



Stormwater Management
Hutt City Council
Councillors Briefing

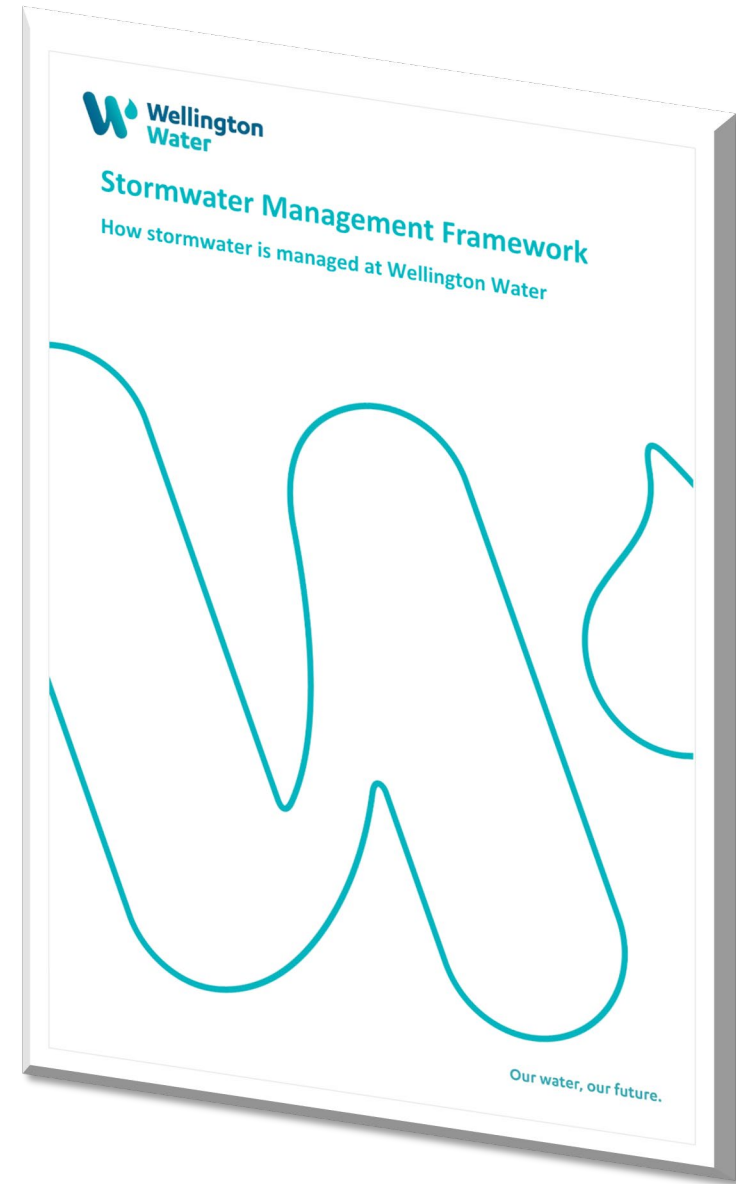
10 April 2024



Our water, our future.

