budget of \$285,000	

2011/12 – BY 30 JUNE 2012	
TARGET	BUDGET
The Waiohine River flood plain management plan will be adopted by the Council	\$127,000
The Waiwhetu Stream floodplain management plan adopted by the Council	\$159,000
A review of Masterton flood risk will be completed to the satisfaction of the Council	Included within the Wairarapa area "investigations" budget of \$293,000
A review of the Hutt River floodplain management plan will be commenced	\$79,000

## 2012 – 2019

- Continue to deliver services as specified in "our services"
- Review the Hutt River floodplain management plan
- Continue to develop floodplain management plans for selected watercourses in the region

#### ACTIVITY 2

## Flood protection infrastructure

For a description of this activity see 3.2.

#### **OUR SERVICES**

Design, build and maintain flood protection works, eg, stopbanks and bank-edge protection, to achieve an acceptable level of flood risk, in accordance with the respective floodplain and asset-management plans. Greater Wellington has a 40-year plan for implementing the Otaki, Waikanae and Hutt floodplain management plans.

#### **HOW WE MEASURE OUR PERFORMANCE**

- Completion of approved capital works schedule
- · Compliance with asset management plans

#### WHERE WE ARE NOW

As at June 2008, implementation of the 40-year programme of flood protection works for the Otaki, Waikanae and Hutt rivers was on track. The first year of a 10-year programme for the Lower Wairarapa Valley Development Scheme has been completed. In November 2008, the Council approved the budget for the flood protection improvement works for the lower Waiwhetu Stream.

Audit NZ has approved asset-management plans for all flood protection infrastructure and there is no deferred maintenance of this infrastructure.

#### WHAT WE PLAN TO DO AND BUDGETS

2009/10 - BY 30 JUNE 2010		
TARGET	BUDGET	
The construction and upgrade of flood protection infrastructure will be completed in accordance with the capital expenditure programme (see p124)	\$8,053,000	
Flood infrastructure in the western part of the region will be maintained in accordance with established standards, statutory requirements and the Western Rivers Asset Management Plan. Achievement will be approved by the Council	\$2,669,000	
Flood infrastructure will be maintained in the 10 Wairarapa river schemes will be completed to established standards and to the satisfaction of the Scheme Advisory Committees	\$1,608,000	

2010/11 – BY 30 JUNE 2011	
TARGET	BUDGET
The construction and upgrade of flood protection infrastructure for the region will be completed in accordance with the capital expenditure programme (see p124)	\$6,495,000
Flood infrastructure in the western part of the region will be maintained in accordance with established standards, statutory requirements and the Western Rivers Asset Management Plan Achievement will be approved by the Council	\$2,767,000
Flood infrastructure will be maintained in the 10 Wairarapa river schemes and will be completed to established standards and to the satisfaction of the Scheme Advisory Committees	\$1,658,000

2011/12 – BY 30 JUNE 2012	
TARGET	BUDGET
The construction and upgrade of flood protection infrastructure in the region will be completed in accordance with the capital expenditure programme (see p124)	\$4,939,000
Flood infrastructure in the western part of the region will be maintained in accordance with established standards, statutory requirements and the Western Rivers Asset Management Plan. Achievement will be approved by the Council	\$2,845,000
Flood infrastructure will be maintained in the 10 Wairarapa river schemes and will be completed to established standards and to the satisfaction of the Scheme Advisory Committees	\$1,690,000

#### 2012 - 2019

- · Continue to deliver services as specified in "our services"
- Complete the following:
- New Boulcott Hutt Stopbank
- Hutt City centre works
- Lower Wairarapa Valley Development Scheme improvement works
- Waiwhetu Stream channel widening works
- Waiohine River Floodplain Management Plan. Agreed measures implemented
- Mitigation works for the Convent Road area Waitohu Stream
- Jim Cooke Park, Waikanae Stopbank upgrade

#### ACTIVITY 3

# **Environmental enhancement** of river corridors

For a description of this activity see 3.3.

