

Asset  
Management  
Plan  
Summary

2018

# Healthy Waters



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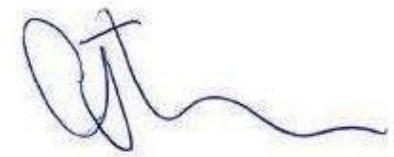
# Foreword

*The effects of climate change and global warming, with the accompanying sea level rise and extreme weather events are quickly becoming a reality. This requires a new focus and a holistic approach to managing stormwater – to protect people and property from the dangers of flooding while preserving the health and value of our waterways and harbours for future generations.*

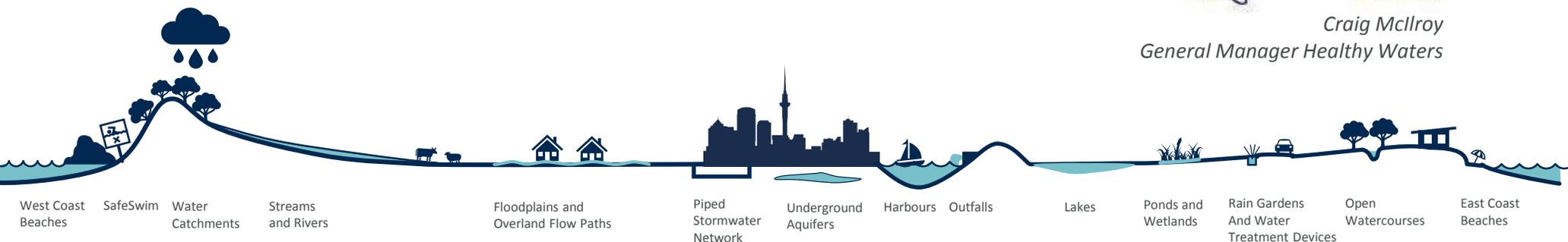
*Improving the quality of our waterways is not a one-time fix – it needs focused effort and unwavering commitment from multiple organisations and Auckland communities. Resilient, enduring and integrated stormwater solutions are required to take us into the future – to establish a truly **resilient water sensitive community**.*

*This is the subject of the Stormwater Asset Management Plan 2018, which outlines an ambitious but realistic capital investment program that best supports the strategic objectives of Auckland Council and optimised operational expenditure to ensure that we continue to deliver on our levels of service commitment to the community in the next 30 years.*

*The role of leading stormwater management sits with the Healthy Waters department, which is a world recognised leader in stormwater asset management and innovation.*



Craig McIlroy  
General Manager Healthy Waters



“Ko te wai te ora o nga mea katoa - Water is the life giver of all things”

OUR AUCKLAND

An aerial view of the Auckland city skyline and harbor, featuring the Sky Tower and various buildings. The image is overlaid with a blue tint and large white text.

TAMAKI  
MAKAURAU



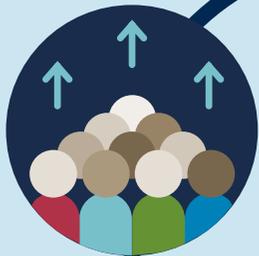
Tāmaki Makaurau, Auckland is home to 1.66 million people and is expected to grow to 2.4 million over the next 30 years. It is a place of diversity and vibrancy; a place of opportunity.

Our beautiful natural environment offers unique lifestyle opportunities and contributes meaningfully to Aucklanders' quality of life. It is inextricably connected to our sense of identity and our wellbeing.

The spiritual and cultural connection Māori have to Tāmaki Makaurau is tied to their relationship with the land, maunga (mountains), whanga (harbours) and fresh water.

## To remain a great place to live the region needs to address three key challenges:

**Key challenge 1:**  
Population growth  
and its implications



**Key Challenge 2:**  
Sharing prosperity  
with all Aucklanders



**Key Challenge 3:**  
Reducing environmental  
degradation



The **Freshwater National Policy Statement** directs regional councils, in consultation with their communities, to set objectives for the state of fresh water bodies in their regions and to set limits on resource use to meet these objectives. These are few of its requirements:

- Consider and recognise Te Mana o te Wai in freshwater management
- Safeguard fresh water's life-supporting capacity, ecosystem processes, and indigenous species
- Take an integrated approach to managing land use, fresh water and coastal water
- Safeguard the health of people who come into contact with the water
- Protect the significant values of wetlands and freshwater bodies

# AUCKLAND PLAN 2050

Auckland Council has developed the Auckland Plan 2050 with, and on behalf of, all Aucklanders.

The plan outlines the big issues facing Auckland and recommends the way in which Aucklanders and others involved in the future of Auckland can best respond to them.

Auckland now has a shared responsibility for implementing the Auckland Plan and managing stormwater is an important part of it.

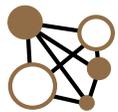
The Auckland plan outlines six outcomes to be achieved in the next 30 years.



**Belonging and Participation**



**Māori Identity and Wellbeing**



**Transport and Access**



**Environment and Cultural Heritage**



**Homes and Place**



**Opportunity and Prosperity**

## Infrastructure Strategy

Investment in infrastructure has long-term consequences for Auckland's future. The population and economic growth expected in Auckland over the next 30 years presents a number of infrastructure-related challenges and opportunities, including:



Coordinating investment and planning to enable growth



Improving the performance of Auckland's infrastructure



Creating resilient infrastructure networks

# SUSTAINABLE DEVELOPMENT GOALS

The Sustainable Development Goals are the blueprint to achieve a better and more sustainable future for all. We believe it is important for us to take a leading role in contributing to the Sustainable Development Goals (SDGs).

Leadership is essential both to transition away from practices that undermine the goals' achievement, and to proactively create solutions that solve existing challenges.

In September 2015, the 193 Member States of the United Nations adopted the new 2030 Agenda for Sustainable Development, including the SDGs. This set of universal goals calls on all nations to end poverty, protect the planet and ensure prosperity for all.

These 17 interrelated goals represent an ambitious agenda to achieve a sustainable future by 2030. We have a role to play in all of them, with a focus on the 10 highlighted here.





OUR  
APPROACH

# OUR OBJECTIVES

The way we manage stormwater and protect waterways will support the outcomes that the region strives to achieve in the next 30 years.

Within Auckland Council, the primary responsibility for stormwater management lies with the Healthy Waters department. Our goal is to promote and support the development of **Resilient Water Sensitive Communities**.

We manage stormwater and its effects on the environment in a way that best contributes to Auckland Council's Strategic goals. Our key focus areas deliver benefits that support the Auckland Plan outcomes

- 
**Healthy and Connected Waterways**
- 
**Supporting growth**
- 
**Safe Communities**



# OUR STAKEHOLDERS

Stormwater management is a partnership between Auckland Council, its CCOs and the community.



## Local Boards

Represent community interests and focus

## Tangata Whenua

Kaitiaki of Auckland natural resources, strong interest in sustainable and culturally sensitive stormwater management

## NZTA, CCOs (Watercare, Auckland Transport)

Manage stormwater in areas serviced by combined sewers  
Manage stormwater infrastructure that services the road network (roads are part overland flow paths)

## Central Government Agencies

Set policies, standards and legislation

## Auckland Communities

We listen to and engage with communities who provide our funding and use our services

## Environmental and Community Groups

We work with these groups to improve waterways health and to promote community connection with waterways

## Rural community

Working with farmers, forestry, rural advisory panels to understand needs and promote protection of waterways and water quality

## Construction Industry

We purchase construction and consulting services. The construction sector plays a key role in delivering stormwater works

## Development Community

Provide stormwater infrastructure in new developments and apply water sensitive design

# OUR ONE WATER SYSTEM

We manage an open, interconnected water system of waterways across the region. Water sensitive solutions minimise the negative effects of increasing stormwater volumes on natural environments. Constructed infrastructure, prevalent in the urban areas, represents a small part of our water systems and works with natural water systems to protect people and property from flooding during storm events.



## Streams, rivers and lakes

474 rivers and streams in the Auckland region

Over 16,000 km of permanent streams

Over 4,500 km of intermittent streams

Most of the streams are short, and the majority are just a few meters wide

Hoteo River is the Auckland's largest river in length (28kms)



## Coastal and Marine Environments

Waitematā Harbour ('sea of sparkling waters') was once a river valley. The inner harbour is ringed by sandy beaches in the east, and mudflats and salt marshes to the west and north-west. The Manukau Harbour is wide and shallow, with extensive mudflats and salt marshes

Kaipara Harbour is the third and largest harbour of the wider Auckland region. Like the Manukau, it has a dangerous bar at the entrance, and shallow tidal estuaries and mudflats



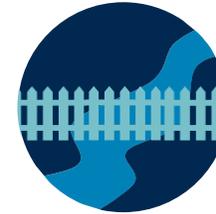
## Aquifers

Auckland Isthmus volcanic fields receive 20 percent of stormwater runoff in Central Auckland

Onehunga and Mt Wellington aquifers drain the catchments that are away from the coast

Water quality in aquifers is good

Very few areas of saturation are found



## Overland flow paths

69,000 km of overland flow paths across the Auckland region

Many overland flow paths follow the roading network

26% of buildings lie in overland flow paths

We rely on overland flow paths to convey 100 storm flows

Our natural systems

are

**Irreplaceable**

.....  
**Priceless**

# OUR ONE WATER SYSTEM

The built stormwater network takes stormwater away from properties to prevent flooding. Detention and treatment facilities and devices control stormwater flows and prevent pollutants from entering our receiving environments.