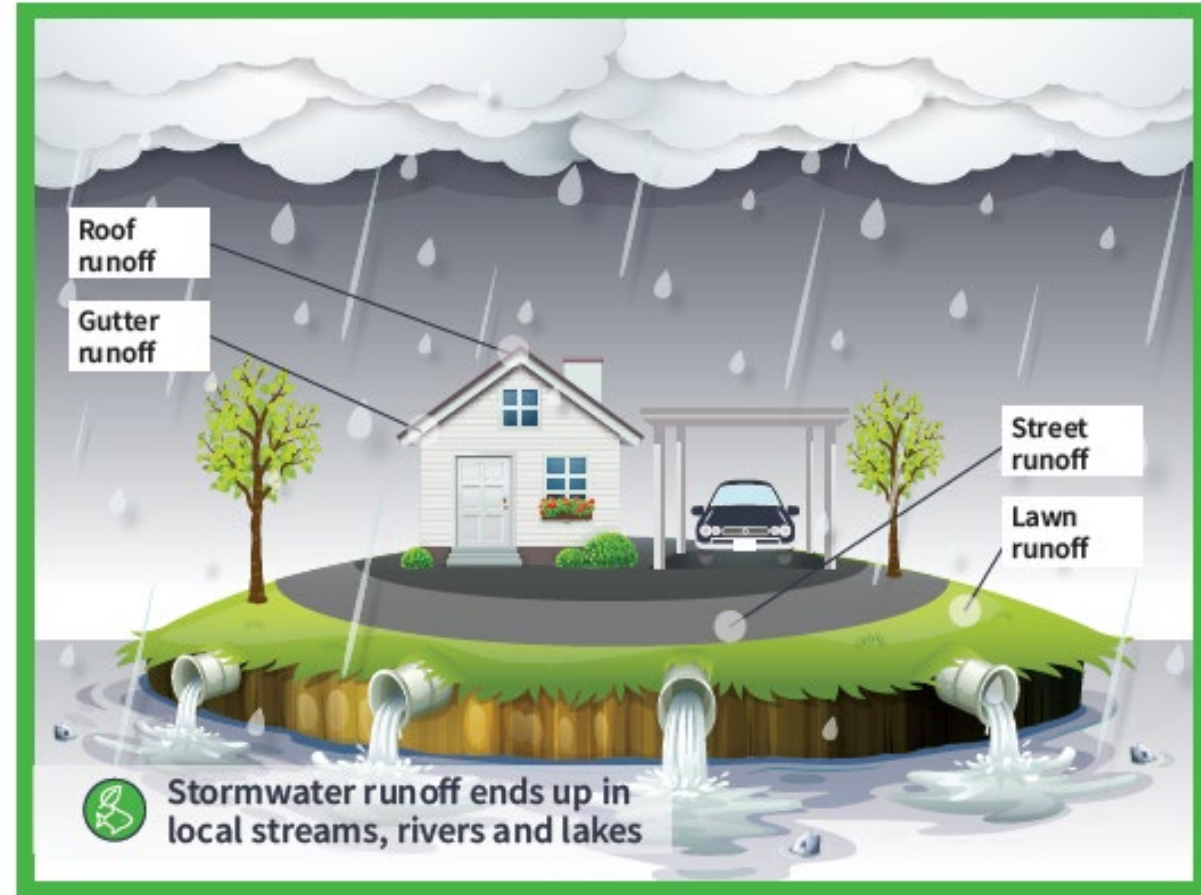
Stormwater – Agenda

- Stormwater Management Responsibilities
- Challenges in Stormwater Management
- Lessons from Recent National Rain Events



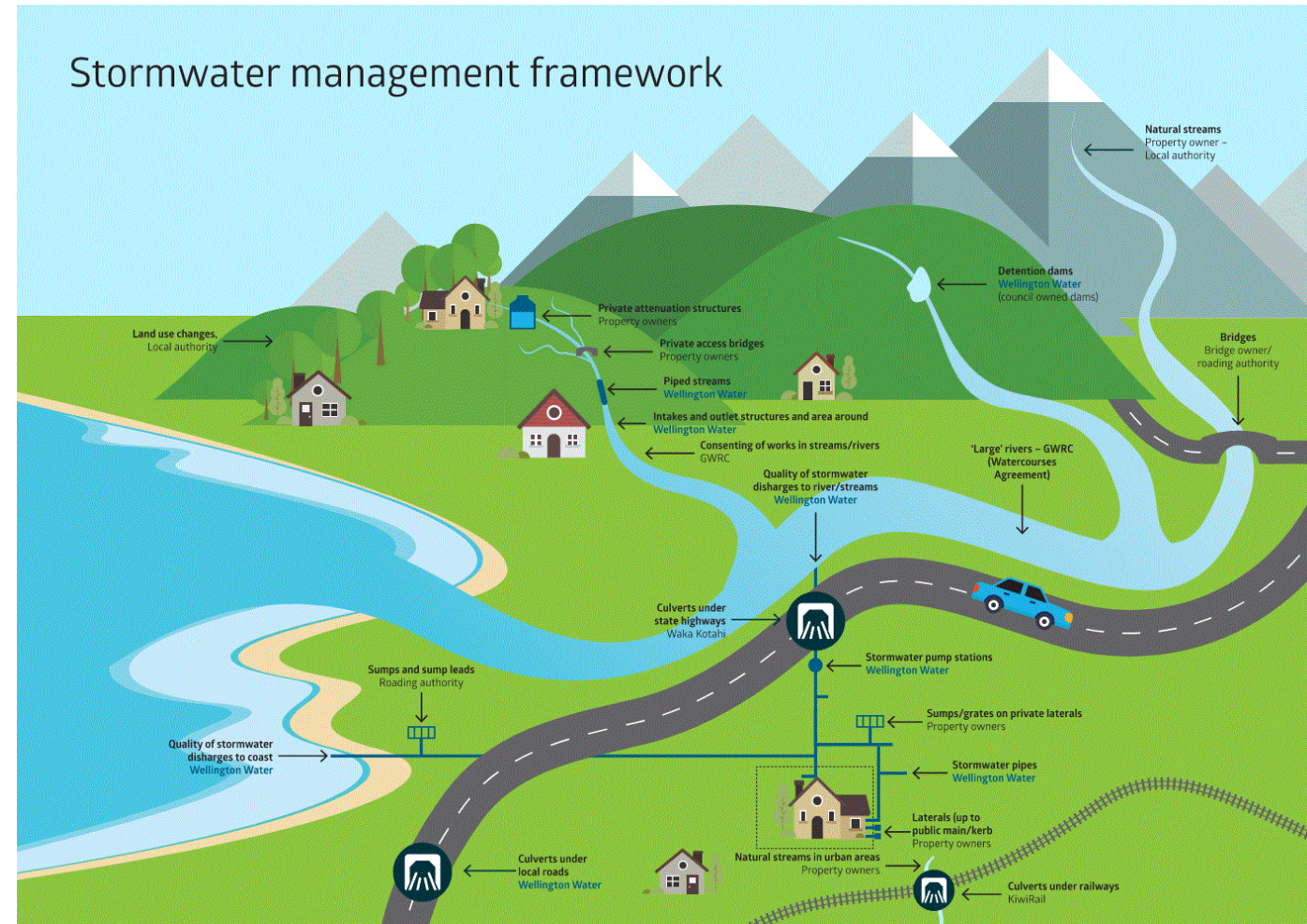
Responsibilities - Understanding Stormwater

- Stormwater is rainwater runoff from hard surfaces.
- A byproduct of development
- Improper management can lead to damage and death
- Management responsibilities are spread among different parties