#### **OUR SERVICES**

Restore and maintain Waikanae, Otaki and Hutt river corridors to enhance the environment and provide for appropriate recreational use in accordance with the environmental strategies prepared in consultation with the community and iwi.

#### **HOW WE MEASURE OUR PERFORMANCE**

Progress with environmental strategies.

#### WHERE WE ARE NOW

Environmental strategies are in place for the Hutt, Otaki and Waikanae rivers. Restoration and enhancement of these corridors is well advanced and the community continues to be actively involved in this work, particularly the Waikanae and Otaki Friends of the River groups. Greater Wellington has introduced a ranger service to facilitate public use of the Hutt River corridor.

#### WHAT WE PLAN TO DO AND BUDGETS

2009/10 - BY 30 JUNE 2010	
TARGET	BUDGET
Maintenance within the Hutt River corridor, including tracks and restoration sites, will be carried out in accordance with the Hutt River Environmental Strategy. Progress will be reported to the Council	\$200,000
Maintenance within the Otaki River corridor, including tracks and restoration sites, will be carried out in accordance with the Otaki River Environmental Strategy and in partnership with the Friends of the River group. Progress will be reported to the Council	\$25,000
Maintenance within the Waikanae River corridor, including tracks and restoration sites, will be carried out in accordance with the Waikanae River Environmental Strategy and in partnership with the Friends of the River group. Progress will be reported to the Council	\$12,000

2010/11 – BY 30 JUNE 2011	
TARGET	BUDGET
Maintenance within the Hutt River corridor, including tracks and restoration sites, will be carried out in accordance with the Hutt River Environmental Strategy.  Progress will be reported to the Council	\$205,000
Maintenance within the Otaki River corridor, including tracks and restoration sites, will be carried out in accordance with the Otaki River Environmental Strategy and in partnership with the Friends of the River group. Progress will be reported to the Council	\$25,000
Maintenance within the Waikanae River corridor, including tracks and restoration sites, will be carried out in accordance with the Waikanae River Environmental Strategy and in partnership with the Friends of the River group. Progress will be reported to the Council	\$12,000

TARGET	BUDGET
Maintenance within the Hutt River corridor, including tracks and restoration sites, will be carried out in accordance with the Hutt River Environmental Strategy. Progress will be reported to the Council	\$211,000
Maintenance within the Otaki River corridor, including tracks and restoration sites, will be carried out in accordance with the Otaki River Environmental Strategy and in partnership with the Friends of the River group. Progress will be reported to the Council	\$26,000
Maintenance within the Waikanae River corridor, including tracks and restoration sites, will be carried out in accordance with the Waikanae River Environmental Strategy and in partnership with the Friends of the River group. Progress will be reported to the Council	\$12,000

#### 2012 - 2019

2011/12 - BY 30 JUNE 2012

- Continue with environmental restoration and enhancement work with the anticipated annual spend of up to the value of 5% of the flood protection infrastructure programme
- Continue operating a river ranger service on the Hutt River

#### ACTIVITY 4

## Flood warning service

For a description of this activity see 3.4.

#### **OUR SERVICES**

Provide online telemetry flood data and operate a flood warning services for the territorial authorities and selected landowners in the region. The service provides for flood warnings to be issued within 30 minutes of alarms being triggered.

