

GUIDING PRINCIPLES FOR THE THREE-WATERS

As stated above, Council has adopted a sustainable development approach to the 3 waters and a summary of the guiding principles is provided below:

Waitakere City is strongly committed to finding a sustainable path for all of the services it provides. This commitment is captured most clearly in the 'Eco City' vision:

"Waitakere City will be known internationally as a sustainable city that:

- *Celebrates and sustains its people;*
- *Has a strong sustainable economic base;*
- *Honours its environment; and*
- *Builds on its cultures and heritage".*

Waitakere City's 2020 Vision for its 'Three Waters' strategic platform is:

'Waitakere is a centre of innovative management for the Three Waters'.

The 1987 World Commission on Environment and Development defined sustainable development as "development that meets the needs of the present without compromising the ability of future generations to meet their own needs". Principle 1 of the Rio Declaration on Environment and Development states that "Human beings are at the centre of concerns for sustainable development. They are entitled to a healthy and productive life in harmony with nature."

Waitakere City is working to improve and encourage sustainable water use in our City, and more importantly across the region. The Local Government Act now recognises this.

Local Government Act Well-Beings

The Local Government Act 2002 (the Act) sets out a series of provisions governing decision-making by local authorities. In making a decision, local authorities are required to:

- Seek to identify all reasonably practicable options for the achievement of the objective of a decision (s77);
- Assess those options by considering:
 - The benefits and costs of each option in terms of present and future social, economic, environmental and cultural well-being;
 - The extent to which community outcomes would be promoted or achieved in an integrated and efficient manner by each option;
 - The impact of each option on the local authority's capacity to meet present and future needs in relation to its statutory responsibilities; and
 - Any other relevant matters (s77).
- Give consideration to the views and preferences of persons likely to be affected by, or to have an interest in, the matter (s78).

The underlying premise of these provisions is that they apply to every decision made by a local authority, which must identify and assess the impact of all options on the four well-beings: Social, Economic, Environmental and Cultural. In other words, decisions and their options must be considered from a 'quadruple bottom line' (QBL) perspective.

Waitakere City is currently developing a comprehensive QBL framework for its decision-making processes to ensure we comply with the requirements of the Act and strengthen our leadership position in the local government sector, particularly in the area of sustainability. The QBL framework will provide a robust and practical QBL assessment framework for application to all levels of Council decision-making.

Sustainable management of the three-waters services will contribute to the 4 well-beings in the following ways:

Social Well-Being

- Public health and safety:
 - Meeting public health and safety standards relating to the three waters;
 - Protecting properties from flooding.
 - Providing a safe and reliable high quality drinking water supply; and
 - Provide a safe and reliable service for the collection, treatment and disposal of wastewater.
- Community understanding and participation:
 - Meeting the needs of Waitakere City's people and communities;
 - Improving community understanding of, and support for, environmental protection (for example, through education programmes);
 - Encouraging community participation (for example, through partnerships with schools and community groups);
 - Reducing water use via water conservation measures (such as encouraging the use of domestic water saving devices); and
 - Ensuring actions taken to implement water demand savings take into account the principles of social equity.
- Amenity:
 - Incorporating amenity considerations into 'three waters' design and planning processes.
- Recreation:
 - Protecting and enhancing recreational resources.

Cultural Well-Being

- Recognition and respect:
 - Ensuring that actions taken acknowledge the principles of the Treaty of Waitangi and respect the cultural and spiritual values that Maori hold about water (for example, with regard to the mixing of waters from different sources).
- Partnership:
 - Working with tangata whenua in their kaitiaki or guardianship role.