Responsibilities – Complex and Diverse

- Public - Wellington Water
- Private and Streams – Landowner
- Roadways - Council Roding/NZTA
- Rivers and major streams - Regional Council,
- Urban Streams – Local Council, Watercourses Agreement 1976



Responsibilities - Level of Service Requirement Vs Expectations

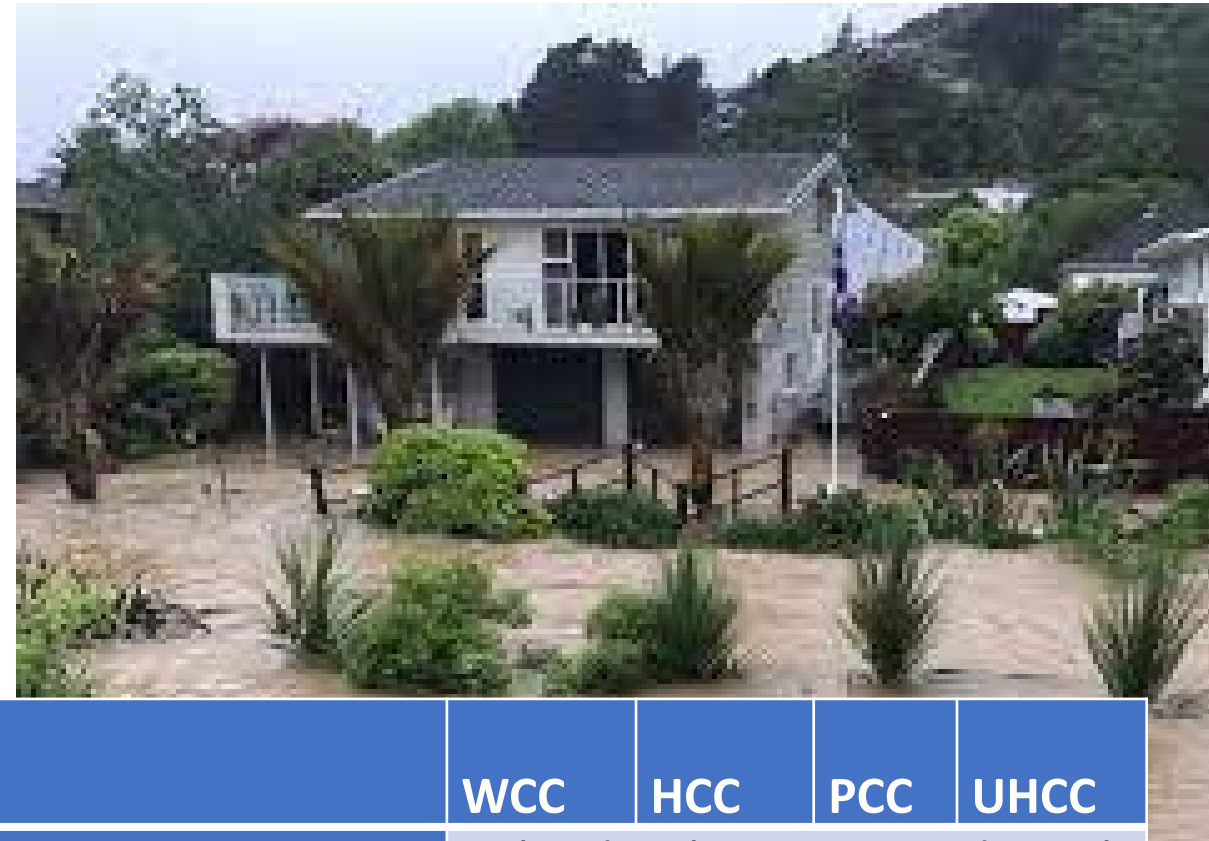
- Network - low to medium rainfall events. (1 in 5 or 1 in 20-year storm event)
- Overland flow paths - Heavy rainfall events.
- Flooding (Habitable Floors)- network capacity exceeded and overland flow paths are blocked
- Stormwater Quality – Network Discharge Consent driven level of service (New)



	WCC	HCC	PCC	UHCC
Rain Event	Flood Risk Areas- Residential			
10% AEP/10yr	6%	10%	10%	15%
1% AEP/100yr + Climate Change	22%	37%	20%	26%

