TE WHAKAMINENGA O KĀPITI

“He toa taki tini taku toa,
E hara i te toa taki tahi”
“My strength will only be achieved
Because of the efforts of us all.”

APPENDICES MINUTES

Te Whakaminenga o Kapiti

Tuesday, 18 February 2025

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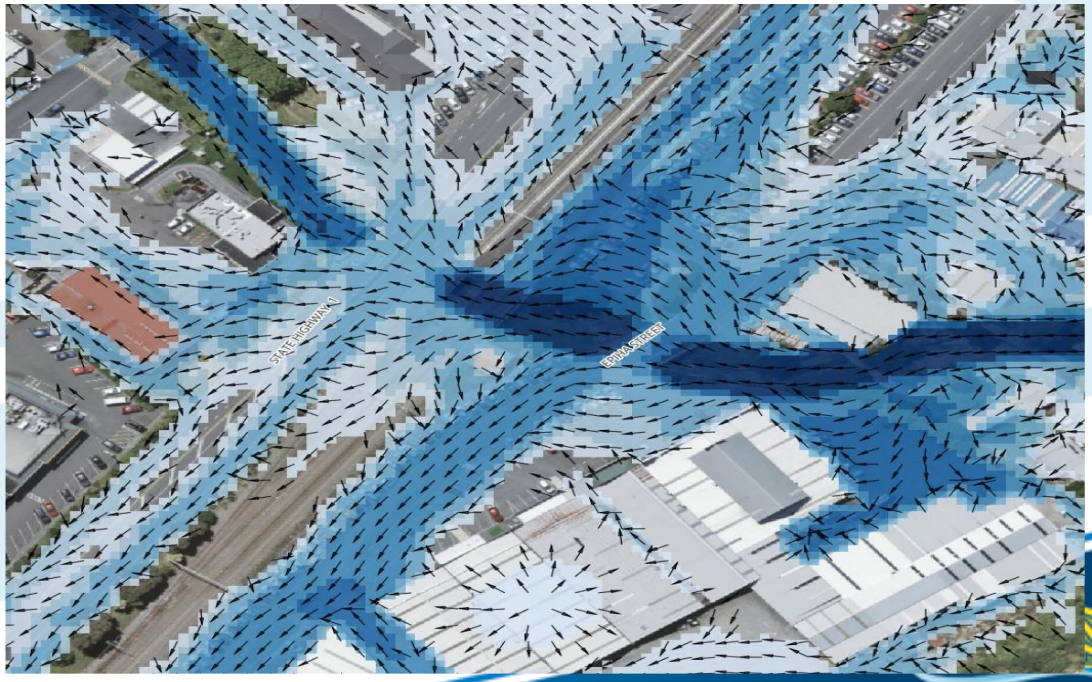
Flood Hazard Mapping Update



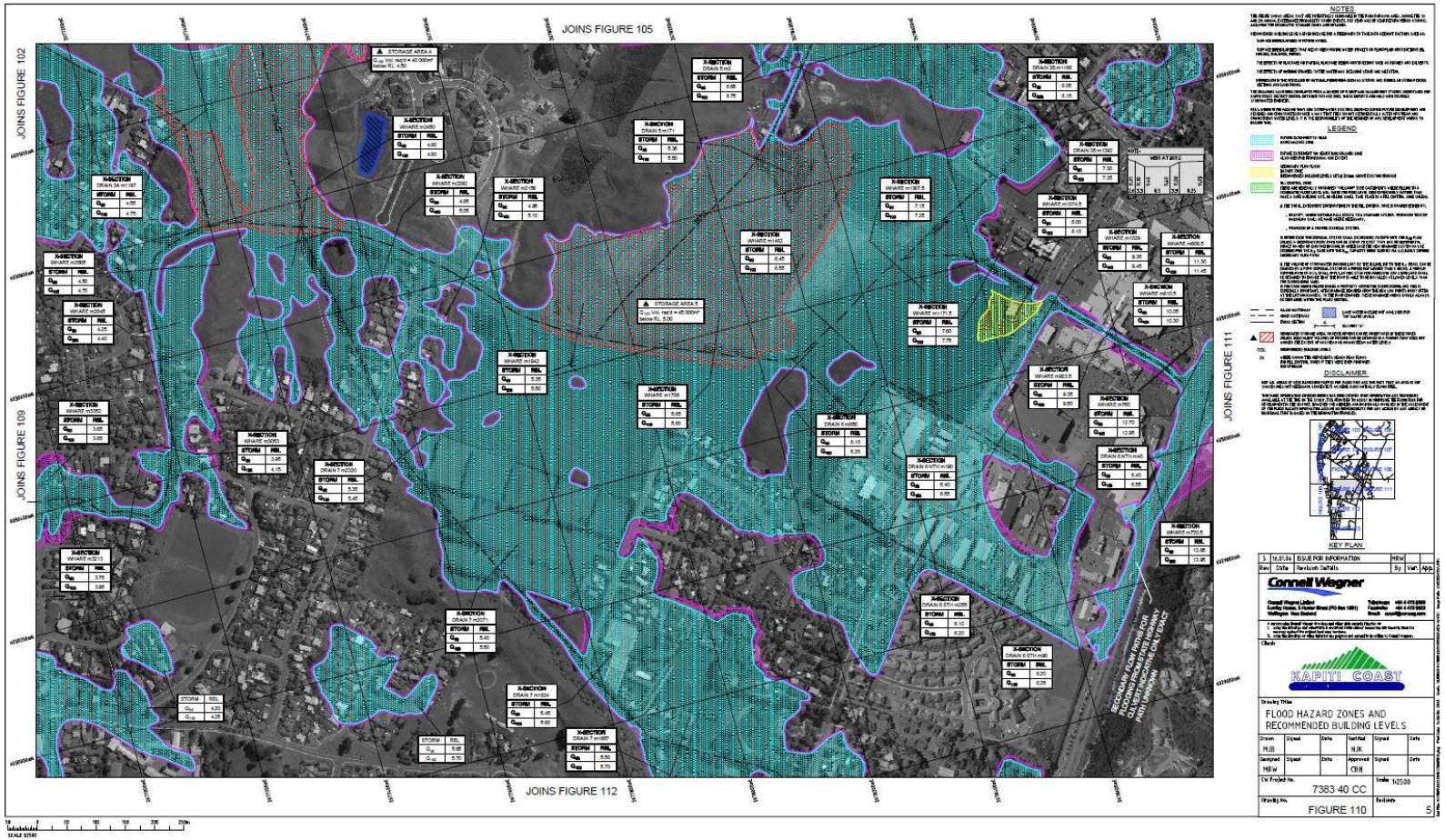
Kāpiti Coast
DISTRICT COUNCIL
Me Huri Whakamuri, Ka Titiro Whakamua

