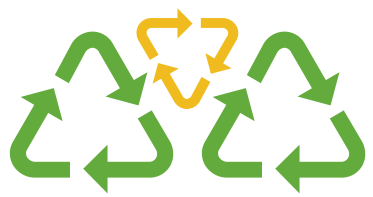


Zero Waste Programme

A more liveable city for generations to come



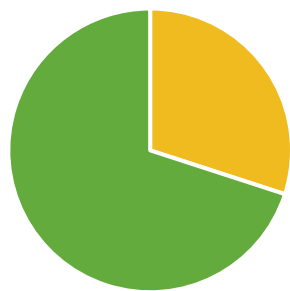
Why it matters

Wentbury wants to be a Green City

Wentbury City Council has committed to ambitious environmental goals, including being a 'Green City' by 2027, reducing carbon emissions by 55% by 2025 and being net carbon zero by 2030.

Without significant changes to the way we think about and manage waste, these targets and our community's expectations of a liveable city will not be met.

70% of Wentbury's emissions come from waste



What happens if we do nothing...?

We will leave a more toxic legacy for our future generations

If we do not change the way we think about, & manage waste:

- We will need to expand existing landfills and/or create new ones – with a subsequent increase in toxicity.
- Pollution will increase in and around the city (including our air, land and waterways), which will have increasingly serious environmental and health impacts.
- Costs of waste treatment & remediation will increase

We will fail to deliver our vision

- Our vision to be a Green City will not be achieved.

We risk not meeting our statutory obligations

- Increasingly stringent regulations by Central Government agencies may not be met, exposing the Council to litigation and/or external intervention.

What problems do we want to solve?

1

The way we currently think about, and manage our use of resources is creating unsustainable levels of waste

- We continue to consume virgin resources and produce waste at increasingly unsustainable levels.
- It's easier, and cheaper for consumers to create waste and harder for them to 'do the right thing' to reduce waste.
- Our incentives have traditionally encouraged the creation of waste, rather than waste reduction.
- We don't always use the tools we currently have available to us to reduce waste and lack a sense of urgency in resolving the problem.
- We largely fail to recognise waste as a potential resource.

2

Increasingly large amounts of waste is harming our environment

- Waste is increasing across all categories and the problem is expected to exacerbate as the City's population continues to grow.
- Wentbury is currently operating its 40th landfill in 180 years and it cannot continue to dig a new landfill every time one is filled.
- Wentbury's largest contributors to waste are:
 - Construction and demolition (C&D) waste, which has been driven by increased space constraints, earthquake requirements and end-of-life infrastructure
 - Organic waste, which is largely generated by private households who waste food due to poor meal planning and buying bulk food, as it's perceived as more affordable.
- Our landfills are running out of space and are currently leaking toxins into the wider environment, putting the health of our people and environment at risk.
- If we don't act, volumes will continue to increase, and our waste system will not cope.

What are the benefits of investing?

Improved resilience of our waste ecosystem

A resilient waste ecosystem will:

- Be able to adequately serve the needs of the community well into the future.
- Cope well with crisis like a severe weather event, earthquake or tsunami.
- Optimise the recovery and reuse of resources, thus reducing waste in the environment.

Improved medium- to long-term liveability

Wentbury will be a liveable city well into the future, including:

- Reduced pollution of our waterways, our air and of our land – resulting in better health outcomes for our people and our unique flora and fauna.
- Improved green credentials making us a more attractive place to visit and do business with – resulting in sustained economic prosperity.

Reduced intergenerational harm

Future generations will:

- Inherit the environmental conditions that will enable them to thrive.
- Not be faced with the very substantial costs of remediation or waste treatment.
- Have choices available to them in terms of land use.
- Not face significant health issues caused by high emissions, toxic leakage and pollution.

Our investment objectives

1

Products and services provided in Wentbury are waste free

- Extraction of natural resources is prevented and the level of waste entering the system is reduced as waste generation is avoided at the beginning of the cycle, when products and services are created.

2

Waste reduction is attractive and accessible to Wentburians

- Waste will only reduce with the support of our entire community.
- Greater emphasis will be placed on influencing consumption and purchasing patterns and behaviours and making reusing, recovering and recycling more convenient.

3

The infrastructure and systems to increase resource circularity is established

- Wentbury will have the facilities to retain value from resources to return them to valuable outputs.

4

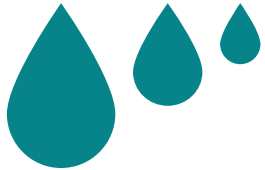
Waste that cannot be avoided, reduced, reused, or recycled is managed safely

- The negative effects of landfills on nearby residents, wildlife and waterways are reduced.



Achieving healthy urban waters

Receiving Environment Water Quality – Strategic case overview



What do we mean by the ‘receiving environment’?

