

# AUCKLAND ISTHMUS STORMWATER

## PRESENTATION TO ENVIRONMENT & COMMUNITY COMMITTEE



12 September 2017

# Agenda

- Who we are: SASOC, STEPS, FofOC, MHRS
  - community groups focused on improving isthmus stormwater and water quality
- Auckland Isthmus Stormwater Currently
- Our Vision for Auckland Water Quality
- Requests of Auckland Council
- Appendix:
  - Root Causes
  - Proposed Solutions
  - Approach to Combined System
  - Group Members



Who we are: SASOC, STEPS, FofOC, MHRS  
- community groups focused on improved urban stormwater and water quality  
Auckland isthmus Stormwater Problems  
Our Vision for Auckland Water Quality  
Requests of Auckland Council  
Appendix:  
    Root Causes  
  
    Proposed Solutions  
  
    Group Members

# Auckland Isthmus Stormwater

## Now:

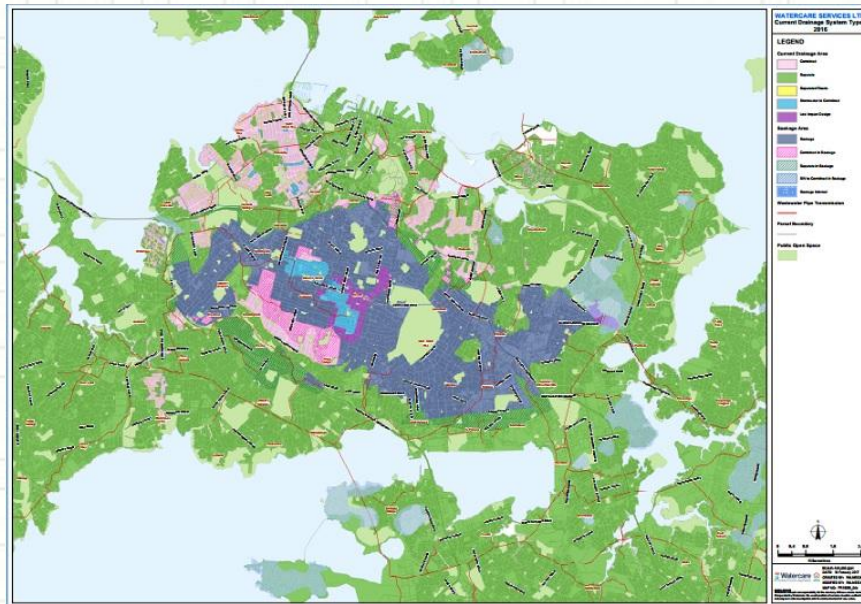
- Stormwater and wastewater systems combined on much of Auckland isthmus; capacity inadequate; soakage system failing
- After rain, stormwater, heavy metals, sediment and sewage overflow and discharge into creeks, harbours and beaches
- Beaches unsafe for swimming and food gathering
- Stormwater volumes frequently exceed capacity of Mangere WTP
- This situation is not acceptable to Aucklanders

## Future:

- Central Interceptor will not eliminate most problems
- Proposed UP intensification from 42% impermeable to 62%
- Soakage system reduced under UP, increasing risks of pollution
- **Intensification provides opportunities** to create fit for purpose stormwater and wastewater systems

- In much of the central Auckland isthmus, stormwater and wastewater systems are combined and lack capacity to handle large volumes of stormwater.
- The soakage system, based on Auckland's largest aquifer is becoming polluted and soakage area greatly reduced under Unitary plan
- During storms, stormwater, heavy metals and sewage overflow into our neighbourhoods and open spaces; raw sewage is discharged into creeks and beaches, making inner beaches unsafe for swimming and food gathering.
- Stormwater volumes exceed capacity of MWTP; Central Interceptor will help but not eliminate problems.
- Proposed intensification will exacerbate problems as the isthmus goes from 42% impermeable surfaces to 62%.
- This situation is not acceptable to Aucklanders.
- Intensification provides opportunity to rebuild and create innovative, fit for purpose stormwater and wastewater systems
- Sediment ref: 2 State of Hauraki Gulf Environment reports