Outline

1. History / Background
2. New Model Build
3. Project Overview
4. Engagement Strategy
5. GW Major River Flooding Project

Flood Model History

- RMA 1992 required Flood Hazards to be identified.
- 1998 flooding in Kapiti led to development of first hydraulic models (MIKE model).
- Incorporated into the District Plan through Plan Change 51.
- Included KCDC and GWRC hazard layers.
- Updated mid 2010s


JOINS FIGURE 105
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LEGEND
DISCLAIMER
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KAPITI COAST
FLOOD HAZARD ZONES AND RECOMMENDED BUILDING LEVELS
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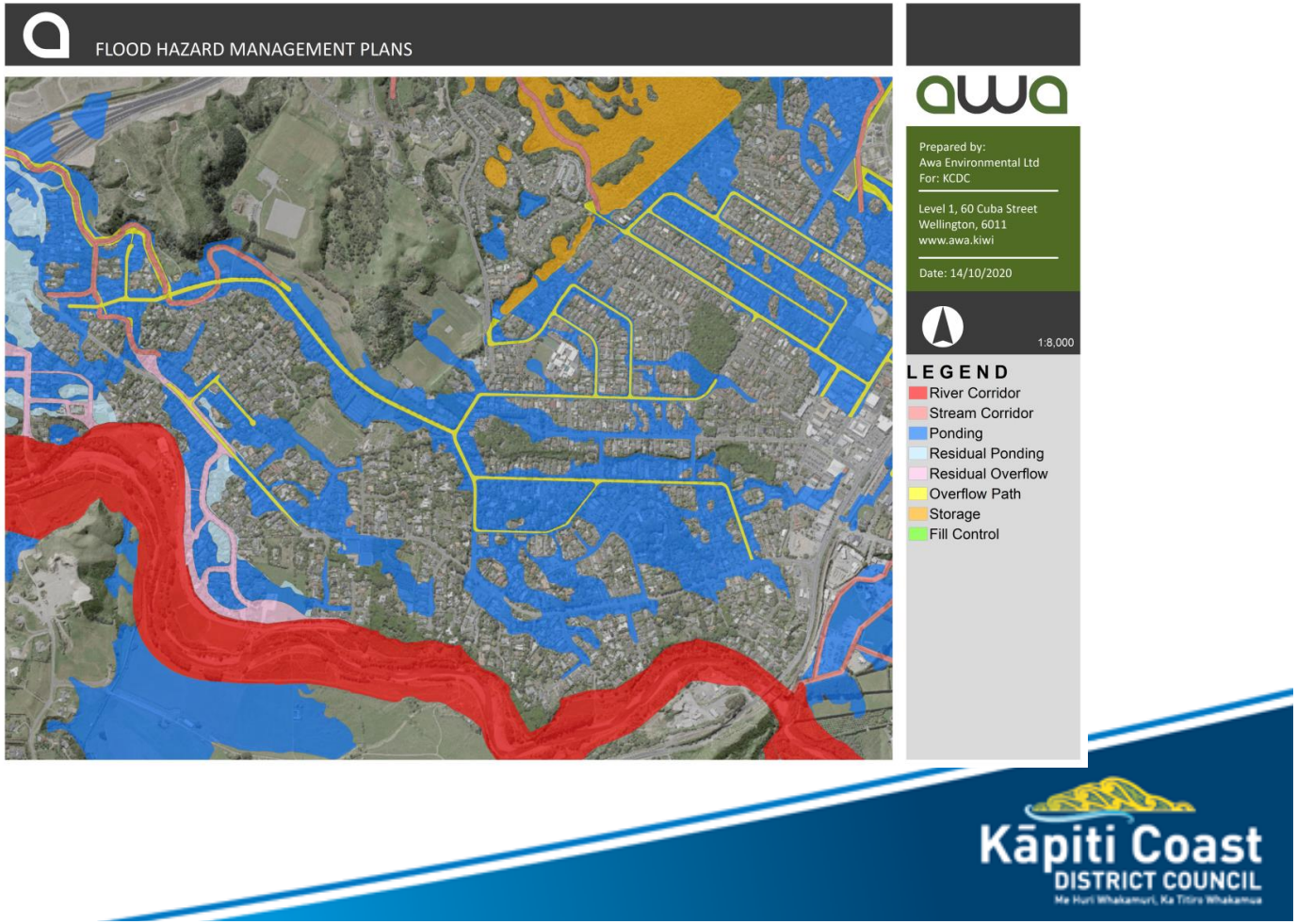
FIGURE 110
5