Economic Well-being

- Investment/employment:
 - Encouraging efficient development of new infrastructure /networks and effective management of existing networks.
 - Funding/costs:
 - Ensuring principals of social equity are considered when developing funding mechanisms; and
 - Reducing potential costs to households by encouraging water conservation measures.
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Environmental Well-Being

- Water quality:
 - Reducing the frequency of wastewater overflows;
 - Ensuring regular checks/maintenance of septic tanks in rural areas and beach settlements to minimise discharges to streams, estuaries and the ocean; and
 - Minimising contaminated discharge to streams and coastal waters by, for example, the use of stormwater treatment devices.
- Habitat quality and quantity/biodiversity:
 - Protecting and enhancing riparian margins/vegetation through increased District Plan provisions, undertaking plantings on Council land and supporting community groups and individuals to plant stream banks.
- Flooding and erosion:
 - Reducing stream erosion by, for example, stream restoration to control slippage and erosion; and
 - Encouraging stormwater management practices, especially in new developments that mimic natural runoff patterns, thereby reducing the downstream flooding impacts of 'normal' subdivision practices

The “Six Es”

At a tactical level, the Council’s work programme to achieve the vision and targets for the three waters will continue to be based on the water cycle strategy, with a specific focus on the ‘six Es’ described below. Further programmes and techniques that we think will help achieve the targets, are outlined later in this report under each of the Three Waters.

Economy

At present the average household pays \$299 per year for water supply, \$436 per year for wastewater and \$100 per year for stormwater, which altogether is \$835 per annum or equivalent to \$2.29 per household per day.

To address the challenges and issues identified above, and if we continue with current practices, it is likely that within the next ten years the cost of the Three Waters services will increase to \$1,284 per annum, or \$3.52 per household per day.

Although cost increases are inevitable, Council will investigate the use of economic tools to reduce costs as much as possible. These include:

- Development contributions – ensuring that developers pay the full cost of servicing their development
- Financial contributions – ensuring that developers pay for the full cost of any environmental damage caused by their development
- Pricing of the Three Waters to provide incentives for water conservation and minimization of wastewater and stormwater runoff.
 - Pricing of water supply – giving consideration to tariffs that promote conservation
 - Pricing of wastewater – consideration of alternatives to the current land value based rates system, such as a surcharge on water use
 - Pricing of stormwater – consideration of alternatives to the current land value based rates system, such as linking the cost of stormwater collection and treatment to the area of hard (impermeable) surfaces.



Figure 4: Water Recycling

- Providing incentives such as free gizmos, financial assistance toward rainwater tanks and water efficient appliances in the reticulated areas, and reducing financial and development contributions to encourage sustainable practices

Efficiency

- Preparation of Activity and Assets Management Plans for the Three Waters.
- Working with Watercare and other regional partners to implement the Sea to Sky water management plan for the Auckland region
- Joint planning and implementation of wastewater and stormwater regional programmes
- Integrating all the above activities and planning processes on a regional basis within 5 years.

Education

Provide information, support and training programs for schools and teachers, for example, the recent publication of the “Learning Waters” newsletter to every teacher in the city, professional development workshop days for teachers and resource development such as the new macroinvertebrate section of the website (Underwater Life) and the video called ‘Focus on Bugs’ showing macroinvertebrates, indicators of stream health, found in different parts of the Opanuku stream.

Figure 5: Education in Action



- House-to-house surveys to establish water use patterns, wastewater and stormwater issues and provide practical advice
- Providing information through a variety of media such as the Council website, CD-rom, pamphlets, brochures, newsletters, manuals and interactive displays in shopping centres
- Providing fun events and practical demonstration projects
- Integrating arts, culture and sports into the Three Waters programs
- Supporting community groups by helping with community programs and providing resources
- Encouraging and supporting WaiCare groups

Environment

- Enhancing and implementing the City’s green network goal of linking the Waitakere Ranges with the harbours through the stream corridors, by planting riparian margins, removing weeds and working with land owners
- Advocating that roading agencies clean up runoff from motorways, highways and roads
- Work with regional agencies on programs to improve the quality of the harbours.
- Advocate for national standards to provide a consistent approach toward managing the environmental effects of the Three Waters

Engineering

- Reducing infiltration & inflow in the Council's wastewater networks by using new pipe technologies
- House to house inspections and testing of Council and private systems to establish where these are contributing to infiltration & inflow.
- Implementing new technologies to conserve water such as vacuum toilets, composting toilets and waterless urinals
- Implementing greywater and wastewater recycling systems on individual sites.
- Decentralised and community-based wastewater collection, treatment, recycling and disposal systems.
- Use of stormwater treatment devices, such as sand filters for road runoff, to minimise contaminated discharge to streams and coastal waters.
- Providing for good quality new infrastructure /networks and effective management of existing networks.