#### **HOW WE MEASURE OUR PERFORMANCE**

Timeliness of warnings

#### WHERE WE ARE NOW

• Greater Wellington has met the 30-minute performance target for flood warnings

#### WHAT WE PLAN TO DO AND BUDGETS

2009/10 – BY 30 JUNE 2010		
TARGET	BUDGET	
All flood warnings will be issued within 30 minutes of alarms being triggered in accordance with established flood procedures	\$13,000	

2010/11 – BY 30 JUNE 2011		
TARGET	BUDGET	
All flood warnings will be issued within 30 minutes of alarms being triggered in accordance with established flood procedures	\$13,000	

2011/12 – BY 30 JUNE 2012							
TARGET	BUDGET						
All flood warnings will be issued within 30 minutes of alarms being	\$14,000						
triggered in accordance with established flood procedures							

#### 2012 - 2019

- Continue to provide a flood warning service as specified in
- Review the "Flood Procedures Manual" so that procedures for the Western and Wairarapa sides of the region are better aligned

#### ACTIVITY 5

## Civil defence and emergency management

For a description of this activity see 3.5.

#### **OUR SERVICES**

- · Serve as the administrative authority for the Wellington Civil Defence Emergency Management group
- Provide a CDEM Group Operations Centre that can operate effectively in an emergency event
- Ensure that robust CDEM Group plans are in place to assist the region to cope with an emergency event
- Educate the public about being prepared for an emergency event

#### **HOW WE MEASURE OUR PERFORMANCE**

- Administration of CDEM group meetings
- Operational capability of CDEM Group **Emergency Operations centre**
- Approved CDEM Group Plans in place
- Level of public and business preparedness

### WHERE WE ARE NOW

The CDEM Group has met at least twice a year since its inception. In 2006, a new information management system and satellite and telephone communication system was introduced in the Group's Emergency Operations Centre. At least one major exercise has been carried out annually, although in 2007/08 there were a total of five exercises. The CDEM Group Plan was finalised in 2005 and is being reviewed in 2008/09. A number of other plans and strategies have been prepared. Major campaign to promote public and business awareness have been carried out and a public education strategy, involving all local authorities, has been developed.

#### WHAT WE PLAN TO DO AND BUDGETS

2009/10 - BY 30 JUNE 2010	
TARGET	BUDGET
Progress with the implementation of the CDEM Group Plan will be to the satisfaction of the Wellington Region CDEM Group	\$93,000
The Wellington Region CDEM Group will meet twice during the year	\$37,000
A major exercise to test the operational capability of the CDEM Group's Emergency Operations Centre will be conducted	\$9,000
A review of the radio communications capability in the CDEM Group Emergency Operations Centre will be completed and reported to the CDEM Group and Council	\$20,000

2010/11 – BY 30 JUNE 2011	
TARGET	BUDGET
Progress with the implementation of the CDEM Group Plan will be to the satisfaction of the Wellington Region CDEM Group	\$93,000
The Wellington Region CDEM Group will meet twice during the year	\$37,000
A major exercise to test the operational capability of the CDEM Group's Emergency Operations Centre will be conducted	\$9,000
A survey will show that 75% of households will have emergency food and water supplies and 70% of businesses in the region will have business continuity plans in place	\$20,000

2011/12 – BY 30 JUNE 2012	
TARGET	BUDGET
Progress with the implementation of the CDEM Group Plan will be to the satisfaction of the Wellington Region CDEM Group	\$68,000
The Wellington Region CDEM Group will meet twice during the year	\$37,000
A major exercise to test the operational capability of the CDEM Group's Emergency Operations Centre will be conducted	\$9,000

#### 2012 - 2019

- · Continue to deliver services as specified in "our services"
- Continue to implement the Wellington Region CDEM Group Plan 2009
- Review the Wellington Region CDEM Group Plan in 2014
- Carry out independent audit of the region's emergency operations centres at this stage these are planned for 2012 and 2015

#### **ACTIVITY 6**

#### **Harbour management**

For a description of this activity see 3.6.