District Plan Maps



Background

Current Maps:

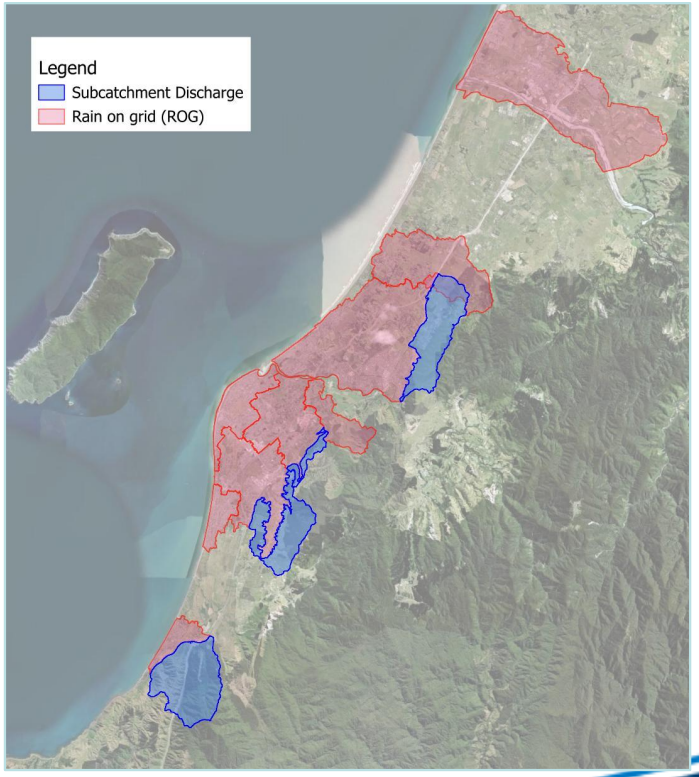
- Based on outdated 2010 LiDAR data and 2007 climate change predictions.
- Do not account for recent developments (expressways, private developments).
- Lack adequate representation of significant groundwater effects.

Updated Models:

- Developed by Awa Environmental using advanced TUFLOW software.
- Incorporates latest climate change projections and groundwater modelling.
- Incorporates new developments and infrastructure
- Provides more accurate predictions for range of flood events.

New Model Build – Software / Method

- Built on TUFLOW modelling software (rain-on-grid).
- More accurate results.
- Improved model run times.
- Easier to update (e.g. new LiDAR, network upgrades)
- Integrated modules (e.g. water quality for ICM)



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New Model Build – Inputs / Data

- DEM Lidar
- Soils (infiltration rates)
- Landuse
- Hydrology
- Rainfall
- Groundwater
- Climate change
- Stormwater network (as-builts)
- Building footprints

Includes joint probability analysis of combined conditions (rainfall, groundwater, storm-surge)

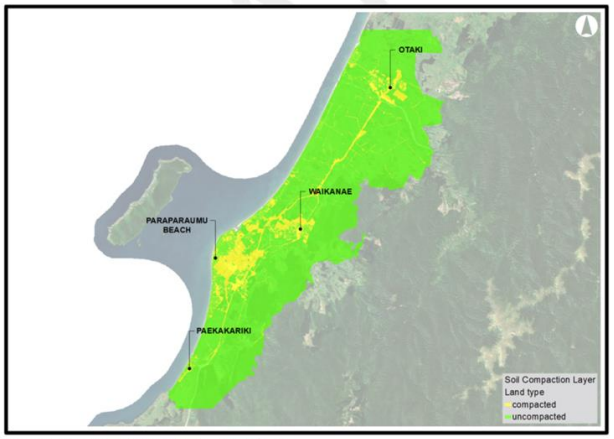


Figure 13. Compacted and uncompacted surfaces.

Figure 10. Lynker built-up area landcover identification.

