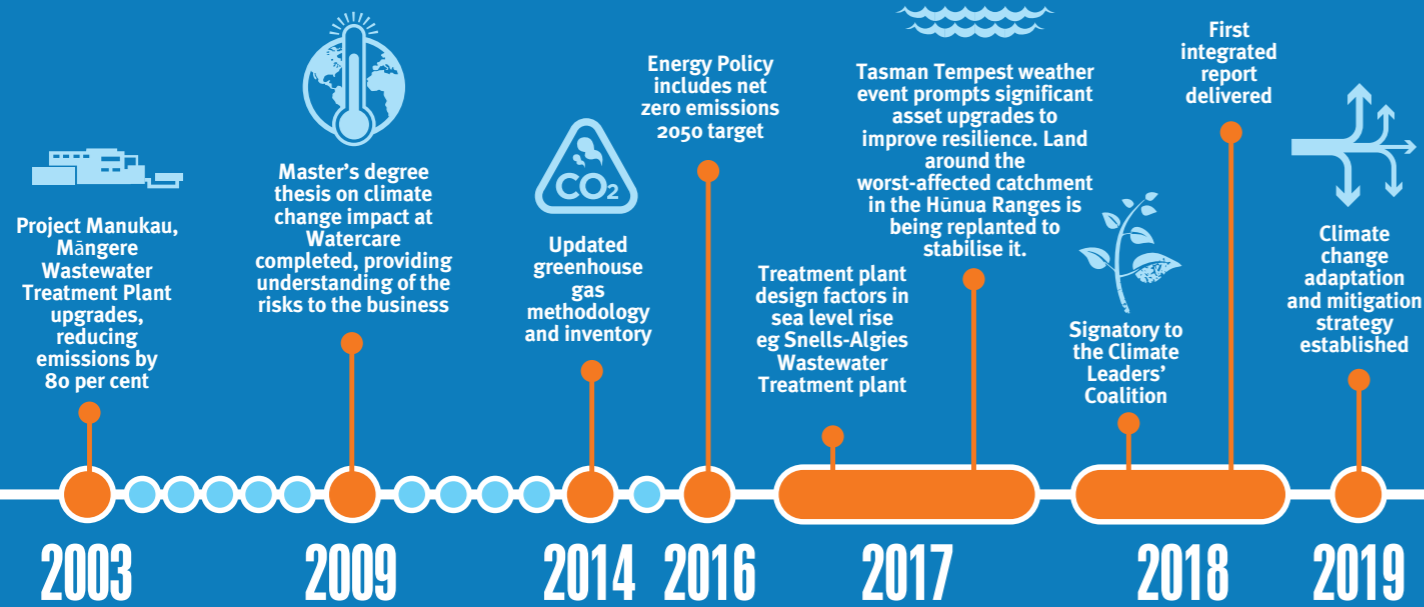
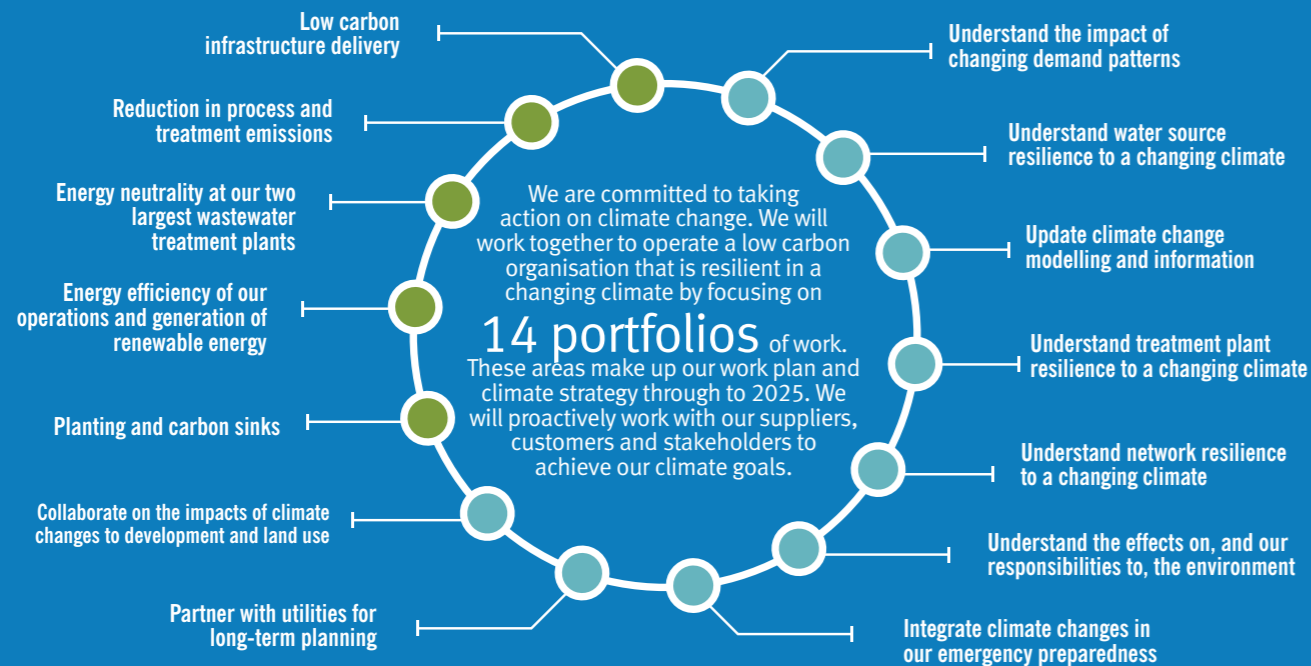


## Our climate change journey so far



## Our focus going forward



Climate change impacts Watercare on an environmental and social level. Key areas are represented by these five United Nations Sustainable Development Goals:



# CLIMATE CHANGE STRATEGY

Climate change is a global issue that requires significant and immediate action.