#### **OUR SERVICES**

- Provide navigation aids in our harbours and a communications service for Wellington Harbour
- Investigate reports of oil spills in harbours and coastal waters, and take necessary clean-up action within specified timeframes
- · Investigate reports of unsafe behaviour
- Carry out a summer safety education programme for recreational boaters and harbour users

#### **HOW WE MEASURE OUR PERFORMANCE**

- Standard of operation of communications station
- Adequacy of maintenance of navigation aids
- Timeliness of response to oil spills
- Timeliness of response to reports of unsafe behaviour
- Number of safe boating packages distributed

#### WHERE WE ARE NOW

A Port and Harbour risk assessment was carried out in 2006 and a resulting Harbour Management Safety Management System is being finalised. A key recommendation was the upgrade of the Beacon Hill Communications Station. A construction of a new facility is underway. The Navigation and Safety Bylaws for the Wellington Region were reviewed in 2008/09. Over the years navigation aids have been converted to solar power for ease of maintenance and reliability. No major problems with these aids have been encountered. Reports of unsafe behaviour are responded to - timeframes depend on the potential severity of the report. A summer safety education programme has been running for some years and involves distribution of material as well as targeted initiatives, eg, life jacket checks. Our harbour ranger service is increased in summer. All reported oil spills have been investigated and responded to within specified timeframes.

#### WHAT WE PLAN TO DO AND BUDGETS

2009/10 – BY 30 JUNE 2010	
TARGET	BUDGET
The Beacon Hill Harbour Communications Station will provide a 24-hour, 365–day service in accordance with Council agreed operating standards	\$419,000
Navigation aids will be will be repaired within 24 hours, weather permitting, and maintained in accordance with International Association of Lighthouse Authorities (IALA) guidelines	\$140,000
Reports of oil spills in harbours and coastal waters will be checked within 30 minutes and clean-up action will be commenced within one hour of being reported (for harbours) and within three hours (for coastal waters)	\$17,000
All reports of unsafe behaviour will be investigated. Formal records will be kept of all reports	\$109,000
At least 500 safe boating packs will be distributed to recreational boaties	

2010/11 – BY 30 JUNE 2011	
TARGET	BUDGET
The Beacon Hill Harbour Communications Station will provide a 24-hour, 365 –day service in accordance with Council agreed operating standards	\$430,000
Navigation aids will be will be repaired within 24 hours, weather permitting, and maintained in accordance with International Association of Lighthouse Authorities (IALA) guidelines	\$145,000
Reports of oil spills in harbours and coastal waters will be checked within 30 minutes and clean-up action will be commenced within one hour of being reported (for harbours) and within three hours (for coastal waters)	\$18,000
All reports of unsafe behaviour will be investigated. Formal records will be kept of all reports	\$112,000
At least 500 safe boating packs will be distributed to recreational boaties	

2011/12 – BY 30 JUNE 2012	
TARGET	BUDGET
The Beacon Hill Harbour Communications Station will provide a 24-hour, 365 –day service in accordance with Council agreed operating standards	\$442,000
Navigation aids will be will be repaired within 24 hours, weather permitting, and maintained in accordance with International Association of Lighthouse Authorities (IALA) guidelines	\$148,000
Reports of oil spills in harbours and coastal waters will be checked within 30 minutes and clean-up action will be commenced within one hour of being reported (for harbours) and within three hours (for coastal waters)	\$18,000
All reports of unsafe behaviour will be investigated. Formal records will be kept of all reports	\$115,000
At least 500 safe boating packs will be distributed to recreational boaties	

### 2012 - 2019

Continue to deliver services as specified in "our services"

## **KEY PROJECTS FOR 2009/10**

## Flood protection

- Hutt Valley
  - Complete the Mangaroa River flood hazard assessment
  - Complete Stage 1 of the Pinehaven Stream flood hazard assessment
  - Complete the Strand Park Stopbank upgrade, and accordingly the Ava to Ewen project
  - Obtain statutory approvals to commence the Boulcott Hutt Stopbank project
  - Work with NZTA to complete the Ebdentown bank-edge protections
  - Continue the Waiwhetu Stream clean-up and channel widening
- Kapiti Coast
  - Complete 150m of rock armouring between SH1 and the mouth of the Otaki River
  - Raise the Otaihanga Boating Club
  - Undertake an environmental enhancement project on the Otaki River

#### Wairarapa

- Progress with Waiohine FMP and the design of the stopbank works
- Complete Year 3 of the Lower Wairarapa Valley Development Scheme improvement works by strengthening river-edge protections at three locations on the Ruamahanga River.