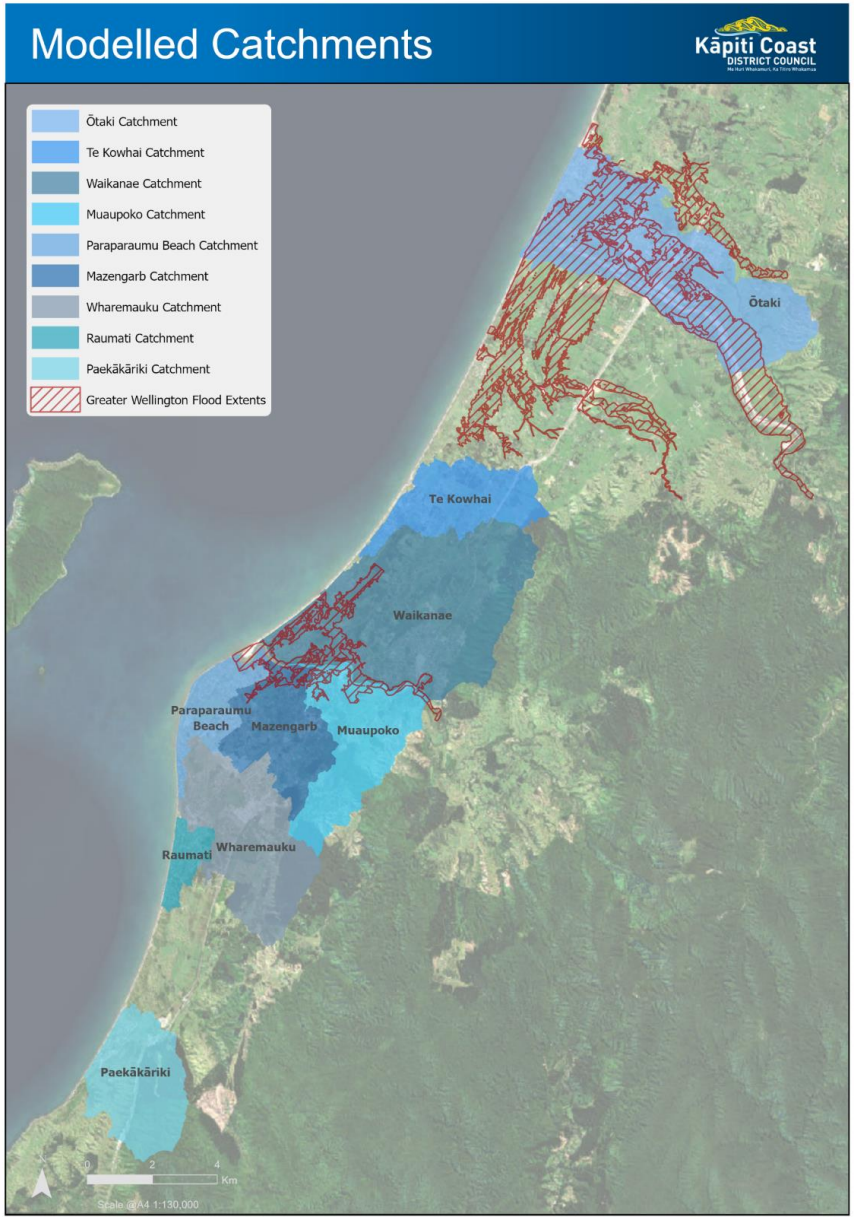
Wider Context

Regional Context:

- Greater Wellington Regional Council (GWRC) revising their flood models for major rivers.
- Potential overlaps with KCDC mapping requiring coordinated communication.

National Context:

- NIWA undertaking Central Government funded national flood hazard mapping project – products due June/July 2025
- Other TAs updating their flood hazard mapping – highlighting issues with insurers.


Modelled Catchments
Kāpiti Coast DISTRICT COUNCIL
Ōtaki Catchment
Te Kowhai Catchment
Waikanae Catchment
Muaupoko Catchment
Paraparaumu Beach Catchment
Mazengarb Catchment
Wharemauku Catchment
Raumati Catchment
Paekākāriki Catchment
Greater Wellington Flood Extents
Ōtaki
Te Kowhai
Waikanae
Paraparaumu Beach
Mazengarb
Muaupoko
Wharemauku
Raumati
Paekākāriki
0 2 4 Km
Scale @A4 1:130,000

Project Overview

Purpose: Socialise updated flood hazard models utilising advanced software, updated LiDAR data, groundwater effects and climate change scenarios.

Outcomes:

- Improved awareness of current and future flood risks.
- Kāpiti Coast community engaged for feedback and validation of new flood model.
- Key stakeholders engaged including Mana whenua, developers, insurers, other agencies.
- More accurate flood hazard model available to inform flood mitigation, infrastructure planning and policy development.
- Set up third-party access to model for scenario testing and map update process to reflect changes on the ground.

Project Staging

Phase 2: Flood Awareness Campaign – Dec 2024

- Launch public awareness initiatives.
- Educate on ‘living with more water’, flood risks and flood preparedness.

Phase 3: Community Engagement – Mar/Apr 2025

- Release draft flood maps for public comment.
- Host consultation events and provide online feedback tools.

Phase 4: Feedback and Refinement – May 2025

- Analyse community feedback.
- Refine models and update maps accordingly.

Phase 5: Reporting and Integration – Jun/Jul 2025

- Report back to Elected Members.
- Update systems and documentation.
- Communicate outcomes to the public.

Engagement Strategy

Community Stakeholders

- **Flood Awareness Campaign** (Phase 2 – Dec 2024)
  - Educational materials on flood risks and preparedness – “Living with more water”.
  - Clarify roles of KCDC and GWRC.
  - Update LIMs – online landing page (general)

