

Stormwater and Flood Protection and Control Works



What activities are included in stormwater and flood protection and control works?

Stormwater drainage

- Provide and maintain the stormwater drainage system (surface water management systems, e.g. streams, rivers, utility waterways, basins, pumps, structures, pipes, etc

Flood protection and control works

- Maintaining the natural waterways and associated structures and systems, such as stop banks, flood gates, and the hydrometric network (rain and water level monitoring systems).

Why is the Council involved in storm water drainage and flood protection and control works?

To protect the community from surface flooding from normal/average water flows and enhance the waterway environment through naturalisation and protection of water quality, which provides key linkages for walking and cycling connections to open spaces, and provides access for recreational opportunities. To protect the community from and respond to significant flooding events.

How do stormwater drainage and flood protection and control works contribute to our community outcomes?

Water quality in rivers, streams, lakes and wetlands is improved

- Looking after natural waterways and providing a well-maintained stormwater drainage and flood protection system helps to protect water quality, safeguarding public health and the health of ecosystems

Stream and river flows are maintained

- Minimum stream and river flows are maintained, helping to maintain the health of natural waterways

Existing ecosystems and indigenous biodiversity are protected

- As a significant part of the network of green space throughout the district, the management of waterways protects existing ecosystems, indigenous vegetation and wildlife

A range of indigenous habitats and species is enhanced

- As a significant part of the network of green space throughout the district, waterways provide opportunities for enhancing indigenous species

Injuries and risks to public health are minimised

- Maintaining water quality in natural waterways protects the quality of drinking water drawn from surface water supplies and safeguards the health of recreational users
- Maintaining the stormwater drainage system reduces the risk of toxic substances from entering waterways.
- Maintaining levels in waterways and safeguarding neighbouring suburbs

Risks from natural hazards, including earthquakes, flooding, tsunami and rock fall are minimised

- Maintaining a safe and reliable stormwater drainage and flood protection systems reduces the risk of flooding

Sites and places of significance to tangata whenua are protected

- Managing the stormwater system to reduce pollutants and enhance the waterway environment, and managing the flood protection system to minimise the likelihood of flooding, contribute to protecting the surface water values of tangata whenua

What changes are planned for stormwater drainage and flood protection and control works?

There will be improvements in the time to respond to problems in the stormwater system.

New targets have been introduced for minimising property damage from flooding, through minimising the number of properties affected by flooding and specifying minimum floor levels in areas most at risk from flooding.

What negative effects or risks can occur in relation to stormwater drainage and flood protection and control works?

Negative Effects

Contaminants from many sources travel in the storm water system

Inadequate drainage and surface water capacity in extreme events.

Maintaining and altering streams and river banks can affect habitats

Dwellings flooded during rain events

Mitigation Options

Maintain regular street sweeping.
Monitor and investigate storm water quality and sources of contaminants.

Maintain waterways.
Monitoring and inspections.
Maintain response times to reported issues.

Review grass cutting on river banks.
Use stream restoration projects to provide some additional habitat.

Ensure minimum floor levels are specified for all new dwelling consent applications.
Review minimum flooring and flood protection work requirements, as necessary.

Council Activities and Services

Stormwater and Flood Protection and Control Works

| Activity | What is the Council trying to achieve? | What services will the Council offer to make this happen? | How would we know these services were successful? | Target |
|----------------------------|--|---|--|--|
| Stormwater drainage | Water quality in rivers, streams, lakes and wetlands is improved Existing ecosystems and indigenous biodiversity are protected A range of indigenous habitats and species is enhanced Injuries and risks to public health are minimised Risks from natural hazards, including earthquakes, flooding, tsunami and rock fall are minimised Sites and places of significance to tangata whenua are protected | Provide and maintain the stormwater drainage system (surface water management systems, e.g. streams, rivers, Utility Waterways, basins, pumps, structures, pipes, etc.) | Measure Response times to Drainage faults and Surface Water Management Issues | Achieve contract compliance re response times for emergency works specified in the Waterways and Land Drainage Maintenance contract: Urban 2 hours; Rural 6 hours |
| | | | | Achieve contract compliance re response times for urgent work specified in the Waterways and Land Drainage Maintenance contract: Urban 24 hours; Rural 24 hours |
| | | | | Achieve contract compliance re response times for priority work specified in the Waterways and Land Drainage Maintenance contract: Urban 3 working days; Rural 5 working days |
| | | | | Achieve contract compliance re response times for routine call-outs specified in the Waterways and Land Drainage Maintenance contract: : Urban 5 working days; Rural 10 working days |
| | | | Resource consent compliance | Major or persistent breaches of Resource Consent conditions regarding the management of waterways and the land drainage system per year, resulting in court action by ECAN. |
| | | | Customer satisfaction with the maintenance of waterways and their margins | Achieve specified level of satisfaction with maintenance of waterways and their margins |