Figure 6: Road Stormwater Sand Filter



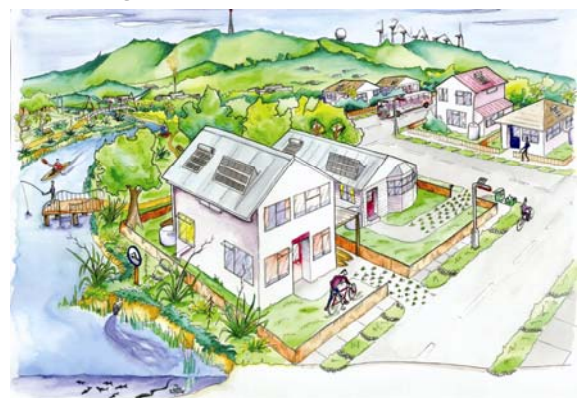
Enforcement

A number of existing regulations need to be updated, and there is need for new regulations to give effect to the objectives and outcomes of the Water Cycle Strategy and this Water Action Plan. These include the following:

- Council will continue to enforce regulations to protect public health and property
- Reviewing the District Plan
- Setting appropriate conditions in new developments
- Preparing new by-laws for each of the Three Waters

Advocating for changes to the Building Act to ensure that minimum standards specified in the Act are not in conflict with the above; for example, Council at present cannot require new buildings to be fitted with water efficient devices.

Figure 7: Our Future



Scenarios of the Future

Waitakere City needs to make choices as to how the three-waters will be managed over the long term. It is only by envisaging where the city should be in fifty years time that progress can be made towards this goal – annual and longer term budgets can be aligned and work programmes tailored to suit.

Decisions have already been made that the eco-city will follow a path of water conservation and environmental protection. The reasons and some of the costs involved have been discussed in the body of this document. The real questions, then, are how fast should progress be, and should Waitakere City and its community 'go it alone' or plan to take the wider regional community with it?

Keeping these questions in mind, four scenarios for the future have been developed, and are set out below.

The four scenarios provide very different pictures of what the future might look like for Waitakere City. Each scenario, which is detailed in Appendix 2, is summarised below:

Scenario 1 – Current Progress

Waitakere City will continue to maintain the existing networks and implement treatment of stormwater as funds permit. Limited progress will be made towards the protection of traditional food source and reducing overflows and bathing restrictions.

Scenario 2 – Slowing Progress

Waitakere City will undertake only the required services to ensure public health and safety. Little or no progress will be made in terms of treating runoff and protecting streams.

Scenario 3 – Accelerated Progress within Waitakere City

Waitakere City will undertake an integrated and sustainable programme of work to ensure, for example, wastewater discharges to the harbours are rare. However, the impact of such a programme will be limited by discharges from the other territorial authorities that border 90% of the Upper Waitemata Harbour coastline, and the Manukau Harbour.

Scenario 4 - Accelerated Progress / Virtual Regional Integration

All councils in the Auckland region work cooperatively, sharing resources and skills, with a commitment to achieving an agreed integrated and sustainable approach to the three waters. For example, once Waitakere City achieves the goal of rare wastewater discharges to the Upper Harbour, the impact of this improvement will be supported by similar approaches from North Shore City Council and Rodney District Council.

Scenario 4 is Council's preferred scenario.

Tactical Action Plans

Council has prepared 8 tactical action plans to progress the preferred scenario of virtual regional integration. These are listed below and described in detail in Appendix 3:

Table 2: Tactical Actions Plans

Tactical Action Plans	
Plan	Outcome
1	Ensure our community values water
2	Support a distinctive water lifestyle for Waitakere City
3	Build strong regional water partnerships
4	Manage water to meet our social obligations
5	Create healthy streams
6	Provide sustainable water services for the City
7	Manage flooding through structural and non-structural means
8	Manage water to deliver economic prosperity