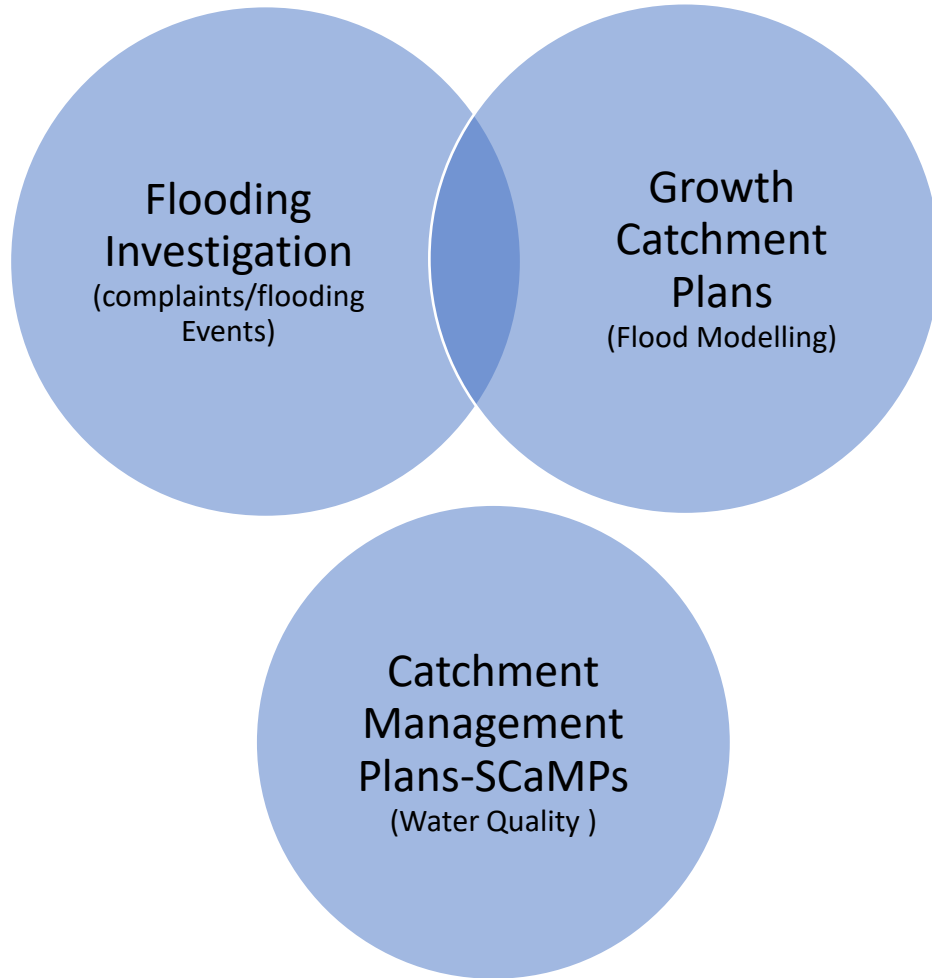
Challenges - Flooding and Infrastructure

- Flooding - most significant Stormwater investment challenge
- Critical works - flood hazard mapping and planned maintenance
- Level of flood protection for existing issues – E.g Karehana/Plimmerton Flooding (PCC)
- Limited budgets - necessitates strategic planning and allocation