#### **Emergency Management**

- Develop a GIS capability for the Wellington Region's CDEM Group's Emergency Operations Centre
- Complete a CDEM Group Fuel Supply Plan
- Complete a CDEM Group External Supply Strategy
- Review the radio communications for the Group's Emergency Operations Centre
- Carry out Phoenix VI a major exercise
- Contribute to "It's Our Fault", a research project on the Wellington faultline

#### Harbour Management

- Complete construction of the new Beacon Hill Communications Station
- Finalise the Port and Harbour Safety Management System for Wellington Harbour

#### 10 ASSETS

#### FLOOD PROTECTION

#### Assets

Flood protection infrastructure assets:

 Greater Wellington's flood protection infrastructure assets have a current value of \$190m, recorded in its asset register

## Asset management principles

- Service levels are set through floodplain management plans and scheme reviews, in close consultation with communities
- The majority of flood protection assets are maintained in perpetuity, with less than 5% of the total asset value being depreciable assets. The non-depreciable assets include stopbanks, edge-protection works (rocks and willows) and floodways
- All assets are subject to a comprehensive annual maintenance, inspection and monitoring programme. An assessment of maintenance and monitoring cost is made every three years

- A comprehensive programme of capital works is underway to lift service levels where agreed with the community
- Flood damages that cannot be repaired within the current financial year will be reflected by a write-down on the asset register. Similarly, once the repairs are completed, the repaired assets will be added back into the register
- Greater Wellington has decided to continue self insuring for flood damages. The annual average flood damage has been assessed and an annual contribution of that amount is set aside in reserve each year. A special funding reserve and lines of credit have been set aside for a major disaster

## Capital upgrade programme

This proposed 2009-2019 LTCCP provides for a total of \$59 million of capital upgrade as shown in the table on p124.

#### Maintenance and monitoring

All assets are maintained in a condition so that they will perform to the standard to which they have been designed, despite the wear and tear of smaller flood events and secondary use of the assets, such as farming and recreation use. Our asset maintenance and monitoring systems have been designed to ensure that a stopbank today will be at least as good in 20 to 50 years time.

#### **EMERGENCY MANAGEMENT**

#### Assets

Emergency management assets include communications equipment, a mobile headquarters and a vehicle. They are valued at \$551,000.

### **Asset-management principles**

Assets are replaced as deemed necessary or when they have the reached the end of their service life.

## Capital upgrade programme

Some assets are replaced on a planned basis, eg, vehicles, while others are upgraded as necessary.

## Maintenance and monitoring

Assets are maintained according to manufacturers' standards and tested regularly (communications equipment).

#### **HARBOUR MANAGEMENT**

#### Assets

- 19 navigation aids, including 7 lighthouses
- The Beacon Hill Communications Station
- One 6 metre catamaran
- One 6 metre boat
- · One jet-ski
- 3-4 vehicles

Total value of these assets is \$739,000.

#### Asset-management principles

All Harbour Management equipment is inspected and tested regularly.

Advantage is taken of technological advancements to reduce maintenance, eg, the use of solar power has considerably reduced maintenance requirements for navigation aids.

Communications equipment is regularly serviced and replaced on an as and when required basis.

## Capital upgrade programme

Beacon Hill Communications Station is currently being rebuilt and communications equipment upgraded. Navigation aids are only replaced as and when required.

#### Maintenance and monitoring

Navigation aids are maintained in accordance with International Association of Lighthouse Authorities (IALA) guidelines. Communications equipment is maintained according to manufacturers' standards. The jet-ski and boats are regularly serviced.