## Pipes, culverts and connections

assets worth more than **\$3 billion**

Over 6,300 km of pipes

70% < 30 years old

70% are concrete pipes

95% are in good condition

Average remaining life = 94 years



## Manholes

assets worth more than **\$750 million**

154,000 manholes across the region

Most manholes are less than 3 m deep

95% of manholes are in good condition



## Catchpits, inlets and outlets

assets worth more than **\$140 million**

Over 115,000 catchpits across the region

7,200 catchpits owned by Auckland Council, the rest by Auckland Transport

Over 25,000 inlets and outlets

Condition of coastal outlets mostly good



## Treatment and detention

assets worth more than **\$295 million**

626 detention and treatment ponds and wetlands

With a few exceptions, ponds were installed in the last 25 years.

568 water quality devices

Water quality devices vary by type, function and standard

## Stormwater Network

assets are depreciating with time and use – at a rate of

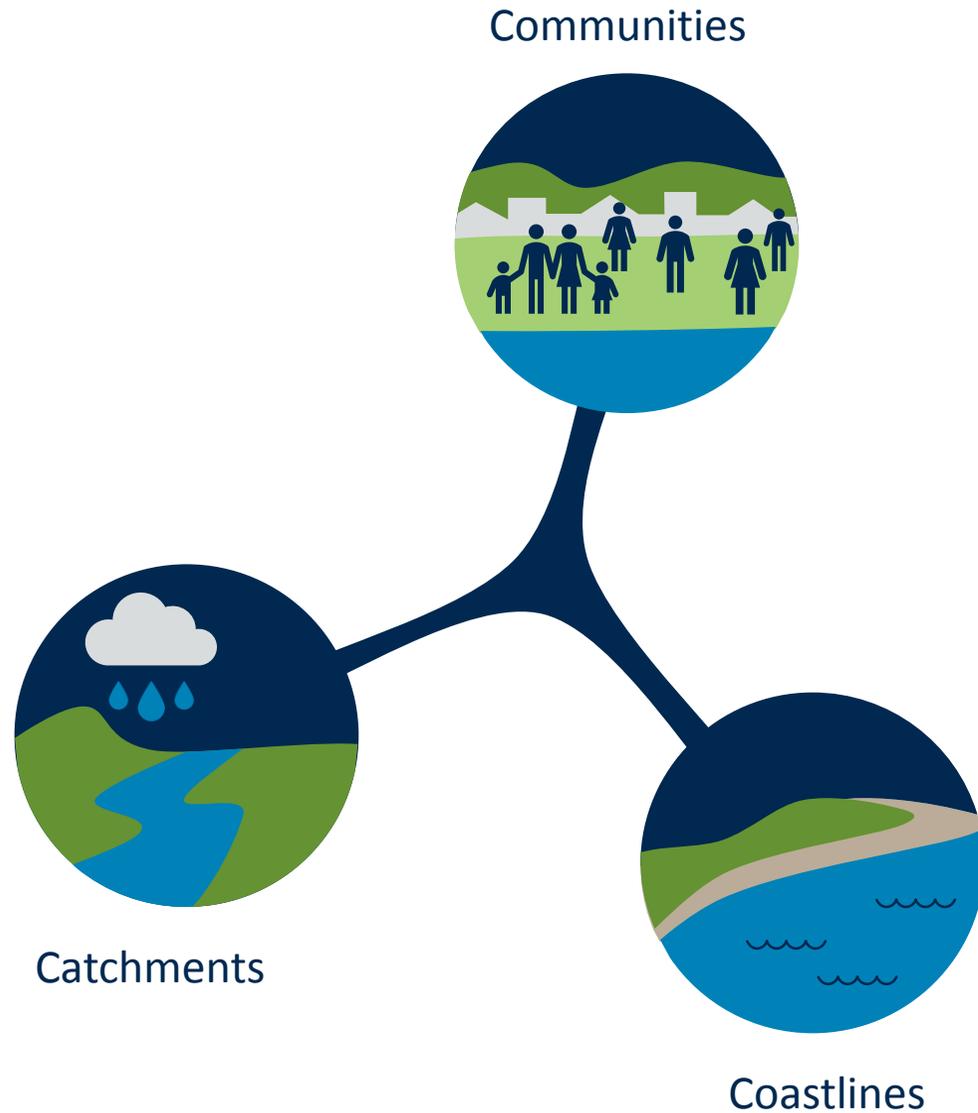
**\$47 million**  
per year or

.....  
**\$128,000**  
per day

# BUILDING RESILIENCE

Substantial advances have been made in understanding, managing and responding to flood and overland flow hazards in Auckland's catchments. We are developing a better understanding of the scale and significance of the future impacts of climate change and sea level rise and how these will exacerbate flooding and inundation and erosion hazards in our coastal environments.

The focus moving forward is to ensure that this knowledge informs policy, regulation, development, and asset management decisions at all levels so that Auckland's communities recognise and plan appropriately to adapt and respond to future risk in their catchments and coastal environments.

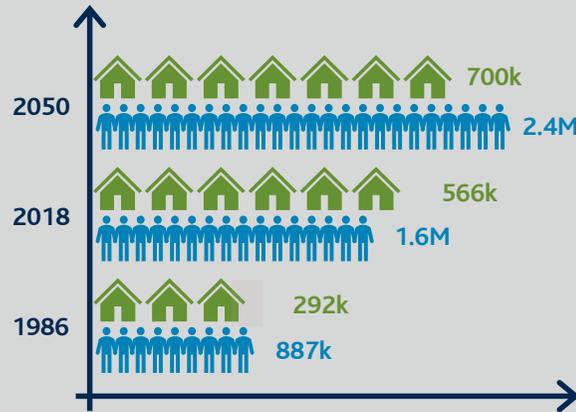




SUPPORTING  
GROWTH

# KEY CHALLENGES AND OPPORTUNITIES

## Population Growth



Larger impervious areas will increase across the region, creating demand for stormwater infrastructure and putting pressure on the receiving environments.

Redevelopment of existing areas will provide an opportunity to apply innovative water sensitive design and optimise the existing stormwater infrastructure.

## How Auckland will grow and change

### Redevelopment and Intensification

City centre, Albany, Westgate and Manukau nodes, development areas and future urban areas



### Establishing new communities

In future urban areas in the rural fringe such as Warkworth, Pukekohe, Kumeu, Silverdale, Whenuapai