## Problem Areas: Combined Sewers and Soakage



Map courtesy of Watercare

Purple areas – “soakage” with little or no stormwater infrastructure

Pink areas – “combined” - stormwater is mixed into sewer/waste water pipes

## Our Vision for Auckland Water Quality

### **An Auckland where**

- Aucklanders are proud of their clean sparkling harbours, beaches and streams
- Waters are safe for contact and food gathering
- Treatment plant bypasses and overflows to harbours are vastly reduced
- Central isthmus stormwater system is of comparable standard to greenfields, while aquifers are safely replenished
- Heavy metal runoff into harbours much reduced
- Sedimentation rates slow down
- Wildlife can be reintroduced
- Auckland Transport, Watercare and Healthy Waters team work together for the health of Aucklanders and our waterways
- Auckland Council teams work in partnership with the community and mana whenua on project priorities and funding options

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- AC Teams work in partnership with the community on projects and funding options

## Requests of Auckland Council

- Address ecological degradation and human health risks on the isthmus, in the Auckland Plan “refresh” and the 10 Year LTP
- Community Engagement:
  - Community input may **increase community support of options in the LTP process**
  - Incorporate **community input and develop an alliance** with interested community groups now, before WIWQIP / CANOPY options are fixed
- **Innovative pilot projects starting now**

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  - Incorporate **community input and develop an alliance** with interested community groups now, before options are fixed in the Healthy Waters CANOPY/ Western Isthmus Water Quality Improvement Plans
- Proposed Pilots
  - Waiuku – waste water treatment/ reuse for industry
  - Housing NZ – pilots for both stormwater and waste water treatment/ use (grey water??)
    - HNZ Waterview – stormwater and waste water treatment <http://www.stuff.co.nz/national/86778451/government-announces-50m-social-housing-development-in-waterview>
  - Coxs' creek, Chamberlain Park – pilots of wetland/ stormwater treatment



## Auckland Plan “refresh” and LTP

- ‘Rebuild’ **stormwater systems** (reduce combined sewers and improve soakage and treatment)
- A “ring-fenced” **funding stream and projects identified in the 10 Year (Long Term) Plan**
- Complete rebuild within 10-20 years
- **Identify Water outcomes** in the **Auckland Plan** as base for action on **stormwater infrastructure and water quality improvement**
  - Drinking water
  - Wastewater
  - **Stormwater**
  - **Creeks, harbours and beaches**

- **A funding stream for projects in the 10 Year (Long Term) Plan**, committed to the ‘rebuilding’ of **stormwater systems** (ie the combined sewers and soakage areas) on the isthmus over 10- 20 years
- Treat **Water** in the **Auckland Plan at the highest level**, capturing the connectedness of people and water in all its forms and giving a strong base for action on **stormwater infrastructure and water reuse**
- **Identify Water outcomes** in the **Auckland Plan**
  - Drinking water
  - Wastewater
  - Stormwater**
  - Creeks harbours and beaches**
- **Ensure the Auckland Plan reflects the interconnectedness of aspects of water and is innovative**

## Thanks

- Councillors for your support and openness
  - Committee Chairs
  - Ward Councillors
- Watercare
  - Innovative partner with Community
  - Professionalism and honesty
  - Willingness to 'try new ways'

Councillors for your support and openness

Committee Chairs

Ward Councillors

Watercare

Professionalism and honesty

Engagement and responsiveness

Willingness to 'try new ways' – EAG, CLG

Still some way to go, but open to learning

Examples: hydrodynamic model of Manukau

CLG – Community Liaison Groups becoming effective

Auckland Council



# Appendix



Wetland – clean spring water  
from Meola aquifer



Planting the Roy Clements  
Treeway, Meola Creek October  
2010

## Root Causes

- Old, non-existent and ineffective stormwater infrastructure
  - stormwater in “combined sewers” - sewage in stormwater pipes and vice versa
  - inadequate soakage systems- heavy metals and pathogens threaten aquifer
  - stormwater and wastewater pipes already too small for current flows during rain events, let alone for increased population
  - Piecemeal reactive maintenance spending with unclear stormwater planning (lack of detail in Stormwater AMP)
  - More than 50% of Auckland’s stormwater comes from roads
- Limited water quality monitoring, reporting and modelling
- Water responsibilities divided between Auckland Council and Watercare (and Auckland Transport)
  - Engineering focus or customer/ environmental focus?
- Auckland Council under-spending on stormwater