# 11 NEGATIVE EFFECTS ON WELL-BEINGS

The only possible negative effective of this group of activities is that flood protection works can have an adverse environmental impact. However, these works are subject to resource consents and environmental strategies are in place to carry out environmental restoration and enhancement.

## CAPITAL EXPENDITURE PROGRAMME 2008/09 TO 2018/19 (\$000)

	2009/10	2010/11	2011/12	2012/13	2013/14	2014/15	2015/16	2016/17	2017/18	2018/19
CAPITAL EXPENDITURE										
Waiwhetu flood improvements	5,000	620	-	-	-	-	-	-	-	-
Mangaroa flood hazard assessment	-	-	-	-	110	-	116	-	121	-
Pinehaven flood hazard study	-	92	-	-	-	-	-	-	-	-
Waiwhetu FMP	-	155	159	-	-	-	-	-	-	-
Maoribank riverbed stabilisation	-	-	-	-	552	1,129	-	-	-	-
Ebdentown rocklining	735	-	-	-	-	-	-	-	-	-
City centre upgrade	-	-	-	471	617	705	4,656	4,902	4,237	4,345
Bridge Road-edge protections	-	405	-	-	-	-	-	-	-	-
Whirinaki Crescent Stopbank	-	-	-	-	-	-	-	-	-	-
Boulcott/Hutt Stopbank construction	900	3,304	3,698	3,484	-	-	-	-	-	-
Connolly/Boulcott/Hutt land compensation	-	-	-	-	-	-	-	-	-	-
Ava Railway Stopbank improvements	-	-	-	-	-	-	-	-	-	-
Strand Park Stopbank upgrade	306	-	-	-	-	-	-	-	-	-
Jim Cook Park Stopbank	-	-	-	-	442	786	809	-	-	-
Otaihanga House raising (Stage 2)	-	-	-	-	-	-	-	-	-	-
Waikanae environmental strategy implementation	-	-	-	-	-	-	62	-	-	-
River works mouth to SH1	185	-	181	-	328	-	289	-	303	-
River works Chrystalls to Gorge	-	-	-	293	-	339	-	355	-	372
Convent Road improvements	-	577	-	-	-	-	-	-	-	-
South Waitohu Stopbank	-	461	-	-	-	-	-	-	-	-
Crystalls Extended Stopbank	-	-	-	-	-	-	-	-	-	-
North stopbank improvements (mouth to SH 1)	-	-	-	-	262	-	-	-	-	-
Otaki environmental strategy implementation	69	-	-	-	-	-	-	-	-	-
LWVD river scheme capex	743	763	774	797	831	854	870	879	-	-
Waiohine river scheme capex	-	-	-	2,705	2,762	-	-	-	-	-
Waiohine stopbank design	115	118	127	-	-	-	-	-	-	-
LIDAR survey Greytown and Masterton	-	-	-	-	-	-	-	-	-	-
Total	8,053	6,495	4,939	7,751	5,906	3,813	6,801	6,136	4,661	4,718
ASSET ACQUISTIONS										
Other	554	602	603	610	601	606	738	622	517	633
Total	554	602	603	610	601	606	738	622	517	633
PROCEEDS										
Other	138	175	171	149	169	147	222	178	139	190
Total	138	175	171	149	169	147	222	178	139	190
Total capital expenditure	8,469	6,922	5,371	8,212	6,338	4,272	7,317	6,580	5,039	5,161