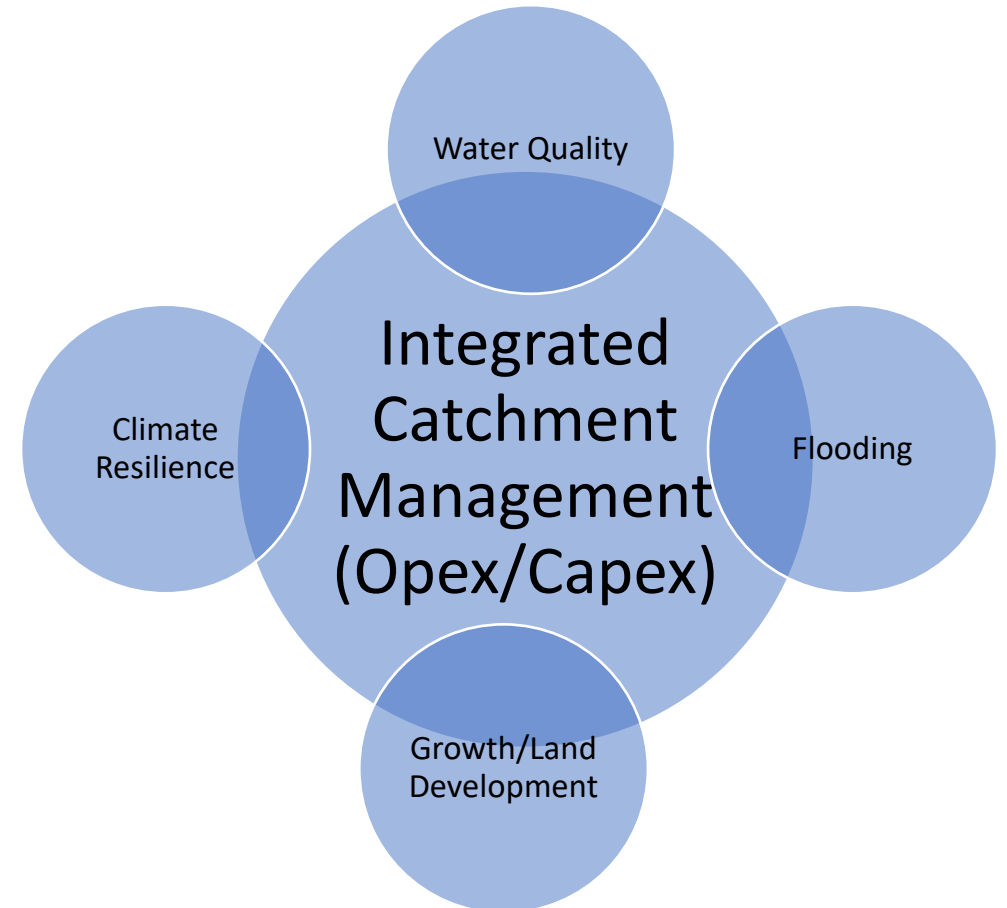


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Where we are heading

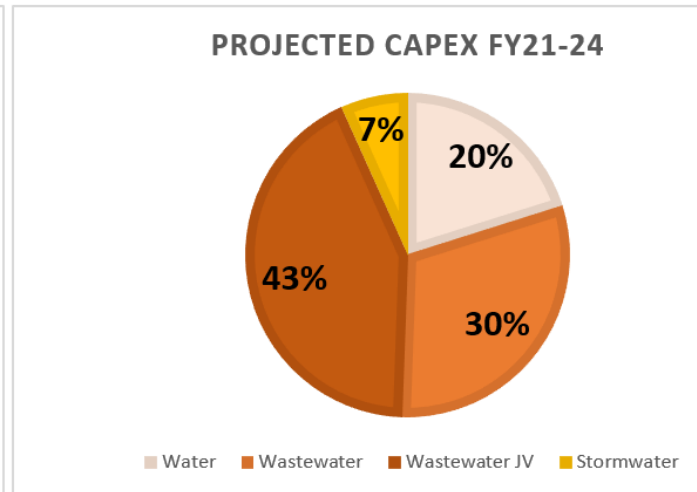
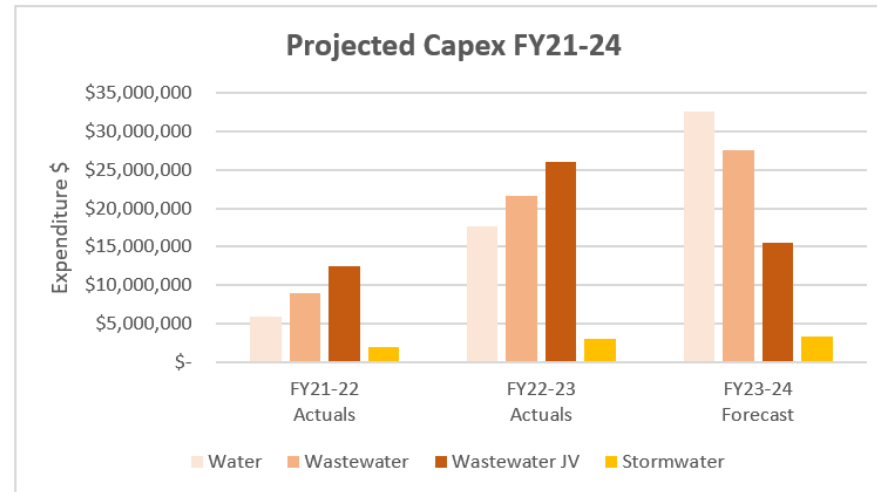
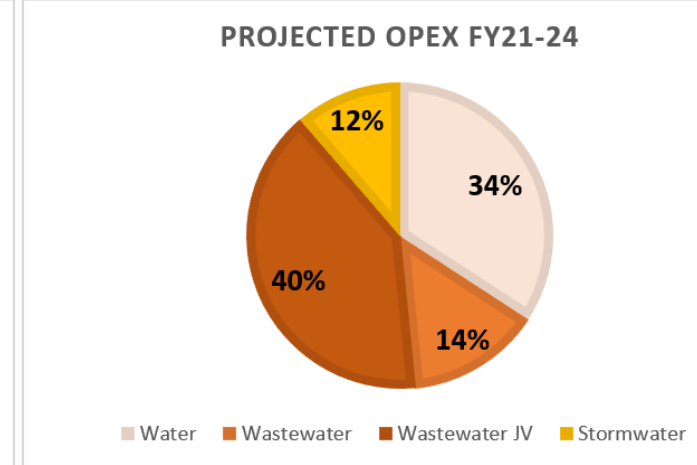
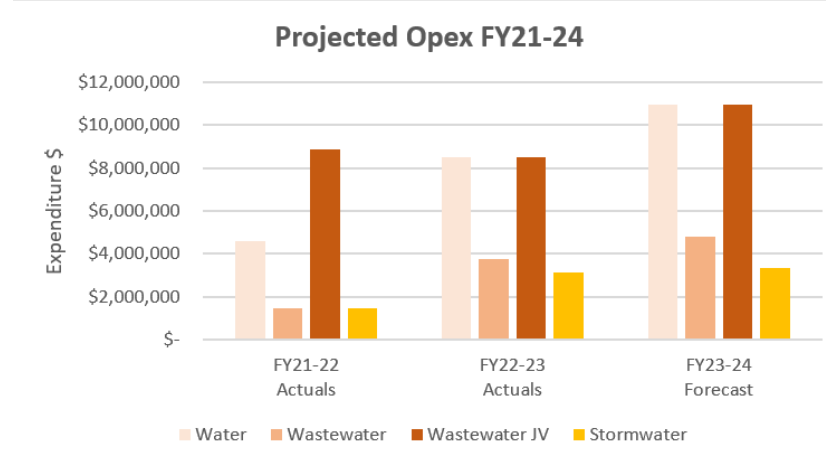