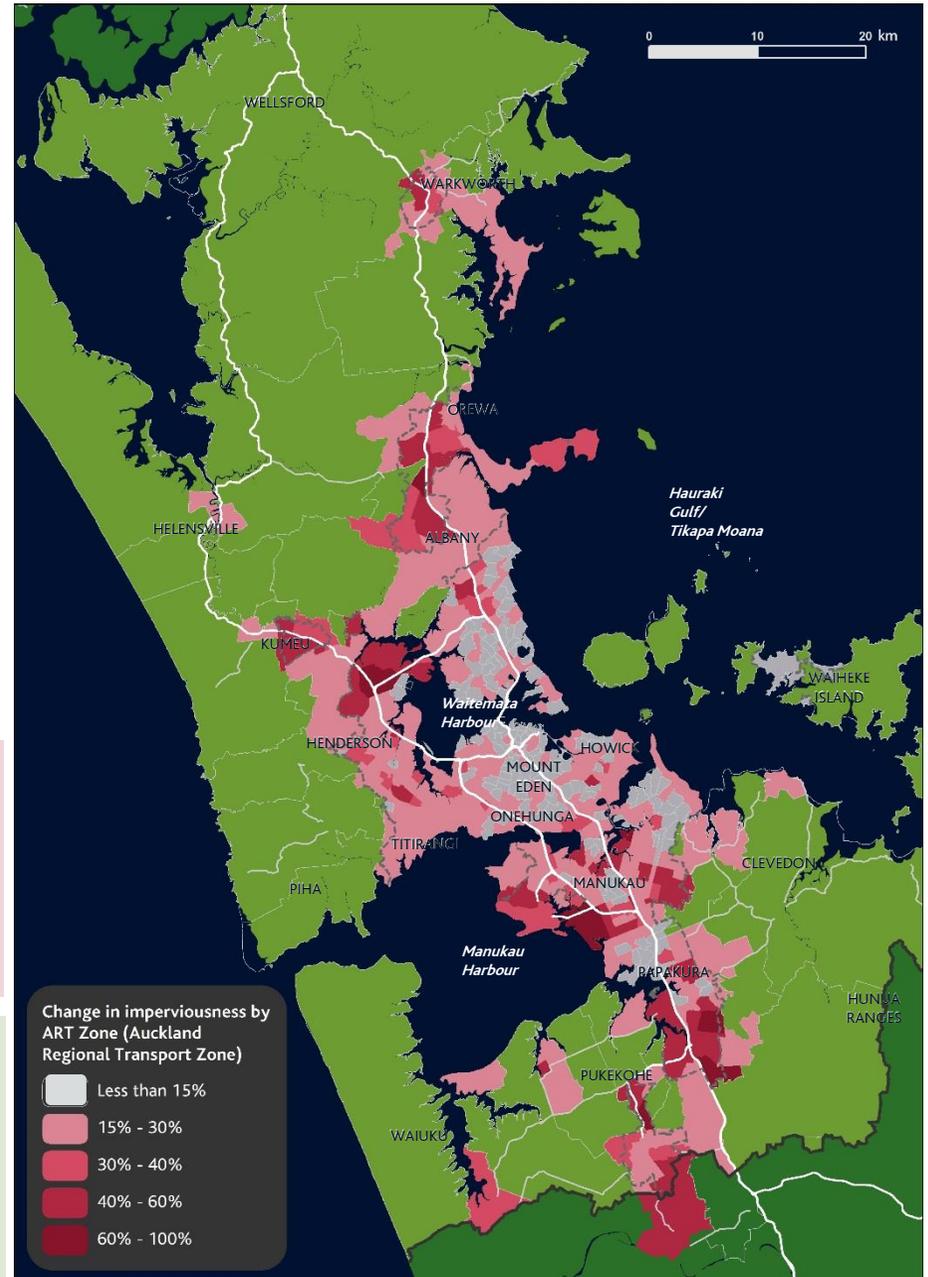
### Creating flexible business areas

In existing business land, and new business areas in greenfield areas

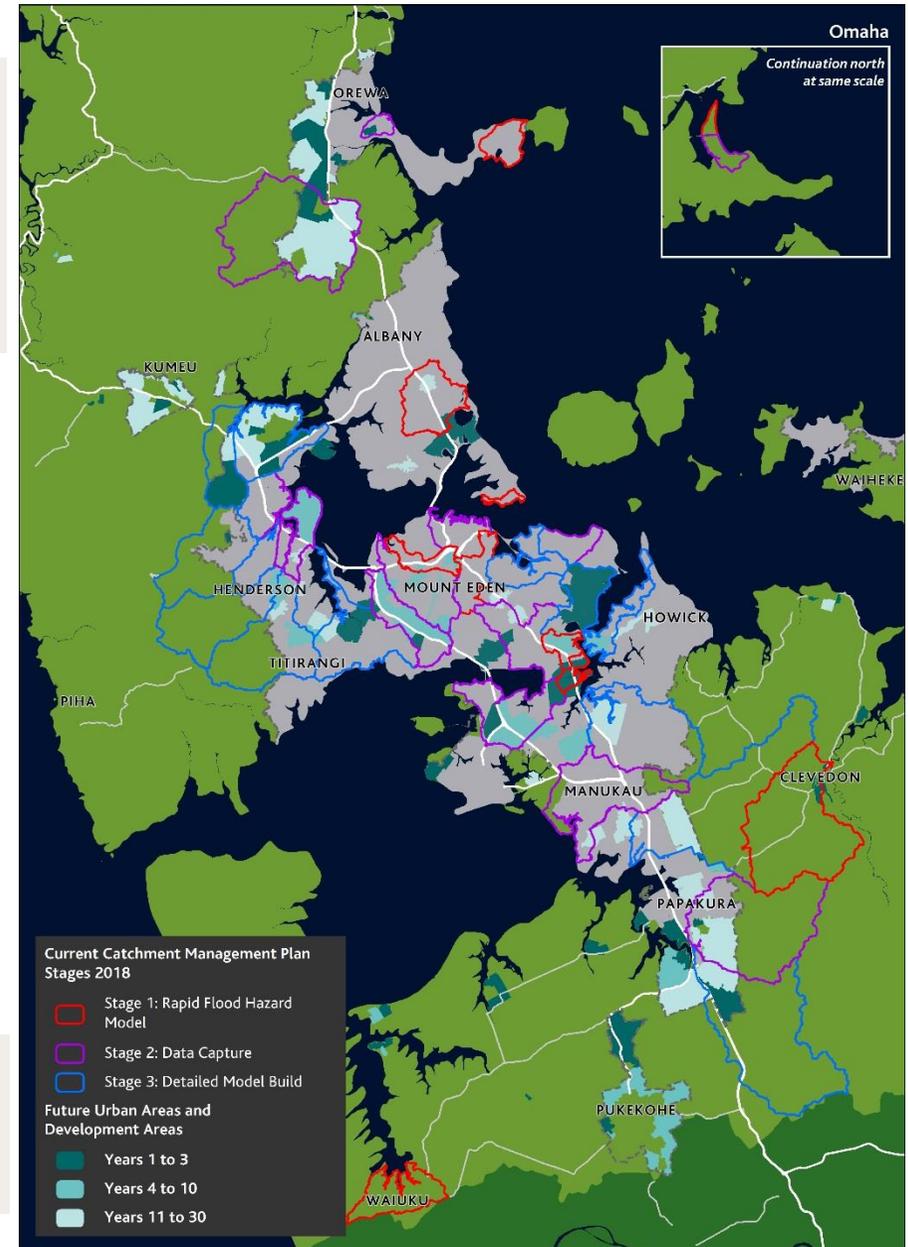
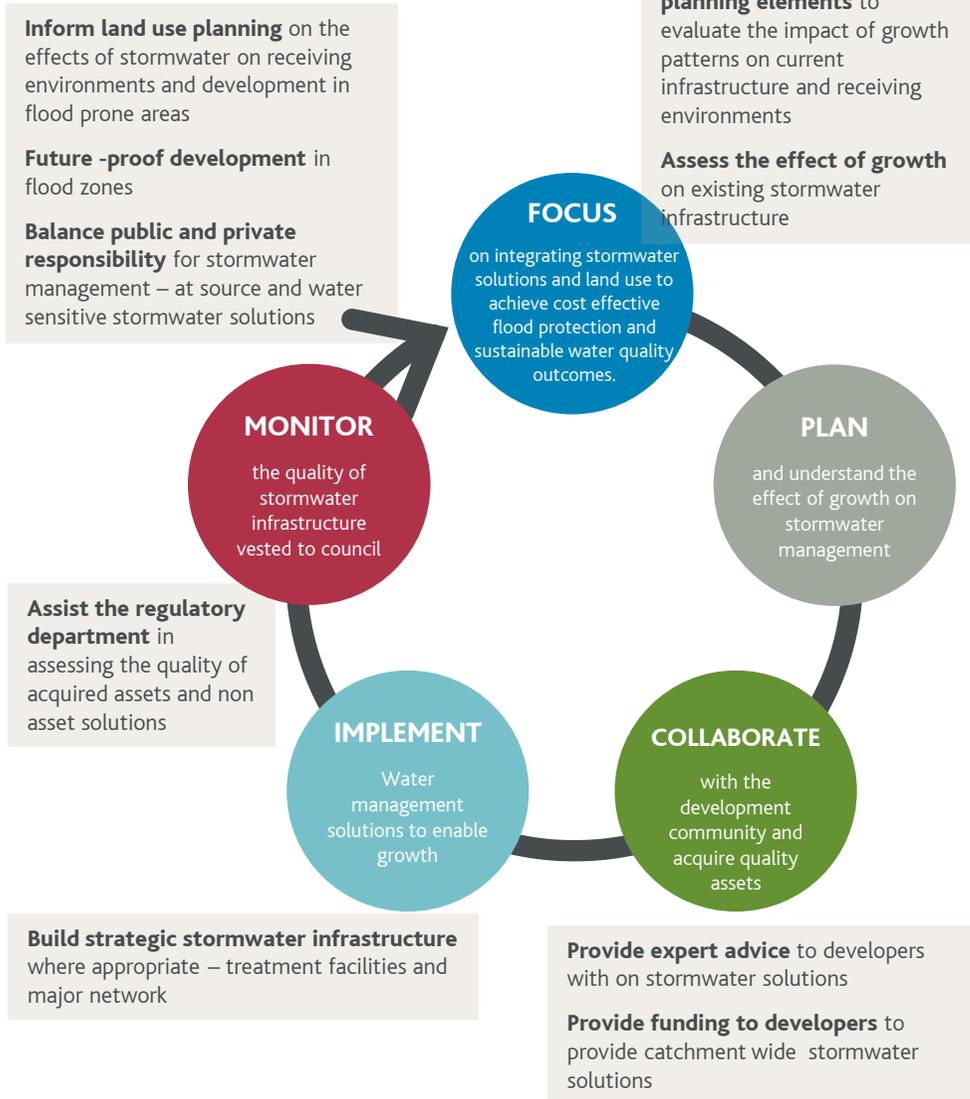


### Limiting growth in rural areas

Rural lifestyle growth away from sensitive environmental and economically productive areas



# HOW DO WE MANAGE GROWTH



# KEY INITIATIVES - 10 YEARS



**\$80M**

will be spent on developing catchment management plans and contaminant load models to inform the impact of land use and development types on the environment

**\$850M**

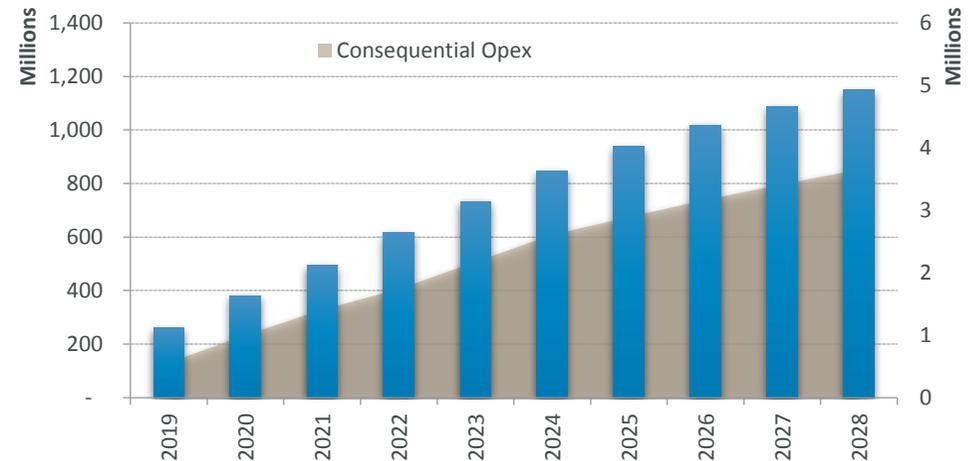
worth of assets will be vested into council ownership. We will work with developers to make sure that the quality of vested assets meets current standards and water sensitive solutions are implemented

**\$220M**

will be invested in building infrastructure and providing funding to developments to improve and optimise surface water systems

**\$25M**

will be required to operate growth supporting vested and built assets.



# HEALTHY CONNECTED WATERWAYS

**Public health warning**  
Water quality in this area is not safe for swimming, collecting shellfish or other water activities.