Engagement Strategy

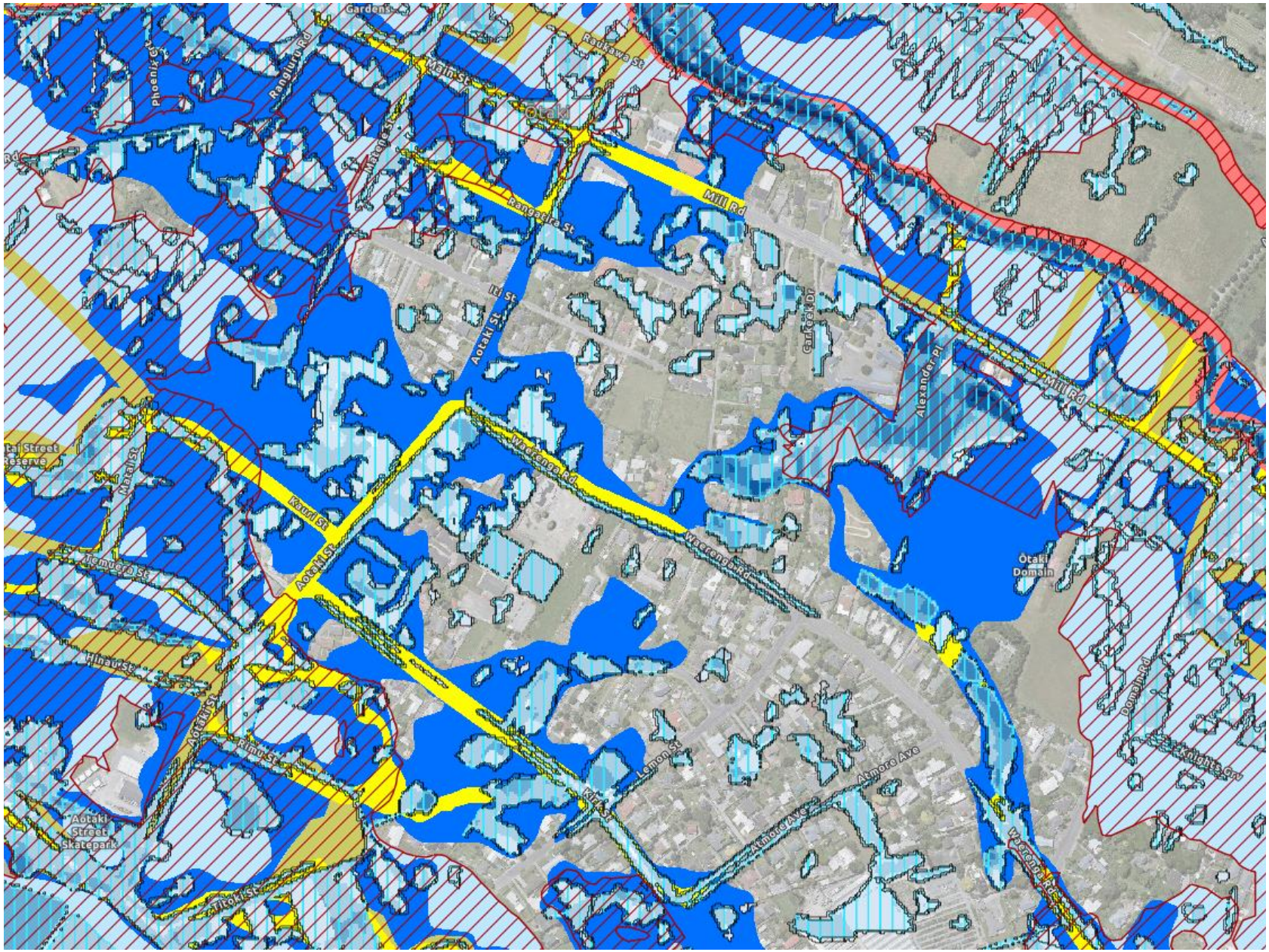
Community Stakeholders

- **Flood Map Consultation** (Phase 3 – Mar/Apr 2025)
  - Release draft maps, via online portal.
  - Direct communication to newly affected property owners (minor property vs building footprint).
  - Mana whenua engagement – TWOK, Marae briefings/drop-ins.
  - Targeted sessions with developers and insurance sector.
  - Host public drop-in sessions and information events.
  - Social media channels.

Engagement Strategy

Online Portal (Phase 3 – Mar/Apr 2025)

- Interactive “story map”
- Outline model build & inputs
- Draft Flood Maps
  - Existing flood extents (KCDC & GW)
  - New flood extents & depth (heatmap)
  - 1 in 100 yr scenarios (current climate, 2070, 2130)
  - Building footprints
  - Searchable by property address
- Model build reports (technical reports)
- Have your say page & feedback form


Gardens
Phoenix St
Rangiuru Rd
Main St
Otaki
Rauhawa St
Tasman St
Rangatira St
Mill Rd
Ita St
Aotaki St
Gurkas Dr
Alexander Pl
Mill Rd
Waerenga Rd
Kauri St
Aotaki St
Hinau St
Aotaki St
Almond St
Lemon St
Almond Ave
Almond Ave
Waerenga Rd
Otaki Domain
Domain Rd
Knights Grv
Aotaki Street Skatepark

What GW is doing

GW is updating the flood hazard maps for the Kāpiti area in the following major river and stream areas:

- Ōtaki River, including the Waitohu Stream and Mangapouri Stream
- Waikanae River
- Mangaone Stream