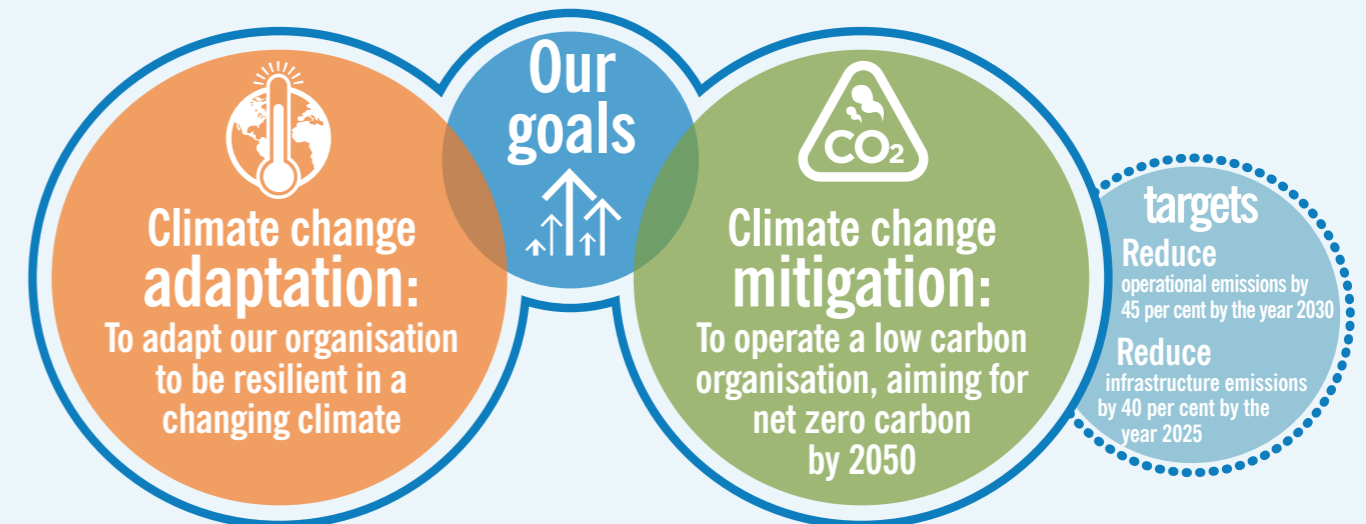
The global climate has already changed at unprecedented levels and the main driver for this is a dramatic increase in greenhouse gas emissions from human activities. The global impacts of this changing climate will bring significant direct and indirect changes and challenges. These include the growing frequency of extreme weather events, more prolonged dry periods, rising sea levels and increased coastal flooding.

Many of these changes have the potential to significantly impact water supply and wastewater services for Aucklanders, disrupting the service continuity provided by Watercare. There are a number of key concerns for Watercare which include:

**Water** - Catchment land instability, water scarcity, diminishing raw water quality, on-site flooding, power/access road failures to plants, increasing pipe breakages, impacts on assets due to sea-level rise, dramatic changes in demand for water services with increasing peak demands, potential 'stranded assets' following land-use changes and sea-level rise.

**Wastewater** - Decreased effectiveness of oxidation ponds, increasing probability of wastewater bypasses, on-site flooding, impacts on critical third-party services, changes to assimilative capacities, increased instances of consent non-compliances, submerged outfalls, migratory bird impacts, greater corrosion/odour issues, a greater number of overflows, increased pumping costs, increased saltwater intrusion and flotation of assets.

As a business and a country this is one of the largest challenges that we face.



We are committed to taking responsibility and to doing our bit. We have developed a climate change mitigation and adaptation strategy to guide the way we operate.

- We will increase our resilience by making sure that the location, design and operation of infrastructure projects includes flexibility and the potential to adapt to future climate conditions.
- We will reduce our emissions and operate a low carbon business, setting targets and establishing pathways to achieve net zero emissions.
- We will re-look at how we deliver our major infrastructure programmes, requiring emissions to be considered as part of their design and operation.

We will be innovative, collaborative and challenge our thinking.

# Climate change impacts



Droughts and more hot days  
(more than 25 degrees Celsius)



More extreme rainfall events



Rising sea levels

## Adaptation

**Water source resilience:** making sure there is enough good quality water for Auckland

**Managing water demand:** understanding and influencing our customers' water consumption

**Treatment resilience:** ensuring that our water and wastewater treatment plants are fit for purpose

**Network resilience:** monitoring our networks, modelling climate change effects and using resilient design and construction

**Environmental stewardship:** understanding the natural environment to inform our long-term decisions

## Mitigation



Planting and carbon removal

Energy efficiency

Energy-neutrality at major wastewater treatment plants

Low-carbon infrastructure

Reduce treatment process emissions