For more information, please call 0800 545 545 (0800 545 545) or visit [www.aucklandcouncil.govt.nz](http://www.aucklandcouncil.govt.nz)



# WATER QUALITY

**Ko te wai te ora o nga mea katoa - Water is the life giver of all things**

In both urban and rural areas, water quality has declined, and freshwater environments have been compromised. There are areas of Auckland's beaches, harbours, streams and aquifers that are significantly affected by poor water quality. Many waterways and beaches are unsafe for swimming after storm events; 10 Auckland beaches are permanently closed to swimming due to health concerns.

This is a result of pollution from a number of sources including:



**Wastewater overflows** from the combined sewer network or cross connection



**Old or poorly maintained** onsite wastewater systems (septic tanks etc)



Pollution from **road run-off**



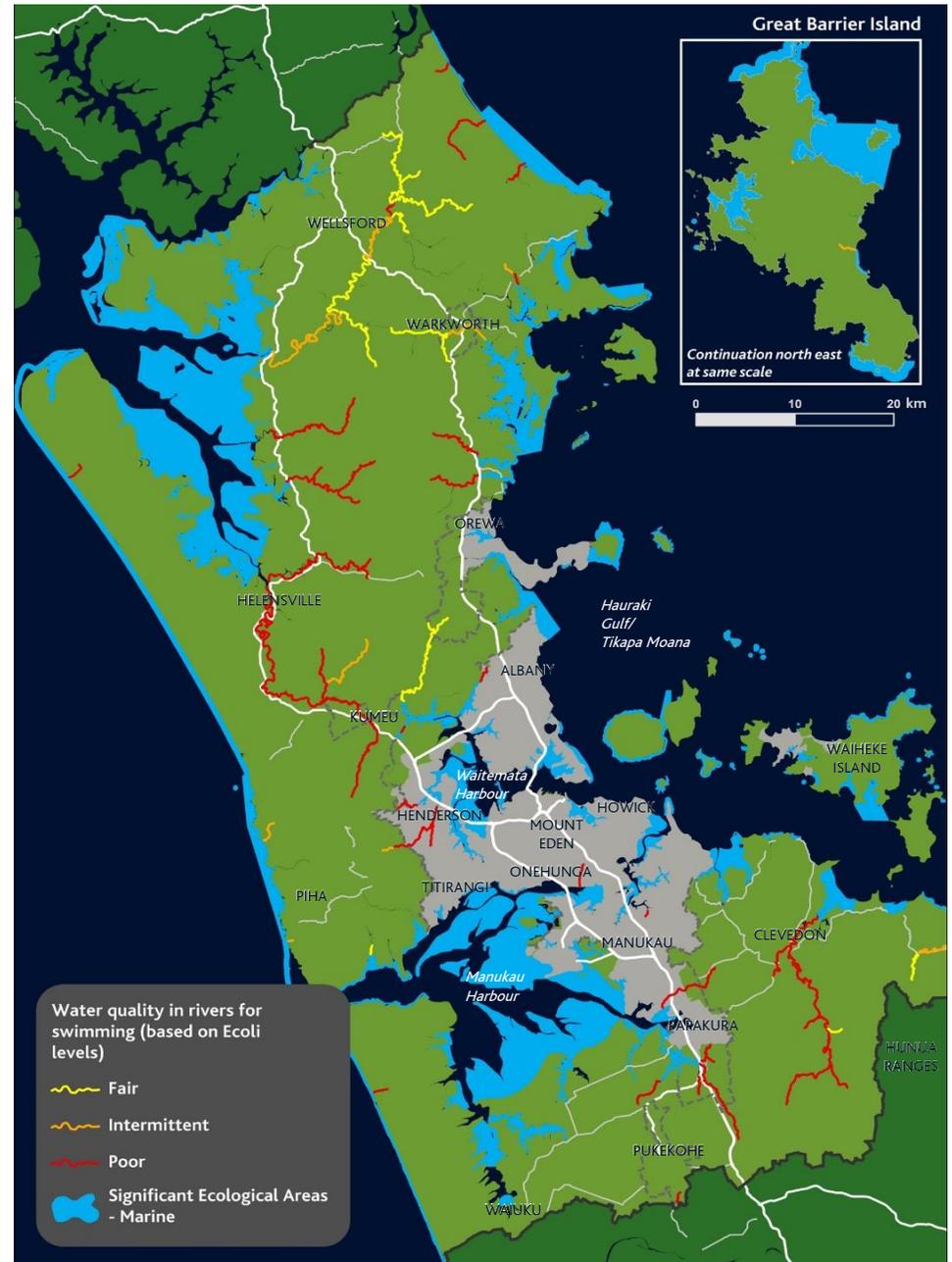
**Sedimentation** from urban and rural land use



**Impacts from farming** such as livestock in streams and fertiliser runoff



**Plastic and other waste** is clogging the surface of the oceans and seas



# KEY CHALLENGES AND OPPORTUNITIES



High degree of **coordination and collaboration** required to achieve our common goal. Managing and improving water quality is the shared responsibility of the Auckland community, Auckland Council and its CCOs.



**Meeting increasing environmental standards** – infrastructure that met the standards at the time it was built is no longer acceptable

1<sup>st</sup>  
2<sup>nd</sup>  
3<sup>rd</sup>

**Prioritising water quality improvements** – balance risk with cultural significance. Water quality projects compete for funding and environmental benefits are harder to quantify.



**Balance** the opportunity to achieve environmental outcomes by retrofitting water sensitive solutions with the cost of these solutions



## 12 Beaches

With long term "Swimming not recommended" signs

- |   |   |
|---|---|
|  Cox's Bay                   |  Meola Reef        |
|  Little Oneroa Lagoon        |  Wairau Outlet     |
|  Piha Lagoon                 |  North Piha Lagoon |
|  Te Henga (Bethells) Lagoons |  Laingholm Beach   |
|  Wood Bay                    |  Green Bay         |
|  Titirangi Beach             |  Fosters Bay       |

# HOW WE MANAGE WATER QUALITY ISSUES

**Work with community groups** to raise awareness of effects on human activities on our waterways

**Support social procurement community projects** to clean streams and restore the amenity value of streams, rivers and lakes

**Take responsibility** for protecting the environment on behalf of Auckland Council

**Oversee** the performance of private onsite wastewater and stormwater devices

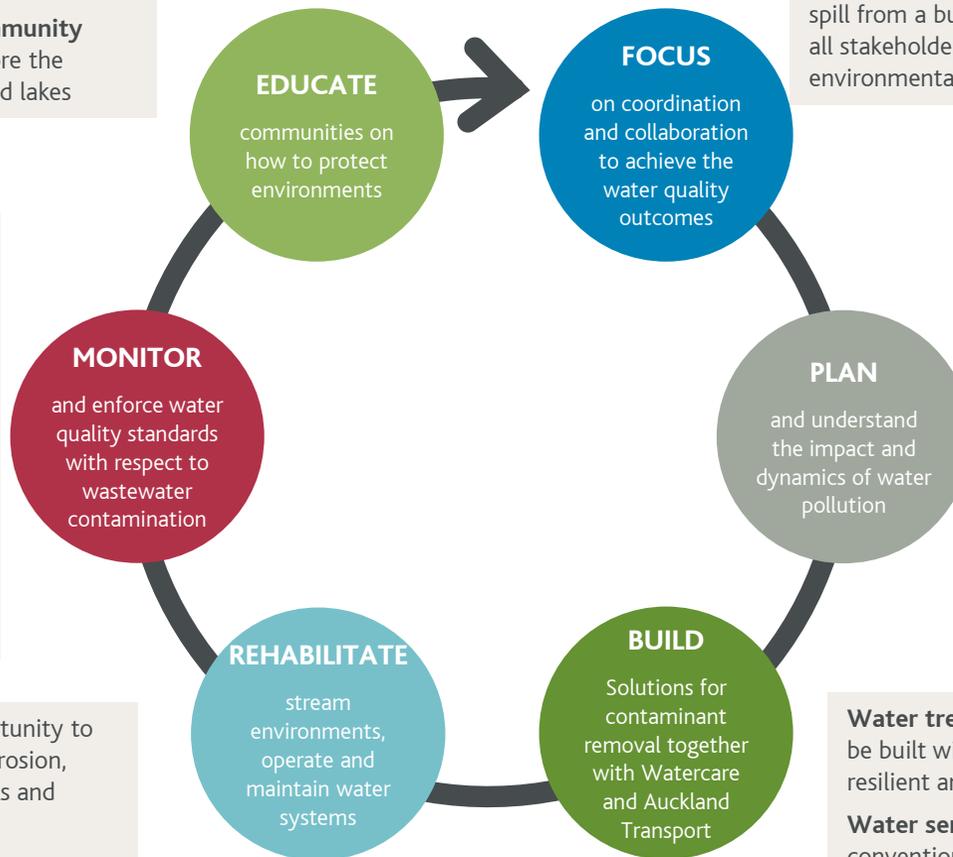
**Ensure** that the stormwater network functions within the parameters of the network discharge consent

**Monitor** key water quality parameters at outfalls

**Investigate** cross connections between wastewater and stormwater networks to identify possible pollutant sources

**We need to give** waterways the opportunity to heal themselves by managing stream erosion, restoring vegetation along stream banks and improving stream habitats

**Daylighting of highly modified urban waterways** will enhance the environment and create pleasant and community friendly outdoor spaces



**Improving water quality** is not a one-time fix. Pollution in our receiving environments may start at a property from a wastewater overflow, with runoff from a road when it rains, or a chemical spill from a building site. Joint commitment from all stakeholders is needed to achieve meaningful environmental improvements

**We are developing** a regional water quality model to help us understand the nature and sensitivity of our catchments and their ability to sustain development and intensification. This will guide us in prioritising water quality improvements to where they will deliver the most benefit

**Water treatment infrastructure** needs to be built with the future in mind; to be agile, resilient and affordable

**Water sensitive design** will replace conventional water treatment solutions

**Utilising national and international knowledge** to improve and optimise is the way of the future

# KEY INITIATIVES - 10 YEARS

**\$322M**

for wastewater reduction through stormwater reuse and redirection to address wastewater pollution in areas serviced by combined sewers.