Where we should be heading



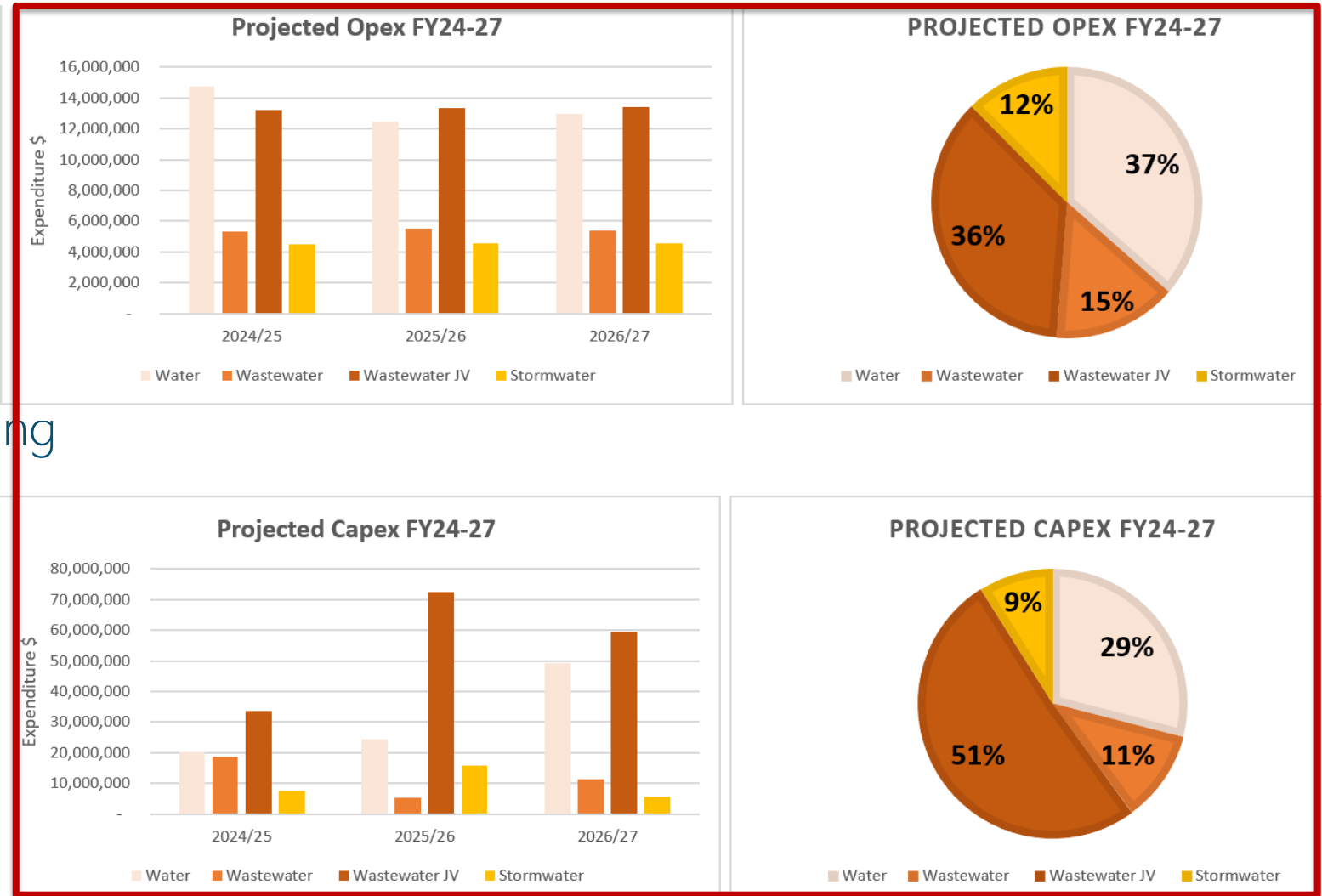
Challenge – Historical Under Investment

- Increasing flood risk
- Increasing backlog of flooding investigations
- Setbacks in readiness for funding opportunities
- Need to reframe stormwater management approach