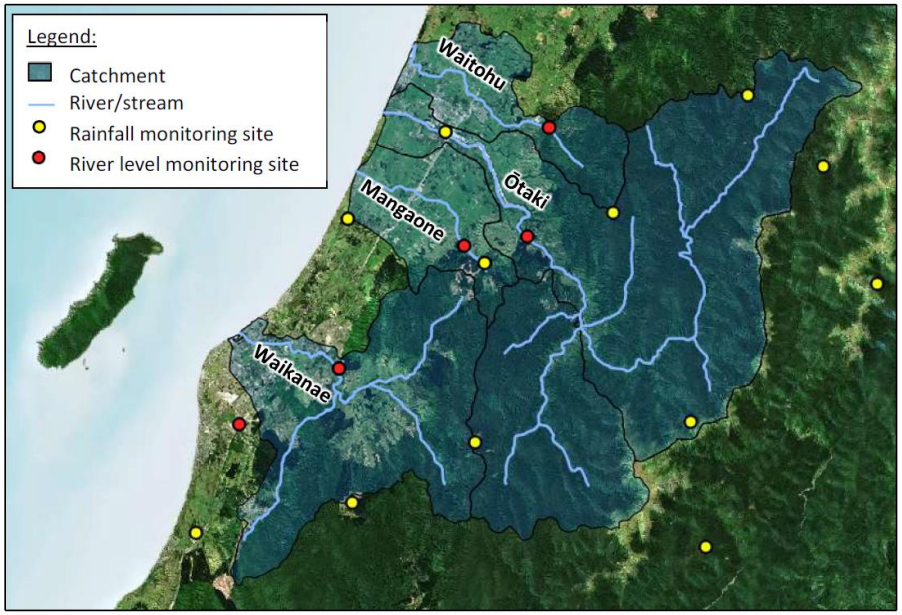


Figure 1. Catchments requiring hydrological analysis for the Kāpiti Flood Hazard Modelling Programme

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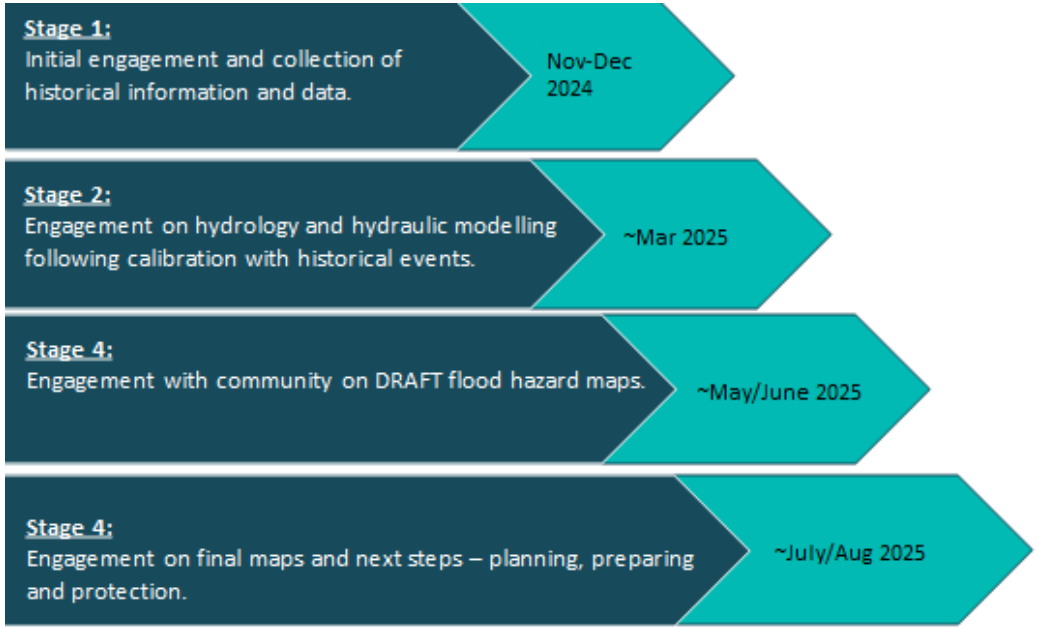
GW's engagement plan



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Next Steps

- **Finalise Engagement Materials:** Prepare for public awareness campaign and consultation phase.
- **Coordinate with GW:** Align messaging and engagement.
- **Plan Community Engagement Events:** Schedule sessions and encourage participation.
- **Model Sharing Arrangements:** Set up training and model management for third parties.
- **EM Briefing Prior to Consultation Phase:** Engagement package, portal & activities.

Questions?

Te Whakaminenga o Kāpiti Hui

Local Water Done Well Legislation

Kapiti Coast Water Services

18 February 2025

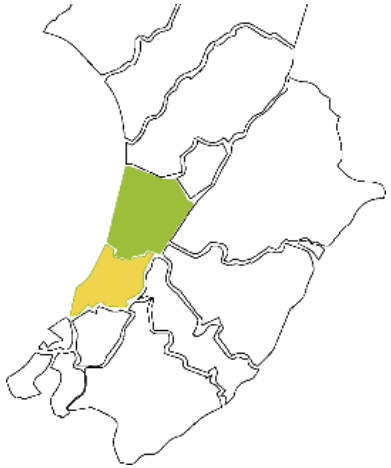
Kāpiti Coast DISTRICT COUNCIL
Me Huri Whakamuri, Ka Titiro Whakamua