**\$24M**

for contaminant management



**\$20M**

on stream rehabilitation



**\$20M**

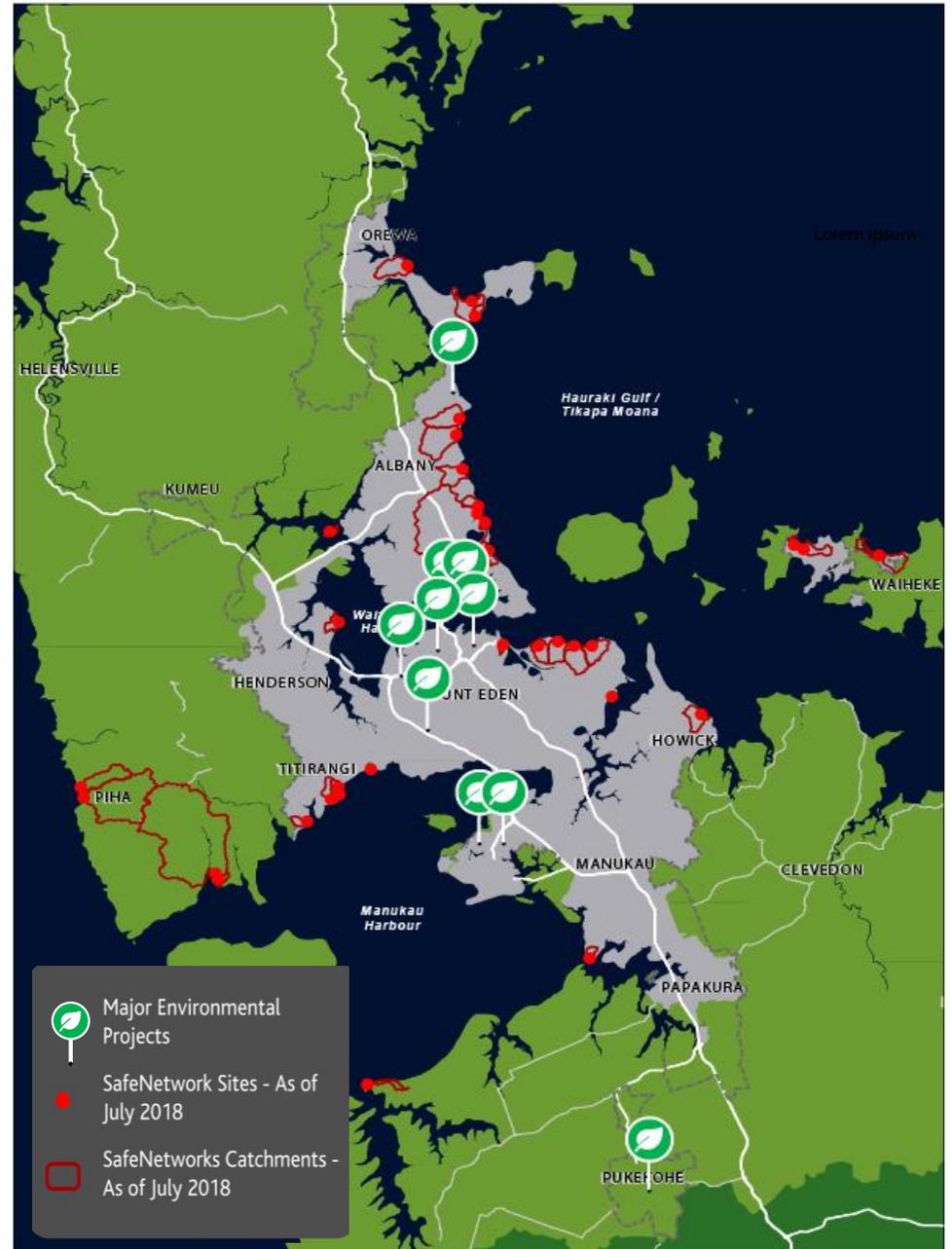
in collaboration projects



**\$13M**

on finding cross connections through the Safe Networks program, monitoring onsite wastewater management schemes and cleaning over 6000 septic tanks in Waitakere.

Monitoring septic tanks in Waiheke and Waitakere, followed by the rest of the region





**WARNING  
DO NOT SWIM**

**WARNING**

The Auckland Regional Public Health Service  
advises the following for all Hauraki Gulf Beaches:

-  Avoid exercising pets on the beach
-  Children should not be taken to the beach
-  Do not collect shellfish

 Avoid contact with sea water and sea life

For further information please call Auckland on 499 8600

Auckland Regional Public Health Service  
North Shore City

0800SAFESWIM (0800 72 66)

**SAFE  
COMMUNITIES**

# SAFE COMMUNITIES

Public safety is a key factor in enjoying our natural environment and connecting people with Auckland.

Managing risks related to surface water is a joint responsibility between the people of Auckland and Auckland Council. We will play our role in this process by managing risks from public systems and providing education and support to community on private risks. Building and supporting resilient communities is one of our highest priorities.

## Asset risks and levels of service



Over **600 km** of critical pipes

**18 large dams** in stormwater treatment facilities

**400 hotspots** (important locations in the network)

Over **8000 requests for service** to respond to annually in timely and efficient way

Few **extreme storm events** to manage annually

## Waterways, beaches and poor water quality risks



**50% of streams** are eroding and have the potential to affect public safety

**Sediment accumulation** is limiting conveyance in waterways

**Vegetation management** is an important issue

**Water pollution** and sick animals need to be managed

**Poor quality** of stormwater runoff pollutes beaches and recreation areas

## Flooding risks



**16%**

of Auckland's land are covered by floodplains



**20%**

of buildings in Auckland are adjacent to a flood hazard



**10%**

of buildings lie within floodplains



**26%**

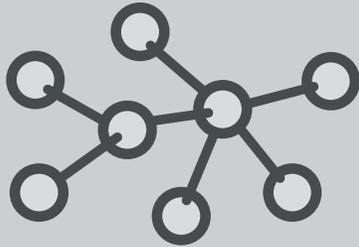
of buildings in Auckland are built on overland flow paths



**3%**

of buildings are predicted to flood in an extreme event

# KEY CHALLENGES AND OPPORTUNITIES



**Stormwater risks** are influenced by human activity, terrain, climate and legislation. To identify, assess and fully understand them, complex models and analyses are required



**Increasing demand for adequate flood protection** in ever changing conditions - sea level rise and more frequent extreme weather events, land use and urban design changing terrain configuration



**Increasing environmental standards** put pressure on the operation of existing water quality assets, which were designed to the requirements of yesterday.



**Focus on resilience** calls for a new approach to stormwater management, more reliance on water sensitive design and less on hard infrastructure.



**Managing ageing infrastructure** by balancing sustainability, risk and affordability

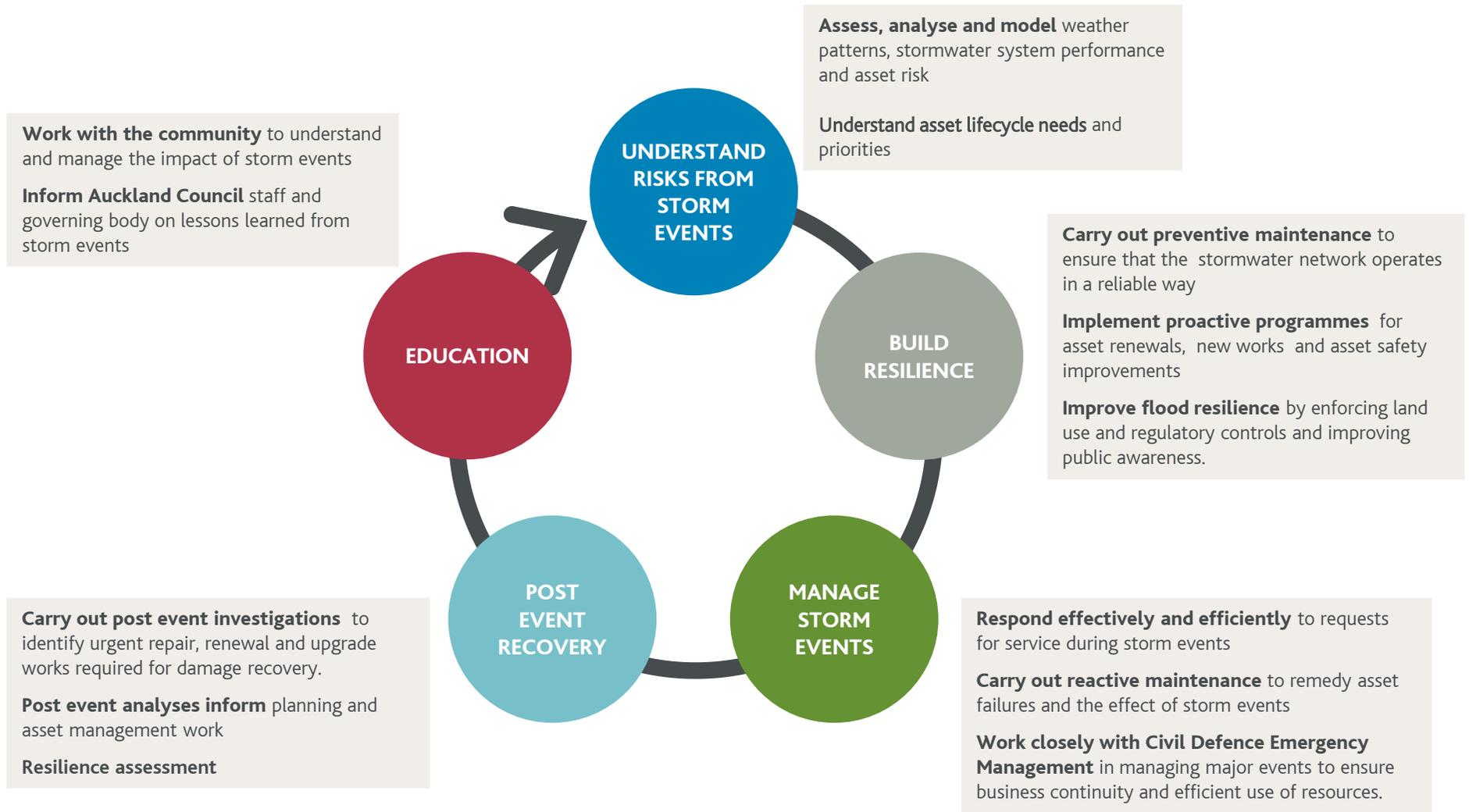


**Retrofitting new water sensitive solutions** –balance the cost and benefits of water quality management



**Community engagement** – learn what our communities value and provide affordable and viable stormwater solutions

# HOW WE MANAGE RISKS



# KEY INITIATIVES - 10 YEARS

## \$262M

will be invested in stormwater asset renewals to minimise flooding risks due to asset failure