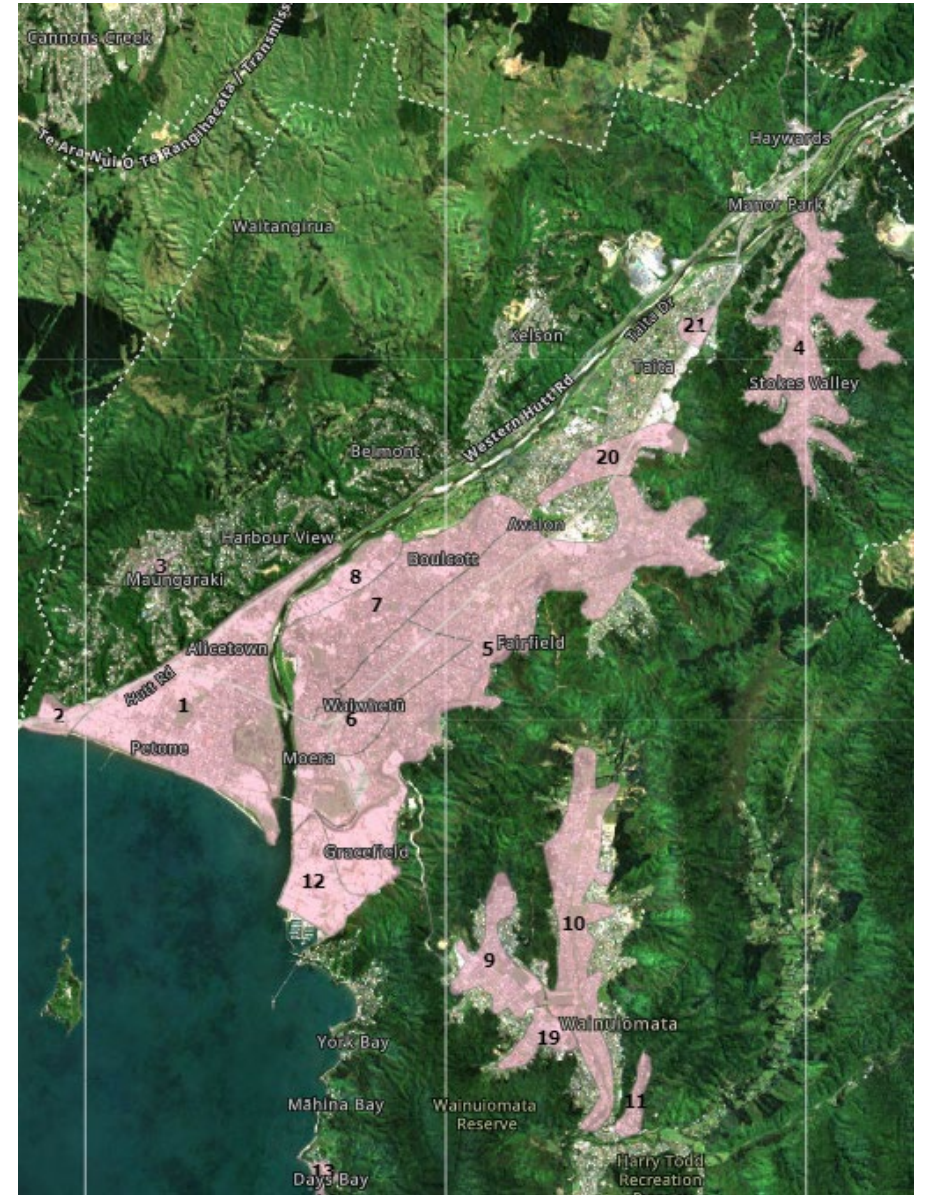
Challenge – Next LTP Investment

- Increasing flood risk
- Increasing backlog of flooding investigations
- Setbacks in readiness for funding opportunities
- Need to reframe stormwater management approach



Stormwater –Hutt City*

- 21 flooding Investigation areas
- Estimated \$880 million for approx 10 year level of service
- Areas subject to sea level rise (Petone, Seaview, Eastbourne) may not achieve 10 year level of service
- Insufficient information on flooded properties
- Estimated \$260 million over 30yrs for Network Discharge Consent



Stormwater Key Challenges

- Network already under capacity and with no long-term strategy i.e Adaptation plan
- Limited information about stormwater network and flooding issues to support robust decision making
- No clear direction for addressing existing flood issues i.e for 10yr, 30yr, 50yr or 100yr rain event, for habitable floors or all properties
- Stormwater quality is becoming a priority, and need to integrate addressing legacy flooding and wastewater overflow issues with regulatory obligations
- Historic under Investments calls for urgent need to reframe approach to mitigate risk and maximize resources – Integrated Catchment Strategy

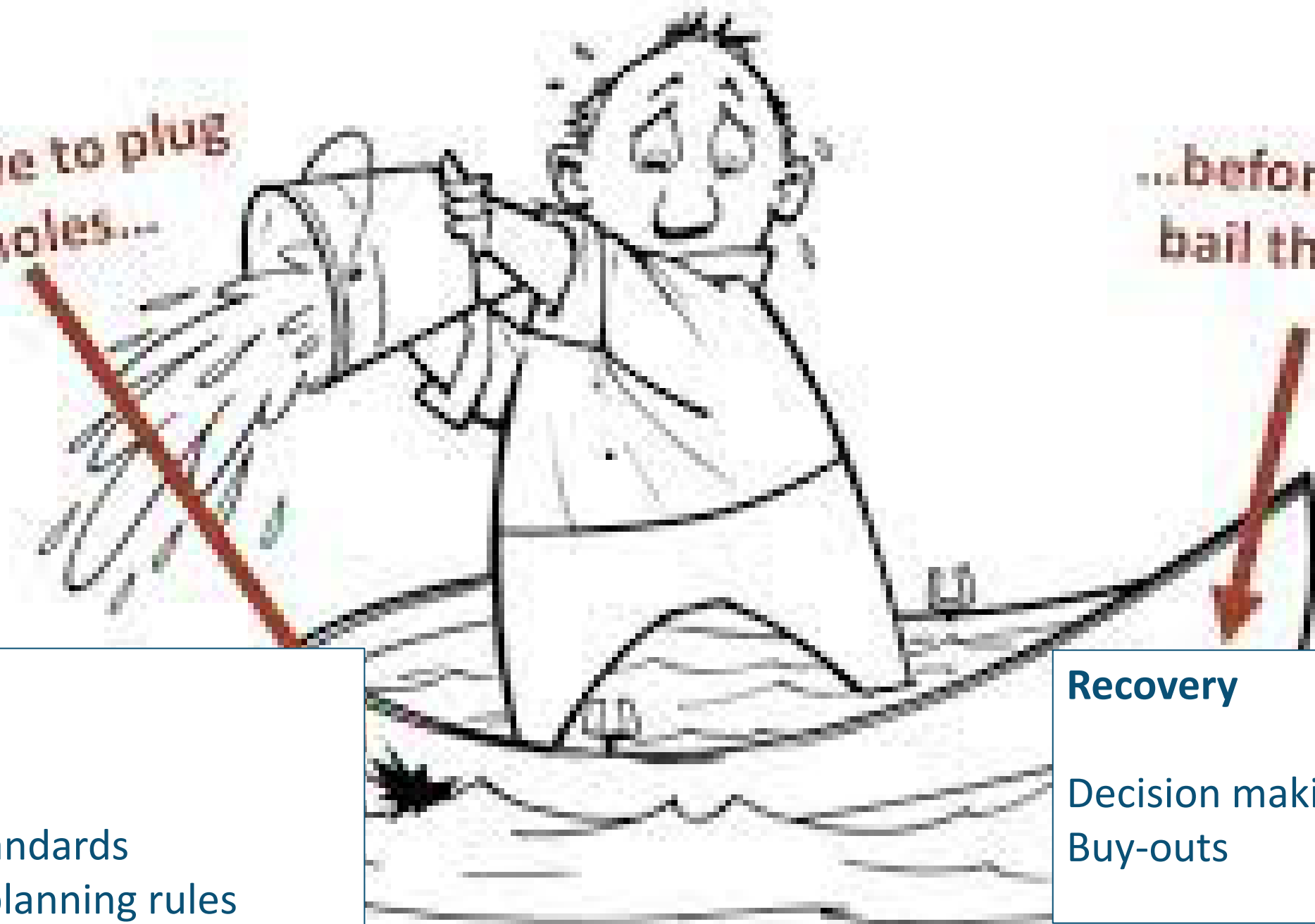
Key Learnings - Auckland Flooding and Cyclone Gabrielle