## 12 FINANCIAL INFORMATION

## **SAFETY AND FLOOD PROTECTION**

PROSPECTIVE FUNDING IMPACT STATEMENT

	2009/10 \$000s	2010/11 \$000s	2011/12 \$000s
FUNDING STATEMENT			
General rate	9,060	9,629	10,013
Targeted rates	5,054	5,424	5,692
Government subsidies	116	120	122
Interest and dividends	449	515	611
Other operating revenue	1,934	2,006	2,040
Operating revenue	16,613	17,694	18,478
Direct operating expenditure	9,851	10,224	10,535
Finance costs	2,588	2,927	3,113
Depreciation	1,001	1,026	975
Operating expenditure	13,440	14,177	14,623
Operating surplus/(deficit)	3,173	3,517	3,855
Less/(add):			
Capital expenditure	9,049	6,883	5,305
Proceeds from asset sales	(100)	(148)	(114)
Loan funding	(8,753)	(6,495)	(4,939)
Rates-funded capital expenditure	196	240	252
Debt repayment	2,693	2,992	3,234
Investment additions	383	414	474
Operational reserve movements	902	897	870
Working capital movements	-	-	-
Non-cash items <sup>1</sup>	(1,001)	(1,026)	(975)
Net funding required	-	-	-

	2009/10 \$000s	2010/11 \$000s	2011/12 \$000s
OPERATING REVENUE	-		
Flood protection	13,956	14,894	15,573
Emergency management	833	900	875
Harbour management	1,824	1,900	2,030
Total operating revenue	16,613	17,694	18,478
OPERATING EXPENDITURE			
Flood protection	10,788	11,368	11,773
Emergency management	870	899	895
Harbour management	1,782	1,910	1,955
Total operating expenditure	13,440	14,177	14,623
CAPITAL EXPENDITURE			
Harbour improvements	700	-	-
Waiwhetu flood improvements	5,000	620	-
Hutt River improvements	1,941	3,709	3,698
Otaki River improvements	254	1,038	181
Wairarapa scheme improvements	858	881	901
Other flood protection	-	247	159
Capital project expenditure	8,753	6,495	4,939
Land and buildings	-	-	-
Plant and equipment	44	16	80
Vehicles	252	372	286
Total capital expenditure	9,049	6,883	5,305

Non-cash items include depreciation For more information on the revenue and financing mechanisms applicable to this group of activities, please refer to the Revenue and Financing Policy in the *Policies Document*, p35 Please note that all figures on this page exclude GST.

## **SAFETY AND FLOOD PROTECTION**

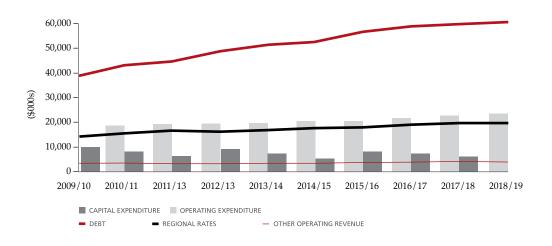
**10-YEAR FINANCIAL FORECAST** 

This graph places the prospective funding impact statement for the next year in the context of the 10-year planning horizon.

Key points to note are:

- Capital expenditure remains fairly constant over the 10-year period reflecting continued work on the Hutt, Waikanae and Otaki rivers and on the Lower Wairarapa Valley River Scheme
- As a result of this capital expenditure, debt will peak at \$60.6 million in 2018/19
- · Regional rates increase over the period to fund the increasing capital expenditure on flood protection

Please note that these figures exclude GST.



(\$000s)	2009/10	2010/11	2011/12	2012/13	2013/14	2014/15	2015/16	2016/17	2017/18	2018/19
Operating expenditure	16,613	17,694	18,478	18,656	18,900	19,307	20,107	21,125	21,980	22,794
Capital expenditure	9,049	6,883	5,305	8,074	6,281	4,125	7,240	6,387	4,916	5,112
Debt	39,278	42,782	44,487	49,091	52,003	52,814	56,402	59,054	59,918	60,593
Regional rates	14,114	15,053	15,705	15,742	15,875	16,186	16,897	17,803	18,492	19,154
Other operating revenue	2,499	2,641	2,773	2,914	3,025	3,121	3,210	3,322	3,488	3,640