Council Activities and Services

Stormwater and Flood Protection and Control Works

| Current Performance | Planned Performance | | |
|--|--|--|----------|
| | 2013/14 | 2014/15 | 2015/16 |
| 2011/12: 100% compliance with response times | Achieve 100% contract compliance re response times specified in the Waterways and Land Drainage Maintenance contract: Emergency Works: Urban 2 hours; Rural 6 hours | Achieve 100% contract compliance re response times specified in the Waterways and Land Drainage Maintenance contract: Emergency Works: Urban 2 hours; Rural 6 hours | |
| 2011/12: 100% compliance with response times | Achieve 100% contract compliance re response times specified in the Waterways and Land Drainage Maintenance contract: Urgent Works: Urban 24 hours; Rural 24 hours | Achieve 100% contract compliance re response times specified in the Waterways and Land Drainage Maintenance contract: Urgent Works: Urban 24 hours; Rural 24 hours | |
| 2011/12: 100% compliance with response times | Achieve 100% contract compliance re response times specified in the Waterways and Land Drainage Maintenance contract: Priority Call Outs: Urban 3 working days; Rural 5 working days | Achieve 100% contract compliance re response times specified in the Waterways and Land Drainage Maintenance contract: Priority Call Outs: Urban 3 working days; Rural 5 working days | |
| 2011/12: 100% compliance with response times | Achieve 100% contract compliance re response times specified in the Waterways and Land Drainage Maintenance contract: Routine Call Outs: Urban 5 working days; Rural 10 working days | Achieve 100% contract compliance re response times specified in the Waterways and Land Drainage Maintenance contract: Routine Call Outs: Urban 5 working days; Rural 10 working days | |
| 2009/10 – Nil 2010/11 – Nil 2011/12 – Nil | None | Maintain | Maintain |
| 2009/10 – 72% 2010/11 – Not surveyed 2011/12 – 60% | At least 66% satisfaction with maintenance of waterways and their margins | At least 66% satisfaction with maintenance of waterways and their margins | |

Council Activities and Services

Stormwater and Flood Protection and Control Works

| Activity | What is the Council trying to achieve? | What services will the Council offer to make this happen? | How would we know these services were successful? | Target |
|--|---|---|--|--|
| <p>Flood protection and control works</p> | <p>Water quality in rivers, streams, lakes and wetlands is improved Stream and river flows are maintained Existing ecosystems and indigenous biodiversity are protected A range of indigenous habitats and species is enhanced Injuries and risks to public health are minimised Risks from natural hazards, including earthquakes, flooding, tsunami and rock fall are minimised. Sites and places of significance to tangata whenua are protected</p> | <p>Maintaining the natural waterways and associated structures and systems, such as stop banks, flood gates, and the hydrometric network (rain and water level monitoring systems).</p> | <p>Measure Ensure dwellings are safe from flooding during normal rain events</p> | <p>No more than a specified percent of dwellings are flooded per year (based on a 50 year rain event)</p> |
| | | | | <p>Minimum floor levels specified for new dwelling consent applications meet Building Act and District Plan requirements</p> |

Council Activities and Services

Stormwater and Flood Protection and Control Works

Current Performance

Planned Performance

| | 2013/14 | 2014/15 | 2015/16 |
|---|---|---|----------|
| 2011/12: Nil houses recorded as flooded. 2010/11 Not measured due to earthquakes. 2009/10 Nil | Less than 0.25% of dwellings (4 per 1,000) are flooded per year (based on a 50 year rain event) | Less than 0.25% of dwellings (4 per 1,000) are flooded per year (based on a 50 year rain event) | |
| New | Minimum floor levels specified for new dwelling consent applications meet Building Act and District Plan requirements | Maintain | Maintain |

Council Activities and Services

Stormwater and Flood Protection and Control Works

| Annual Plan 2012/13 | Three Year Plan 2013 - 2016 | | | Annual Plan 2012/13 | Three Year Plan 2013 - 2016 | | |
|------------------------|---------------------------------------|-----------------|-----------------|------------------------|--|---------------|---------------|
| | 2013/14 | 2014/15 | 2015/16 | | 2013/14 | 2014/15 | 2015/16 |
| | \$000 | | | | \$000 | | |
| | Cost of proposed services | | | | Cost of capital expenditure | | |
| 24,289 | 24,502 | 25,332 | 26,525 | 2,049 | 2,245 | 2,389 | 3,316 |
| - | 352 | 357 | 367 | 28,800 | 68,427 | 69,709 | 70,532 |
| 24,289 | 24,854 | 25,689 | 26,892 | 217 | 153 | 42 | 87 |
| | Revenue from proposed services | | | 12,857 | 5,605 | 9,956 | 11,746 |
| 4 | 20 | 21 | 21 | 43,923 | 76,430 | 82,096 | 85,681 |
| - | - | - | - | | This capital expenditure is funded by | | |
| 11,907 | 40,075 | 41,179 | 41,356 | 2,049 | 2,245 | 2,389 | 3,316 |
| 11,911 | 40,095 | 41,200 | 41,377 | 10,920 | 38,102 | 38,702 | 39,039 |
| 12,378 | (15,241) | (15,511) | (14,485) | 19,713 | 34,110 | 38,527 | 41,009 |
| 400 | 400 | 418 | 435 | 10,600 | - | - | - |
| 11,978 | (15,641) | (15,929) | (14,920) | 641 | 1,973 | 2,478 | 2,317 |
| | | | | - | - | - | - |
| | | | | 43,923 | 76,430 | 82,096 | 85,681 |

Rationale for activity funding (see also the Revenue and Financing Policy)

User charges are collected for certain services at levels considered reasonable by the Council. The balance of the net operating cost is funded by a targeted rate on properties within the catchment area.

Development contributions are applied towards the appropriate capital expenditure. The balance of the capital expenditure is funded corporately in accordance with the Revenue and Financing Policy.