- Auckland - 60% of urban area experienced a 100yr event [1 million people, ~11,000 habitable floors flooded]
- Implications of extreme weather events on urban areas, infrastructure and staff. E.g landslides & Trauma
- Robust decision-making vs need for speed
- *Precedence* for council rate payers as insurers for high-risk private properties. E.g \$774mil/700 properties in Auckland



"You have to plug
the holes..."

"...before you can
bail the boat!"



BAU

Policy
Design standards
Landuse planning rules

Recovery

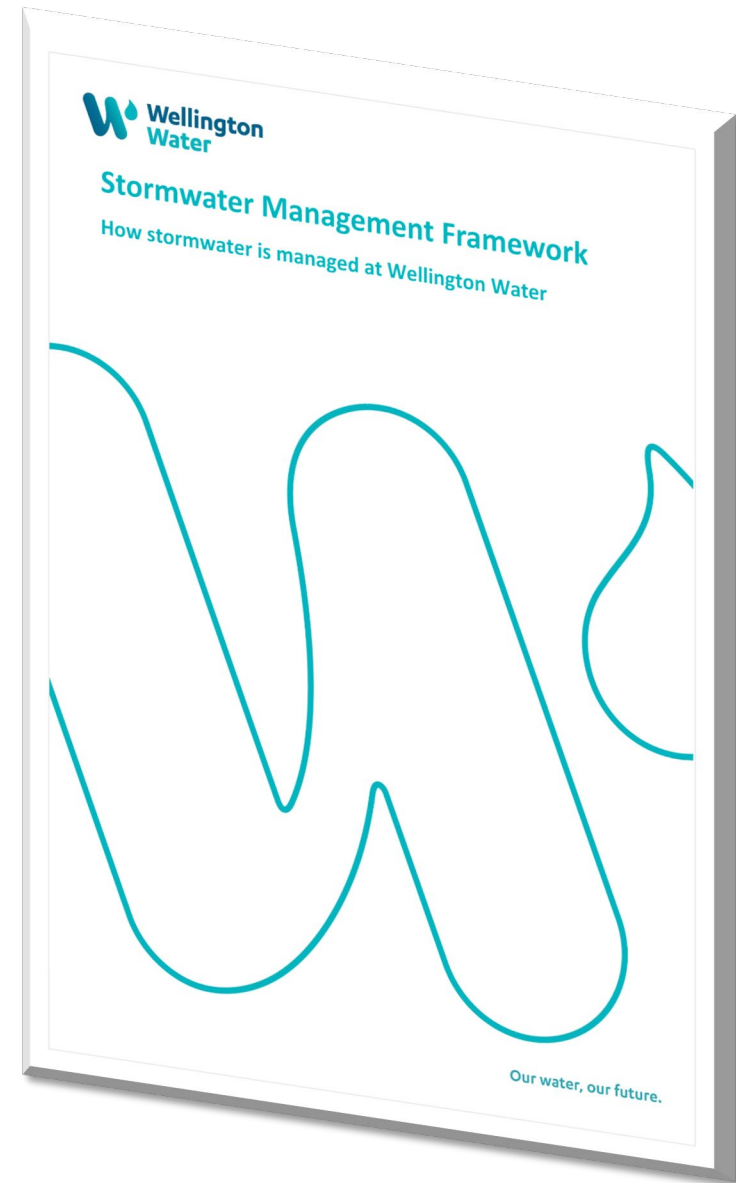
Decision making
Buy-outs

Key Learnings - Addressing Challenges

- Critical activities – Importance of Flood hazard modelling, development planning, and planned maintenance to mitigate flooding impacts.
- Collaboration - Learning from other councils' experiences, such as Auckland's categorization approach, applied to the region.
- Reframing Approach – Need to reframe how we address flooding issues based on recent experiences, e.g Karehana, Auckland
- Regional Approach- Encourage our councils and regional council to develop a Regional flood management Strategy with clear direction for flood protection and a proactive buy out schemes

Stormwater – Summary

- Complexity of stormwater management responsibility adds tension
- Level of service for flood protection & consent is increasing while funding is N\$T
- Urgent challenges in flood management necessitates reframing to maximize Opex and Capex resources efficiently
- Advocate for councils and regional council to learn from recent major events and prepare for flood recovery



Questions?

- What do you feel are the communities priorities for stormwater management?
- How can we focus on those areas for the community? For this year? For Local Water Done Well?