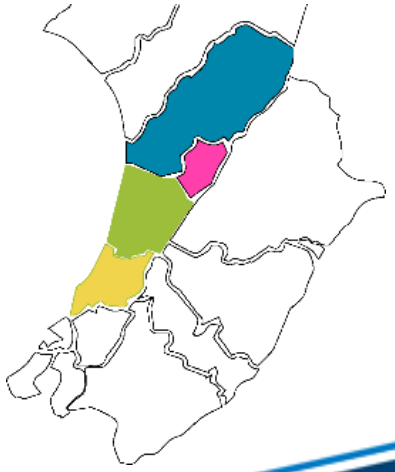
Purpose of this briefing

- Delivery model options and overview
- Joint water services organisation arrangements
- The cost of services
- Next steps

Water Delivery Model Options

	"One" Council IBU New KCDC IBU	"Two" Council CCO KCDC / HDC	"Four" Council CCO KCDC, HDC, MDC & PNCC
Population	58,750	96,450	223,750
Connections	24,500	34,825	71,212





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Delivery Model Options

- "One" Council In-house Business Unit
  - Utilises existing Council Iwi relationship arrangements
  - Establish a fully ringfenced and resourced Internal Business Unit
    - Debt to be managed within Council limits (revenue x 280%, LGFA Board have the discretion to approve up to 350% for high growth councils)
    - Consideration of referendum, as per standing orders, not required

- "Four" Council Water Services CCO (or variance thereof)
  - Iwi representation and engagement must be considered and agreed by shareholders and iwi partners
  - Kapiti Coast / Horowhenua / Manawatu / Palmerston North City shareholder Councils
    - Limited liability company owned by shareholder councils
    - Independent board and CE. Board cannot comprise elected members or any staff
    - Asset-owning full-service CCO
    - Access to increased debt limits for water services (revenue x 500%)
    - Consideration of a referendum as per standing orders

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What is important to Kapiti

Public Ownership

Our water assets remain in public ownership.

Financial sustainability

Our water service is financially sustainable and maintains fair and transparent charging for customers.

Safe and reliable services

Our community continues to receive safe, reliable, efficient and effective water services

Local priorities

Our water services organisation recognises local priorities in planning for the future and catering for growth

Mana whenua

Mana whenua aspirations and concepts have a meaningful influence in managing our water

Resilience

Our water organisation is resilient – it remains strong and functional in all circumstances