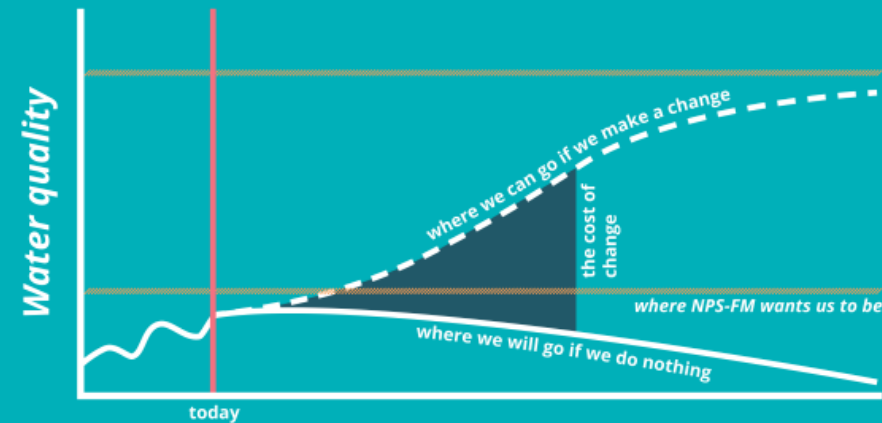
The receiving environment consists of the waterways that the city’s water discharges into, including streams, the river, and the harbours.

We are not only thinking about discharges, pathways for and treatment of stormwater, but also the communities, businesses and individuals who interact with it, along with population growth and the impacts of climate change.

Why do we need to act now?

We are anticipating increasing expectations from an amended National Policy Statement for Freshwater Management (NPS-FM) and from the process. With the current approach, we have little hope of meeting these standards—we can’t meet today’s standards.

Moreover, we have a large portion of our network due for replacement in the next few years. This is a great opportunity to rethink the way we invest in stormwater and wastewater assets.



What problems are we solving?

- Lock in of current assets has created a legacy system which cannot meet water quality expectations
- Historic approach has piped water away in favour of maximising developable space
- Weak incentives to adopt WSUD practices
- Legal framework is complex and weak

Our current stormwater / wastewater **system and management** is hampering our ability to meet obligations and expectations

- Poor awareness of the impacts of illegal discharges and connections to stormwater
- Weak sanctions for poor behaviour
- System does not foster sense of responsibility

Community behaviour and practice is impacting stormwater systems and quality, affecting downstream communities and water quality

- Many assets due for replacement
- Older construction material cannot meet modern standards
- Deferred maintenance and ad-hoc repairs
- Private laterals poorly maintained

An **ageing and fragile network** is increasingly vulnerable to leaks, infiltration, and overflows; leading to human health and cultural concerns

What do we want to achieve?



Improve the quality of our urban waters—our streams, rivers, and harbours can support life and are protected from contaminants.



Improved long-term viability—a new system and approach that enables the city’s Water to deliver to community expectations now and into the future.



Improved wellbeing and cultural connection to water—our communities value our urban waters and consider the impacts of their behaviours. The mauri of water is restored.



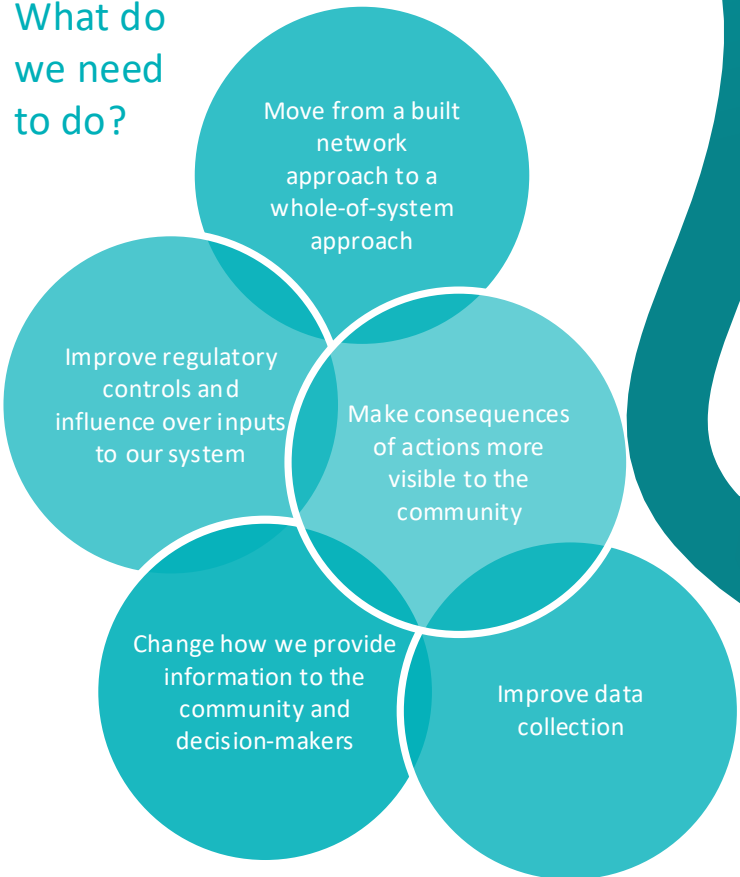
Reduced risks to public health—our urban waters are safe for our communities’ recreational and cultural use.

What are the consequences today?

The ageing stormwater network is vulnerable to misconnections—the connection of private wastewater laterals to stormwater pipes. This raw sewage in a stormwater drain will get swept out to a popular swimming spot on the wharf.



What do we need to do?



What happens if we do nothing?

Continuing the historic ‘water removal services’ provided by our current approach will not achieve the government’s or the community’s expectations. The city’s Water will **not be able to deliver to its service goals**.

We can expect to see further deterioration of water quality: more **frequent pollution events, fewer safe swimming days, and further loss of mauri**. As the city grows and the effects of climate change become more pronounced, the costs of continuing the existing management approach will rise.

We run the risk of **spending more to achieve less**, while allowing water quality to continue to deteriorate. The cost of change will continue to rise as the gap between performance and expectations grows.