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  - stormwater and wastewater pipes already too small for current flows during rain events, let alone for increased population
  - Piecemeal reactive maintenance spending with unclear stormwater planning (lack of detail in Stormwater AMP)
  - Over 48% of Auckland’s stormwater comes from roads
- Limited, non-transparent water quality monitoring and modelling
- Water responsibilities divided between Auckland Council and Watercare (and Auckland Transport)
  - Engineering focus or customer/ environmental focus?
- Lack of Auckland Council spending on stormwater

## Proposed Solutions

- Approved and funded isthmus stormwater infrastructure projects in 10 year plan including stormwater treatment
- 20 year plan, projects, budget and funding mechanism for isthmus stormwater
- Innovative proof of concept/pilot projects:
  - Collection and local treatment of stormwater including wetlands
  - Reuse of treated sewage and /or stormwater
- Protection of fresh water and coastal ecology
- Comprehensive Water Strategy covering sewage, stormwater and drinking water, streams and harbours
- Strong leadership/ champions and community engagement

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- Budget and funding mechanism for stormwater
- Strong leadership/ champions and community engagement

## Approach to Combined System

- Stormwater is the major problem in the combined portions of central isthmus wastewater/stormwater system
  - Over 50% of stormwater from roads
  - Increasing density increases impermeable surfaces and runoff
  - Soakage system failing
- System overflows when stormwater overfills combined system
- Shared goal – remove stormwater from wastewater system
  - Separation is best practice
  - Use other methods when separation not feasible
- Improvement program can be incremental; start now; set fixed end date
- Goals and options must be considered and supported publicly
- Identify and publicly discuss funding options

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- Protection of fresh water ecology and environments
- Budget and funding mechanism for stormwater
- Strong leadership/ champions and community engagement

## Who are we?

- Central isthmus and harbour community groups
  - Come together to improve stormwater systems and water quality
  - In streams and Waitemata and Manukau Harbours
- United in a vision of better water quality in central Auckland
  - SASOC – Stop All Sewage Overflows Coalition (including Herne Bay Residents Assoc; St Mary's Bay Assoc; Whau River Catchment Trust; Auckland City Centre Residents Gp; Eden Park Neighbours Assoc; Freeman's Bay Residents Assoc; Gables Neighborhood Group; Grey Lynn Residents Assoc; Mission Bay- Kohimarama Residents Assoc; Orakei Community Assoc; Save Waterview Assoc; Grafton Residents Association inc; Parnell Heritage Society; South Epsom Planning Group Inc; Westmere Heritage Protection Assoc; Western Bays Community Group.)
  - STEPS – St Lukes Environmental Protection Society Inc
  - FofOC – Friends of Oakley Creek Te Auaunga Inc
  - MHRS – Manukau Harbour Restoration Society

Central isthmus and harbour community groups who have  
come together to improve stormwater systems and water  
quality in streams, and in Waitemata and Manukau Harbours  
United in a vision of better water quality in Auckland

SASOC – Stop All Sewage Overflows Coalition -Auckland City Centre  
Residents' Group Inc

Eden Park Neighbours Association Inc

Freemans Bay Residents Association Inc

Gables Neighbourhood Group

Grey Lynn Residents Association Inc

Mission Bay-Kohimaramara Residents Association Inc

Orakei Community Association Inc

Save Waterview Association

The Grey Lynn and Westmere Residents' Association Inc

The Herne Bay Residents Association Inc

The St Mary's Bay Association Inc

The Whau River Catchment Trust

Westmere Heritage Protection Association

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