**6%** of stormwater pipes are critical to providing adequate flood protection to properties and people. Critical assets are inspected and renewed proactively; non critical assets in poor condition are run to failure; assets of medium criticality are renewed proactively where the benefits outweigh the costs

**6%** of stormwater critical assets are estimated to be in a poor or very poor condition

**24%** of renewal expenditure will be for renewal and rehabilitation of water treatment facilities to minimise the pollutants reaching our streams and harbours

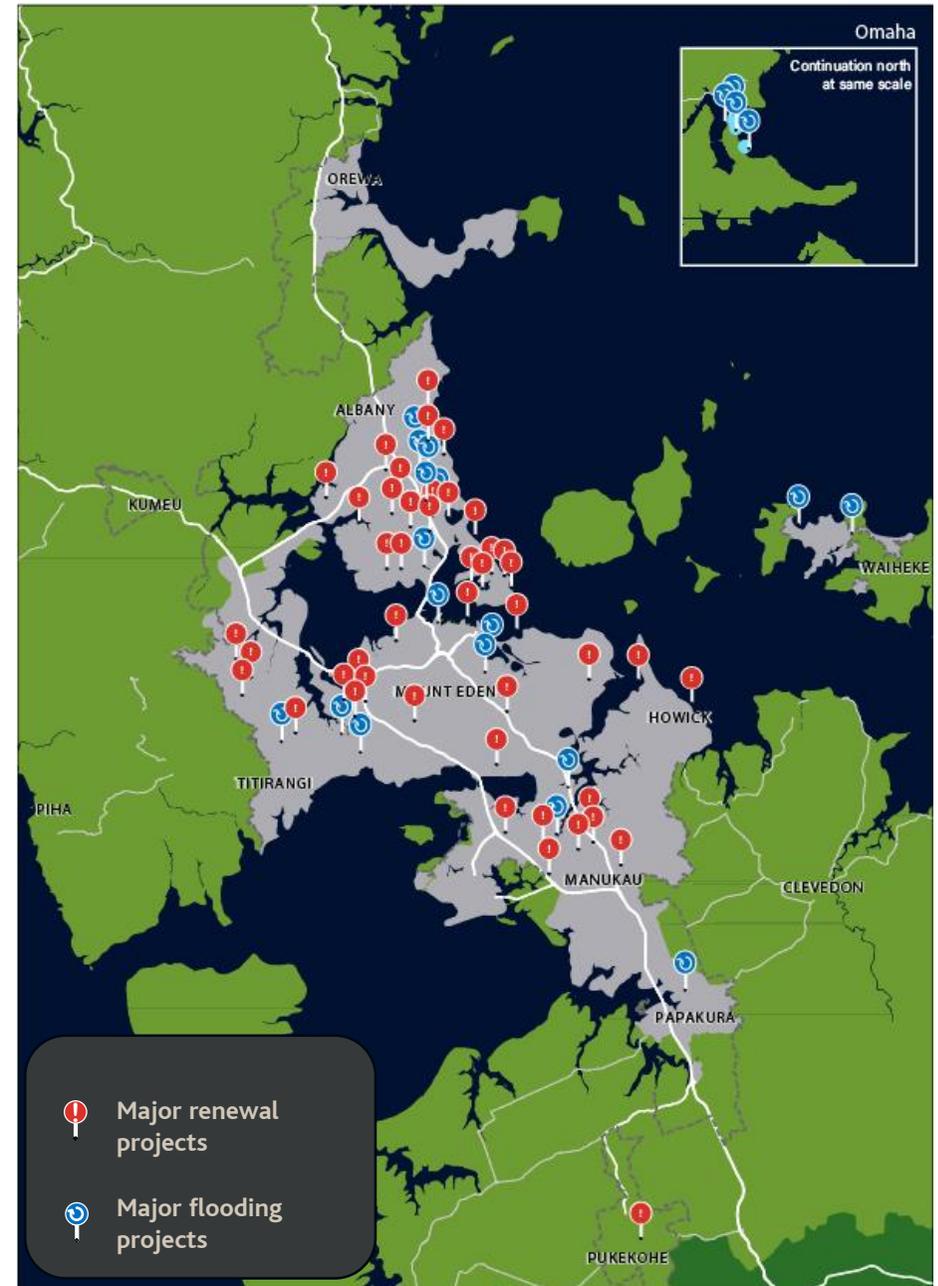
**42%** of renewal expenditure is for renewal of critical infrastructure

## \$54M

will be invested in flood protection and asset safety work

We will upgrade and extend infrastructure to provide adequate flood protection or buy properties where flooding risk is excessive

We will install safety measures to manholes, outfalls and other assets to ensure that they do not endanger public safety



# OPERATIONAL EXCELLENCE IN THE NEXT 10 YEARS

We are responsible for the operation and maintenance of our own stormwater assets as well as stormwater assets in the road corridor owned by Auckland Transport.

**\$ 300M**

will be spent on operation and maintenance of water systems and managing everyday effects of storm events

**\$ 52M**

will be spent on operating and maintaining Auckland Transport stormwater assets by Auckland Council



## Reactive maintenance

We will carry out reactive repairs and maintenance of assets to restore their serviceability



**\$62M**

Auckland Council systems

**\$22M**

Auckland Transport systems

## Preventive and planned maintenance

We will inspect water treatment facilities and vulnerable areas in the network to prevent malfunction during storm events

We will clean and dispose of litter and sludge from our catchpits and pond forebays to protect our streams and harbours from siltation

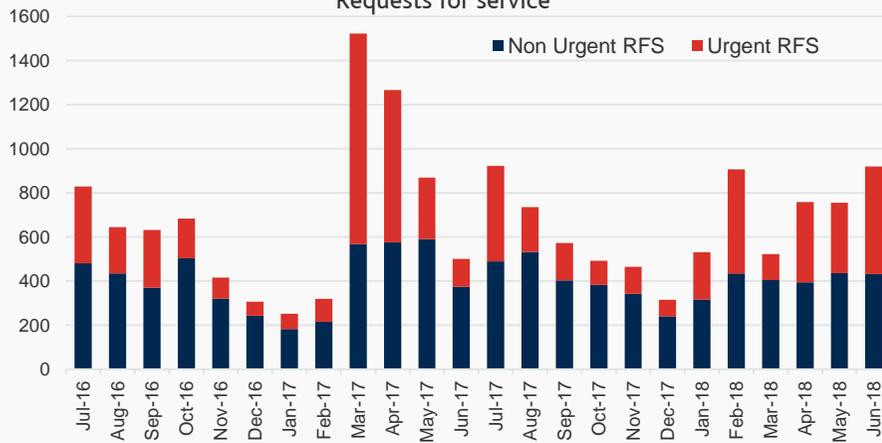
**\$ 153M**

Assets owned by Auckland Council

**\$ 30M**

Assets owned by Auckland Transport

Requests for service



We respond to over **10,000 stormwater related requests** for service annually; almost 50% relate to flooding in roads where assets are owned by AT. **20%** of all stormwater issues do not relate to stormwater assets.

We will carry out reactive repairs and maintenance of assets to restore their serviceability

# OPERATIONAL EXCELLENCE IN THE NEXT 10 YEARS



## Managing extreme storm events

We will maintain capability to respond to extreme storm events, and minimise flooding risks where feasible

We have identified over 400 "hotspots" (vulnerable locations) across the region which are inspected and cleaned prior to a predicted storm event

We will work with Civil Defence and Emergency Management to ensure that resources are optimally allocated to achieve the best outcomes

We will carry out post event assessments to improve the state of the stormwater system

## **\$ 35M** Stream maintenance and green infrastructure

We will carry out cost-effective stream improvement works at areas of highest risk – manage conveyance, erosion and protect public safety

We will carry out investigations to identify issues with blocked waterways and overland flowpaths to prevent flooding

## **\$ 50M** Operation and maintenance of small water supply and wastewater systems

254 small water supply systems with 1200 assets

337 small wastewater systems with over 1000 assets

We will respond to requests for service, operate and maintain assets and monitor compliance to consents and legislation





# MEASURING PERFORMANCE

# HOW WE MEASURE UP

**We are committed** to delivering appropriate level of service to our community balanced with affordability and good industry practice, both now and into the future

**We measure and monitor performance** against various targets to determine our level of achievement and identify areas for improvement

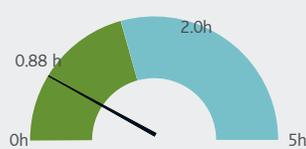
Our key output areas are:

## 1.0 Manage the stormwater network and flood protection schemes to minimise the risks of flooding to Aucklanders

The number of flooding events that occur and the associated number of habitable floors affected per 1000 properties connected to Auckland Councils stormwater network\*



The median response time to attend a flooding event, measured from the time that Auckland Council receives notification to the time that service personnel reach the site^



Stormwater manholes that pop open in flood events are made safe within 2 hours\*



### Legend

- Within target
- Outside target
- Needle indicates actual result for 2018

Critical assets with identified structural condition grade 4 (poor) are renewed or repaired within 5 years of identification\*



The number of complaints (reported blockage in stormwater network) received about the performance of the stormwater system per 1,000 properties connected to Auckland Council's stormwater system\*



Critical assets with identified structural condition grade 5 (fail) are renewed or repaired within 24 months of identification\*

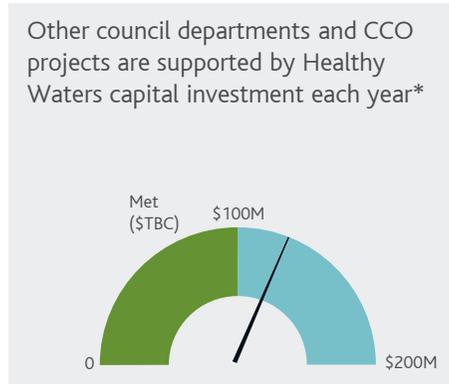


\* Per annum

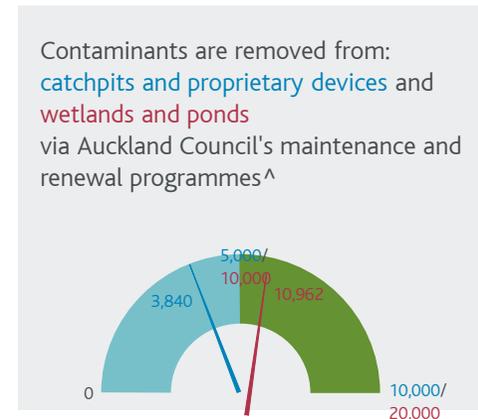
^Hours per annum

# HOW WE MEASURE UP

## 2.0 Develop the stormwater network in a cost effective manner to enable growth in accordance with Auckland Councils growth priorities