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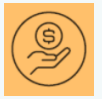
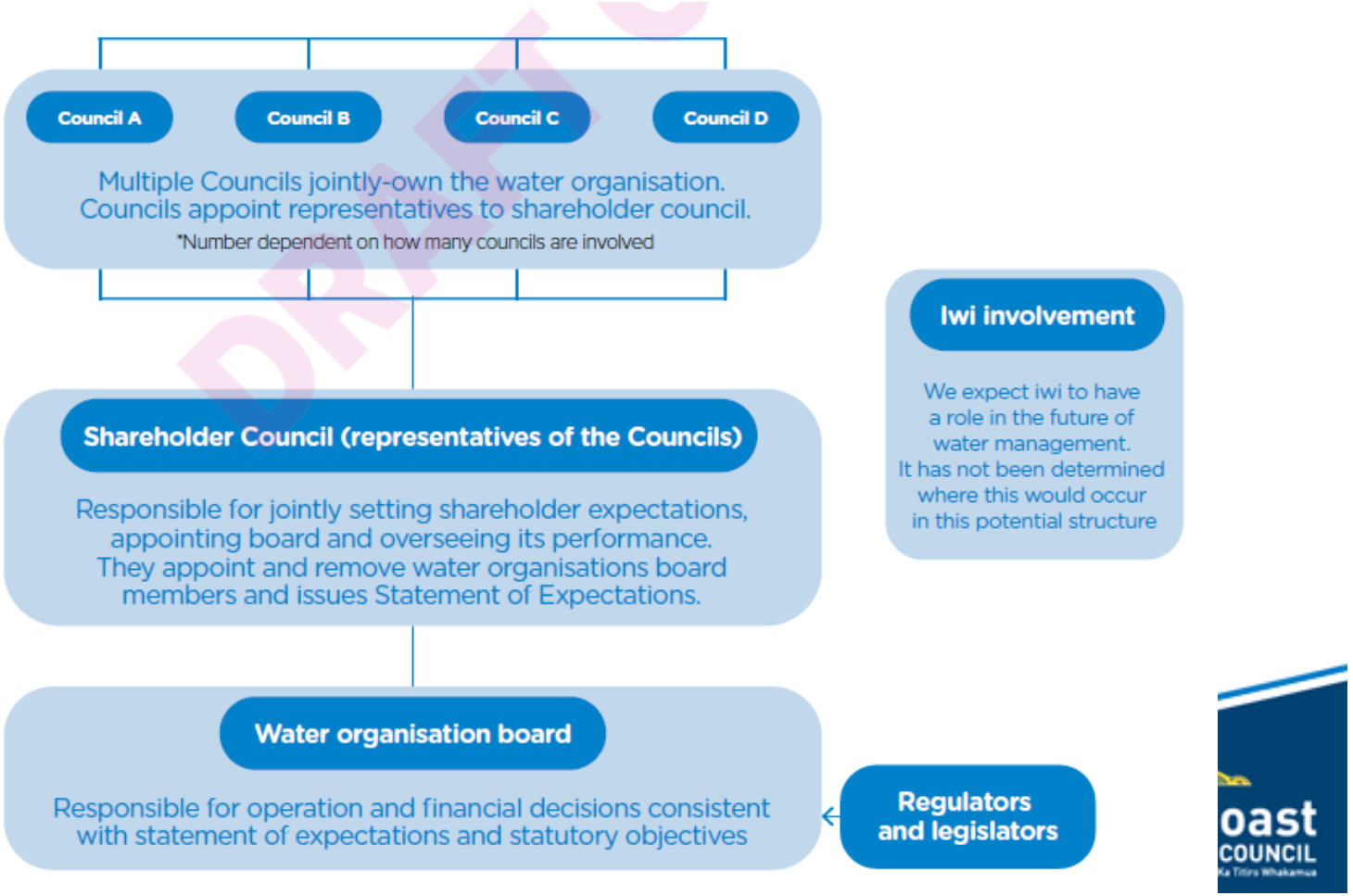
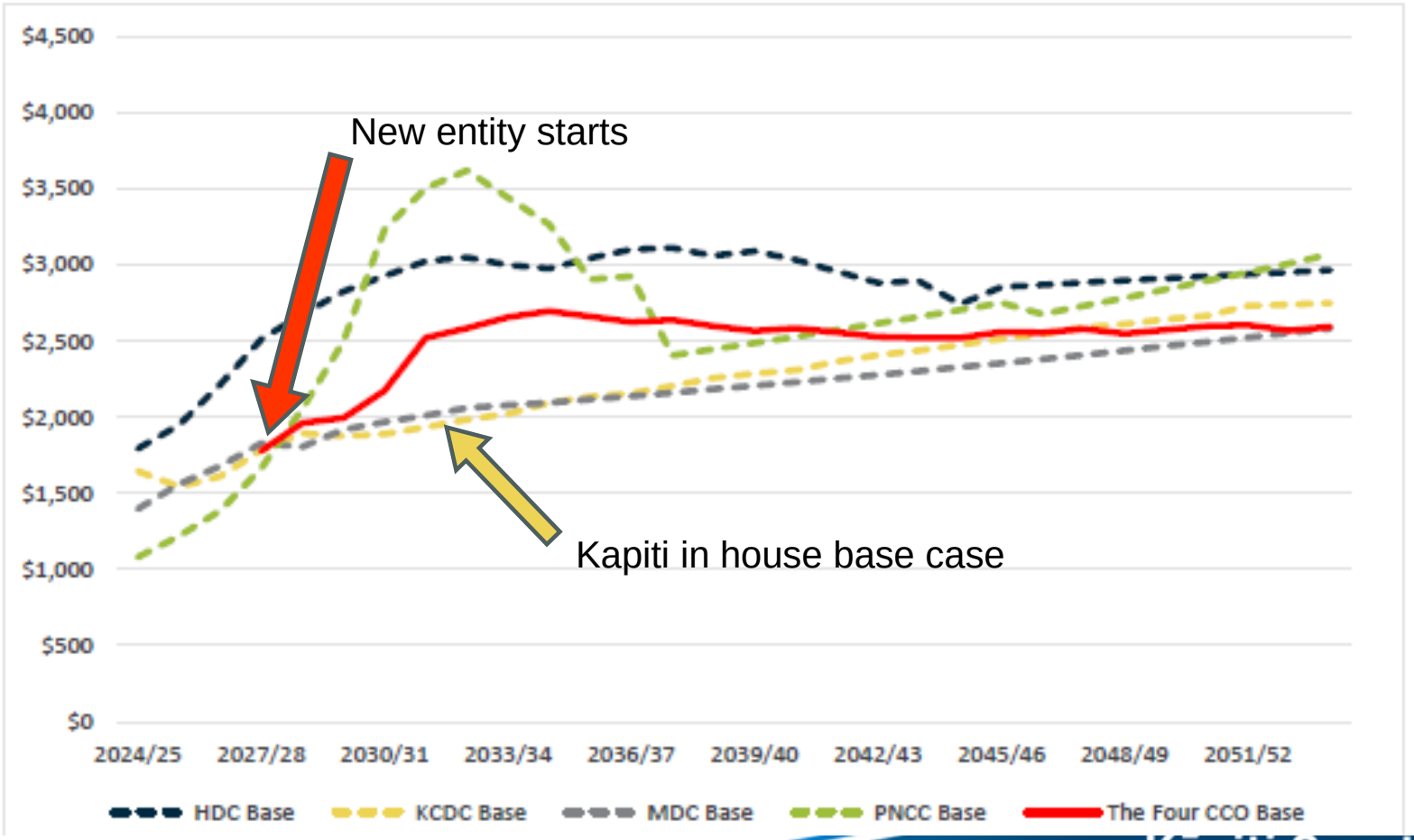
Options overview

	"One" Council internal Business Unit	"Four" Council COO KCDC, HDC, MDC & PNCC
Public Ownership		
Safe and reliable services		
Mana whenua		
Financial		
Local priorities		
Resilience		

What a Joint Water Services Organisation could look like



The average household costs over 30 years



Next steps

- 6 March Council approve Consultation Document and associated matters.
- Consultation Process
  - Consultation period early March to early April 2025
  - Feedback analysis
  - Hearings in late April 2025
- Further Council briefings through the consultation period on the detailed development of the Four Council option.
- Decision on the Water Services Model – Mid May
- CE Certification and adoption of the Water Services Delivery Plan and Implementation Plan End of June
- The Water Services Delivery Plan must be lodged with DIA by 3 September 2025

Discussion and questions

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