## 3.0 Enhance and protect our harbours and waterways through sustainable management of the stormwater network



\* Per annum

^Tonnes per annum



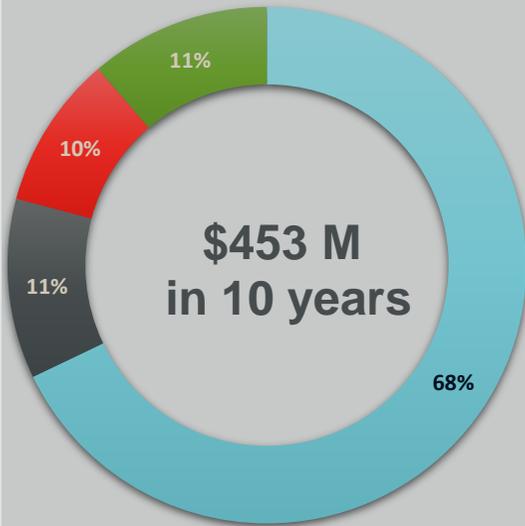
**INVESTMENT  
WE NEED**

# OPERATIONAL EXPENDITURE

## 10 years cost summary

**\$647M** Asset depreciation

**\$215M** in Stormwater rates



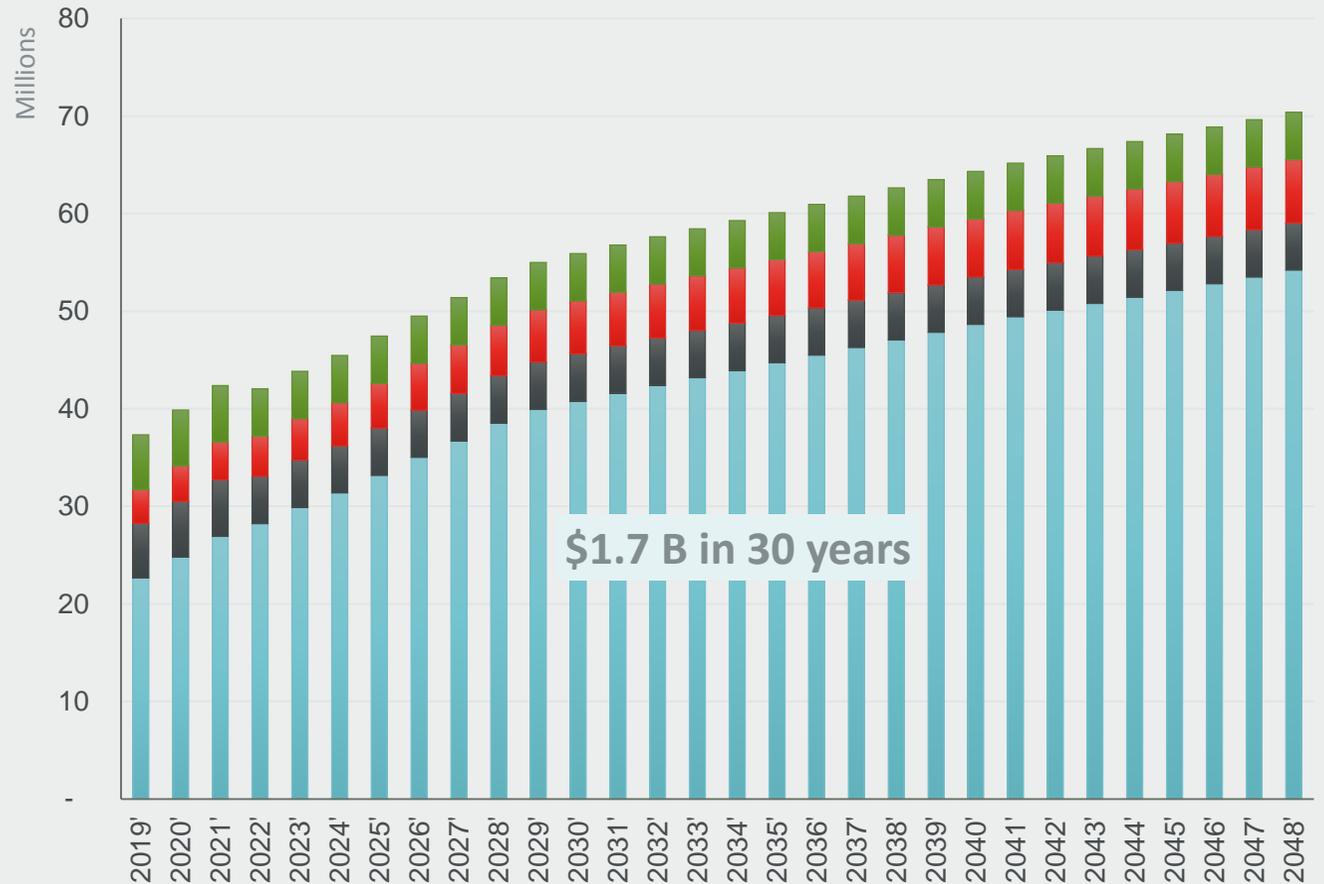
■ Operation and Maintenance Delivery

■ Maintenance Auckland Transport Assets

■ Strategy, Planning and Asset Management

■ Staff cost

## 30 years cost profile

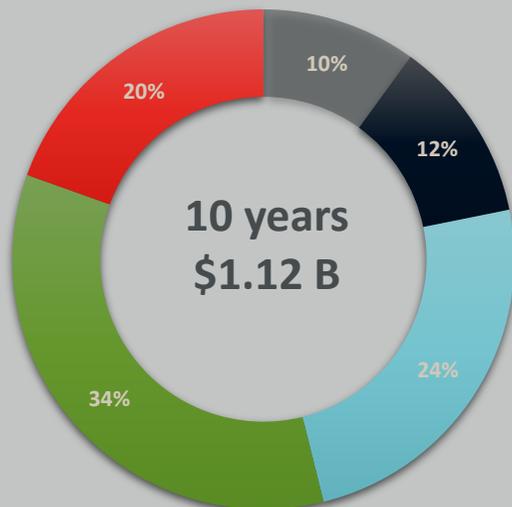


# CAPITAL INVESTMENT

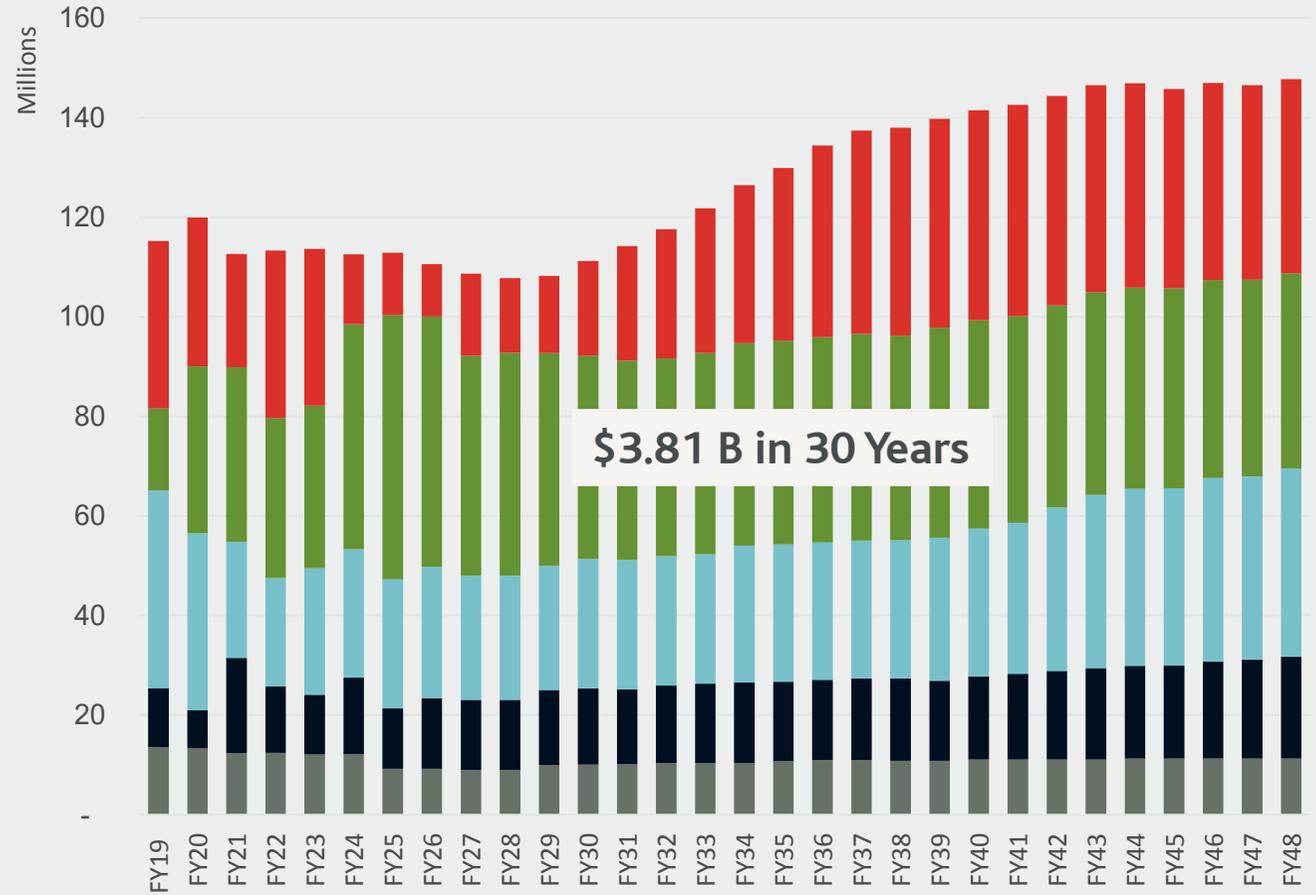
## 30 Years capital investment profile

### 10 year summary

\$107M to \$120M  
annual investment



- Catchment & Asset Planning
- Flooding
- Renewals
- Water quality improvement
- Growth



# MAJOR PROJECTS

Major Projects	Category	Description	Indicative Total Cost	FY19 onwards - to spend	Start *	End
Awakeri Wetland, Artillery Tunnel and Grove Rd Culvert	Growth	An open channel and culvert with cascading weirs and associated green space to convey the 100 year flood, to service the Takanini Growth Areas.	\$86.2M	\$29.10	FY16	FY23
St Marys Bay/Masefield Beach Stormwater Upgrade	Water Quality Improvements	Collaborative project between Healthy Waters, Watercare and Panuku Development Auckland to divert combined sewer overflows from St Mary's Bay and Masefield Beach to a discharge point further out in the harbour; and renewal of a failing stormwater coastal outfall.	\$44.4M	\$42.2M	FY18	FY21
Ports of Auckland Outfall Upgrade	Renewals	Construction of a 3.3m diameter stormwater pipe from the south side of Quay Street across Ports of Auckland to the Waitemata Harbour, to replace a pipeline in poor condition.	\$34.1M	\$31.0M	FY18	FY22
Takanini School Rd Area 6A and 6B and Popes Rd	Growth	A trunk pipeline along Takani School Road and a stormwater quality pond at 2 Popes Road to service Takani development	\$26.2M	\$10.8M	FY17	FY20
Oakley Walmsley and Underwood Park Stream	Growth	Upgrading culverts and widening of Oakley Creek through Walmsley Park to enable intensification and redevelopment in the upper catchment.	\$21M	\$7.4M	FY16	FY20
Waterview Separation	Water Quality Improvements	Separation of combined sewers	\$16.6M	\$16.6M	FY19	FY24
Daldy St Pipe Extension	Water Quality Improvements	Extension of stormwater pipe along Brigham St and out approximately 500m into the harbour to improve water quality in the immediate foreshore	\$15M	\$15M	FY19	FY20
Picton Street, Freemans Bay	Water Quality Improvements	Separation of combined sewers in Picton Street and installation of new stormwater network to reduce overflow volumes to the Wynyard Wharf outfall and alleviate property flooding.	\$15.3M	\$14.8M	FY18	FY22
Okahu Bay Separation	Growth	Separation of combined sewers to enable growth, daylighting of a stream and improve water quality	\$12.3M	\$11.9M	FY18	FY22
Freemans Bay treatment devices	Water Quality Improvements	Construction of stormwater treatment devices in Freeman's Bay catchment	<\$1M	<\$1M	Estimate FY18	TBC

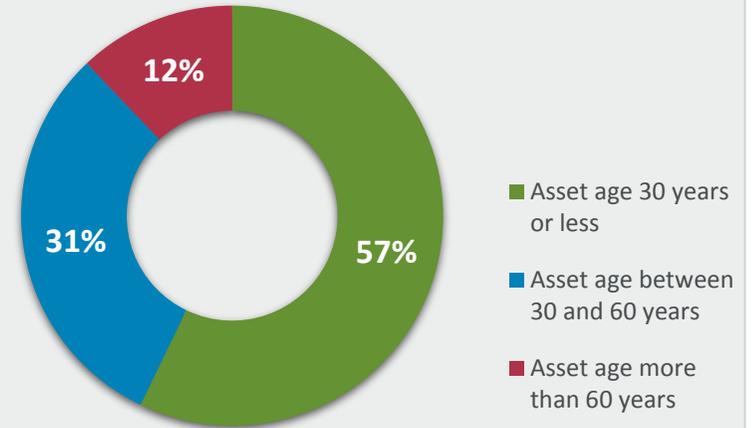
# RENEWALS INVESTMENT AND DEPRECIATION

Ratio of capital investment to depreciation is **2**

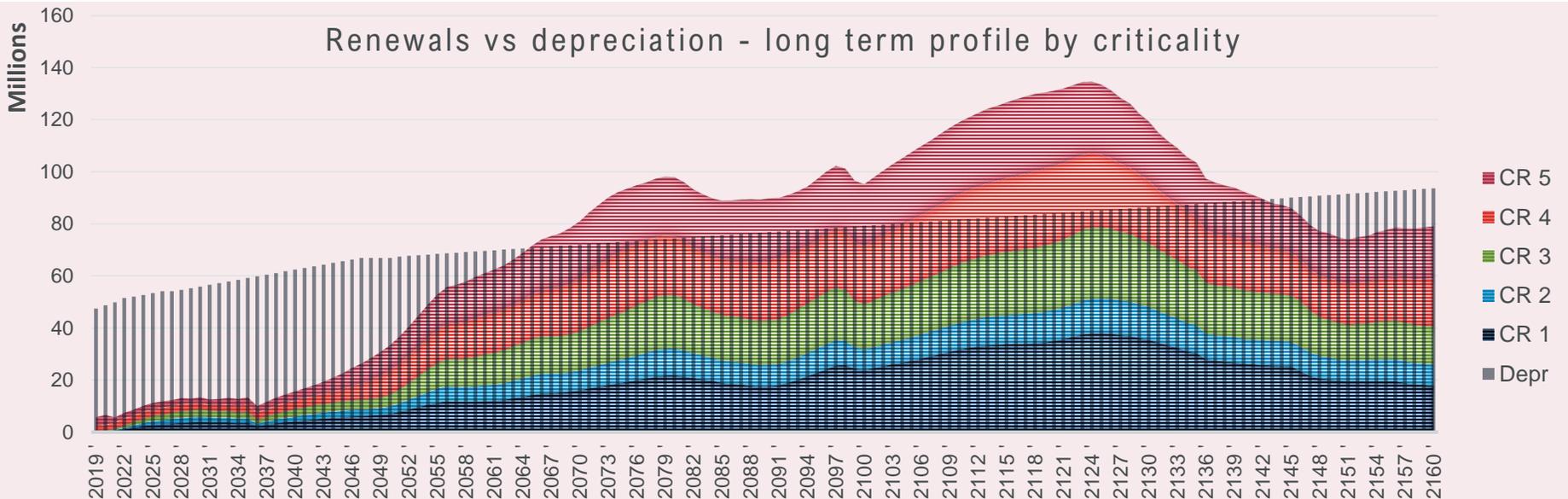
**Long term renewal forecasting** shows that renewal levels remain lower than the annual depreciation for the next 30 years due to the addition of new assets and gradual loss of service potential.

Understanding network deterioration will hold a key place over the next 5 years to confirm required renewal investment in the 100 year planning period.

Depreciation spread 2018



Renewals vs depreciation - long term profile by criticality





WHERE TO  
FROM HERE

# WHERE TO FROM HERE

## New Strategic Direction



Update our strategic direction to encapsulate a more holistic approach. A strategic shift is needed toward systems thinking; how we live within and interact with the natural environment, and planning our response to climate change. It will capture three areas of strategic response that will guide actions and investment across Auckland Council and the CCO family:

Resilient Systems

Healthy Environments

Empowered Ownership

## Levels of Service Review



Review the levels of service we provide to the community, given our shift towards a greater emphasis on holistic systems thinking. This will consider what is appropriate and affordable for the built environment, management of the natural environment, and the influence of future climate change.

## Integrated Procurement and Collaboration with Watercare and Auckland Transport



Achieve economies of scale through an integrated procurement approach. Review asset management responsibilities across the Council family, considering who is best placed to manage those assets from a risk and resilience management perspective, Implement integrated and collaborative approaches and solutions that deliver resilient systems and healthy environments.



